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# Effectiveness of Rewordify in a Receptive Skill: Implication in Reading Comprehension in EFL A2 Ecuadorian Learners in Tertiary Education Level

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**Abstract**
Reading comprehension is necessary to ensure success in different areas; it is the main reason to identify instruments which allow learners to develop this skill. The current study was performed with adult EFL Ecuadorian learners from a university in Babahoyo, where they performed three types of reading comprehension exercises using rewordify and dictionaries as an instrument to improve comprehension. The results demonstrated that both appear to promote comprehension, but some results showed that rewordify tends to be a further success in a specific type of reading activity.

**Keywords:** Reading Comprehension, Rewordify App, A2 Learners Ecuadorian Learners

## 1. Introduction

It is being recognized the importance of language proficiency in the current scientific, social and financial areas, one of the priorities in the current curriculum rest in the development of reading skills (Salari & Hosseini, 2019, p. 489). It is undeniable the importance to comprehend precisely the message which is presented in a piece of text. However, even when teachers and learners are immersed in the identification of the best techniques, it is clearly observed some deficiencies in comprehension among learners (Taha, 2018; Escudero, Fuertes, & López, L. 2019).

Considering the full range of techniques and instruments used to promote reading comprehension (Mousavian, & Siahpoosh, 2018), this research directs its attention to the use of dictionaries and rewordify as instruments to facilitate reading comprehension in A2 learners from a university in Ecuador.

In relation to Ecuadorian learners, the use of online and printed dictionary is widely accepted in the educative community; however, rewordify is a new instrument which is not used or known by learners nor teachers, this characteristics open the door to move inside this technology in order to identify the best practices which ending promoting comprehension in Ecuadorian learners.

## 2. Literature review

Achieving proficiency in a foreign language successfully required necessary storage of information in the form of vocabulary and structure, which tends to be acquired through reading comprehension (Salari & Hosseini, 2019). Many authors agreed on that premise, and a variety of research has been done to identify best practices and useful instrument to promote reading comprehension among l2 learners (Soto et al., 2019; Rhodus, 2019). According to Simhachalam (2017), technology provides various tools to perform a variety of learning activities. Also, he stated that technology facilitates the language learning process in two ways, the former implies the use of a technological tool such as Rewordiffy.com to promote the four skills and the latter to raise interaction between the learning process participants.

Regarding Rewordify, it is a technological tool, which requires internet and allows learners to modify a complex piece of any text into a piece of text with simple words. Even this program changes the words itself the meaning of the words and the main ideas of the text maintain equally (Peachey, 2017).

Rewordify is recognized as a valuable tool for learners with dyslexia, especially in those cases where learners are not able to comprehend a text because they cannot understand words in context ( Edyburn, 2017). However, this program provides attractive benefits, which can help all of the learners. According to Rodhus (2019), rewordify deals effectively with problems, which are related to identifying the meaning of words ,which are unknown to learners, it works restating the problematic and complicated words and structure words into simple and understandable ones.

### 2.1 Research questions and Hypothesis

The following study intends to answer these research questions:
1. Does the use of rewordify improve reading comprehension on university learners of A2 level?
2. Is there a significative difference between the level of comprehension of texts gained by learners about rewordify and dictionary?
3. Does the type of reading comprehension exercise execute an effect on the results of the applied instrument: rewordify and dictionaries?

The hypothesis presented for the research questions are the following:
Research question 1
        H0: Rewordify does not improve the reading comprehension of university EFL A2 learners.
        H1: Rewordify affects the reading comprehension of the EFL learners of A2 level.
 Research question 2
        H0: there is no difference between reading comprehension among the use of rewordify and dictionaries.
        H1: there is a difference in the level of comprehension of a text among the use of rewordify and dictionaries.
Research question 3
        H0: The type of reading comprehension exercise execute an effect on the results of the applied instrument: rewordify and dictionaries
        H1: The type of reading comprehension exercise does not execute any effect on the results of the applied instrument: rewordify and dictionaries

## 3. Method

This research follows an experimental design. The study started with the selection of the participants; 44 learners were chosen randomly. All of them belong to the same group of class, with a low intermediate level, aged between 20 to 54, and belonged to the same language center at an Ecuadorian university. Those learners were divided into three groups, group 0 represents the control group, and hence, they did not work with any instrument. Group 1 worked with dictionaries, and group 2 performed the task with the use of rewordify. All of the three groups received the same material at a similar period to perform the reading comprehension activities.

### 3.1 Data collection and material

The results of the reading comprehension exercises were valued similarly, being 10 the highest score and 0 the lowest one. The score obtained by each group was classified according to the type of reading exercise, and the instrument used to achieve it.

The reading comprehension exercise belongs to PET exams; they were applied in printed forms, given to the entire participant individually. The reading comprehension exercises aimed to identify the level of understanding concerning three types of reading comprehension exercise. Reading 1 required learners to read the profile of some people and information related to some courses to select the best option for each one. Moreover, reading 2 valued learners` comprehension with questions in the form of true or false exercises, and finally reading 3 pursued to get participants answering five information questions related to the text.

### 3.2 Data analysis

The score obtained by each learner was classified according to the type of reading exercise and instrument used with each group; also, the data analysis was elaborated with the SPSS for Windows program. This study manages a variety of variables; hence, to contrast the gathered data, the ANOVA statistic test and Post Hoc test were applied to the results obtained in the three types of reading exercises. Throughout this procedure it was possible to measure the variation between the means of the different instruments and reading exercises among the groups.
To facilitate the analysis of the variables, the group control was coded as 1, the group which uses dictionaries to perform the activity was coded 2, and the last group which worked with rewordify was named 3.

## 4. Results and findings

About reading 1, the ANOVA test showed that the mean of the group control is 1.6250, the mean of the dictionary group is 3.20, and the mean of rewordify instrument is 3.2308. In other words, the relation between them is expressed 1=1.6250 <2=3.20 < 3=3.2308, also the p-value or significance level is 0.038, being p-value=0.038 < 0.05. Hence, about ANOVA, there is a significant difference between the means of the three groups.

Besides, ANOVA analysis, a Post Hoc Test with Tukey was required. The recent analysis provided explicit comparisons between the results. By contrasting the control group (1) with the dictionary group or group 2, it is possible to observe that the variation between the mean of the control group and the dictionary group is not significant p-value: 0.067 >0.05. Concerning the comparison between group control and rewordify group, the level of significance is also not relevant p-value: 0.073 >0.05.

Regarding the comparison between the means of the dictionary and rewordify groups, it is possible to observe a slight difference between the means, 0.03077 in favor of the use of the rewordify instrument; however, the significance between the means of both groups are not statistically relevant p-value=0.999>0.05.

Table 1. Reading 1: Multiple comparisons between scores of the control, dictionary and rewordify group.

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.57500 | .68389 | .067 | -3.2380 | .0880 |
| | 3.00 | -1.60577 | .71052 | .073 | -3.3335 | .1220 |
| 2.00 | 1.00 | 1.57500 | .68389 | .067 | -.0880 | 3.2380 |
| | 3.00 | -.03077 | .72106 | .999 | -1.7841 | 1.7226 |
| 3.00 | 1.00 | 1.60577 | .71052 | .073 | -.1220 | 3.3335 |
| | 2.00 | .03077 | .72106 | .999 | -1.7226 | 1.7841 |

1. Post hoc test, Tukey HSD
2. 1: control group; 2: dictionary group; 3: rewordify group

Regarding reading 2, the ANOVA test demonstrated that the mean for the control group is 5.1176, the group with the dictionary as an instrument achieved 6.1333, and the group which utilized rewordify obtained 5.0769. The relation between the group is expressed 2=6.133>1=5.1176>3=5.0769. Moreover, the p-value for this exercise represents 0.018, p-value=0.018<0.05. This result implies that statistically, there is an important difference between the means of the three groups.

Once applied the Post Hoc Test with Tukey was possible to contrast the variations between the scores of the three groups, for instance the comparison between the means of the control group with dictionary group indicate that exists a remarkable difference between the scores obtained for both groups, p-value =0.032<0.05. The variation between the control group and the rewordify group demonstrated that in this case, there is not an essential difference between both means, p-value=0.094>0.05.

Analyzing the difference between both means the dictionary group 2 and rewordify group 3 which represents 1.05641 was possible to observe that the difference between the result in group 2 is considered with the mean on group 3, p-value =.038<0.05.

Table 2. Reading 2: Multiple comparisons between scores of the control, dictionary and rewordify group.

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.01569* | .38814 | .032 | -1.9587 | -.0727 |
| | 3.00 | .04072 | .40369 | .994 | -.9400 | 1.0215 |
| 2.00 | 1.00 | 1.01569* | .38814 | .032 | .0727 | 1.9587 |
| | 3.00 | 1.05641* | .41519 | .038 | .0477 | 2.0651 |
| 3.00 | 1.00 | -.04072 | .40369 | .994 | -1.0215 | .9400 |
| | 2.00 | -1.05641* | .41519 | .038 | -2.0651 | -.0477 |

1. Post hoc test , Tukey HSD
2. 1: control group; 2: dictionary group; 3: rewordify group

In reading 3, by analyzing the results obtained from the ANOVA the mean of the control group is 3.0588, the dictionary group is 4.7143, and the mean of rewordify is 5.8462, the difference between the means of the groups is significant p-value =0.000<0.05. Also, contrasting the variation between the control group and dictionary group, p –value= 0.023<0.05. It implies that the variation on both means is remarkable statistically. The variation between the mean of the control group with the mean of the rewordify group is significant since p-value=0.000<0.05. Also, the difference between the rewordify group and dictionary group is 1.13187, and p-value=0.194>0.05, which implies that the difference is not crucial in statistical analysis.

Table 3. Reading 3: Multiple comparisons between scores of the control, dictionary and rewordify group.

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.65546* | .60045 | .023 | -3.1156 | -.1954 |
| | 3.00 | -2.78733* | .61299 | .000 | -4.2779 | -1.2968 |
| 2.00 | 1.00 | 1.65546* | .60045 | .023 | .1954 | 3.1156 |
| | 3.00 | -1.13187 | .64082 | .194 | -2.6901 | .4264 |
| 3.00 | 1.00 | 2.78733* | .61299 | .000 | 1.2968 | 4.2779 |
| | 2.00 | 1.13187 | .64082 | .194 | -.4264 | 2.6901 |

1. Post hoc test, Tukey HSD
2. 1: control group; 2: dictionary group; 3: rewordify group

## 5. Discussion

Regarding research question 1, the variation in the comprehension level of a reading exercise depends on the type of reading comprehension activity. Concerning the findings, rewordify executes a significant effect on reading exercises, which focuses on true and false exercises (p-value: 0.038<0.05) and answering information questions (p-value: 0.000<0.05). On the other hand, rewordify does not generate a significant effect of reading exercises, which are related to matching categories,  which is exemplified in exercise 1 (p-value: 0.073, 0.999>0.05).

About research question 2, it compares the results obtained by learners when they used dictionaries and the online resource named rewordify. This study demonstrated that for reading exercise which requires matching categories based on reading comprehension task, there is not a significant difference between the means of the scores achieved by learners who use dictionaries or the online program rewordify (p-value=0.999). However, the comprehension exercises related to identifying right or wrong answers in the form of True or False answers exists a remarkable difference between the mean of the scores obtained by the group of dictionaries and the group of rewordify (p-value=0.038). Finally, the mean of the scores in reading comprehension exercises related to information questions does not present any significant difference between the rewordify and dictionary groups (p-value=0.194).

Research question 3 intends to identify if the type of reading comprehension exercise executes any effect on the score obtained by the participants. Taking into consideration the means of the scores obtained for the different groups, the reading exercise which required learners to read and select the best option True or false to some exercises present the highest scores.



| | Reading 1 | Reading 2 | Reading 3 |
|---|---|---|---|
| Group 1 | 1,6250 | 5,1176 | 3,0588 |
| Group 2 | 3,2000 | 6,1333 | 4,7143 |
| Group 3 | 3,2308 | 5,077 | 5,8442 |
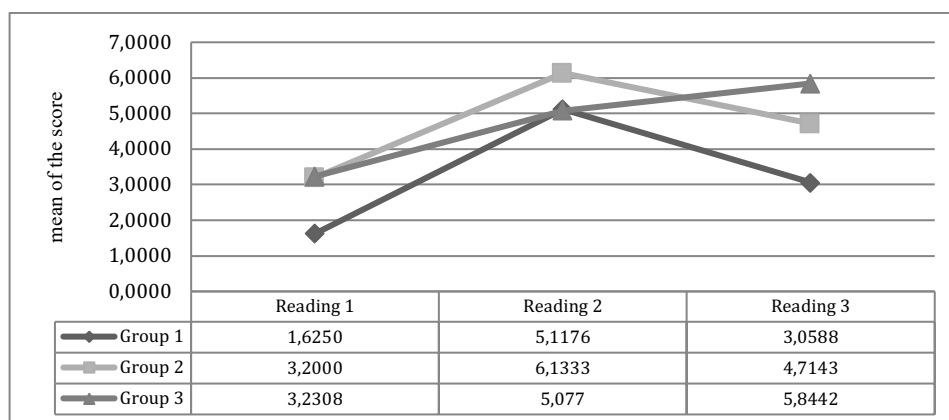
Figure 1. Mean of the scores obtained by students in the readings per group of study

## 6. Conclusions and implications

The results of this research provide insights about the application of rewordify in A2 adult Ecuadorian EFL learners since there is no a huge source of information related to the use of it in reading comprehension exercises, it has not been possible to contrast the current result with other similar studies.

Anyhow based on the result, this study demonstrated that in terms of application rewordify and dictionaries as an instrument to develop reading comprehension contribute positively to learners` comprehension in reading exercises. Hence, both instruments can be considered interchangeable in terms of success because the variation between the scores of both instruments was not significant statistically. However, there is a type of reading exercises which it seemed to work better with a specific instrument, it is rewordify, which is very helpful in those exercises where comprehension is measured through true or false questions. Taking into consideration the lack of similar studies in this area is advisable to perform similar studies with learners form different levels of proficiency.

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**Appendix**

Reading 1

ANOVA

Score

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 25.724 | 2 | 12.862 | 3.552 | .038 |
| Within Groups | 148.458 | 41 | 3.621 |  |  |
| Total | 174.182 | 43 |  |  |  |

POST HOC TEST

Multiple Comparisons

Dependent Variable:   Score

Tukey HSD

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
|  |  |  |  |  | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.57500 | .68389 | .067 | -3.2380 | .0880 |
|  | 3.00 | -1.60577 | .71052 | .073 | -3.3335 | .1220 |
| 2.00 | 1.00 | 1.57500 | .68389 | .067 | -.0880 | 3.2380 |
|  | 3.00 | -.03077 | .72106 | .999 | -1.7841 | 1.7226 |
| 3.00 | 1.00 | 1.60577 | .71052 | .073 | -.1220 | 3.3335 |
|  | 2.00 | .03077 | .72106 | .999 | -1.7226 | 1.7841 |

Homogeneous subsets

Score

Tukey HSDa,b

| Intrument | N | Subset for alpha = 0.05 |
|---|---|---|
|  |  | 1 |
| 1.00 | 16 | 1.6250 |
| 2.00 | 15 | 3.2000 |
| 3.00 | 13 | 3.2308 |
| Sig. |  | .071 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 14.557.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Reading 2

ANOVA

Score

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 10.690 | 2 | 5.345 | 4.452 | .018 |
| Within Groups | 50.421 | 42 | 1.201 |  |  |
| Total | 61.111 | 44 |  |  |  |

Post hoc test

Multiple Comparisons

Dependent Variable:   Score

Tukey HSD

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
|  |  |  |  |  | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.01569* | .38814 | .032 | -1.9587 | -.0727 |
|  | 3.00 | .04072 | .40369 | .994 | -.9400 | 1.0215 |
| 2.00 | 1.00 | 1.01569* | .38814 | .032 | .0727 | 1.9587 |
|  | 3.00 | 1.05641* | .41519 | .038 | .0477 | 2.0651 |
| 3.00 | 1.00 | -.04072 | .40369 | .994 | -1.0215 | .9400 |
|  | 2.00 | -1.05641* | .41519 | .038 | -2.0651 | -.0477 |

*. The mean difference is significant at the 0.05 level.

Homogeneous subsets

Score

Tukey HSDa,b

| Intrument | N | Subset for alpha = 0.05 | |
|---|---|---|---|
|  |  | 1 | 2 |
| 3.00 | 13 | 5.0769 |  |
| 1.00 | 17 | 5.1176 |  |
| 2.00 | 15 |  | 6.1333 |
| Sig. |  | .994 | 1.000 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 14.821.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Reading 3

ANOVA

Score

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 59.146 | 2 | 29.573 | 10.684 | .000 |
| Within Groups | 113.491 | 41 | 2.768 |  |  |
| Total | 172.636 | 43 |  |  |  |

Post hoc test

Multiple Comparisons

Dependent Variable:  Score

Tukey HSD

| (I) Intrument | (J) Intrument | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| 1.00 | 2.00 | -1.65546* | .60045 | .023 | -3.1156 | -.1954 |
| | 3.00 | -2.78733* | .61299 | .000 | -4.2779 | -1.2968 |
| 2.00 | 1.00 | 1.65546* | .60045 | .023 | .1954 | 3.1156 |
| | 3.00 | -1.13187 | .64082 | .194 | -2.6901 | .4264 |
| 3.00 | 1.00 | 2.78733* | .61299 | .000 | 1.2968 | 4.2779 |
| | 2.00 | 1.13187 | .64082 | .194 | -.4264 | 2.6901 |

*. The mean difference is significant at the 0.05 level.

Homogeneous subset

Score

Tukey HSDa,b

| Intrument | N | Subset for alpha = 0.05 | |
|---|---|---|---|
| | | 1 | 2 |
| 1.00 | 17 | 3.0588 | |
| 2.00 | 14 | | 4.7143 |
| 3.00 | 13 | | 5.8462 |
| Sig. | | 1.000 | .172 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 14.480.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

# English Collocations with Afghanistanian Persian Dialect Equivalents: A Comparative Study

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**Abstract**

This study investigates the English collocations with Afghanistan Persian dialect equivalents words in the Afghanistanian context. This study aims to bring out the variations between English and Afghanistanian Persian dialect to analyze weather the collocational differences in English and Afghanistanian Persian dialect may create any problem of inaccurate production for the L1 learners of English as ESL or not. Both qualitative and quantitative methods are adopted in this study, mainly to concentrate on the function of diverse kinds of collocations in the verbal speech of 25 postgraduate Afghanistanian students. With the target of recognizing, classifying, and accountancy for the incongruous collocations produced, these selected students have been assessed through two tests; proficiency and a multiple-choice test. The results of this study showed that a considerable variation between English lexical collocational patterns and their restrictions with their Persian correspondence. The study suggests the quality of ESL teaching, an extensive ESL teacher training program, and the ESL syllabus should consider texts based on the collocation phenomenon in ESL teaching.

**Keywords:** English Collocation, Afghanistanian Persian Dialect, ESL Teaching, Incongruous Collocations, Collocation Phenomenon

## 1. Introduction

This study aims to discuss the influence of the learners' L1 and their cultural and social background in learning English as a second language while producing collocations. It is natural that the influence of L1 is visible and has a significant role in ESL learning and teaching either verbally or in writing. Collocations are the words two or more than two and co-occur with a strong tendency in any language where there is a prefabricated combination of words in two or more than two numbers in particular contextual situations (Halliday, 1968). To understand collocations and to deal with them while learning ESL is one of the challenging difficulties for non-natives. However, the difficulties and challenges while dealing with collocations differ from region to region as the issues in dealing with collocations are much associated with ESL students' L1, personalities, cultural background, and age group.

The understanding and consideration of collocations are much significant for the learning, understanding, and transmission of any language. Therefore, the study of collocations in English and Persian and their structures are the fundamental aims of this paper. To understand the collocations in any targeted language, the syntactical and phraseological study of the structures of that language is very important for better comprehension. According to Cowie (1998), phraseological structures can be categorized not only on the base of semantic transparency but also on lexical and grammatical variability.

Many scholars define collocation in various ways. Collocations are modified like "series of special lexical segments which co-occur by a reciprocal expectation important than luck, like curry favor and rancid butter" (Nattinger & Decarrico 1992, p. 36). In another word, every specific word commonly turns associated with (James 1998, p. 152). The manner the words co-occur in a healthy context in statistically significant methods (Lewis 2000), the Inclination of co-occurring among more than two words in speech" (Schmitt 2000, p. 76) the two segments co-occurrence in a context within doors a determined circumference (Sinclair, 2004).

Collocation has been taken into endorsed to assist language learners in being more native-like, has a deal on books, movies, and other instruments in the right way. Collocation involves considering different performances in several languages, and thus, a common problem for collocation is to find similar expressions in the target language. According to linguistic sense, collocation is a phenomenon, and its definition is not entirely accepted. Linguists define the concept of collocation differently: as a word combination, which usually comes together, in a sentence as a gathering of words, a gathering of words with definite shared qualified, etc. (Jolita, 2012)

Collocations are very useful for studying a language, that is why words are studied and utilized in text, and sans of understanding the suitable text in what a word may be utilized, we cannot arrogate that she or he has understood that word correctly. Lexical collocations and grammatical forms play a significant role in teaching and learning a language; therefore, the mother tongue intervention has its effect on the learning of foreign language in the duration of the studying procedure. Bahns (1993) indicated that the maximum EFL/ESL instructor speaks in a class with the students; they have to face more difficulties with selecting the accurate composition of several inflexible words. Therefore, relying on this notion, this study recognizes the importance of collocations and their inaccurate usage way for the learning of English as a new language.

Collocations, linguistically, are a useful flash and can be determined as a gathering of words or periods that usually happens together (Murphy, 2010; Sinclair, 2004; Atkins & Rundell, 2008). They can also be described as the behavior words unite in a language to convey innate - producing speech and writing (McIntosh, Francis, 2009). Knowledge about collocations is useful for dictionary writing, innate language procedures, and learning/teaching (Martynska, 2004). To investigate English collocations and their Afghanistanian Persian equivalents translation transformations function in the texts of writing tasks, text analysis is the primary object of this paper.

## 2. Literature Review

Xiao and McEnery (2006) discussed that there are many investigations regard collocations utilized in English, but there have been there few investigations on collocations utilized in another language that could empower us to find the English equivalents of Afghanistanian Persian collocations. According to Agah and Soori (2015), they could not find much collocation investigation related literature in the Persian language to analyze their English equivalents. There are different problems combined with the etude of collocations. For this notion, there is still an absence of agreement on their explanation. Parrington (1998) separates the explanation of collocations toward statistical (co-occurrence by larger than accidentally chance), textual (co-occurrence in a context) and mental (co-occurrence due to a mental link among words). Other problems with collocations are the lack of visible acceptable words that would be determined the domain of collocation of words and recognize a steady foundation for their explanation.

## *Collocations in Corpus Linguistics*

There is no universal, majority agreement between linguists about what is collocation, and several explanations have been recommended for the concept of collocation. Nevertheless, a maximum of them are commentaries of Firth's (1957, p. 183) description that collocations are words in the usual handle. Cruse (1986), for instance, describes collocations as "subsequence of the lexical object which usually co-occur, but what are nevertheless entirely lucid in the notion that every lexical elector is the same a semantic component" (p. 40). He comments that there is a types of semantic cohesion in the components of collocations, reciprocally adoptive, recourse to collocations as existence lightly identifiable from idioms the constituents are, to mutating grades, (p. 40) and in "bound collocations" such as foot the bill, and curry favor, "the voters do not like to be segregated" (p. 41). In his vision, despite bound collocations display several properties of idioms, they are nonetheless lexically intricate.

Richards and Schmidt (2002) describe collocation as "how words are utilized simultaneously customarily. According to this description, collocation recourse to the limitation on how words can be utilized simultaneously; for instance, which nouns and verbs go all together, or which adjectives are utilized with specific nouns. For instance, in English, the verb do collocate with duty, wrong, and damage, but not match with, noise, excuse, and trouble. Likewise, high can collocate with probability but cannot collocate with a chance. For example, we can utter a high probability but a good chance.

## *Lexical Collocations, Idioms and Grammatical Collocations*

Linguists separate collocations into two significant sections: lexical and grammatical collocations. The difference between lexical and grammatical collocations is founded on the position of the component of the word joining as context words or role words (Bartsch, 2004, p.54). Grammatical collocations are constituted of a noun, a verb or an adjective plus a portion; however, occasionally they can be lexicalized as one section. (Moehkardi, 2002). The particular proposition that happens after a specific adjective, noun or verb is the principal component in the grammatical collocation that has a grammatical function more than a semantic association (Jackson & Amvela, 2007), e.g., "rely + on, fear + of, fond + of" **(ref. Table.1).**
Grammatical Collocation: Verb + Preposition, Adjective + Preposition, Noun + Preposition, Preposition + Noun. This kind of collocation preposition and the main word is created with (verb, adjective, and noun) or two- verb word. According to Benson, et al. (1993), they have highlighted eight main kinds of samples of English grammatical collocation as described in the following table;

**Table 1:** *Grammatical Collocations*

| | |
|---|---|
| Ability in/at: | Noun + Preposition |
| A problem to do: | Noun + to + Infinitive |
| We reached unanimity that | Noun + That Clause |
| On purpose: | Preposition + Noun |
| Tired of: | Adjective + Preposition |
| Easy to learn: | Adjective + to + infinitive |
| She was pleased that | Adjective + that Clause |
| Believe in…: | Verb + Preposition |

Lexical Collocations: The specific distinction among grammatical and lexical collocations are that, a lexical collocation cannot comprise grammatical components, e.g., *strong tea*, *good work*, etc. (Moehkardi, 2002, p.59); in addition, lexical collocation "has been called an association of bilateral expectation or accustomed connection" (Jackson, 1988, p.114). Every word establishing a lexical collocation acts as an essential function because it promotes to the total content of the whole. Furthermore, lexical collocation is autonomous of grammatical restraint. In condition, it utilizes the lexical restraint to elucidate the comparing among two utilized expressions those are distinguishable in point of part of speech but not needfully establish lexical collocation

(e.g*., reliable car* and *powerful car* are in the adj + noun sample, but only the earlier is measured to be a collocation).

The main kinds of grammatical collocations are: (Fig.2**)**

Table 2: *Collocations*

| - To infinitive/ that clause/ Noun + Preposition | (access to, agreement that) |
|---|---|
| preposition + Noun | - (in progress, to somebody's benefit) |
| Adjective + Preposition/ to infinitive/ that clause | - (aware of, essential to, scared that) |
| Verb + Preposition/ infinitive with to/ infinitive without to - verb form ending in –ing/ that clause / | (regulate to, begin to, keep doing, guess that) |

On another hand, lexical collocation regularly does not include clauses or infinitive. It commonly includes the open words category (adverb, Noun, verb, or adjective).
Based on characteristics of syntactic, Lewis (2000, p. 51) lexical collocations categorize into six massive kinds: (major problem, the vital issue, strong tea,)

Table 3: *Lexical Collocation and Syntactic Variations*

| - Noun + Noun | (sense of pride, a pocket calculator,) |
|---|---|
| - Verb + Noun | (set the alarm, make an impression,) |
| - Verb + Adverb | (live dangerously, smiled proudly, spell accurately) |
| - Adverb + Adjective | (happily married, strictly accurate, completely soaked) |
| - Adjective + Noun | (*major problem, strong tea, key issue*) |
| - Noun + Verb. | (companies *merged*) |

*Collocation Types in Persian and English Languages*

According to Nosratzadeh and Jalilzadeh (2011), the idea of the comparative study of collocations in English and Persian are separated into two principal parts: Collocations idiomatic and Collocations non-idiomatic

The non-idiomatic collocations recognize the concept of the collocation which notion of every word is contained. We can access to the general concept through the sense of its elements, even whether you have not already heard the collocation. However, in collocations idiomatic, you cannot understand the general concept of the collocations with putting together by elements of the phrase meaning. For instance, into "door and wall," you have the phrase non-idiomatic for what we can obtain the concept of the phrase through the synthesizer of a collocation.

Collocations' samples Benson et al. (1986) limited lexical collocation as below:

*1.   Lexical Collocation:*

There are various kinds of lexical collocations created through the composition of adjectives, verbs, nouns, etc.
Table 4: *Kinds of Lexical Collocations*

| 1. (completely satisfied): | Adverb + Adjective |
|---|---|
| 2. (excruciating pain): | Adjective + Noun |
| 3(a surge of anger): | Noun + Noun |
| 4. (lions roar): | Noun + Verb |
| 5. (commit suicide): | Verb + Noun |
| 6. (burst into tears): | Verb + Expression with Preposition |
| 7. (wave frantically): | Verb + Adverb |

*3.2 Translation of Collocations or Persian equivalents*

As the prior parts distributed collocations through, their explanation and kinds, these portions concentrate on its interpretation. The fascinating extra knowledge is comprised of collocation realities, in dictionaries (Miller, 2002, p.8) and the collocation dictionary prepares whole the words that are customarily utilized in joining with each open-class word: adjectives, adverbs, nouns, verbs. Whatever collocations translation can create problems for non-native speakers: many collocation interpretations are characteristic in the logic that they are unforeseeable by semantic or syntactic pictures. Furthermore, "a translator can easily misconstrue a collocation in the text starting point due to intervention from her / his native language" (Baker, 2011, p.59). Definite dictionaries are of less assist in the collocations translation, and so, the translator substantially frequently manages.

For the adjustment about what tactics need to select in command to interpret collocations accurately (Shi, 2006). In command to interpret collocations precisely, a translator must take into statement the bellow origin image of collocations: _ non-arrangement (i.e., the collocation meaning is not straight away the meanings of the constitution of its components). Collocations are not wholly flexible because of an additional content append to the gathering, such as: in the strong tea possesses the adjective definite meaning affluent in flavor which is dissimilar from the primary meaning having physical capability; ex _ non- replace ability (elements of a collocation cannot be exchanged by other words equal if, in text, the meaning same the possess); such as, it is not doable to utilize yellow wine in place of white wine even though yellow is a reasonable adjective for the explanation of the color wine; _ non- changeability (collocations usually cannot be openly adjusted with supplemental lexical sense or through grammatical transmutation).

Moreover, it is not that possible that as one's throat gets a frog, it is impossible, in one's throat forward to get an ugly frog though noun frog can be adjusted by an adjective ugly (Manning & Schütze, 1999, p.184). Regularly two words happen together to express that they have a specific usage "that is not easily indicated as the usage that outcome from their joining" (Manning & Schütze, 1999, p.143). Hence, the translator has to accommodate the interpretation as enclose as it is doable to the TL in order to perform exactness in interpretation collocations. The Procedure of translation is multifaceted and complicated; hence, a translator has to encounter the unique civilized feature of two languages. The matter of TL should symbolize the nearest tantamount of SL matter. I recommend to reach this; transformations translation is inescapable. Despite the result is need entirely restricted, the outcome of the investigation exhibit that the greatest usual kind of lexical collocations in the examined resource is adj + noun collocations; despite, unit-shift is the highest predominant interpretation shift to get the excellent translation tantamount lexical collocation.

For instance, "*dark night*" has a similar collocation in Persian: (شب سياه). You can also interpret "*dark color*" toward (سياه رنگ), and we can interpret "*dark age*" toward, (تاريخ سياه) hence "dark" is not evermore (تيره) or (سياه) also, as well as we express in Afghanistanian Persian dialect, *Nazuk Pust* (نازک پوست) for "soft skin" however we do not express, *Nazuk Aab* (نازک اب) for "soft water". Thus collegians should consider these diversities and discover and utilize the right tantamount for those collocations in various bilingual education dictionaries. Hence, they cannot form a general principle the concept of a word that associates through several words. It can be diverse through one collocation to other collocation and through one language to another language. The changeability of Collocations several collocations for a similar concept can stand in English; however, they may have one collocation whether one concept in Persian. For instance: "make a mistake" / "commit a mistake", *Murtakeb Khatashudan*, (مرتکب خطا شدن) normally these tantamount collocations have one and the similar interpretation in Persian. Moreover, it is not needful for learners to discover several tent amount of collocations in English.

4. *Transfer*

In the Persian contributors writing duty, it was seen two kinds of English collocations, one part had tantamount for Persian collocation, and it was easy to translate with their Persian counterpart collocation. However, the other

parts did not have their counterparts in Persian. That English Collocation they do not have Persian counterparts they are problematic for transferring sense from one language to another language.

## 2. Method and Data Analysis

The purpose of this paper is to distinguish between Afghanistanian Persian regional dialect collocation and English collocation. The data comprises the motivations writing tasks easy questions by 25 postgraduate Afghanistanian students; they are studying postgraduate. The study provides a comprehensible account of collocations types and current usage of collocations in the English language, and then offers a comparative analysis of collocations used in writing tasks of Afghanistanian students with their Afghanistanian Persian dialect equivalents. Therefore, in instruction to make it clear for learners to make their writing tasks perfect, many issues have been observed occurring during collocations testing.

The first question was prepared about writing their memorable and exciting entertainment experience that questions can be a functional issue, and so it is supposed to be promoting and concept - irritating. Hence, another significant thoughtfulness for selecting this topic is the scope to which the topic motivates students to product collocations as an outcome of their conventional history. Thus, the relevant topic was preferred about the Afghanistan New year celebration according to their province custom, and the final question was about their unforgettable traveling. All these questions are routine and familiar to the learners. The writing task essays took less than an academic teaching class time, and each essay not more than two hundred words. The essay topic was utilized as data in instruction to decompose the manufacture of collocations. The function of collocations was deliberated by the quantity, diversity, and precision of collocations. Frequencies of incidence of collocations were enumerated likewise in quantity and versatility based on TWTA (Task Writing Text Analysis).

## 5. Findings

EFL students frequently attend on the separate words and disregard other significant data, that is to adduce, what these single utterances co-occurred with. They study collocations as individual words partly than in pieces. The postgraduate task writing material reflects that the learners had difficulties via collocations that had no counterparts in Afghanistanian Persian dialect. As a consequence, when the learners did not understand a specific collocation, they trust in their native language and with a negative attitude convey collocations from their L1. For instance, heavy  rain collocation is one of the challenging collocations. Commonly those collocations do not have counterparts in the target language; that is why those are difficult for learners. For example, the issue in translating the English collocation of the word '*heavy rain*' in Persian *'Baran shaded'* is not that easy for the L1 learners of English as ESL within the same collocation pattern as they do within their local language. In Afghanistan in Persian dialect we utilize heavy for the weight; for example, English it is said he is a heavy man. However, it cannot be said the same in Afghanistanian Persian dialect; the rain is heavy. We state hard rain. You may confuse why? Because in Afghanistan Persian dialect for word  hard use (*shaded*) gives other meanings not related to the exact contextual meaning of substantial as related to '*heavy rain* in Persian. In other side,  in Persian leave a hair or '*Muai Gozashtan',* موی گذاشتن ) is made up by noun +infinitive (organizing a noun wording) while in English *grow a hair* is made of verb+ a+ noun organizing a verb expression. Therefore, some learners selected to *leave a hair* in lieu of *growing hair* in what they convey their first form; on many occasions, learners conveyed a concept instead of the figure through their L1. For example, most learners selected *decorate a salad*, *leave hair* (what are the verbal interpretation of the collocation) instead of the *growing a hair* and *dress a salad*. (*Leave a message*) It is another example whither instead of *leave message* in Afghanistanian Persian dialect *give the message* is equivalent to '*payam dadan*.' Leave means in Persian to go away from or allow remaining. It does not have a definite meaning, and it is unlike English. Thus, many people utilize the verb '*give'* but not '*leave*.' Normally in Afghanistanian Persian dialect compound verbs include of 3 verbs: *do*, *give*, and *take*.

Thus, when we product composite verbs commonly we utilize them one of these verbs. Verbs (*Gereftan*)= (*to take*), (*Kardan*)= (*to do*), and (*Dadan*)= (*to give*) these are the three principal verbs which are usually utilized with collocations and composite verbs in Afghanistanian Persian dialect. The verbs (*Dadan*, *Gereftan*, and

*Kardan*) are the maximum generally utilized verbs in the Afghanistanian Persian dialect; that is why they detached from their straight sense, they are utilized in thousands of several phrasing and composite verbs like an ancillary verb. The best specifications of the Afghanistanian Persian collocations, verbal order is its principal function of composite verbs to indicate a verbal concept. So, when Afghanistanian students want to product collocations, they pursue the composite verbs, in the Afghanistanian Persian dialect via trusting on them product the collocations. For example, in Afghanistanian Persian dialect *take a shower*, take concept '(*Kardan*). Hence it indicates in Persian (*Kardan*) associate with *Hamam* (shower). So, those English collocations have a counterpart on Afghanistanian Persian dialect; the collegian does not confront the difficulty of producing it in writing.

Any man-made language utilized figure has sense, and transport concept those are not in a similar notion, it is correlated with custom, and custom is full toward language (Jiang, 2000). Accordance with Cowie (1998), the custom history recourse to data that is a maximum problem to institutionalize like it is related via semantics in a much devious and as yet undiscovered manner. Nevertheless, acculturations patterns vary through one language to another language, and through custom to custom, the structure of collocation also differs. For instance, the two the Afghanistanian and English cost their neighbors' excellency and intimacy, withal, the English upgrade quiet neighbors, while Afghanistanian are glad for having kind neighbors. Kind neighbors are those who cooperate with us and pay attention and consider us in a different situation, whether we are far away from our house. In Afghanistan culture, neighbors people have very respectful and kindly behavior with their neighbors than behave the English. In order, diversities in collocational imitating in several languages mirror the priority of unique language societies for a definite style of statement. Several collocations are a straight reflectance of the substance, civic, or moralist surroundings in what they happen. Accordingly, such as EFL student's customs is various via the custom of the purpose language, it reasons the students for producing collocations which sense exotic and unsatisfactory to the first language of English narrator but cannot be accepted as a mistake collocation that's why the collocation produces via the ESL and EFL apprentices are effected by their historical and culture.

Table 5: *English Collocation with Afghanistanian Persian dialect equivalents collocation*

| Number | English | Persian pronunciation | Persian meaning |
|---|---|---|---|
| 1 | *good work* | Karkhub / Wazifakhub | کارخوب/وظیفه خوب |
| 2 | *Powerful car* | Muter Qawi | موتر قوی |
| 3 | door and wall | Dar va devar | در و دیوار |
| 4 | *white wine* | Sharab Safid | شراب سفید |
| 5 | dark night | Shabi Siya | شب شیاه |
| 6 | make a mistake | Murtakeb Khatashudan | مرتکب خطا شدن |
| 7 | golden opportunities, | Fursat Talayee | فرصت طلایی |
| 8 | blank tape | Kasit Khali | کسیت خالی |
| 9 | heavy rain | Baran Shadeed | باران شدید |
| 10 | decorate a salad, | Salad Tazinkardan | سلاد تزین کردن |
| 11 | leave hair | Maui Gozashtan | موی گذاشتن |
| 12 | give a message | Payam dadan | پیام دادن |
| 13 | take a shower | Hamam Kardan | حمام کردن |
| 14 | quiet neighbors | Hamsaya –e- Mahraban | همسایه مهربان |
| 15 | dark age | Tarikh siya | تاریخ سیاه |
| 16 | *strong tea*, | Chai Talkh | چای تلخ |
| 17 | soft skin | Nazukpust | نازک پوست |
| 18 | housecleaning | Khanatakani | خانه‌تکانی |
| 19 | happy life | Rozgarkhush | روزگارخوش |
| 20 | disappeared | Napaded | نا پدید |
| 21 | new clothes | Jama –e- now | جامه‌ی نو |
| 22 | not well | Nakhub | ناخوب |
| 23 | watermanship | Aab Bazi | آب بازی |

| 24 | tasty | Khush maza | خوشمزه |
| 25 | Haft Maiva | Haft Maiva | هفت میوه |
| 26 | drug business | Daro Frosh | دارو فروش |
| 27 | slender girl | Dukhter Barikandam | دختر باریک اندام |
| 28 | pencil sharpener | Pencil Trash | پنسل تراش |
| 29 | Rose Water/ | Gul ab | گلاب |
| 30 | masterwork | Shah Kar | شاهکار |
| 31 | Strongbox | Gaowsanduq | گاوصندوق |
| 32 | book room | Kitab khane | کتابخانه |
| 33 | letter carrier | Nama Rasan | نامه رسان |
| 34 | production room | Kar Khane | کارخانه |
| 35 | new year | Sal-e- Now | سال نو |
| 36 | time management | Bar name Rezi | برنامه ریزی |
| 37 | flower room | Gul khane | گل خانه |
| 38 | straightforward | Ruk va rast | رک و راست |
| 39 | accessible | Qabil dust res | قابل دسترس |
| 40 | homeland | Sar zamin | سرزمین |
| 41 | downtown | Markaz shahr | مرکز شهر |

## 4. Discussions

In arrangement to answer the investigation question, "what kind of collocational diversities among English and Persian conduct to mistakes in the producing of the students? Persian and English, both in the area of collocations were determined to see if diversities in the figure of the collocation will direct to inexactitude. On many occasions, there was not an important distinction among the collocations shape in; both languages. In shapes of collocations, some diversities portion led the learners to incorrect construction in two languages. For instance, (*Muai Gozashtan,*مویگذاشتن ) is made up by noun +infinitive (organizing a noun wording) while in English grow a hair is made of verb+ a+ noun organizing a verb expression. Therefore, some leaners selected to *leave a hair* in place of *growing hair* in what they convey their first form. On many occasions, learners conveyed the concept in place of the figure through their L1. There is a multitude of patterns, but because of a shortage of distance, several of them are communicated. For example, most learners selected *decorate a salad*, *leave hair* (what are the verbal interpretations of the collocation) in place of the *grow a hair* and *dress a salad*. To calculate for the proof if the students convey through L1 into L2 several expositive explanations were discovered. The outcome indicated that selecting the accurate composition of several inflexible words was a challenging issue for students in this task writing text analysis. *(ref, Table.5)*.

While indicated, collocations display a fundamental role in interpretation. Some difficulties may happen in the interpretation of Persian collocations into English. A British Scholar Firth (1957) as the father of collocational learning in a new opportunity, presented, "we shall understand a word by the association it keeps" (p. 12). Thus, collocation is the method of indicating concept: sense by collocation is an abstract idea in the syntagmatic surface and is not straightly interested in intellectual access to the concept of words. One of the concepts of the *night* is its ability to be collected with *dark*, and *of dark*, instead, as it associates with the *night* (Bahns 1973).

On the other hand, Machali (2000) postulates learners and translators of English must be conscious of the reality that several collocations may be register-special. For example, as *'tolerable'* and *'error'* would commonly not go altogether, they can be a *tolerable* collocation in Statistics. The inability to recognize them in a context may reason a deformity of concept. Standard Solutions and Problems Based on Armstrong (2005), learners and translators confront in two principal difficulties in collocations translating. The obstacle of popularization several English words associate through one and a similar word; however, they do not need fully while in Persian. Lewis (2000) describes collocation as "the manner in what words co-occur in the constitutional context in statistically meaningful manners (p. 132). For Nattinger and DeCarrico (1992), collocations are explained like "cords of a particular lexical object that co-occur with bilateral anticipation larger than luck, for instance, curry favor and

rancid butter (p. 36). For James (1998), the words collocations are something else, which any specific word usually goes out with (p.152).

## 5. Conclusion

Collocation plays a pivotal role in language teaching and learning. Therefore, collocations are the most useful devices in writing and especially in speaking any language. This article concluded that collocations contain the joining of the semantic relation of words that take place often in likeness texts. Several kinds of collocations belong to different parameters: the number of collocations of words includes the joining style and the grade of hardness or plasticity. Natural lexical collocations consist of free class words: verbs, adverbs, adjectives, and nouns. The systematization classification of collocations, according to Benson, Benson, and Ilson (1986) into two classes: Lexical collocations and grammatical collocations. According to Benson et al. (1986), commonly a grammatical collocation is an open prevailing word category (verb, noun, preposition or adjective) or specific constructional samples like a clause or infinitive. The study sums up with the outcome that ESL teachers should use innovative strategies, new methods such as multimodality in their teaching based on the authentic text as a source of material which may enhance the credibility of their work. ESL teachers must be provided extensive training by native speakers that are the need for better teaching in schools, colleges, and Universities. Lastly, curriculum planners should include ESL syllabus while planning and include texts based on the collocational phenomenon.

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# Investigation and Research on the Living Status and Professional Development of Biology Teachers in Southern Henan and Their Development Strategies

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**Abstract**
In order to effectively investigate the current situation of biology teachers in Southern Henan, this study used the method of interviews and questionnaires to investigate and analyze the current situation of biology teachers in Southern Henan from their living status and professional development. The survey results show that: (1) The overall satisfaction of biology special post teachers in southern Henan is general, the office conditions can meet the teaching needs, the salary and housing conditions need to be improved, and the spare-time and family life needs of biology special post teachers attract attention; (2) Professional development is generally satisfactory. Specialized biology teachers in Southern Henan are willing to participate in educational and teaching reform, but their participation in teaching and research activities needs to be further strengthened. Specialized biology teachers have a large workload and high labor intensity. In view of the above findings, this paper puts forward some countermeasures for the development of biology special post teachers in Southern Henan, with a view to providing theoretical reference for the follow-up research on biology special post teachers, as well as providing important information for improving the living status of specialty post teachers, promoting professional development and improving the quality of education and teaching.

**Keywords:** Southern Henan, Biology, Special Post Teachers, Living Status, Development Strategies

## 1. Introduction

In order to thoroughly implement the opinions of the central committee of the communist party of China on promoting the construction of a new socialist countryside and encouraging the employment of college graduates at the grass-roots level, we should gradually solve the problems of weak teachers in primary and secondary schools, especially in rural schools, and unreasonable teacher structure, so as to improve the overall quality of the teaching staff and promote the balanced Exhibition. On May 15, 2006, the Ministry of Education, the Ministry of Finance, the Ministry of Personnel and the Central Editorial Office jointly issued the Notice of the Special Job Plan for

School Teachers at the Stage of Rural Compulsory Education, hereinafter referred to as the "Special Job Teacher Plan." The aim of the plan is to innovate the mechanism of rural teachers' supplement, strengthen the effective supplement of rural teachers (Hu, 2010), solve the problems of insufficient total teachers and unreasonable structure in rural areas (You et al., 2017), and continuously improve the quality of rural school education.

Since the implementation of the "special post teacher plan" in 2009, Henan Province has attracted a large number of outstanding university graduates, especially the undergraduate graduates of teachers' major, to join the special post teacher industry (Yang, 2017; Feng et al., 2018). This has effectively promoted the employment of college students in Henan Province, improved the quality of basic education in rural areas, and played an important role in promoting the balanced development of compulsory education in Henan Province. From the beginning of the implementation of the "special post teacher plan" in Henan Province to September 2012, a total of 300,000 special post teachers (Tian et al., 2013) were recruited in Henan Province. So far, the total number of special post teachers recruited in Henan Province has exceeded 100,000, and the number of special post teachers recruited in Henan Province in 2017 alone reached 15,300 (Feng et al., 2018). These special post teachers have injected fresh blood into rural schools and brought strong aftereffect for the sustainable and healthy development of rural education.

In 2019, the "Special Post Teacher Program" has been successfully implemented in southern Henan for ten years. It has gradually solved the problems of insufficient teachers and unreasonable structure of teachers in rural schools in southern Henan, improved the overall quality of teachers in the vast rural areas of southern Henan, and effectively promoted the balanced development of urban and rural educational resources. It has played an important role. However, at the same time, the co-existence and development of special post teachers, on-the-job teachers and new special post teachers have emerged. Many special post teachers are more entangled on the issue of whether to stay or not after their expiration, and various contradictions about special post teachers are constantly highlighted (Zhang, 2016; Wang et al., 2013). The overall level of economic and social development in southern Henan is relatively low, and the rural education hardware facilities are still relatively backward. At the same time, the population base in southern Henan is relatively large, especially the huge agricultural population, which will lead to a considerable difficulty in the implementation of relevant education policies, and its education is also more difficult. The overall enrollment rate of students in southern Henan is relatively low, and the overall quality of education and teaching is not optimistic (Tian et al., 2013). Therefore, many excellent Biology Normal Graduates are reluctant to teach in Southern Henan. The recruitment of excellent biology teachers in Southern Henan is much more difficult than that in other provinces and municipalities.

What is the present situation of teaching and living of biology special post teachers in Southern Henan, and what difficulties they have in the process of professional development? The real situation of these problems is not clear to all sectors of society, and there is still a lack of corresponding solutions. Therefore, in order to effectively investigate the current situation of biology special post teachers in Southern Henan, this study adopted a combination of interviews and questionnaires (112 valid questionnaires). Three representative counties (Gushi County, Luoshan County and Tanghe County) were selected to investigate and analyze the current situation of biology special post teachers in Southern Henan from two aspects of living conditions and professional development. In order to improve the living conditions of special post teachers in Southern Henan, promote professional development, and improve the quality of education and teaching to provide reference.

## 2. Investigation and analysis of the living status of biology special post teachers in Southern Henan

Teachers in special posts usually work in counties or towns. Schools in which they teach are usually in remote rural areas, which make them far away from their families, inconvenient transportation, and poor living and board conditions. Therefore, special post teachers are often difficult to adapt to life and their spare time is relatively monotonous, which requires more attention to the living conditions of special post teachers. In this study, we investigated the working conditions, housing environment, salary and treatment, family life, spare time and social status of biology teachers in southern Henan in order to find out the real-life state of the biology special post teachers in southern Henan, and provide reference for the policy formulation, adjustment and optimization of specialty post teachers in later period.

2.1 Working conditions of biology special post teachers

With more and more attention paid to education, knowledge and talents by the state, more and more special post teachers are invested in their working environment and conditions. This makes the special post teachers' working environment knowledge atmosphere strong, there are office and dormitory areas, and equipped with modern office equipment. So, what are the working conditions of the rural primary and secondary schools where the biology teachers are located? With such a problem, this interview and questionnaire specifically investigated the working conditions of biology special post teachers in southern Henan. The results of the survey showed that: 87.5% of the Specially-Appointed teachers of biology indicated that their schools had modern multimedia equipment and could use it normally, 12.5% of the Specially-Appointed teachers of biology indicated that the teaching school had multimedia equipment, but it could not be used normally. According to statistics, 87.5% of teachers are satisfied or basically satisfied with the school's office conditions and equipment. It shows that the office conditions of rural schools in southern Henan can basically meet the teaching needs of biology teachers.

2.2 Housing of biology special post teachers

The schools where special post teachers teach are usually in rural areas far away from home, and the transportation is inconvenient. Especially in rural junior high schools, there are usually morning and evening self-study arrangements, so special post teachers need to live in school or rent housing near the school. In the life of special post teachers, the most important concern is the housing problem, which is related to whether special post teachers can safely teach. Through the investigation, it is found that there are mainly the following solutions to housing problems for special post teachers: schools provide free housing (62.5%), schools provide preferential housing (6.3%) and live in their own homes (31.2%) (Fig. 1). A further survey on the satisfaction of the special-post teachers of biology who provide dormitories free of charge in schools shows that 80.0% of the special-post teachers of biology are satisfied or basically satisfied, and 20.0% of the special-post teachers of biology are not satisfied with the housing provided free of charge in schools. Therefore, the survey found that the current South Henan biology teachers' satisfaction with housing situation is general.
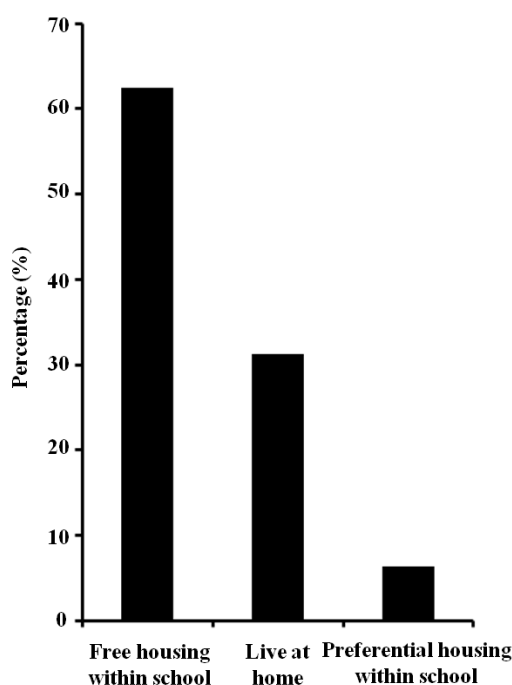


Fig. 1 Survey on housing problems of biology teachers

2.3 Remuneration and welfare of biology special post teachers

For special post teachers, in order to better encourage them to engage in education and teaching, promote their better development, and take root in rural areas for a long time to play an active and effective role, the direct and effective way is to improve the salary treatment of special post teachers. Efforts should be made to improve the basic living standards of special post teachers so that they can safely, enthusiastically and lifelong teach without worries. This requires relevant education and teaching departments to give priority to ensuring that special post teachers' salaries are paid in full and on time, and to establish appropriate compensation and incentive mechanisms for special post teachers when conditions permit. We will continue to improve the treatment of special post teachers by rewarding them with wages, granting subsidy for daily life or class hours, et al. According to the survey, 62.5% of the biology special post teachers' monthly salary is above 2000 yuan, and 37.5% of the biology special post teachers' monthly salary is between 1500 and 2000, which accounts for a small proportion. In addition, 62.5% of the special-duty teachers said that the school they teach does not have a class-hour subsidy; 18.8% of the teachers said that the school has a class-hour subsidy, but the subsidy is less; only 18.8% of the teachers think that the school's class-hour subsidy is reasonable. For the overtime allowance for morning and evening self-study and vacation, 50.0% of the Specially-Appointed biology teachers said that there was no subsidy at all in their school, and only 12.5% of the biology teachers were very satisfied with the reasonable subsidy of the school, 18.8% of the biology special post teachers expressed their satisfaction with the reasonable subsidy of the school, and the school could issue the subsidy on time, 18.8% of the biology special post teachers thought that the school occasionally issued reasonable subsidy, but the subsidy was low (Fig. 2). Therefore, the salary of biology special post teachers in southern Henan is low and the subsidy is low.
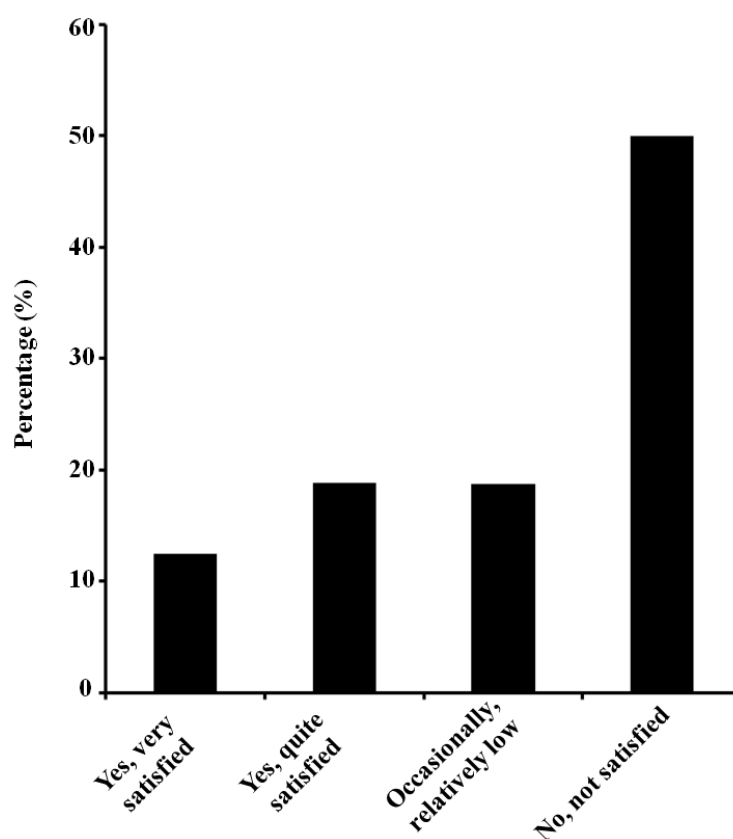


Fig. 2 The distribution of reasonable allowances for special post teachers

As for the welfare benefits of special-duty teachers, whether their social security such as "five insurance and one fund" can enjoy the same treatment as those of public-owned teachers is a common concern of special-duty teachers. "Five insurance and one pension" refers to old-age insurance, unemployment insurance, maternity insurance, industrial injury insurance, medical insurance and housing accumulation fund, which is a guarantee for the present and future life of special post teachers. "Five insurance and one pension" refers to old-age insurance, unemployment insurance, maternity insurance, industrial injury insurance, medical insurance and housing accumulation fund, which is a guarantee for the present and future life of special post teachers. A survey was

conducted on whether the education authorities or the schools where they teach buy "five insurance and one fund" for special post teachers. The results show that: 81.8% of biology special post teachers normally enjoy "five risks and one fund." 6.5% of biology special post teachers buy 4-5 items of "five risks and one fund." 13.2% of biology special post teachers only buy 2-3 items of "five risks and one fund" (Fig. 3). Therefore, through the analysis of the survey results, we can see that the welfare benefits of biology special post teachers in southern Henan are relatively deficient. This will bring some pressure to the life of biology teachers.
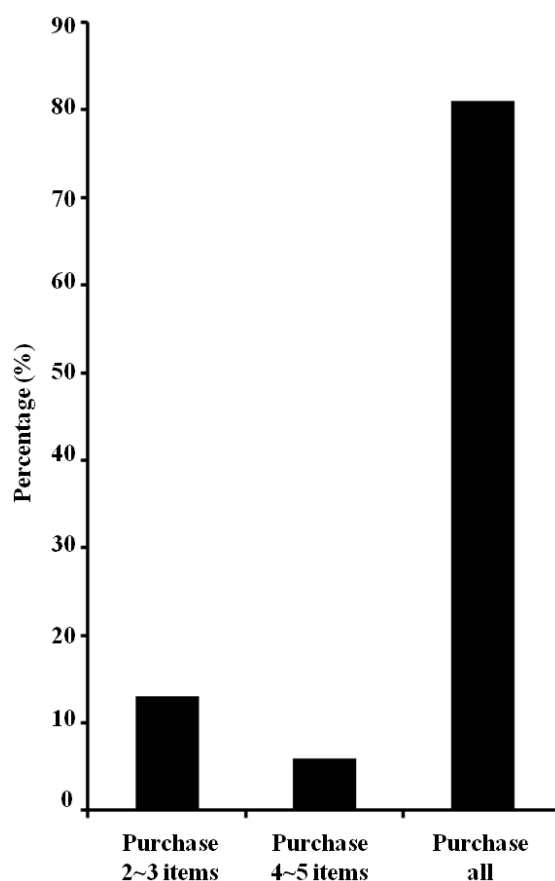


Fig. 3 The purchasing situation of "five insurance and one fund" for special post teachers

2.4 Family life status of biology special post teachers

Marriage and family is an important factor for the stability of special post teachers, and it is also a very important issue to be concerned. The desire of special post teachers for marriage and family is the spiritual sense of belonging and the pursuit of love of special post teachers. Graduates of undergraduate or postgraduate students have reached the age of marriage. If the marriage issue can not be solved in time, then special post teachers lack the support and care of some families, which will inevitably divert their work and life energy, and form unstable factors, and ultimately affect the work and life of special post teachers. Through surveys and interviews, it was found that 37.5% of the biology special post teachers were single, and 50.0% of the biology special post teachers were unmarried. A further survey of married biology teachers found that 75.0% of married teachers separated from their families. Therefore, the marriage and family problems of biology teachers in the south of Henan need to be guided and solved. Therefore, the marriage and family problems of biology teachers in the south of Henan need to be guided and solved.

2.5 Amateur life of biology special post teachers

Special post teachers are mostly located in rural areas where the conditions are more difficult. Their transportation is inconvenient, housing conditions need to be improved, and recreational activities are less. This will affect the personal feelings and spare time of special post teachers. Especially, the living conditions of special post teachers

are much worse than those in cities. The richness of their spare time life directly affects their mental health and the stability of their work. Even it will be difficult to adapt to the life of rural schools, inevitably, there will be feelings of escape, although the latter may be slowly accustomed to, but it is difficult to stay for a long time. By means of interviews and questionnaires, this paper investigates and analyses the spare-time life of biology teachers in the south of Henan Province. The results show that: 68.8% of the special post teachers of biology think that their spare time is very monotonous, and the proportion is relatively large. Among the survey results on loneliness of biology teachers in Southern Henan, 56.3% felt lonely occasionally, 31.2% did not feel lonely, and 12.5% of biology teachers said they often felt lonely. Most biology teachers work in remote areas and often live separately from their families. Their psychological status needs to be paid enough attention. Therefore, the spare-time life of the biology teachers in the south of Henan province is relatively single. It is necessary to enrich their spare-time life further, promote their peace of mind and enthusiasm in teaching, and constantly improve the level and quality of education and teaching.

## 2.6 Social status of biology special post teachers

General Secretary Xi Jinping emphasized at the National Education Conference that teachers are the foundation of teaching and the source of revitalizing teaching, and that teachers' dignity should be restored. In order to build a modern and powerful country, new and higher requirements are put forward for respecting teachers and respecting education in society and continuously improving teachers' political, social and professional status. Then, the social status of the special post teachers in the local teaching is reflected in the degree of local respect. According to the survey, 81.3% of biology special post teachers think that special post teachers are more popular among the school teachers they teach; 6.2% of biology special post teachers think that they are not popular in the school they teach, and only 12.5% of biology special post teachers say that they are very popular in the school they teach. At the same time, 75.0% of the biology special post teachers said that they were respected in the local area, and 18.8% of the biology special post teachers thought that they were highly respected in the local area. This shows that the biology special post teachers are respected and welcomed in the schools they teach.

## 3. Investigation and analysis of professional development of biology special post teachers in Southern Henan

### 3.1 The satisfaction degree of biology special post teachers on their professional development

Through interviews and questionnaires, this paper investigates the current situation of biology teachers' professional development in southern Henan Province. The results show that: 25.0% of special post teachers are satisfied with their current professional development, 62.5% of them are basically satisfied with their current professional development, and only 12.5% of them are not satisfied with their current professional development. From this point of view, the vast majority of special post teachers of biology in southern Henan Province are satisfied with their current professional development.

### 3.2 Actual workload of biology special post teachers

In order to grasp the actual teaching workload of biology specialty post teachers in southern Henan Province, interviews and questionnaires were conducted, the statistical results show that: 6.2% of the biology specialty teachers have 22 or more biology lessons per week, which is equivalent to more than 4 lessons per day on average; 37.5% of the biology teachers have 18 to 21 lessons per week; 18.8% of the teachers have 14 to 17 lessons per week; the proportion of biology specialist teachers whose total weekly class hours are between 10 and 13 is 37.5%. That is to say, there are at least 2 biology classes per day (Fig. 4). It can be seen that the actual teaching workload of most biology specialty post teachers in southern Henan is relatively large and the labor intensity is relatively high.
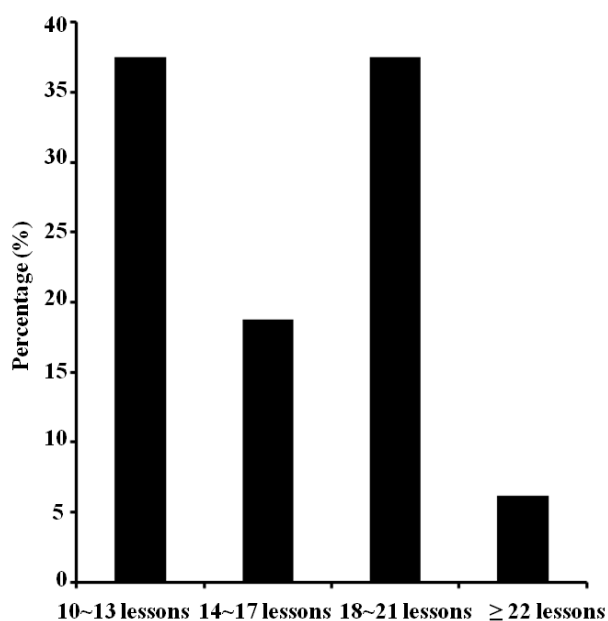
Fig. 4 Total lessons per week

Further investigation results verify that the actual teaching workload of most biology specialty post teachers in southern Henan is large. The analysis results show that: 43.8% of the Specially-Appointed biology teachers thought that their teaching workload had exceeded the allowance, and they were laborious and tired (Fig. 5); 18.8% of the special post teachers of biology expressed their satisfaction with their teaching workload, believing that although the workload was heavy and hard, they still liked their teaching work; 31.3% of the Specially-Appointed teachers of biology showed just the right teaching workload and had room for learning and development; Only 6.3% of the Specially-Appointed teachers of biology indicated that their teaching workload was not large and easy, and even they could increase the workload appropriately.
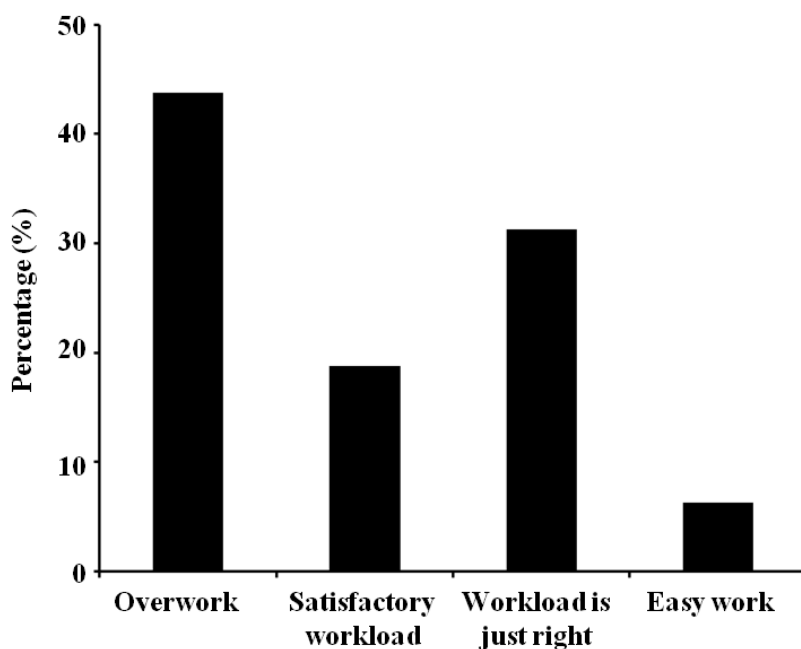

Fig. 5 Statistical results of teaching workload

3.3 Attitudes of biology special post teachers towards biology education theory and reform

In order to investigate the current attitudes of biology teachers to biology education theory, education reform and education information in southern Henan, this study conducted interviews and analyzed the valid questionnaires

collected. The results show that: 50.0% of the special post teachers in biology are concerned about educational theory, educational reform and educational information, 12.5% are very concerned about educational theory, educational reform and educational information, and 37.5% are general about educational theory, educational reform and educational information; and the number of people who do not pay attention to educational theory, educational reform and educational information is 0. Therefore, more than 60% of the special post teachers of biology are concerned about biology education theory, education reform and education information, which implies that they are willing to participate in the theory and reform of biology education, thus promoting the quality of biology education in southern Henan.

3.4 Professional learning means of biology special post teachers

Through the investigation of the biology teachers' professional learning means and teaching reflection activities in south Henan province , it was found that 6.2% of the Specially-Appointed teachers of biology indicated that their main way of professional learning was through participating in further education activities; 56.2% of the teachers said that they mainly learned through teaching and research activities and professional learning; the remaining 37.6% of the biology teachers said that their main method of professional learning is to search for information online. Among them, 37.5% of the special post teachers often carry out teaching reflection activities; 43.5% of the teachers sometimes carried out teaching reflection activities; 19.0% of teachers expressed general opinion on teaching reflection. Therefore, the above survey results show that most of the biology specialty post teachers in southern Henan can actively strengthen professional learning and timely reflection on teaching.

3.5 The participation of biology special post teachers in teaching and research activities

The method of interview and questionnaire survey was adopted to investigate the participation of biology teachers in the regular teaching and research activities of the university in south Henan. The statistical results show that 37.5% of the teachers take part in the regular teaching and research activities of our school once a semester; 37.5% of the teachers take part in the regular teaching and research activities twice a semester; the remaining 12.5% of the biology specialist teachers say they do not participate regularly or rarely; and 12.5% of the teachers say they have not participated in the regular teaching and research activities of our school. Teaching and research activities (Fig. 6). Therefore, most of the special post teachers of biology in southern Henan can participate in the teaching and research activities of their university, but the teaching and research activities need to be further strengthened.
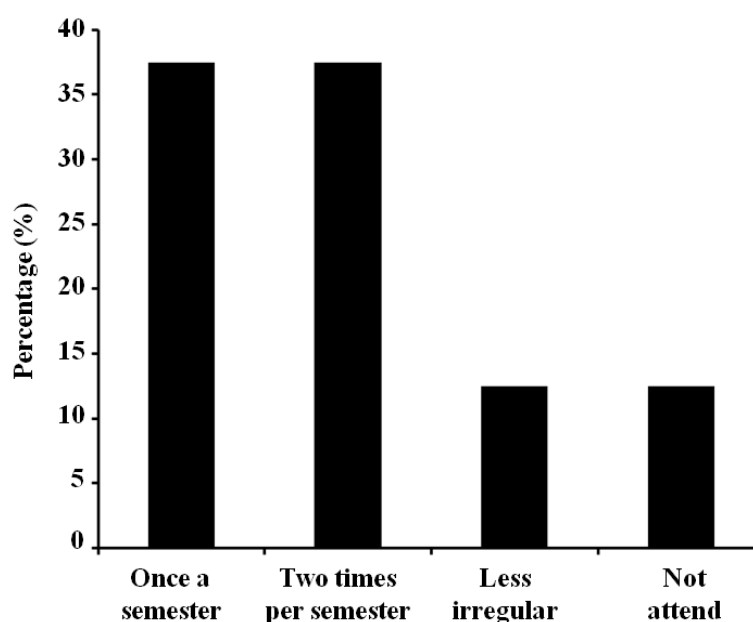


Fig. 6 Participation in teaching and research activities

3.6 The school's expectations for biology special post teachers

Biology special post teachers have made positive contributions to the cause of school education, but it is not clear what the school expects of biology teachers at present. Through interviews with biology special post teachers in southern Henan Province, combined with the results of the questionnaire survey, it was found that 43.8% of the teachers said that the school had high expectations for biology special post teachers; 12.5% of teachers said the school has very high expectations for biology teachers; another 43.7% said the school's expectations for biology special post teachers were modest. Thus it can be seen that the expectations of most schools in southern Henan province for the position of biology specialist teachers are in the upper middle level. In addition, after the expiration of the teaching period, the most concerned issue of the special post teachers in biology is the "incorporation problem," which shows the positive concern of the special post teachers for the employment situation and personal career development after the expiration of the teaching period. Among them, 62.5% of teachers said that they would continue to teach in their current school after the expiration of their service period, while 37.5% said that they would strive for opportunities to transfer to better-qualified schools after the expiration of their service period.

## 4. The development strategy of biology special post teachers in Southern Henan

4.1 Improve the supporting policies to promote the professional development of biology special post teachers

In terms of the policy of "special post teacher plan," the state has only made overall deployment and arrangement at the macro level. It is the responsibility of local governments at all levels to flexibly formulate relevant rules for teachers with special posts according to the actual situation in various regions. Especially, most of the special post teachers' pre-employment and post-employment training, as well as professional development, which basically rely on local finance to solve this problem, requires local governments to increase investment in education in poor, remote and backward rural areas from the perspective of the overall situation of education. Teachers in special posts of biology go to the countryside, because they have fewer opportunities for further training, they basically have no chance to participate in training and continuing education, and can only rely on self-study. However, teachers in special posts have a large number of teaching classes, and the time they can use to improve their ability and level of personal professional knowledge is not much, which seriously limits the professional development of biology special post teachers.

Special post teachers are in the induction period, most of them took part in work not long ago, which is the most critical period in the whole career. Paying more attention to the professional development of special post teachers is not only the need to solve practical problems, but also the need to build a long-term stable and quality rural teachers team (Tian et al., 2013). In addition, the issue of whether to stay or not after the expiration of the special post teachers' tenure is also a hot topic of current social concern (Wang et al., 2019). Cities have abundant social resources and vast space for professional development, which is the main driving force for biology teachers to choose from rural to urban areas. Therefore, in order to avoid short-sighted behavior and establish a long-term and stable management mechanism, the relevant departments should improve the relevant policies of the "special post plan" (Yang, 2019). At the same time, it is necessary to further improve the school's various management systems and take targeted measures. Special post teachers themselves also need to change their induction concepts and make joint efforts to ensure that the teachers of biology special post can teach with peace of mind and enthusiasm.

4.2 Improve professional identity and professional confidence, and enhance the self-efficacy of biology special post teachers

Creating a good social atmosphere of respecting teachers and respecting education, constantly enhancing the professional pride of special post teachers and improving their professional self-confidence are the key to promoting their professional identity. The factors influencing the professional identity of biology teachers are complex and diversified. Biology teachers with different professional motivation have significant differences in their feelings of professional identity, especially in the aspects of occupational cognition, occupational experience, occupational expectation, occupational emotion and occupational skills (Zhou et al., 2019; Xu, 2014; Li, 2012). The survey results show that there is a significant positive correlation between social support and teachers' professional pride (Zhang, 2016). For the biology teachers in rural primary and secondary schools, if they can get

material and spiritual support from leaders, colleagues, parents, students and society in the activities of education and teaching, they will have a positive psychological impact to a certain extent. This kind of positive emotion will promote the improvement of their educational and teaching abilities and levels, and make the teachers of biology specialty post fully enjoy the sense of achievement and dignity of value in their own educational and teaching activities, so as to have a certain sense of belonging to their school and teaching profession, and ultimately enhance the level of teachers' professional pride. Therefore, it is necessary for the state and society to give biology special post teachers more preferential policies and positive public opinion guidance. While continually improving the professional prestige of special post teachers, we should constantly improve the corresponding social status, political status, professional status and salary level of biology special post teachers, so as to form a good atmosphere for respecting, understanding and supporting special post teachers in the whole society (Zhang, 2016). In addition, a good school environment should be established so that the biology special post teachers can constantly gain a sense of honor, mission, dignity and pride in the process of education and teaching, strengthen the professional self-confidence of the special post teachers, enhance the sense of self-efficacy, and form a benign interaction for the high-quality development of education and teaching in rural primary and secondary schools.

4.3 Focus on the psychological status of special post teachers and improve salary and welfare treatment

Only by improving the basic living security of special post teachers and letting them have no worries, can they be reassured, enthusiastic and lifelong in teaching. Regrettably, according to the results of salary satisfaction survey, 66.7% of the Specially-Appointed teachers of biology expressed dissatisfaction or very dissatisfaction with the salary level. Imperfect infrastructure, lack of material conditions and low salary are still the main reasons that hinder the retention of rural special post teachers (Tang et al., 2019). Special post teachers have made great contributions to improving the current situation of education and teaching in poverty-stricken areas, but their economic status has not been improved accordingly. Life worries will inevitably have a negative impact on the working status of special post teachers. Therefore, the relevant departments should improve the local allowances and social security benefits for special post teachers, and formulate and implement the basic standards of work and life security for special post teachers. At the same time, it is necessary to make clear provisions on the safety, transportation, accommodation and working environment of special post teachers, so as to ensure the basic conditions of their work and life, and to stimulate their enthusiasm for work.

Most of the schools taught by special posts teachers are located in remote counties or towns. Many special posts teachers live alone away from their families, and often feel lonely. Therefore, special post teachers will inevitably have various psychological problems, which need to be paid enough attention by relevant departments (Liang, 2019). The whole society should pay more attention to the special post teachers, deepen the humanistic care, and strengthen the communication and exchange between them (Tian et al., 2013). It is suggested that the administrative department of education at the county level should take the lead to set up regional research and friendship teaching organizations in rural poverty-stricken areas with scattered special post teachers as the main body and similar township schools as units to create a good communication environment. It can not only exchange learning experience with each other, promote the improvement of professional level, but also enhance the communication between special post teachers in life and emotions, create favorable conditions for young special post teachers to make love and friends, and lay a solid foundation for them to take root in the countryside and serve rural education.

## Acknowledgments

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# How Authentic are our Examination Results? Investigating Causality in Cheating Behaviours and Moral Reasoning among Ghanaian Senior High School Students

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**Abstract**

This was a causal comparative study to investigate the causality of *'ex post-facto'* variables: moral reasoning (MR) and cheating behaviour (CB) and their associational effect on the authenticity of examination results among Senior High School (SHS) students (N=2,520). Two different data sets were derived from (i) a survey questionnaire with one MR scenario, and (ii) archival WASSCE results of four schools were used to answer four research questions and three null hypotheses raised. Multiple statistical tests of differences including cross tabulations, Chi square, independent sample t-test, and ANOVA were used for analyses focusing on gender and school categories. Differences in MR showed statistical significances among gender [t(2510)=4.83, p=0.00] and school categories [F(3, 2510)=21.88, p=0.00]. Both positive and negative correlations were rather very low, (ranging between R=0.02 and -0.02). Two of the null hypotheses were rejected at alpha (p=0.05). Four recommendations were put forward for the Ghana's education system and WAEC the examination authority. Also, practical and policy implications are discussed. Thus, CB was found to have a cause-effect on the authenticity of examination results. But MR levels of SHS students are not solely responsible for CB; rather the schools' culture of offering 'helping hands' creates opportunities for students to cheat at examinations.

**Keywords:** Authentic Results, Cheating Behaviour, Ghana, Moral Reasoning, SHS Students

## 1.0 Introduction

### 1.1 Background to the Study

Examination malpractices or cheating behaviours (CB) have been the concern of many well-meaning educators. In Ghana the seriousness of CB is reflected in the media reports on its impact on teaching and learning outcomes. The West African Examination Council (WAEC), which is the authority body responsible for examinations, has come under fire to save the face of examination in the country (Ghanaweb.com, 2017; 2018). The argument is that cheating at any level defiles the very core of education and processes of knowledge

acquisition in any democratic society. The philosophical underpin is on the democratic essence of education as propounded by John Dewey, an American philosopher, who said "*Education is not preparation for life; education is life itself.*" (Mooney, 2000). We cannot educate people starting on a wrong note as in cheating for results.

Examination malpractice (cheating or CB) in this context is defined as any act or behaviour or assistance that compromises the testing results meant for assessing learning. Examination malpractice is a huge stakeholder affair not just those affected directly. It affects the trustworthiness of teaching and learning results in the academic pursuant. It also affects authenticity of examination results in learning. Authenticity of learning results is also contextualized as the *acceptability, believability* and *integrity* level assigned to academic results coming from an assessment tool used by teachers or examination authorities. Every year WAEC releases West African Senior School Certificate Examination (WASSCE) results which are used for admissions to tertiary institutions and other relevant assessments for employment and competitions.

At the school level, teachers administer examinations to assess learning in an effort to correct anomalies, errors and prevent assumptions and exaggerations in learning achievements. Examinations are useful in assessing both the work of teaching by teachers and the learning by students. A Headteachers' Handbook has been produced in Ghana by the Ministry of Education to spell out a methodology for *school performance appraisal meetings* (SPAM) at various levels to evaluate schools and teachers' efforts (GES/TED, 2014). The handbook deals with leadership for learning, improving the quality of learning, teaching and learning resources, and reasons for proper assessment of learning. Teacher leadership in this moral war against examination malpractices is therefore very critical (Edwards, 2019) and it is acknowledge by the Ministry of Education, (GES/TED, 2014).

In the era of digital technology, this canker is even widely spreading, taking different forms, and becoming toxic in the body of scholarship, especially in the distance and e-learning environment where students are to be self-regulated in learning (Gao, 2012). Questions are leaked before examination takes place. Students copy possible answers and send them to examination halls through mobile phones. Some help other students to solve questions using techology. The question lingers as to how online examinations for example are monitored or proctored and what is the guarantee of real knowledge or learning assessment. Hence Gao (2012) commented on the issue regarding academic integrity and recommended that institutions must require proctor supervision of online exams because of cheating. Although there is a report "indicating that there are no significant differences in cheating rates for online and F2F courses, more studies found that cheating rates are higher for online courses" (Gao, 2012, p. 3). But according to Gao, whatever the cost to keep the integrity of examination is worth it. Otherwise examination strategies must be reformed. Students must be made to value learning, and cherish 'knowing' than examination grades.

*1.2  Contextualizing the Issue*

The issue of cheating in examination can be situated in Ghana. Examination malpractices or any form of cheating behaviour raises concerns regarding the ethics of authenticity of examination results. Authenticity in life is "based on personal integrity, credibility, and trusting" (Bhindi & Duignan, 1991, p. 119) in any human accomplishment. It is both a moral, spiritual, and academic issue. Cheating affects the academic honesty, integrity, and believability of what is considered outcomes of learning achievements in the Ghanaian context. It affects claims of knowledge and skills because they might have cheated to possess 'false' examination results (Ghanaweb.com, 2018, para. *'born-again-confessed'*).

Also, cheating affects the reputation of examination agencies such as the West Africa Examination Council (WAEC). WAEC's claims of relevance to the nation is based on releasing authentic examination results. It becomes more difficult in a social context if WAEC loses the legitimacy of examination results, certification, and competency that it claims. Institutionally, WAEC can lose the public opinion, public sympathy, respect and reputation if examination results are questioned and not believable. When examinations are challenged, surrounded with flaws, leakages of questions, then there is bound to be queries of authenticity. Yet institutions like WAEC tend to rather blame moral decadence in our society, the systemic corrupt in the nation, and its own

employees. Instead of taking the responsibility, WAEC often looks for those children to purnish. WAEC should check the causes and effects of such CB on education and education outlooks in the country.

In addition such an issue affects the labour force. The industry or workplaces which are to absorb secondary students as manpower in the future depends on 'real' knowledge acquired. If there are issues they tend to distrust examination results because of malpractices. Most industries have to find other ways to test achievements with despair. According to Ghanaweb.com, in 2017/18 the media labelled the Brong Ahafo area (now divided into two separate regions) as the worse region in Ghana when it comes to examination malpractices. That was a moral and an academic issue.

## 1.3 Purpose of the Study

The purpose of the study was to investigate causality of examination malpractices (cheating behaviour) by examining moral reasoning (MR) levels among senior high school (SHS) students and comparing with their examination results (WASSCE) in Ghana. The main focus was to compare group categories, gender and schools, to find cause and effects on the authenticity (believability) of examination results from these schools. MR, is an *ex post facto*, dependent variable, was explored as the causation and linked to its association with students' opinions of what happens during examinations in their schools and its critical effects on WASSCE authentication.

## 1.4 Research Questions and Null Hypotheses

The following research questions and null hypotheses are raised to guide discussions:

RQ1: What differences in MR regarding examination malpractices are caused by gender categories?
$H_{01}$: There is no statistical significant differences in the levels of MR caused by gender groups based on the statistical notation: ($H_{01}$: $\mu MR_{MALE} = \mu MR_{FEMALE}$, p=.05).

RQ2: What differences in levels of MR are caused by school categories in comparison with their WASSCE examination results?
$H_{02}$: There is no statistical differences in the levels of MR caused by school categories based on the statistical notation: ($H_{02}$: $\mu MR_{SHS-A} = \mu MR_{SHS-B} = \mu MR_{SHS-C} = \mu MR_{SHS-D}$, p=.05).

RQ3: How does the relationship between MR and school's WASSCE results affect the authenticity of examination results in schools?
$H_{03}$: There is no statistical significant relationship between the levels of MR by school categories and that of their schools' WASSCE results to affect the authenticity of respective examination results.

RQ4: What are the opinions of SHS students regarding examination malpractices in their schools?

## 1.5 Significance of the Study

The significance of this study lies primarily in deepening our understanding regarding adolescence intuitive judgment actions and moral sensitivity to examination malpractices. SHS students are adolescents in Ghana. It serves as an exploratory, a plausible diagnostic study to understand developmental issues among the adolescents in Ghana. There is a very limited literature in the field of adulthood development that focuses on moral issues in Ghana. Yet, Ghana's economy, like most of sub Saharan Africa, is suffering with corruption, cheating at all levels of administration, and integrity issues. Evidence based studies on moral reasoning at a crucial developmental stage of SHS students must be significant for the curriculum reforms in Ghana.
Plausibly, the study should inform policy leadership and direct best practices in examination administration. There is an inherent significance materials for character development, contextual theorization of adolescence development, and guiding texts for scholarship in adulthood in Ghana for a lifelong learning and examination

issues. The study provides diagnostic evidences and practical prescriptions for the nurturing of moral reasoning as to why cheating is not beneficial, cheating effects on authenticity of examination results, which should lead to character development among secondary studemts within the Ghanaian school system.

## 2.0  Theoretical Framework

### 2.1  Moralization and Genderization

Most moral development literature show an interdependence of certain constructs that nurture ethical decisions and behaviours especially among teenagers. Beerthuizen, Brugman, and Bassinger (2013) studied adolescence delinquency and the moral reasoning behind their decisions and concluded that "overall level of justification of moral values decisions according to Kohlberg's stages of moral development" is a sign of moral defiance (pp. 460-461). However, Kohlberg's moralization stages are based on (a) normative order, (b) utility consequences, (c) justice or fairness, and (d) ideal self, whereby adulthood assumes the construct of meaning-making out of interactions with the environment. In this case, individuals can then construct their own moral judgment in any environment.

Also, moral development theories have rightly pointed to the natural differences in gender. The gender element is constructive, is based on natural tendencies, and can assist on gender considerations (genderization). In the moral development texts, there is a constant classic debate on gender differences based on Gilligan and Kohlberg's views (Jorgensen, 2006; Noddings, 1986). According to most texts, Kohlberg assigned ethics of justice to masculinity; Gilligan on the other hand assigned ethics of care to femininity (Jorgensen, 2006; Flanagan, & Jackson, 1993). Genderization has dominated theoretical discussions and it is still contentious (Noddings, 1986; Jorgensen, 2006). Moralization based on gender is still presumptuous and flamed by the war of 'different voices' (Gilligan, 1986) and natural orientations (Rest, Thoma, & Getz, 1986). Yet, Rest et al. (1986) stated that the contention is rather expected and is intensified by Kohlbergian and Gilliganian followers. Whereby the mere mention of Kohlberg brings *ethics of justice,* perceived with the lenses of masculinity; likewise, the mere mention of Gilligan stirs up female biases towards *ethics of care* and femininity sentiments. Gilligan, Ward, Taylor, and Bardige (1988) made it clear that Gilligan's stand against *"the tradition of Piaget, Kohlberg, and other cognitive developmentalists"*. Whilst Kohlberg is holding on to justice and critique as in a *moral rationality* (Rest et al., 1986).

In addition, the genderization debate in moralization simply means to give each gender group an equal but different attention. Genderization of moral reasoning is a growing concern and a sense of individuality, femininity, and interconnectedness between individuals (Rest et al. 1986, p. 111). If that proposition is held among scholars then male and female students may certainly be different in orientations, in cheating behaviour, but not necessarily in *receptivity* and *responsiveness* (Noddings, 1986). Moral reasoning studies must therefore consider this debate critical (Nunner-Wininker, 1993; Jorgensen, 2006) to erupt a constructive thinking in gender sensitivity, and public correctedness. Even though most recent studies in Ghana found no significant differences in gender when it comes to leadership styles, opinions, perceptions, participations, and aptitudes (Edwards & Entsuah, 2019; Edwards & Aboagye, 2015; Dampson & Edwards, 2017), it is still debatable because of sociocultural and natural differences. But compare that with studies in Portugal where adolescents proved significant gender differences in their citizenship orientation and characterization (Dias & Menezes, 2014).

### 2.2  Adolescence and Cheating Behaviour

Many Ghanaian SHS students (aged between 15 and 19) may be classified as young or early adults, teenagers, or adolescents but still in the school system.  Adolescence is a stage where in terms of maturity, moralization theorists agree that their sense of morality may be self-centered rather than the *preference for others* (Bee & Bjorklund, 2004; Bjorklund & Bee, 2008; Dias & Menezes, 2014; Lovett & Jordon, 2010). These students are fond of falling short of moral sensitivity and objectivity and are vulnerable in the school system where they may decide to go contrary to social norms (Dais & Menezes, 2014). According to Dais and Menezes, most of these adolescence students are developing their ego, personality, identity, and are prune to peer pressure in *'breaking*

*rules'*. Edwards and Entsuah (2019) citing Steinberg and Morris' work in 2001, mentioned that teenagers are ready to satisfy their social groups and their peers within the framework of Bronfenbrenner's ecological model.

Based on Bronfenbrenner's ecological model perhaps this characteristic of adolescence behaviour leads to most studies' claim of a predictive cause and effect for cheating among students based social motivations (Steinberg & Morris, 2001), academic self-efficacy (Curren, 2014), and personal goal orientations deficit among failing students (Goldstein, Davis-Kean, & Eccles, 2005). However, this predictive behaviour is yet to be proven empirically in Ghanaian literature and other sociocultural environment (socialization). This leads to the need for scholarly critiques to ascertain the predictions in a cultural context validity.

Nonetheless, examination cheating behaviour has attracted researchers' interests, because of moral development, moral reasoning, and ethical issues (Rettinger & Jordan, 2005; Danielsen, Simon, & Pavlick, 2006). Researchers are looking at MR as an indicative of cognition of soundness in judgment or not (Rachels & Rachels, 2007); education researchers are examining the capacity for someone to provide a *moral-problem-solution* based evidence or a moral framework for *'cheating or not cheating'* in examination (Edwards & Entsuah, 2019). MR should lead to choices of *'right'* or *'wrong'* based on a cognitive evaluation of consequences, opportunistic orientation, and levels of developmental determinants in any given environ. Moreover, such moral determinants emanate from sociocultural practices, traditional norms, societal interpretations, plus sociocultural philosophies (Rachels & Rachels, 2007).

Students' cheating during examination is critical among young adults. In 2017 a total of 117,306 WASSCE private candidates in Ghana had their examination results investigated for suspicion of malpractices (Ghanaweb.com, 2017). In another instance, the following year 1,873 candidates were allegedly involved in various examination malpractices (Ghanaweb.com, 2018). The social media is always raising concerns on the authenticity of WAEC examination results. CB is a phenomenon engrained in students, according to the media report. Jimoh (2009) raised the same concerns about what is keeping Nigeria students interested in cheating. (Nigeria is part of WAEC's jurisdiction anyway). Onuka and Durowoju (2013) attempted to set the concept of malpractices straight and to redefine the agents, agency, and route of avoidance. Michaels and Miethe (1989) tried to understand this phenomenon by applying the theories of deviance to academic cheating among young adults. The conclusion was that "although studies of academic cheating are often not theoretically driven … cheating is similar to other forms of deviance behaviour" among adolescents (p. 1), and it is so cancerous than researchers realize or acknowledge. Against this background is the concept of authenticity of academic results (Gao, 2012; Nath & Lovaglia, 2009). Nath and Lovaglia ralied for solutions to help authenticate learning results.

### 2.3 Academic Dishonesty and School Integrity

The integrity of examination results is dependent on the trustworthiness of what happened at the examination administration stage. Examination results propagate learning outcomes and should not be compromised (MoE/GES, 2014). When academic results are tainted it compromises trust and institutionalized dishonesty. Nath and Lovaglia (2009) mentioned that factors determining cheating at examination vary but yet it is dependent on the *normative atmosphere* where cheating is either acceptable or unacceptable and remains punishable. In the case of multiple choice test, Nath and Lovaglia saw cheating affecting the level of learning and institutional reputations.

Many researchers are lamenting that cheating is now epidemic in University examination, and are asking how can society believe in results from university? Institutions that are not able to check cheating are prone to losing their integrity, credibility, and respect for their students (Muralidhan & Gaur, 2018). The authors lamented that institutionalized cheating behaviors, as it happens in India, has damaging consequences and should be stopped for "the youth generation to achieve their goal by hard work and ethics" (p. 594). It is more critical, prevalent, and of concerns at the secondary school level where the adolescents (graduates) are expected to have achieved a certain level of moral attributes (Chilver-Stainer, Asser & Perrig-Chiello, 2014). Students must achieve certain competencies, literacy, numeracy, and skills for employability. But these students are prune to cheating for 'unwarranted' results because of institutional neglect. These students are to be engaged in productive activities

within the society even if they choose not to continue their education (Chilver-Stainer et al., 2014). Research is yet to examine thoroughly the impact of such malpractices on the job market in the balancing act of knowledge production, productivity, and skills acquisition for the national human capital. Progress may be compromised.

Again, Muralidharan and Gaur (2018) cited Jordan's three categories of cheating at the school level as (i) *Neutralized* (cheating behaviour that does not harm others), (ii) *Semantic differential* (positive or negative cheating), and (iii) *Other attitude* (not classifiable). At the institutional level, according to Muralidharan and Gaur "cheating is an act of lying, deception, fraud, trickery, imposture, or imposition employed to create an unfair advantage often at the expense of others" (p. 549). Without checking examination malpractices at schools, Edwards (2019) advocated that it compromises ethical teachership in the art of influencing learning outcomes. By an institutionalized offering of *'helping hand'* the work of teaching is flawed, cheating for students to score higher in learning defeats the basic philosophy of learning assessment in education. The feat of the moral domain for *leadership for learning* is also flawed and compromised unnecessarily (The Cambridge Network, 2014). 'Helping' students to cheat as a school and failing to deal with colleagues staff in cheating act is tantamount to allowing crime to prevail, and disrupting the faith surrounding institutional performances and authentic results. For any form of cheating, according to Miller, Shoptaugh and Wooldridge (2011), is an *academic-integrity responsibility,* which defiles "ownership of integrity through attitudes, beliefs, and behaviors that support the role of the entire academic community (individual students, cohorts, and faculty) in promoting a climate of integrity rather than simply being the responsibility of professors [teachers]" (p. 170).

### 3.0 Methods

*3.1 Research Design and Sampling*

The research design adopted was causal comparative to examine the association of *ex post-facto* events of moral reasoning (MR) (as a dependent variable) and WAEC examination results (independent variable) without any experimentation among categorical groups (Fraenkel & Wallen, 2006; Gay, 1996). According to Gay (1996), "causal-comparative studies attempt to establish cause-effect relationships, correlational studies do not" (p. 322). The focus of this study was on gender and schools categories role in any causation. The sampling technique was that of a multi-stage – i.e., first stage was convenient sampling of schools (i.e., labeled A, B, C and D for anonymity), followed by a purposive sampling of examination candidates to provide the data and characteristics needed (*sampling homogeneity*), and then a census sampling of all examination candidates (N=2,520) in the four SHSs was used to be able to compare their aggregates of their WASSCE results eventually.

For ethical reasons, however, school authorities, parents and students were informed of the academic purpose of the study. This was because of the use of WASSCE data and the sensitivity of the subject matter concerned. In the process of data collection, administrators (who served as gate-keepers) had to explain the purpose; made students to understand that it was purely an academic exercise; and that it carried no punitive action, no reward system, nor are there any '*right* or *wrong'* answers. It was emphasized that participations were voluntary. Participants had to volunteer their responses. Ethically, this process was very important to the researcher to minimize examination stress over the survey questionnaire which had intense reading and thinking

*3.2 Data Collection Instrument and Analyses*

The instrument for data collection was a researcher-designed with a guide from similar instrument used for measuring MR through the use of moral scenarios (Loviscky, Trevino & Jacobs, 2007). The instrument was first tested on a similar but smaller sampled SHS students (n=420) in one of the regions (Edwards & Entsuah, 2019). The survey questionnaire had three main sections: (i) demographic (ii) an MR scenario and (iii) school examination sensitivity items. The MR items were based on a scenario: *"Helping Josephine during examination"* with a possible choice of recommended initial moral action/judgment: *"Should or Should not* and a *Neutral can't decide";* it is followed by a sub-section with rating of 12 question items for each of the scenarios regarding their moral thinking based on a Likert scale of 1-5 (5=great, 1=none) which are crafted on the pre-set

Kohlberg's moral development stages (as cited in Edwards and Entsuah, 2019, p. 146); and finally, a ranking of importance in moral judgment (P-value) to test respondents' moralization sensitivity to MR items of importance.

The third section of the questionnaire had four items based on Jordan's three categories of cheating as (i) *Neutralized* (cheating behaviour does not harm others), (ii) *Semantic differential* (positive or negative cheating), and (iii) *Other attitude* (not classifiable) (as par the review of Muralidharan & Gaur, 2018) to solicit students' opinion on institutional sensitivity to authentication of WASSCE results. Question items such as: *To what extent do you thinking cheating in examination affects your school's reputation*? *Do you think people should believe your exams results when others cheat?* and *"to what extent is cheating an issue in the school?"* were asked. Respondents had a Likert scale 1-5 (5=very great extent, 1=not at all) to respond. The entire exercise took about 20 -30 minutes with the students seated in their respective examination halls during WASSCE exercises in May-June 2017/2018 academic year.

A second data set came from the school archives - thus, the final WASSCE results from each participating school were collated. This is also available to the public at the WAEC's website. The focus was on general four core courses: i.e., *English, Mathematics, Social Science and Integrated Science.* These are courses that offer candidates the chances to enter any tertiary institution in Ghana. Analyses reported descriptive statistics, graphical forms, and inferential statistical tests such as independent t-test, ANOVA, cross tabulations and Chi square. All these were to test the null hypotheses at the significance level of an alpha ($p<0.05$). The use of graphical presentations were intentional for visual comparison, emphasis, and clarity in interpretations.

## 4.0 Results and Discussions

### 4.1 Results

#### 4.1.1 Demographic results:

The response rate was 99.0 % with very few missing data. There were 1404 male (55.8%) against 1112 female (44.2%) adolescents. Below is a graphical cross-tabulation (figures 1 & 2) showing gender against age and school categories respectively. Majority (81.0%) were between the ages of 16 to 18 (n=2059), only few were below the age of 16 (2.30%) and above the age of 18 (16.70%).
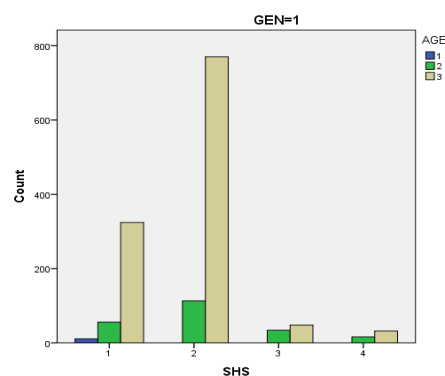


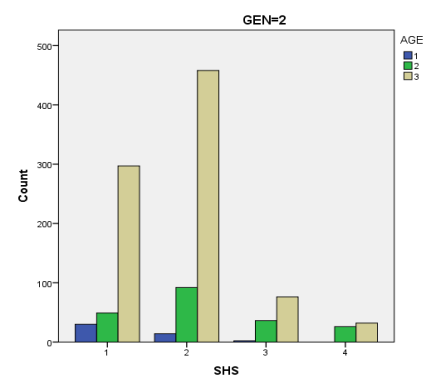| Figure 1: Cross-tab showing gender (male), age, and schools distibution counts | Figure 2: Cross-tab showing gender (female), age, and schools distibution counts |

#### 4.1.2 Research Questions

RQ#1: *What differences in levels of moral reasoning regarding examination malpractices are caused by gender categories?*

To answer this question, cross tabulation Chi square tests and the independent sample t-test, were performed. First, table 1 is the cross tabulation of gender and the SHD scores indicating that male students always fall short in percentage wise than the female in all the permutations.

Table 1: Cross Tab of Gender Scores on Initial Judgment Decisions (N=2512)

| Gender | Should | Can't Decide | Should Not | Total |
|--------|--------|--------------|------------|-------|
| Male | 718 (51.2%) | 388 (27.6%) | 296 (21.2%) | 1402 (100.00%) |
| Female | 594 (53.5%) | 343 (30.9%) | 173 (15.6%) | 1110 (100.00%) |
| Total | 1312 | 731 | 469 | 2512 (100.00%) |

The female (53.5%) group was more affirmative of their initial judgment action as compared with male students (51.2%). Another significant result in the cross tabulation is the higher percentage of female students (30.9%) who *could not decide* unlike the male (27.6%) on actions to take, probably due to the feminine orientation of the ethics of care.

Table 2: Chi-Square ($\chi^2$) Test Results on Gender Differences for Various Scores

| Itemized Score | | Value | df | Sig (2-sided) |
|----------------|--|-------|-----|---------------|
| Initial Decision | Pearson $\chi^2$ | 12.98[a] | 2 | 0.002 |
| | Likelihood Ratio | 13.13 | 2 | 0.001 |
| SSS (Simple Sum Scores) | Pearson $\chi^2$ | 94.82[b] | 46 | 0.000 |
| | Likelihood Ratio | 100.45 | 46 | 0.000 |
| P-value | Pearson $\chi^2$ | 58.72[c] | 22 | 0.000 |
| | Likelihood Ratio | 61.35 | 22 | 0.000 |
| Aggregate MR | Pearson $\chi^2$ | 229.69[d] | 102 | 0.000 |
| | Likelihood Ratio | 260.55 | 102 | 0.000 |

    a.    0 cells (.0%) have expected count less than 5. The minimum expected count is 207.24.
    b.    24 cells (25.5%) have expected count less than 5. The minimum expected count is 0.44
    c.    3 cells (6.5%) have expected count less than 5. The minimum expected count is 3.54
    d.    86 cells (41.7%) have expected count less than 5. The minimum expected count is 0.44

Chi-Square results in table 2 indicate that the differences in moral reasoning (MR) caused by gender categories for the SHD scores, $\chi^2$ (2)=12.98, p=0.002, that of the SSS scores, $\chi^2$ (46) = 94.82 at p=0.00, and P-value, $\chi^2$ (22) = 58,72 at p=0.00 are all statistically significant. The aggregate MR scores caused by gender is also critical ($\chi^2$ (102) = 229.69, p=0.00), plus the likelihood ration = 102. All these may be interpreted as showing significant differences caused by gender.

Table 3: Independent t-test for differences in moral reasoning caused by gender group      (N=2514)

| | | | | | | t-test for Equality of Means | | | 95% CI of the Difference | |
|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | Sig. (2-tailed) | Mean Difference | Std. Error Difference | | |
| | Gender | n | Means | sd | t | df | | | Lower | Upper |
| SHD | 1 | 1402 | 1.70 | 0.80 | 2.53 | 2510 | 0.012* | .08 | .03 | .02 | 0.14 |
| | 2 | 1110 | 1.62 | 0.74 | | | | | | | |
| SSS | 1 | 1402 | 36.41 | 8.44 | 4.83 | 2510 | 0.000* | 1.65 | .34 | .98 | 2.32 |
| | 2 | 1110 | 34.76 | 8.59 | | | | | | | |
| P-value | 1 | 1402 | 4.95 | 2.59 | 4.18 | 2510 | 0.001* | .43 | .10 | .23 | 0.63 |
| | 2 | 1110 | 4.52 | 2.47 | | | | | | | |
| Agg. MR | 1 | 1402 | 14.35 | 3.12 | 5.79 | 2510 | 0.00* | .72 | .13 | .48 | 0.554 |
| | 2 | 1110 | 13.63 | 3.06 | | | | | | | |

*Key:*  *1 = male (boys), 2 = female (girls).*  *CI* = Confidence Interval
    *\* significance at p=0.05*

Finally, the t-test results in table 3 indicates that the SHD judgment action scores had a statistical significance, $t(2510) =2.53$, $p = 0.01$). The SSS also showed similar significance, $t(2510) = 4.83$, $p = 0.00$; and the P-values of 1st most important ranking, $t(2510) = 3.25$, $p= 0.00$) too. Gender groups showed significant differences.

*RQ 2:    What differences in levels of moral reasoning are caused by schools' categories in comparison with their WAEC examination results?*

To answer this research question, a cross tabulation of scores in MR are compared. Followed by a ANOVA test of variances conducted for significance. Then the aggregated MR scores are used for the purpose of simplicity to compare with two subsets of data later in answering research question three: (i) opinions on examination malpractices and (ii) the WASSCE results from the four schools. The examination results from the schools labeled as A, B, C and D serve as the IV (independent variable).

Table 4:   Cross Tabulation of SHD sub-set of MR Scores with Schools          (N=2514)

| Schools | Should | Can't Decide | Should Not | Total |
|---------|--------|--------------|------------|-------|
| SHS-A | **281 (49.91%)** | 180 (31.97%) | 102 (18.12%) | 563 (100.00%) |
| SHS-B | **621 (49.80%)** | 332 (26.62%) | 294 (23.58%) | 1247 (100.00%) |
| SHS-C | **151 (60.16%)** | 69 (27.49%) | 31 (12.35%) | 251 (100.00%) |
| SHS-D | **259 (57.18%)** | 150 (33.11%) | 44 (9.71%) | 453 (100.00%) |
| Total | 1312 | 731 | 471 | **2514** |

*Bold text for emphasis and item distinction*

Table 5 shows the cross tabulation of schools against sub-sets of MR has majority responding *Should*, SHS-C (60.16%), SHS-D (57.18%) and the least SHS-D (9.71%) saying *should not*. The differences in responses at the various schools are not significant.

Table 5: One-Way ANOVA Showing Moral Reasoning Differences Caused by Schools

| Variable | Source | Sum of Squares | df | Mean Square | F | Sig (p) |
|----------|--------|----------------|----|-----|---|---------|
| Shd Decision | Between Group | 20.736 | 3 | 6.912 | 11.72 | 0.000 |
| | Within Group | 1480.927 | 2510 | 0.590 | | |
| | Total | 1501.663 | 2513 | | | |
| SSS | Between Groups | 4677.892 | 3 | 1559.297 | 21.88 | 0.000 |
| | Within Groups | 178809.060 | 2510 | 71.239 | | |
| | Total | 183486.952 | 2513 | | | |
| P-values | Between Groups | 168.620 | 3 | 56.207 | 8.76 | 0.000 |
| | Within Groups | 16112.445 | 2510 | 6.419 | | |
| | Total | 16281.066 | 2513 | | | |
| Aggregate MR | Between Groups | 789.55 | 3 | 260.18 | 27.71 | 0.000 |
| | Within Groups | 23568.02 | 2510 | 9.39 | | |
| | Total | 24348.57 | 2513 | | | |

The ANOVA test in table 5 shows the mean differences caused by the school categories, SHD, $F(3, 2510) = 11.72$, p=0.00, SSS, $F(3, 2510) =21.88$, p=0.00, the P-values, $F(3, 2510) = 8.76$ , p=0.00, and the aggregate MR, $F(3, 2510)=8.88$, p.=0.00) are all statistically significant. Differences caused by school categories cannot be ignored; the school environment can affect moral reasoning.

*RQ3: What is the relationship between MR and WASSCE results of the schools?*

To answer this question, the aggregated MR scores and two subsets of data: (i) opinions on examination malpractices and (ii) the WASSCE results from the four schools are used. MR was correlated with the WASSCE results from the schools. Tables 6a *(Appendix A)* and 6b *(Appendix B)* show the WASSCE results obtained from the schools' achival data. The focus is on the core subjects: *English, Mathematics, Social Studies* and *Intergrated Science*. It shows majority had excellent scores (A grade) for Social Studies in all the schools. SHS-

C had students (30.9%) scoring A-grades in most of the subjects. Only few (3.87%) of the candidates failed in Social studies in SHS-C. The percentage passed in SHS-C was relatively higher (88.70%) in Social studies. Again table 6a *(Appendix A)* shows in the other schools (SHS-A, SHS-B, and SHS-D) nobody scored grade A (excellent) in most of the subjects. Overall, the results can be considered as good by WAEC standards, because to go to tertiary institutions students ought to have grades C6 (credit) or better in six subjects including the core four subjects. (Detail results are avalible in table 6b or Appendix B).

But then the research question focused on the relationship between MR and examination results, which is important to discuss the effects on authenticity. A correlation results are shown in table 7 below.

Table 7: Measures of Association between WASSCE Grades and Moral Reasoning

| WASSCE Grades and MR | R | R Squared | Eta | Eta Squared |
|---|---|---|---|---|
| A1 * MR Total | **-0.20** | 0.02 | 0.63 | 0.40 |
| B2 * MR Total | **-0.06** | 0.04 | 0.51 | 0.26 |
| B3 * MR Total | **-0.07** | 0.01 | 0.51 | 0.26 |
| C4 * MR Total | 0.06 | 0.00 | 0.44 | 0.20 |
| C5 * MR Total | 0.06 | 0.00 | 0.44 | 0.20 |
| C6 * MR Total | 0.02 | 0.00 | 0.42 | 0.18 |
| D7 * MR Total | 0.04 | 0.00 | 0.39 | 0.16 |
| E8 * MR Total | 0.06 | 0.00 | 0.44 | 0.19 |
| F9 * MR Total | **-0.02** | 0.00 | 0.58 | 0.33 |

In comparison with MR scores and examination results and their MR levels, table 7 shows negative correlations among some of the scores or grades. For instance, A grade, (R= -0.20), grade B2, (R= -0.06), grade B3, (R= -0.07) and that of grade F, (R= -0.02). This may be due to the fact that outliers were few in the normality MR curve, and that those outliers may have scored excellent (grade A) or failed (grade F) to skew results. Also Table 7 shows a small but significant correlations (*ranging from -0.02 to 0.20*) that can only be explained by the levels of MR showing a very little correlation, either positive or negative, with the various schools' WASSCE results. Thus, the data do not establish any strong relationship between MR and examination results (R= +/- 0.20).

*RQ4: What are the opinions of SHS students regarding examination malpractices in their schools?*
To answer this question, opinions were sought from the students regarding examination malpractices in their schools (Table 8). When students were asked: *To what extent ... do you thinking cheating in examination affects your school's reputation,* majority (62.1%) responded great extent (M = 1.43, SD = 0.58). Next item: *Do you think if others cheated, to what extent should entire exams results be cancelled because it affects all,* less than half (46.4%) responded to some extent (M = 1.82, SD = 0.71).

When the students were asked: *Do you agree that cheaters at examination affects results and the school should be punished,* more than half (51.2%) responded (mode) was to some extent (M = 1.89, SD = 0.69). And finally*, when they were to express their opinion on *Cheating become part of the school life, but it's OK because no one should fail,* a significant majority (87.1%) said to a great extent it is a school culture (M = 1.15, SD = 0.41).

Table 8: Opinions of Students Regarding Examination Malpractices     (N=2510)

| To what extent … | M | sd | 3 f (%) | 2 f (%) | 1 f (%) |
|---|---|---|---|---|---|
| *Do you thinking cheating in examination affects your school's* **reputation***?* | 1.43 | 0.58 | **1558 (62.1)** | 833 (33.0) | 117 (4.7) |
| *Do you think if others cheated the entire exams results should be* **cancelled** *because it affects all* | 1.82 | 0.71 | 899 (35.8) | **1170 (46.4)** | 440 (17.5) |
| *Do you agree that cheaters at examination affects results at the school and should be* **punished** | 1.89 | 0.69 | 751 (29.9) | **1285 (51.2)** | 473 (18.9) |

| | | | | | |
|---|---|---|---|---|---|
| *Cheating has become part of the school life,* **but it's OK** *because no one should fail* | 1.15 | 0.41 | **2196 (87.1)** | 261 (10.3) | 52 (2.1) |

*Mean of Means = 1.57, sd = 0.60      * Key: 3 = Great extent, 2= Some extent, 1= Little extent*

### 4.1.3   Hypotheses Test Interpretations

$H_{01}$ : according to Tables 2 and 3 results show a statistical significance which means the null hypothesis that stated that there is no statistical significant differences in the means of moral reasoning caused by gender categories has to be rejected.

$H_{02}$ : according to Table 4 the null hypothesis in a one-way ANOVA that stated that there is no statistical differences caused by school groups is also rejected.

$H_{03}$: finally, according to Table 7 the study hypothesis that stated there is no statistical significant relationship (correlation) between the levels of MR caused by school categories is accepted (ranging between R= -0.02 to -0.02).

### 4.2   Discussions

The difference in moral orientations within the gender categories is a confirmation of the gender debate. Genderization in MR is based on classical theories towards ethics of justice among males (boys) and ethics of care among females (girls) by Kohlberg and Gilligan (Gilligan et al., 1988; Kohlberg, 1984; Loevinger, 1986; Noddlings, 1984). The difference is an indication of initial justice (masculinity) verses care (femininity) orientations in the gender categories. But the genderization theory still holds, and that MR studies must therefore consider this debate critical (Dias & Menezes, 2014; Jorgensen, 2006).

Overall, the evidence available in table 6a (*Appendix A*) supported the classical theoretical notions propounded by Kohlberg and Gilligan, but disputed the idea that the gender debate is gradually fading in argument (Rest et al., 1986) because of society becoming more homogeneous in thinking about genderization in moralization (Loevinger, 1986; Kohlberg. 1984). Hence, the findings challenged the line of thinking that the gender debate on moral reasoning may be obsolete. It should be noted that culturally, moral issues are sensitive. Rest and colleagues' (1986) stipulation about Kohlberg and Gilligan having gradually accepted both sides of the argument is just scholarly thinking; rather their respective differences in context is still relevant and culturally sensitive. The narrative is still holding on the premises that natural differences in gender is important in moralization.

In addition, the findings proved a statistical significance contrarily to the results of a smaller sample which had characteristic homogeneity of similar SHS students in Ghana (Edwards & Entsuah, 2019). The students' moral reasoning towards defiance of normality is not proven empirically, yet in the light of gender categorization the natural orientation biases still exist and should be acknowledged. And it is more pronounced with a larger sample (N=2510) showing the statistical significance. Thus, in the midst of a natural similitude, or 'sameness', variations in moral reasoning may naturally exist caused by gender. Hence, the findings support the proposition for 'otherness' (the value of others) in 'sameness' (Edwards, 2015).

Next, differences in school environment according to the opinions of students may account for their MR regarding CB based on evidence from statistical tests. This affects institutional reputation and believability of examination results. Authorities have to be mindful institutional reputation, sensitivity, and consequences (Muralidharan & Gaur, 2018). Even though the correlation results proved differently, the proposition of Starratt (1994; 1990) calling for ethical school building still stands, and that the evidence supported the assumption that schools need to be morally oriented against cheating behaviours. Students take opportunity in lapses.

Also, the data may show negative correlations (R=-0.02) between MR and WASSCE results because of the belief in less sensitivity to receptivity and responsiveness when it come to moral issues at adolescence

(Noddings, 1986). The caution is that this may however be wrongly interpreted as examination results can be authenticated irrespective of the measure of MR levels of candidates. Particularly based on the moralization concept, that Kohlberg's model of moral reasoning suggests that motivation for learning changes from childhood to adulthood, and that SHS students may grow to accept examinations and its associated school culture of cheating. Thus, those with higher levels of MR may end up cheating even the more or less depending on moral sensitivity levels, the opportunity available or created in a school environment. The findings confirm early studies that students' moral reasoning were not associated with cheating behaviour (Academic Dishonesty, 2015). Rather CB at the school level is usually based on *opportunistic venture* and more on the adolescence chancy culture of defiance and CB allowed by school system or leadership (Beerthuizen, et al., 2013).

The evidence in data confirmed CB is rampant in schools and somehow it affects the students' psyche in cheating during examination. Where there seems to be a systemic malpractices at the school level, the notion of WAEC cancellation had a slight majority (51.2%) effect on students' psyche against cheating. Importantly, if 87.1% of student respondents confirmed that the issue is systemic at the schools, then authorities have to find solutions. According to the table 8, students saw malpractices in examination as prevalent in the schools. This calls for an ethical teachership (Edwards, 2019) and building ethical school (Starratt, 1990, 1994). If 87.1% of students responded that the culture of cheating is part of school life, and it is acceptable, that should raise red flag among stakeholders, especially teachers, in any education system.

Additionally, data confirmed that students (51.2%) are more concerned about punishments and cancelations of their results not necessarily about the school's reputation nor institutionalized cheating culture. This is a conventional, normative moral stage issue (Kohlbergian stages). Muralidharan and Gaur (2018) lamented on institutionalized cheating in India. Ghanaian education authorities must emulate same because students can be more self-focused than global-focused in their learning achievements and in their conventional morality preferences.

## 5.0   Conclusion, Implications, Recommendations and Limitations

### 5.1   Conclusion

First, the study is concluded on the premises that students are inclined to do what is right during examination based on their MR levels and inclination toward the *good-boy, good-girl* moral orientation (Bjorklund & Bee, 2008). They ought to understand that examination is part of their school life. But at a normative judgment (conventional stages) based on a crossroad framework of their moral development students are to be taught, reasoned with, and made to know the consequences. These students may cease any opportunity to 'cheat'.

Secondly, the data on differences in moral reasoning based on gender categories also showed statistical significance differences in the means scores because of their respective natural differences. Hypothetically, in a situation where one gender category can be skewed towards *justice* or *care* in a moral reasoning (Noddling, 1985) there is a cause for concerns towards a CB when there are lapses in invigilations. Evidence confirm normative preferences in moralization and that SHS students may act in responses to cases and opportunities.

Thirdly, most importantly, data comparison on the school categories affirm a uniform assertion that the school's ecosystem can cause CB which emanate from apathy and 'acceptable' norms. Students are gradually accepting the idea that cheating in examination is a 'norm' and part of the school culture. This can be worrisome because children are supposed to be grounded in moral obligations of doing what is *right* or *wrong* for the fear of consequences (Rachels & Rachels, 2007). Chi-Square scores and ANOVA analyses showed significant statistical differences among the school categories. And when their MR scores are compared with their school's WASSCE results, data showed negative correlations at the higher grades (A1, B2, B3) whilst others showed positive correlations, but not at statistically high correlations (ranging r=+/-0.02) to cause panic.

What it means is that MR scores have no significant relations with WASSCE results to warrant a total rejection of the authenticity of the WAEC examination results. Cheaters are opportunists and possible opportunities

should be prevented. Examination malpractices have become a global issue in authenticating learning results and possibly educational outlook, and the Ghanaian secondary school situation is no exception. Yet, the students are afraid of punishments and cancellations. That in itself should encourage examination authorities to be innovative to discover preventive measures. The issue of CB is acknowledged; but should not affect the legitimacy, the authenticity of examination results, and moral reasoning may not be the causation of such damning educational outlook universally.

Therefore even though literature is raising issues with CB globally, the school culture of CB evidences may affect statistical inferences of results. In this study the conclusion is that MR may not necessarily account for a significance cause in CB among SHS students in Ghana. Except the blame is on the overall school culture of 'aiding and abetting' and opportunities created by the lack of proper invigilation. It happened to Nigeria (Onuka & Durowuju, 2013). In this vain, teachership and school leadership have major roles to play in understanding the repercussions of CB on examination results. Ethical teachers are to be groomed to promote credibility when it comes to authenticity and the entire exercise of examination.

### 5.2    Implications

#### 5.2.1    Implications for Practice

Educational practitioners should examine such behaviours as flaws in our education system. Practical and pragmatic approach to best practices is needed for assessment in most education systems especially in sub-Saharan Africa. The traditional method of learning assessment which places too much premium on examination results is fueling cheating behaviours. Perhaps the practical approach should be training students to value knowledge acquisition, competency-based, and to acquire self-knowledge of what is moral and acceptable. WASSCE results should be fortified in our educational practices to avoid effects on believability of results.

Conceptually, Ghana's education system is not generating enough conversations along the lines of moral scenarios for doing what is right. Unlike the general practice of *'don't talk about sex'* as in the Ghanaian culture at the basic schools, we should rather encourage a practical discussion to expose 'ills' and 'corrupt practices' and 'casualties' in all cheating behaviours. Best practice is preventive measures. Consequences, punishments, should be drummed deep into the minds of SHS students because of CB practical implications on national human capital development.

#### 5.2.2    Implications for Policy

Further discussions on moralization, examination issues, and their appropriation in the sociocultural context of research in education must engage policy makers. Genderization should be examined in all cultural context. Corruption from early years is cultivated and nurtured, not inherited. The Ghanaian education system is yet to have a well-defined policy direction on preventive measures when it comes to examination malpractices; teachers aid and abet cheating, and therefore policy ought to be framed in ethical and moral leadership for both teaching and learning (Edwards, 2019). There is a quest for a strong moral dimension of teaching and learning as a share responsibility for policy leadership against schools/teachers who flaw. According to John Dewey, in a democracy education is life, policy leadership must be in effect to ensure that both the work of teaching and moral domain of students' learning are protected by law. Policy implication is blant: without codes of conduct and nondiscriminatory policing examination may lose its legitimacy. Education would be flawed and its potency plummeted if policies are not in place to protect the authenticity of examinations.

### 5.3    Recommendations

The first recommendation is that educational leadership should focus on building responsive rather than reactive measures. Responsiveness in the sense of leadership preventing CB that happens by opportunities. Moral reasoning can be instructional and non-instructional in nature. It should be part of Ghana education review for GES to establish comprehensive seminars for both teachers and students systematically and instructionally prior

to examination to sensitize students against all forms of examination malpractices. This can be organized at the district or circuit levels by Circuit Supervisors and also at school-based student assemblies.

Secondly, education systems should innovate other forms of assessment in learning. Examination should not be the only way to assess learning in secondary schools. GES should consider other forms of learning assessments tool that are consistent with the modern knowledge creation such as competencies-based assessment– i.e., more practical acquisition of knowledge and skills. The concept of lifelong learning is the future. Teachers and parents and stakeholders should be made to buy into the idea of lifelong learning rather than *'snapshot'* orientation of learning for examination. SHS students in particular should be interested in the moral essence of their learning and acquisition of knowledge for life. Those students and schools who adhere to strict satisfactory conducts should be recognized to serve as motivation for exemplary leadership in learning.

Thirdly, the authenticity of examination results should never be compromised. Examination is a great assessment tool for development and growth of both contents and curricula. Examinations serve as tools for the job market and employability. WAEC should tighten their grips on unwholesome activities, leakages, and fraudulent activities to avoid disbeliefs and questionable integrity of examination results. WAEC should campaign for ethics/morals framework in curricula reforms at schools before, during, and after examination exercises. SHS students should be made to ascribe to and sign a personal academic-integrity responsibility (Miller, et al., 2011).

Finally, it is recommended that educational researchers should investigate WAEC administration practices. Assessment based on chances and opportunities such as a 'sit-down', a 'snapshot' examination, 'at a stroke', 'chew and pour' are not the best practices to assess lifelong learning behaviours. More especially in the Ghanaian culture, era of mobile technology, examinations are too chancy. Education is too valuable to be left for chances; learning is a lifelong pursuant and it should be strategically planned focusing on behavioural changes.

*5.4   Study Limitation*

Study limitation is based on the causal-comparative design, which uses the quantitative paradigm. Research in moralization still remains intrusive, culture sensitive, and prune to biases in interpretations of quantitative data. In future to get the best evidence is to mix the methods by trangulating quantitative data with responses from 'narratives' and 'stories' qualitatively.

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Table 6a (Appendix A): WAEC Examination Results for the Four Selected Schools based on the Core Subjects (N=2508)

| Schools | Subject | A1 f (%) | B2 f (%) | B3 f (%) | C4 f (%) | C5 f (%) | C6 f (%) | D7 f (%) | E8 f (%) | F9 f (%) | Candidates Present | Pass % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHS - A | Social Studies | 8 (1.87) | 35 (7.97) | 89 (20.29) | 115 (26.20) | 96 (21.87) | 78 (17.77) | 16 (3.64) | 2 (0.46) | 0 (0.00) | 439 | 99.90 |
| | English Language | 0 (0.00) | 21 (4.78) | 29 (6.60) | 93 (21.18) | 129 (29.38) | 149 (33.94) | 13 (2.96) | 4 (0.91) | 1 (0.23) | 439 | 98.86 |
| | Mathematics | 0 (0.00) | 26 (5.92) | 45 (10.25) | 143 (32.57) | 136 (30.98) | 76 (17.31) | 6 (1.37) | 5 (0.11) | 2 (0.46) | 439 | 99.43 |
| | Integrated Science | 0 (0.00) | 38 (8.67) | 66 (15.03) | 123 (28.01) | 132 (30.06) | 69 (15.72) | 7 (1.59) | 2 (0.46) | 2 (0.46) | 439 | 99.08 |
| SHS - B | Social Studies | 27 (10.76) | 33 (13.15) | 107 (42.63) | 26 (10.36) | 24 (9.50) | 18 (7.17) | 10 (3.98) | 5 (1.99) | 0 (0.00) | 251 | 99.60 |
| | English Language | 0 (0.00) | 0 (0.00) | 25 (9.96) | 50 (19.92) | 31 (12.36) | 83 (33.05) | 29 (11.55) | 17 (6.77) | 15 (5.98) | 251 | 93.60 |
| | Mathematics | 0 (0.00) | 0 (0.00) | 0 (0.00) | 1 (0.40) | 6 (2.41) | 58 (23.29) | 91 (36.55) | 81 (32.50) | 11 (4.42) | 249 | 94.40 |
| | Integrated Science | 0 (0.00) | 12 (4.78) | 62 (24.70) | 45 (17.93) | 40 (15.94) | 66 (2.69) | 22 (8.76) | 3 (0.80) | 0 (0.00) | 251 | 99.60 |
| SHS - C | Social Studies | 360 (30.93) | 139 (11.94) | 274 (23.54) | 88 (7.56) | 75 (6.44) | 96 (8.25) | 59 (5.07) | 28 (2.41) | 45 (3.87) | 1164 | 88.70 |
| | English Language | 8 (0.69) | 29 (2.49) | 241 (20.74) | 232 (19.92) | 165 (14.18) | 302 (29.95) | 122 (10.48) | 47 (4.04) | 18 (1.55) | 1164 | 83.90 |
| | Mathematics | 97 (8.33) | 49 (4.21) | 118 (10.14) | 44 (3.80) | 57 (4.90) | 178 (15.29) | 179 (15.38) | 194 (16.67) | 246 (21.13) | 1164 | 46.7 |
| | Integrated Science | 50 (4.30) | 64 (5.50) | 190 (16.32) | 94 (8.08) | 113 (9.71) | 199 (17.10) | 232 (19.93) | 166 (14.26) | 56 (4.81) | 1164 | 61.00 |
| SHS - D | Social Studies | 56 (9.98) | 63 (11.23) | 208 (37.68) | 71 (12.66) | 58 (10.34) | 64 (11.41) | 31 (5.30) | 5 (0.81) | 5 (0.81) | 561 | 92.69 |
| | English Language | 0 (0.00) | 2 (0.36) | 37 (6.60) | 124 (22.10) | 121 (21.57) | 158 (28.16) | 80 (14.26) | 25 (4.46) | 14 (2.50) | 561 | 78.79 |
| | Mathematics | 0 (0.00) | 8 (1.43) | 89 (15.86) | 55 (9.80) | 96 (17.11) | 187 (33.33) | 80 (14.26) | 36 (6.42) | 10 (1.80) | 561 | 77.54 |
| | Integrated Science | 7 (1.22) | 42 (8.57) | 142 (28.98) | 86 (17.55) | 80 (16.55) | 133 (27.14) | 62 (12.65) | 7 (1.43) | 2 (0.41) | 490 | 87.34 |
| Total | Aggregated grades | 613 | 561 | 1172 | 1390 | 1359 | 1914 | 1039 | 627 | 427 | 2415 | |

*Bold text for emphasis and item distinction*
*Source: School administrators/West African Examination Council (WAEC) 2019, unconfirmed). Bold text for emphasis only.*
*Key: Grade:A1= Excellent, B2= Very good, B3= Good, C4 to C6 =Credit, D7 & E8 = Pass, F9=Fail (According to WAEC, the WASSCE Exams Authori*

Table 6b (Appendix B): Comparison of Moral Reasoning (MR) Scores and WAEC Examination Results from the Schools  (N=2508)

| MR Total | | Pass % | A1 | B2 | B3 | C4 | C5 | C6 | D7 | E8 | F9 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.67 | Mean | 100.00 | 0.00 | 12.00 | 62.00 | 45.00 | 40.00 | 66.00 | 22.00 | 3.00 | .00 |
| | Std. Dev | . | | . | . | . | . | . | . | . | . |
| 11.83 | Mean | 89.00 | 360.00 | 139.00 | 274.00 | 88.00 | 75.00 | 96.00 | 59.00 | 28.00 | 45.00 |
| | Std. Dev | . | | . | . | . | . | . | . | . | . |
| 13.00 | Mean | 86.33 | 2.33 | 16.67 | 85.33 | 63.67 | 69.00 | 134.33 | 57.00 | 20.00 | 9.00 |
| | Std. Dev | 8.021 | 4.041 | 22.301 | 58.586 | 19.502 | 33.867 | 52.013 | 25.865 | 14.731 | 6.557 |
| 14.00 | Mean | 99.00 | 0.00 | 38.00 | 66.00 | 123.00 | 132.00 | 69.00 | 7.00 | 2.00 | 2.00 |
| | Std. Dev | . . | | . | . | . | . | . | . | . | . |
| 14.17 | Mean | 47.00 | 97.00 | 49.00 | 118.00 | 44.00 | 57.00 | 178.00 | 179.00 | 194.00 | 246.00 |
| | Std. Dev | . | | . | . | . | . | . | . | . | . |
| 14.33 | Mean | 97.33 | 174.00 | 169.50 | 379.00 | 396.50 | 392.50 | 535.50 | 273.25 | 160.25 | 108.25 |
| | Std. Dev | 3.786 | 293.559 | 261.597 | 533.721 | 663.016 | 645.817 | 920.524 | 510.584 | 311.167 | 212.511 |
| 14.50 | Mean | 84.00 | 8.00 | 29.00 | 241.00 | 232.00 | 165.00 | 302.00 | 122.00 | 47.00 | 18.00 |
| | Std. Dev | . | | . | . | . | . | . | . | . | . |
| 14.67 | Mean | 94.00 | 0.00 | .00 | .00 | 1.00 | 6.00 | 58.00 | 91.00 | 81.00 | 11.00 |
| | Std. Dev | . | | . | . | . | . | . | . | . | . |
| 16.33 | Mean | 80.50 | 29.00 | 49.50 | 139.50 | 104.50 | 104.50 | 138.50 | 124.00 | 84.00 | 28.00 |
| | Std. Dev | 27.577 | 29.698 | 20.506 | 71.418 | 14.849 | 12.021 | 85.560 | 152.735 | 115.966 | 39.598 |
| 17.17 | Mean | 89.00 | 0.00 | 14.00 | 41.00 | 133.50 | 128.50 | 117.00 | 43.00 | 15.00 | 8.00 |
| | Std. Dev | 14.142 | 0.000 | 16.971 | 5.657 | 13.435 | 10.607 | 57.983 | 52.326 | 14.142 | 8.485 |
| Total | Mean | 87.69 | 72.12 | 66.00 | 170.24 | 163.88 | 159.88 | 225.00 | 122.24 | 73.76 | 50.24 |
| | Std. Dev | 15.274 | 164.489 | 131.849 | 270.172 | 320.401 | 312.226 | 440.813 | 244.638 | 153.652 | 113.498 |

# 'Road to the Belt' of a Female Mixed Martial Arts Fighter

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**Abstract**
The inclusion of females in the male-dominated sport of Mixed Martial Arts (MMA) has come a long way. Slowly but surely, women in the sport are coming to its prominence. Social changes, combined with adjustment in the society's work force, have caused the creation of new spaces, such that women started to occupy sectors that formerly belonged solely to men. This paper looked into the factors contributing to the successful engagement of a Filipina professional fighter in the sport. A qualitative approach was used, specifically employing observation, unstructured interviews, data cross-checking, and netnography, to explore multiple realities of the subject under study. It yielded the following results: no serious personal problems were encountered being a female fighter in professional MMA; acceptance in the community was highly visible, and social media is both an ally and a detractor in the chosen career. Culture, team cohesion, fan support coupled with strong determination, conviction, and hard training were found to be key elements in pursuing the goal. While gender is a factor to be considered in the sport, it was not seen as a diminishing factor in the pursuit of dreams. As a highly televised spectator sport internationally, sports marketing was seen as an important tool in promoting the participation of female athletes in professional MMA. The "road to the belt," thus, goes beyond the plan for the title in the "big fight." It is, rather, the recognition of the athlete in the pursuit of championing the female in the MMA in the Philippines.

**Keywords:** Culture, Gender, Motivation, Social Media

## INTRODUCTION

### Background

Mixed Martial Arts (MMA) has never been an elite boys club, but the representation of how women are, used to be relegated to a few promotions around the world (McCarter N., 2017). Slowly but surely, women in the world of Mixed Martial Arts are coming to its prominence. It is no longer the men's exclusivity on every 'fight night,' but there will always be a showcase of women fighters. In the past hundred years, especially in the previous half-century, women have slowly been accepted to attend physical education, athletic training, and participation in various sports. Scanlon (2016) stated that the delay in admission is surprising; unfortunately, it may be because

the current inclusion of women in public sports is a motion to social equity, not a response to public demand. Controversies in sports have not diminished, but still a topic of sports in society (Coakley, 2016). According to Pope (2011), social changes, combined with adjustment in the productive system, have caused the building of new spaces, so men and women started to occupy work sectors that formerly belonged exclusively to men. Hermes et al. (2016) claimed that women's subordination to men is a fixed point in a society's mindset. Regardless of profession, women will usually be depreciated, which indicates men and women do not have the same identity, even though they operate in the same trade.  Men who engage in MMA express their masculinity by amplifying the symbols and behaviors that make up typical and stereotypical male behavior. Hyper-masculine expectations to be stringent and aggressiveness are encouraged in the social world of Mixed Martial Arts (Tompkins and Borer 2017). MMA is not considered a sport for women - even by the women who participate in it. Tompkins and Borer (2017) said that it results in a lack of understanding of why women engage in such an activity

This qualitative case study looks into the factors that drive a Filipina with an indigenous upbringing, a professional Filipina MMA fighter to participate in the sport, given the issues on gender, lifestyle elements, and influence of culture that concerns her everyday life. It provides insight into understanding women's experiences and the reasons why they choose to integrate themselves into this male-dominated sphere. The "road to the belt" is a colloquial term for pursuing the championship title, what drives a female fighter to train harder, spend more time in the gym and focus more on what might be her moves for the next "big fight." Tompkins and Borer (2017) stated women's actions are often probed, challenged, and redefined.  A woman must learn to navigate her direction, negotiate her deals, and balance equally sets of expectations in the sport, those that define being a woman and those that define being a professional fighter.

**Review of Related Literature**

*Mixed Martial Arts and the Female Gender*

Mixed Martial Arts-commonly called as MMA is a combat sport in which two competitors attempt to accomplish dominance over the other by utilizing a wide variety of permitted martial arts techniques in full contact, including striking and grappling (Harpold, 2008). History traces MMA back to the "pankration, which employs a brutal blend of boxing, wrestling, judo, and karate (Scanlon, 2016). The big money prize for *pankration* is the reason for the lure of violence shared by western ancient and modern cultures, a more complicated question that has puzzled scholars.

Mixed Martial Arts (MMA) is not anything new, according to the website OC Kickboxing and Mixed Martial Arts by Sullivan (2017), the only thing 'new' about MMA is how much money and media coverage it presently enjoyed. But historically, most civilizations developed combat sports as well, for entertainment during peacetime and to keep warriors fit and ready for wartime.  The reason why martial arts are associated with Asia is that it tended to preserve their fighting forms more than the Western countries that relied more on the use of weaponry that they tend to forget their martial arts.  Although most cultures have had MMA in some form or another (Viola, 2019). Egypt, Greece, Thailand, the Philippines, Japan, India, Brazil, and others somewhat preserve their culture of combat. Mixed martial arts is mainly a male-dominated sport that has recently opened its doors to the female gender. Even though it has been staged way back the mid-1990 in Japan (Brick, 2009), female MMA fighting in Asia is not as widespread as it is with the men in the region. With growing spectatorship, due to appearing in several elite fight events and later on appearing in television shows, also starring in a blockbuster movie,  professional MMA organizations in the United States started inviting women to compete. With the fast growth of the sport, many MMA promotions have begun to open women's divisions for more female fighters.

Starr (2011) also argued that the evolution of gender roles in our society had shown a considerable change in the representation of women in sports. The substantial increase in female participation in athletics seems to be related to the rapid growth of many professional women's sports leagues (Scheadler and Wagstaff, 2018) and the increase in coverage and representation of the female athlete in the world of sports (Starr, 2011).  Also, women have started to completely change how they are viewed in the sporting world by participating in male-dominated

sports. The movement shows considerable changes in how society views women in the sporting world by challenging stereotypes against them (Wilde, 2017; Fink, 2016). With the development of gender roles in our society, women take part in particular sports that were at once only related to the male gender altering the characterization of a female athlete. Women athletes nowadays are not only seen gently but also as a physically and emotionally empowered person that younger athletes can look up to (Chinurum et al. 2014; Starr, 2011). With this scenario, the future of women's sports will likely become even more prominent in our society, basing on how gender roles are considerably changing not only in the sporting world but in other areas of our culture.

Attraction to Mixed Martial Arts

Women who are attracted to Mixed Martial Arts did not just find out for themselves that they want to join MMA overnight. Mierzwinski and Phipps (2015) found out that women who are attracted to 'masculine' sports, competition, and mimetic violence drew their masculine habit upon their histories of involvement in such male-marked spaces. For female athletes who do hard martial arts such as MMA, prior experiences had helped them feel at relative ease within male spaces. Even though Spencer ( 2009) Mierzwinski and Phipps (2015) have stated that MMA is one of the two (the other is Muay Thai) of the most brutal and physically challenging of such martial arts and labeled  as unacceptable for women to compete in, yet the growing popularity of the sport and high profile female fighters have increased (Mathews and Channon, 2015).

While other women are motivated by fitness and self-defense in joining martial arts, Mathews and Channon (2015) stated that researchers had described women who do MMA as someone who finds the enjoyment and embodied pleasure that accompanies their action.  Exciting experiences albeit controlled aggression and violence are being detailed repeatedly in women's combat sports (McNaughton, 2012) The physicality, risks, challenge and fear empowered women, increasing their self-confidence and giving them 'an unbelievable buzz.'

The female MMA athlete sought competition and found solace in this aspect.  Mierzwinski and Phipps (2015) found out that women who participate in MMA find 'the fascinating thing' about MMA is being able to apply the skill in a violent context. Because of this reason, MMA had provided a stage to express their emotions through mimetically violent means.

**Theoretical Framework**

The participation of female fighters in Mixed Martial Arts has been a new topic in the field of sports, particularly sports sociology. In this particular case study, the underlying theories of motivation of a female MMA fighter are set to augment arguments regarding the problem of the study.

*Self-Determination Theory*

Several studies have attempted to explain sport persistence and dropout concerning participants' underlying psychological characteristics (Otis, Grouzet, and Pelletier, 2005). Ryan and Deci (2000), as cited by Calvo et al. (2010), states that Self-Determination Theory (SDT) differentiates among three types of behavioral guidelines that are associated with varying marks of self-determined motivation. One form of motivation is the *intrinsic motivation* that refers to those conditions in which people easily engage in activities that they find to be interesting and enjoyable and can deliver the chance for learning. People who are intrinsically motivated are involved in specific activities for their own sake, for pleasure, fun, and satisfaction. The second type of motivation is *extrinsic motivation*; according to Chirkov et al. (2003), individuals engage in activities because they value the outcomes associated with it. Such results could include rewards, acknowledgment, and admiration. Extrinsic motivation lies in a range that is a duplication of the internalization procedure that differs from those self-determined to the less self-determined (Calvo, 2010). In each situation, people act in such a way to attain the desired outcome, such as a tangible reward or to avoid potential punishment. The third category of motivation is known as *amotivation*. It represents a psychological state in which people lack either a sense of efficiency or a sense of control concerning attaining the desired result. In other words, the people who

experienced amotivation are not able to adjust themselves to their behavior (Ntoumanis et al., 2004). In this circumstance, the person does not feel in control, and the locus of control is external (Ryan and Deci, 2000).

Calvo et al. (2010) used SDT to explain the sport persistence and dropout in adolescent athletes, where they propose that people have three essential needs that must be satisfied in the societal setting. The first need is to have a sense of autonomy in performing an activity, which includes being volitional and acting in such a way as to symbolize one's integrated sense of self (Deci & Ryan, 2000). The second is to perceive relatedness with others in the community of involvement. The third fundamental need is to recognize competence with the activity, which is extensively regarded as central to the expression of motivation in the sport context (Reinboth and Duda, 2006 as cited by Calvo et al., 2010). Research supports the view that people who experience higher levels of satisfaction of the three fundamental needs express more self-determined forms of regulation.

*Goal-Setting Theory*

Locke and Latham (2006) stated that the foundation of the goal-setting theory lies in the principle that "much human action is purposeful, in that it is directed by sensible goals." The decision to set a goal is an outcome of discontent with present performance levels. Setting a goal should include establishing a structure that leads to actions and behaviors which progresses the unacceptable performance. Having to set a goal will change a person's response to work to achieve the target goal. The goal-setting theory speculates that people will channel their effort toward accomplishing their goals, which will, in turn, affect performance. This goal-setting theory states that the basis of motivation is the desire and intention to reach a goal. If persons or teams find that their present performance is not attaining desired goals, they typically become motivated to intensify effort or change their strategy (Locke and Latham, 2006).

Goal mechanisms influence performance by increasing motivation to achieve set goals (Latham, 2004). These mechanisms are inputs that influence performance in groups or individuals, which serve to improve attention to a goal, energy in following a target, persistence in achieving a purpose, and ability to manage to reach a goal. When a person or team can emphasize attention to behaviors that will accomplish a goal, they also divert attention away from actions that will not achieve the goal. Goals energize people to spend more effort based on the exertion that is required to reach a particular goal. Goals likewise lead to a persistent pursuit of achieving the goal by providing a purpose for that pursuit (Latham, 2004). Finally, when people are pursuing a goal, they will seek effective means for accomplishing it, mainly if the goal is challenging to achieve. Locke and Latham (2002) state that taking an objective is the first step in creating motivation. Goal commitment is the degree of willpower one uses to achieve an agreed goal. Two primary factors that help to improve goal commitment are importance and self-efficacy. Importance refers to the aspects that make attaining a goal important, including the expected outcomes. Self-efficacy is the certainty that one can achieve its goal (Locke and Latham, 2002).

**Methodology**

This case study sought to explore the motivational factor to reach the goal of the subject under investigation in participating in Mixed Martial Arts, owing to the idea that there is a growing participation of females in the professional MMA events. This study used a qualitative approach to explore multiple realities of subjects under study; Weaving (2014) mentioned that the qualitative method is more appropriate when seeking women's experiences of sport. Observation, unstructured interview for data cross-checking and netnography (looking for fan reactions in web portals, promotional material, Facebook reactions, uploaded videos- you tube) - a research method that specially designed to study cultures and communities online (Bowler G. , 2010) was employed since it enables the researcher to cover core topics while having the flexibility to explore additional related topics of interest.

The authors seek out information on the internet of a possible subject to be studied. After thorough searching, the author found out one who will fit the set criteria: (1) Female (Filipina) professional MMA fighter (2) fought not only locally but internationally (3) who is already recognized by sports media (4) who have appeared in a broader audience and (4) who is put in line as a contender for the championship belt in one of the most

recognized MMA organization in the world.  In this case, the ONE FC (that stands for One Fighting Championship) that is Asia's largest MMA promotion launched 2011 and through partnership with FOX and ESPN STAR Sports, reaches over 70 countries with its broadcast (The Mirror, 2016). When the subject to be studied was already determined, and meeting the criteria for selection, the author seeks the subject. The researcher did a series of arrangements through telephone calls and schedule appointments. The researcher went to the subjects' training venue and observed the subject along with the other 'fighters' while training. The team where the subject is a member is one of the infamous MMA teams in the country and the whole of Asia. After her practice, the author together with the subject does informal interviews either to cross-check the data gathered in the internet and ask about in-depth information that would further elucidate aspects of the subjects perception and personal history regarding her quest for the championship belt in her category (atom weight- competitors weighing at or less than 105 lb.) in One FC event.

**Results**

*Case Presentation*

The subject is a 29-year-old female Mixed Martial Arts fighter with a professional (international and local) fight record of six (6) wins, two (2) losses, and zero (0) draws as of counting during the initial stages of the study. The subject was nicknamed the 'Conviction' because of her tenacity in the 'octagon' (the fighting canvas enclosed by a fence made of such material so that it will not allow an opponent to fall out or break through it onto the floor or spectators). The nickname was given to her by fight promoters because of her firm conviction not to give up in a fight. During one of her early matches, even though she was already put on choked position by her opponent - for most was already about to give up, she was able to release herself after the ordeal with so much determination. The subject is a member of *Team Lakay*- a Baguio City-Benguet based Mixed Martial Arts group composed of members who came from the local area (Goyder, 2014). The team holds a distinct recognition in the field of professional MMA in the Philippines and Asia through its fighters who continuously made waves of winning streaks during their fights.

The subject grew up in Baguio City Philippines, the ninth (9th) child in the family, being the second youngest and has a twin brother (a total of 10 siblings). Her laborer and a former boxer father and a mother who stayed home to be a housewife raised her and her siblings. It was also worth noting that the subjects' ancestry was the Ifugao tribe from her father's side in the family.  Life for her was not as comfortable as the average Filipino family, as they continue to look for means to live on a day to day basis.

When the subject was growing up, she always admired her father- who does professional boxing and enjoys listening to his stories about his boxing career. By the time she was in high school, she had tried her luck for her schools' boxing team. It was not because her father had pushed her to go into boxing, but she was the one who pursued the sport — admitting that at first, attraction to the boxing coach was her motivation to join the schools' boxing team,  but later on, found out that she has potential in the sport. She continued for a year but got bored and transferred to Wushu, which according to her, is a more 'challenging' sport.  Later on, she was able to attend the national competitions and became a champion in her category. In her bid to attend college, she got an athletic scholarship using Wushu as her ticket.

In college, she enrolled as a criminology student. It was something that would fit her ideals both as a woman and a wushu athlete.  During her time at the University, she would go into several national tournaments and win her fights. While in the university, education for her was put on the sidelines every time she attends tournaments and trains for these events. She was thankful for the generosity of her university professors that she was able to pass her courses. Her academic life is just one of her challenges along the way in the university as she makes her way to becoming a female Wushu champion in her category in the Philippines. But during her last year in college, she has to transfer school because academic works were already toiling on her. The reason was due to her absences in school because of her competitions and training as a member of the country's national Wushu team. She has to find a way for her final year in the academe, or else she would not finish a degree. According to her, it

was her family's wish to have a college diploma, at least. With so much academic adversity on her part, she was able to finish.

After graduating in college, her coach in college- who identified her talent in Mixed Martial Arts, introduced her to the head coach of *Team Lakay*- to hone her to the discipline. The head coach of the team took her in and trained her to be a professional fighter. For almost a decade, she was training hard in the gym; she spent nearly 6 hours a day in training, or more hours if she has a significant fight event scheduled. She knew about the monetary benefits in the professional MMA bouts. It was something that amateur sports do not have. Financial reward became her motivation, but as the years of becoming a female fighter have put a hold on her, it was already becoming more of a passing incentive. Her drive to prove her worth, the recognition and admiration, her passion for the sport, the satisfaction she gets from fighting has been coequal reasons to the former.

Family is one of the subject's motivations in her longing to be the best female fighter in her category. But she did not have full family support when she was starting in MMA. In the past, when she competes in the wushu (Sanda- sparring form), she would make it secret to her mother. She said that her mother does not know about the particularities of MMA. Her mother, being someone who does not watch the television and could not read the papers, does not have an idea of what was going on with her daughter. By the time she became a professional female Mixed Martial Arts fighter, it was still a secret to her parents. It was only her twin brother and her boyfriend who knew about her MMA activities.

Later on, as she made her way to a higher level of professional matches, where she was drafted to fight her way to the championship bouts. She eventually told her parents about it. Her father was still hesitant about her fighting in MMA events, mainly because she was a girl. But she proved her father wrong and later became her number one fan, even giving him tickets to watch her fights. But her mother still cannot accept her chosen profession, giving her daughter the 'silent treatment' even though other people tell her that many Filipino MMA fans admire her daughter. Though her mothers' treatment to her has been the same throughout the years, during her present interview (2019) on national television for her upcoming fight in a foreign country, she dedicated her bout to her ailing mother, stating that she does not need any more motivation for her match, she said that there is only one thing in her mind, her upcoming fight is for her family. She is still striving to make her way to becoming the champion in her chosen sport.

The subject also considers her team as her other family. Her coach was very instrumental in her becoming an MMA fighter and considers him as his teacher, trainer, and 'father,' and her teammates became her 'brothers and sisters.' Not related by blood but connected by camaraderie and aspirations. The strong sense of loyalty is present among members of her team, and accordingly, it was this element that holds her to be with her team for many years until the present. She never felt unaccepted by her squad. From the moment she entered the compounds of the training center-as a soon to be MMA fighter, until the time she was a contender for the belt, she felt the care and protection from the group. Years later, she was also considered as one of the role models who are highly regarded by her juniors in the gym. Outside of the gym and MMA, the subject is admired by her peers by being a fighter and a friend.

The subject has also dreamed of becoming a wife and a mother, a move that she has to plan further. But because of her present dream of becoming a female MMA champion in her category, those dreams shall be on halt until she achieves her goal. When asked about her perception of fighting in a violent sport, especially those who are not practicing Mixed Martial Arts, the subject stated that she does not find her game as teaching her to be violent. Being in a sport that draws out blood every time she enters the 'octagon' is her choice, and there is this cathartic feeling that she has every time she fights or just merely training in the gym.

Her training as a female fighter is not an easy one. She has to stay long hours in the gym, especially when preparing for a fight. She has to grapple with her co-fighters, shadowbox a lot, carry weights, and to run through tough terrains to prepare her body. Not to mention maintaining her weight by not overeating even though she needed the extra food. She has to have an extraordinary discipline both on her body and mind. Being on the 'octagon' during fights is also tough, as she has to deal with her rival in the "cage" both physically and mentally.

She claims that other fight spectators even shout unacceptable words to her while fighting but keeps her stand and continue to struggle with an 'attitude.' Even after every match, she has to have a tough attitude because there are times that she has to deal with internet bashers and fight fans of the other competitor. She experienced bullying on the internet, just by defeating an opponent and not finishing a fight with a knockout. Because of this, she continuously shrugs off negativity, not to dampen her spirit as an MMA fighter. Social media has become her mode of communication to the outside world and also became a way for her fans to follow her status and career. Social media is a venue where she regularly checks how her popularity grows and how fight fans accept her. According to the subject, it is also a way for her team to gauge their next move. Being on television and being famous in social media is also a way to fight promoters to notice her and can be her ticket to be drafted. She admits that being highlighted in media is a huge factor as professional MMA fighters. The more she becomes famous, the more fight she will have, and the more significant compensations she will acquire, the more she enjoys a surmountable recognition.

The subjects' road to being drafted to fight in the 'octagon' was not easy. According to the subject, there are times that she was told to be ready for a fight, but eventually, it will turn out that it will not happen or the other way around wherein she will be informed by the fights' promoters that she will have to fight in a brief notice. She got defeated four times through one (1) submission and three (3) decisions but won eight (8) times twice by technical knockouts, two (2) submissions, and four (4) decisions (msherdog.com, 2019). To be ready for a fight, she will always see to it that she is on top condition. But sometimes she is just carried away by the lure of the 'championship belt' and the price that comes along with it, that she admits can become a 'hazard' when she is not prepared for a 'big fight.' She has to train harder, be watchful of her diet and activities, be safe and sound, and void of any injury that would cause her not to fight. This attitude and character have been very instrumental for her just-concluded fight where she won against her rival from another country — thereby putting her to be the next in line for the championship belt of her category in the professional MMA fight of the ONE championship.

**Discussion and Conclusion**

This exploratory case study on a Filipina professional Mixed Martial Arts fighter explores the perception and motivation of the female gender in a male-dominated spectator sport. This research has found out something unique about the Filipino culture and how this uniqueness can contribute to understanding how gender and society can influence professional MMA as a spectator sport.

Culture as an Influence in Sports Participation

Wheeler (2011) found strong evidence that family cultures were the chief factor underpinning individuals' inclination to play sport, revealing that there were sporting cultures transmitted through the families. These cultures, according to Wheeler (2011), were perhaps best described as 'habituses' or sets of beliefs and behaviors concerning sport with historical and social dimensions. It was apparent that the parents held specific goals concerning their children's participation in sports and used a set of strategies and practices to achieve such goals. These goals, plans, and preparations were shaped by the parents' developmental histories (Wheeler, 2011). Such as what is told about the subjects' relationship with her father. Where her father was instrumental during her childhood days in looking for a particular model in a soon to be her sports inclination. Even though her father was not directly involved in her training, he served as the subjects' model and inspiration in her early sports endeavors.

In the Philippines, Cordilleras, in particular where the subject's ethnic lineage came from (as well as her team), has high visibility of culture as the primary influence on what type of sport to participate. The Cordillera's possess a culture of courage, wherein most athletes who came from this part of the country will most likely participate in sports that challenge their concept of courage (Goyder, 2014). The Asian female fighter has come a long way (from the early 1990s) where no women could be seen in the television knocking or pounding out her other female opponent to the present where fight fans of female bouts anticipate in MMA. In Asia, where early people are more akin to the culture of ethnic warfare long before the introduction of firearms (Sullivan, 2017),

people have embraced the idea of MMA as a way to represent something very unique to its people. It was common knowledge in the Cordilleras (Philippines) that people (both men and women) who come from this particular indigenous lineage possess a great deal of courage (Scott, 1965). In the history of these people, Scott (1965) wrote how these people have been at the forefront of battles and without fail, never bat an eyelid to pursue their enemies (men or women). This embedded kind of courage is in their blood, and hand to hand combat is one practice that they are very familiar, a reason that could explain why, the subject views the activities in her sport as not violent, but a mere spectator sport where she could express herself and her identity.

Women's involvement in such sport helped the participant to be 'more assertive.' The emotional exhilaration felt during the competition is somewhat of an emotional 'roller coaster' where the subject experienced while inside the 'octagon.' It was like having that kind of challenge and being able to think under pressure. Training in hard combat sports such as MMA with regular opportunities to engage in mimetic violence offers women a counterbalance to their everyday lives (Hermes et al., 2016). As such, athletes just like the subject under study who practice MMA expressed in this research, that they did not feel physically challenged or emotionally stimulated enough by their former sports and in some cases previous martial arts, where a low intensity and high degree of control had led to relative boredom, dissatisfaction, and frustration. Outstanding women athletes in this particular arena have helped to create a new image of feminine strength, determination, and self-confidence, linking women to achieving a higher degree of acceptance in formerly male restricted fields (Channon and Mathews, 2015). The subject under study has not reported any personal problems that arose due to her being a female fighter in a male-dominated combat sport. She was accepted and treated as one of them, even though her teammates knew that she possesses a high degree of feminism. Her treatment as a family member and vice versa in their team is evidence of the uniqueness of a culture-bound characteristic. Also, even despite taking her a long time to admit to her parents that she has been fighting in MMA events, it was reported that it was rewarding on her part when she finally admits it. Her attitude towards this matter is understandable in Filipino culture. As stated by Tarroja (2010), Filipino families, whether traditional or non-traditional families, indicated that physical togetherness or physical connection, emotional connection, parental involvement, communication, family resiliency, care and support, intimacy are essential factors that keep a family together. Relationships can either be biological, legal, or emotional. Hence, friends and other non-relative are, at times, considered part of the family. Relationship, coupled with a strong 'family tie,' strong team cohesion, and support- may it be by blood or camaraderie, are crucial elements for continues motivation in pursuing the goal. Even though there is a very evident association of the monetary benefits in the professional field of MMA, the passion and dedication of the subject towards the chosen sport are also as durable. The subject due to her natural talent as a martial artist has proven that with perseverance and tenacity, there is no display of gender disparity in her hometown. Gender as an issue is not seen as a diminishing factor since there is a strong sense of culture displayed in the pursuit of dreams. One can see the growing acceptance of female fighters by a wider audience through the internet portals that featured the subject of this study.

'On the Road to The Belt'

The professionalization of Mixed Martial Arts events has always come into play, attributed to the nature of the sport and how it is promoted and packaged. MMA personifies the notoriety of the competition, and this is what makes it unique (Channon and Mathews, 2015). It was not long ago that no one has thought that the Ultimate Fighting Championship (UFC) event will feature a pair of female fighters. Genia (2013) opined that no one would ever dream of female MMA fighters having lead roles in blockbuster Hollywood films or that there will be professional fight organizations that would feature only female competitors, or a female fighter would demand a salary higher than some of her male champion counterparts. No one would believe in present times, that there was a time when female MMA events are not even featured in an unknown TV station to witness two women fighting each other in a glove weighing four ounces in a cage and would treat it as a "freak show" quality. The subject under study has come a long way, practicing the sport for more than a decade until arriving on where she is now in the field of professional MMA fighting in Asia. The attitude as displayed by the subject regarding her decision to change her sport from the amateur to professional has not been influenced by her close relationship with her own family, but rather from perception of the others towards her ability to do the sport and her potential to become a champion. Besides, it was self-perceived reasons; dedication, conviction or passion,

and hard training that is prevailing in the pursuit of excellence in the chosen sports career. She attributed it not only because she has the talent and skills or her coaches but also to fight promoters and fans who noticed her capacity and ability in the sport.

Sports promoters, media coverage, sponsorships have played a key role in molding the female MMA fighter to be the next in line for the championship bout. The popularity of MMA continues to grow apace, attracting new fans all the time (Dan, 2014). It is the sports promoters who make the sport reach all phases in society. It is through them that female fighters have been selected to go in the next fight. But what comes in play is the objectives of the sports marketing that aimed at enhancing corporate image,  increasing public recognition, establish identification with specific target audience to fight or to anticipate competitors' actions, giving credibility to the product with the combination of quality, involving the company with the community and event promotion (Hermes et al. 2016). In this case, the product that sports' marketing is 'selling' is the female fighters that make their bout in the 'octagon.' Publicity in any form is still publicity. The amount of media coverage, recognition, and identification by the general public has been one of the pulling factors that could make a female fighter fight the "big fight" (Bricks, 2009) in the world stage of MMA. The subject of this study conferred that a female fighter has to be in the headlines for being on the top of her game, and the facilitation of media coverage is a significant factor.

But the fact that she is a known personality due to her being a professional MMA fighter could not escape the different perceptions of fight fans. The social media has shown her how "brutal" words are in hurting one's pride (Weir T., 2012; Pegoraro 2010), and internet bullying can dampen fighter fortitude.  But the subjects' display of mental toughness (Harpold, 2008) on being a female MMA fighter, family, and friends support has helped her in many occasions. Besides, she sets herself on pursuing her goal of becoming a champion in her weight class or category in professional MMA. Far from the amateur competitions in wushu, she opted to be a fighter in the 'octagon' and earn an amount of money that would help defer her and her family's expenses, getting the right to brag and being recognized (Reiss, 2012).  The benefits of a professional MMA fighter are not only recognition but on the monetary aspect as well. This notion has become an important mentality that resulted from a competitive environment. The subject adopted a perspective of competition not tied to beating others; instead, it focuses on improving past performance, earning bigger pay, and fulfilling potential.

The subject under case study is the only drafted female member in her team for undercard fights- which is a step closer in vying for the title, not because she was found to be as pleasing as Ronda Rousey or Gina Carano or other superstar MMA athletes (Mc Carter, 2017).  But she has proven that because of passion and sheer determination coupled with great conviction, she had passed on from being a 'bumpkin' on the neighborhood to be someone who represents strong and willful women. Thanks to the attention given to her by media coverage through the internet and television. Being a Filipina Mixed Martial Arts professional fighter, the subject under the case study is slowly making her way to the attention of a wider following. With her just-concluded fight wherein she was one of the members of her team who won their bouts, she was immediately picked on to have another fight the soonest possible. In this scenario, the fight promoters have found someone in the persona of the subject under case study the elements of a "potential market."  Hermes et al. (2016) indicated that it was possible to see how the sports marketing and management of MMA events, use the feminine gender as a strategic advantage in holding events.

This case study corroborates the research of Hermes et al. (2016), where they stated that they recognized the female fighters' distinctiveness on every fight and training as they pursue their chosen career. To have greater confidence in their potential and doubt their inabilities. Teammates are rather good companions than male and female persons outside of their team, and the trainers require equal diligence from both, without gender distinction. Relationships like this also progress for the sports marketing in Asia, because it makes room for professionals (both female athletes and trainers) to perform their activities thoroughly, being recognized and most importantly, adequately paid.  Thus, the event managers include female fights in MMA events attraction, aiming to increase viewers. Those who comment on internet blogs about the Female MMA fighter will say that women in professional MMA have distinctive achievements of being apart from any other women, will have so much attention. Top promotions for women's fight in MMA will always include those who have showcased

extraordinary achievement in the field and possess beauty at the same time- which the subject of this study possesses. Starr (2011) wrote women who participate in sports have been discouraged from participating in male-dominated sports, but despite all this, women have continued to break stereotypes and cultural barriers that have prevented them from engaging in "manly" sports.

While gender is a factor to be considered in the sport, it was not seen as a diminishing factor in the pursuit of dreams. As a highly televised spectator sport internationally, sports marketing was seen as an essential tool in promoting the participation of female athletes in the field of professional Mixed Martial Arts. The "road to the belt," thus, goes beyond the plan for the title in the "big fight." It is, instead, the recognition of the athlete in the pursuit of championing the female in the MMA in the Philippines.

## Recommendations

As a contribution to the academic discourse, this case study posts a challenge to future researchers to explore more on the topic of women's participation in a highly combative sport-MMA, boxing, wrestling, among others. Since this study presented the unique culture of a Filipina, specifically with a high cultural affiliation and how this attachment has been instrumental in pursuing a personal goal in a male-dominated spectator sport.

The limitations encountered in the conduct of this case study have been lack of previous studies on the subject of MMA, especially in the Philippines (even in its surrounding region), and especially on women participating in this type of event. It is also worth considering that even though the Philippines has been a forerunner in practicing ethnic driven combative sports-boxing (Panuntukan), grappling (Dumog), foot fighting (Sikaran), and weapon-based arts (Kali and Escrima) (Sullivan, 2017). MMA is a new spectator sport for the Asian people, more so with the subject under study who during the initial staging of the research is the only Filipina professional fighter (from an ethnic upbringing) vying for the championship belt in her category. The findings in this research can be a potential contributor to having a sense of the universe in this given sport. The result of this case study cannot be generalized to the wholeness of the competition and its competitors in the sport of Mixed Martial Arts (MMA).

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# Man From Bidel's Perspective

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**Abstract**

Human being and its originality have been in philosophers, mystics and scholars thought in periods of history; anthropology is the main point in human studies. Bedil Dehlawi is one of the famous mystics and thinker, has pointed precious words about human in his poetry which is considerable and analytical. As most of illustration about this phenomenon relates to the definition human provides for himself, and this issue sometimes helps thinkers and poets to describe the position of human in highest level which the other phenomenon and creatures can't reach, this specialty is because of the intellect and wisdom that human have, by this human can get the ability of solve the problems of his way, and achieve the highest point. The discoveries and invents of the extraordinary persons in contemporary world are the proof of this claim, Bedil has introduced human being as improvable, responsible and controllable over wishes, according to him human has the best attribution and different from other creatures, with such specialty human can omit the difficulty of his way and reach to the position that the other creatures cannot receive it. In this article, there is used the descriptive and analytical methods and library type research with reference to the sources.

**Keywords:** Human Being, Spirit of Human, Self-Knowledge, Self-Alienation and Contemporary Human

## Introduction

Human is one of the exception object and his understanding is the improvement and complement factor of this world, the ability and capacity exist in this object has made the main difference with other objects and creatures, the other creatures are lack of these characteristics; therefore, in all ideological schools, from east to west, human and his position are the related discussion among all the scholars such as Plato, Aristotle, Zoroaster, Buda, Confucian and Islam scholars, as Ibni Khaldon, Ibni Sina, Imam Ghuzali, Farabi, Ibn Arabi and other scholars have researched and provided various definition about human.

In Dari-Persian literature, the scholars have discussed more about human, humanity, nature of human and human task through valuable and precious words, nowadays such ideas have important and significant position for new generation. In this writing we are discussing about understanding of human in Bedil Dehlawi's points of view, because Bedil has philosophical ideas about understanding of human and position of humanity and accepting of responsibilities. Each of the mentioned components encourages the readers to the secrets of existence and positive role and encourage human to self-understanding and self-flourish.

Bedil likens human as a wide occen that the planet was not capable of dream, and it looks like foam on the beach in front of a man. This poet and philosopher claim that the outside world is not comparable with the endless glory of human and says:

Poem…….
Bedil deeply talking about human breathing and link it t the eternity, Bedil as human talks carefully and considers human from various aspects, when talks about human and human position, he pays more attention about those who can't see their self on that level, and should not feel despise, irresponsible and choose inhuman way, unlike Bedil claims human naturally has this position and efforts its magnifying and flourishing to reach the position that is the last target of human life.

<div align="center">
If you don't have a clean mirror in your hand<br>
The string of ignorance is not either in your hand<br>
Anything you have, that is your talent<br>
There is nothing in your hand but your hand
</div>

Bedil is one of the greatest poet with great thought, he does not allow human to accept ignorance and to collapse, rather he consider talent and rationality as the greatest virtues of man and his thoughts supreme. Bedil's poems can guide the new generation from wandering path to the clear way, and does not allow human being to trap in the mud of ignorance in the sludge, and keep away from the mystery of existence and his ascending course, rather it strengthens the inner abilities of human being and makes fertile pure energy in the body to meet all the requirements of his time.

**The importance of research**

As a human being has a high position, this article is more important to the readers in current time, because Bedil guide readers to the good moral and emphasizes and observing the characteristics of good human and says it's not impossible and unnecessary. So, being a better human is the inalienable right of each human. Bedil make the readers to believe that human dignity belongs to the beginning, almighty Allah has created human very pure, indeed Bedil presents the humanity to contemporary generation and he considers human as the one with full of love power and prevents human from selfishness, rebellion, unbind and deepened in velleity and illustrates better plot for self-respect and honorable life, which are more useful for readers.

**Research purpos**

People have been searching prosperity for  long times and busy for its finding, researchers look prosperity from differents points of views and linked it to the living world, the main purposes of this article is how man can achieve prosperity from Bedil's points of view, because Bedil forcuses to the highest prosperity and also thinks for the best one, which has link to the character, virtue, and humanity and can be important requirement of todays and future generations.

**Research question**

How does Bidel look at humans?

**Research hypothesis**

It has thought, Bedil had considered human being through two aspects and classifying human to material and spiritual dimensions.

**Materials and method**

The study and discussion of this article is descriptive and analytical and the type library type research. In this research the best poems of Bedil have chosen and analyzed to bring moral and motivation to reform the minds of youths, so different aspects of human being get the same dignity and presents to readers. Therefore, in literature review of this article, the books and articles published before with the same subject are used, and their effects are clearly visible in this writing.

**Literature Review**

Bidel Dehlavi is a unique person whose, literary, mystical and philosophical position is well known in the world, and researches and studies about Bidel's cognition in Afganistan are briefly mentioned: Divan Bidel was published in Peshawar by Mohiuddin Joqand in (1936). Another work entitled The Manifestation of God to Horizon and Breath was published by Salahuddin Seljuqi in (1345) in Kabul and also in other works, such as: The Situation and Works of Miza Abdul Qadir Bidel by Abdul Ghani Print (1351) Kabul; Bidel and the Four Elements, Asadullah Habib Writing ; Talmihan Industry by Abdul Hakim Khaksar, 30 Articles on Bidel Publishing (1365) Kabul by Mohammad Sarwar Pakfar; Bidel Thoughts by Faiz Kabli; Bidel Asir by Abdul Hamid Asir; Bidel Dehlavi's Rubaiyat by Akbar Behdarwand; and Things from the Heart about Bidel by Jawid Farhad; Armaghand Qadrdan by Abdul Shukoor Qadrdan and Key in manuscript by Kazem Kazemi.

**Review of the latest researches**

Less researches have been done about human being from Bedil's perspective, beside that here pointed out to the latest ones: Bidel poet of times by Asadullah Habib, Feature of a Complete human from writing documents of Abdullah Nasri human in Dari literature, collection of orientation and investigation ideas of Herat Association, mystics ideas of Bedil by Abdul Shukoor Qadrdan, Articles and speeches of Ustad Sami Rafi, Purveyors of Bedil by Mohammad Hassan Fitrat, ,Compare of Complete Human From Bedil and Hafiz work of Abdul Ghafor Arzoo, and some other researches glance about cognition and literary position of Bedil from various aspects.

**Man from Bidel's perspective**

1. Self-knowledge and self-awareness

Self-knowledge and self-consciousness have been recognized as one of the most important components of the universe. To all humanities, human cognition is more complex than the other wonders of the world, and these questions, who am I, where I come from, where I will go, are the first and basic questions of the human being universe.

Abo Ulmani Bedil considers the central problem of man to be the alienation of man, and he considers human perfection in human consciousness.

It is perfect to be aware of yourself
whether in the desert or in the solitude or in the well

(ghani, 1972 : 5)

In fact, if viewed deeply, human beings will never neglect their responsibilities under any circumstances and under any pressures, and will do nothing to disrupt the world and the Hereafter. The best and most credible source of human self-knowledge is the thinking and meditation of man himself, as Bidel puts it:

Bedil find the secrets of Almighty
Find the code of acquaintanceship
Unaware of right because of creature talking
Once prefer solitude and find Allah

(kazimi, 2007 :123)

Or that Bidel recognizes nothing outside of himself in this poem

Outside of you, if all is he, Bidel!
Don't look him, don't know him, don't read him, don't search him

(Kazimi, 2008 : 187)

And also the result of all the problems and obstacles come to human being is human himself

What to do about your deviance bla
That each particle has placed around bed in your home

(kazimi, 2007 : 54)

For Bidel, possessions and status in the world do not bring one to spiritual salvation, If the rulers are not adhere to the call of conscience, the law and the virtue, thirst and eagerness of power will destroy them. Therefore, human has to free himself from the material world and then start reforming the others; the act of portraying beauty is portrayed beautifully in the great environment.

You are in vain of good and bad
if you think yourself you become precious

(qandi aqha, 2004 : 89)

In Bidel's view, man is one of the most complex and mysterious phenomena whose understanding is impossible but the self-conscious, otherwise cannot reach the spiritual knowledge of others without his knowledge.

You are fire place for how long depressed
Long living with several deaths
You can capture by any part
Your sight, your interest and your eye
You're mystery of puzzle for puzzle
If you want to open your eye, open it

(rafi, 2010 : 46)

The mystical men's behavior cannot be out of their own, they are always travel in their own way, and by dealing with itself and its deep thinking it can overcome difficulties, impossibilities, or hopeless; and He has mentioned that:

Don't let others accused to you
That you are travel and traveler
Make the forget needs of this and that
Fly for yourself and do work of hundred worlds
If you are plotted with except haram
If you are Ka'bah you are dishonor home

(aqbal, 2000 : 34)

And in the following poem he states that whenever one knows a spark of philosophy of human creation, he has seen in his own eyes the enlightenment and the meaning of the secret of both worlds.

If you knew a little about yourself
You have seen the light of both worlds

(bahadarond, 1997 :123)

Whoever has to go his own way and become his own lamp, human are his own loser and friend, so human first find him and then consciously open way to himself in universe.

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2. Man and his interaction in society

Bidel recognizes the human being as a social being, and considers the foundation of society and a healthy community to be based on the principle of loving and being constructive. Bidel has disgraced the life without love, and considered love to be the greatest of all means of living in society, the family, between human beings, and even between man and Almighty Allah.

Love enough fills our body and life with loyalty
Yousof will call if you smile our cloths

(kawosh, 2002 : 21)

In expressing love and social relations, Bedil consider speech as the fundamental cognition of human in social relations. From Bedil's viewpoint cognition of society concerns to human speech, and nothing remain in the world but the speech.

Ignorance became knowledge by speech light
Knowledge is ignorance without speech express

(aini, 2005 : 88)

Bidel continues to say in the great environment that speech is greedy and evil, and speech reveals wisdom and ignorance, that if the world is mortal, speech is alive. Sustainability of life belongs to speech, the reasons that the prophets presented to their nations by speech It is said that humans are mortal as well, they are all gone, but their thoughts and speeches remain (soroush, 2000 : 359).

According to Bedil speech worth concern to the inner thinking and perspective and teach us that critic and writer of secret meaning and solver of the problems have to be solitude with his inner thought and goes deepen in his thinking to express precious and useful utterances and explained in his sonnets:

Any critic that caches our sense
When found words find solitude first

(habib, 1988 :49)

Bidel believes that if human beings have mastered precise speech skills, the interactions not to be with violent, but human societies to be heard through dialog and communication, to solve problems in the best way that a good human do. Bedil Dehlawi has beautifully pointed out in his sonnets:

Open lips like clamshell to get precious in your palm
Want ear that no mouth can work as

(kawoush, 2002 : 58)

One of the most important aspects of human interaction with society is friendliness, love for fellow and respect of human by human, and the basis of human rights today is universally debated. Every individual enjoys dignity, and the mystical scholars differentiate the true relationship from conventional altruisms and interactions, which are a wave of profit, dissemination, and a sense of self-interest, and this altruism is based on the notion of altruism. Considers True and spiritual love as a principle, and this connection is not only true knowledge, but it is the bond and unity of the two worlds.

As Bidel Mystic, like other mystics, portrayed this issue beautifully in his poems that in the universe there are the words and teachings from which one can learn and think and connect sense and serve as a tools for true knowledge; Because these two attitudes are merged together into the external world of the human and the inner world and the heart's consciousness. The two worlds become united and make a non-broken relationship.

There's a lot to be said, but no one is aware
If tow hearts get together become two worlds

(kawosh, 2016 : 259)

Co-talk has a profound effect on humans As long as fire has an effect on iron, true friend would only be available to human when the friendship between them rooted such a deep that their friendship and love were to be sacrificed, and Bedil would regard this bond as permanent and that the waves had a root in ocean. And this ocean never gives up on this friendship.

My friends, who have a great deal to do
Weaves are also embracing and separating

(hosini, 2008 : 360)

Bidel Dehlavi elsewhere considers human beings to be rosary beads. These human beings are apparently separate and connected to one another spiritually, and he regards the relationships between human a divine honor thread:

In creation there is the same divine honor
Because everybody's doing something in the world of separation

(mojadidi, 2006 : 47)

The poet considers the most important issue in the sustainability of friendship with God and the virtues of morality, in which he considers the most important condition for freeing the heart from obscenities and sins and express in poem as:

Who in this association is confident of brave love?
We are all timid the mirror is with bala

(arzo, 2009 : 361)

In friendship Bidel commands one to be cautious of ugly people because they are the ones who, in Bidel's terms, put soil in each other's bags.

East to west and Arab to Ajman
We saw the dealing of universe creatures
Like watches glass all busy with trading
There are dusts they put in each other's bag

(aqbal, 2000 : 234)

And so does the speech of ugly men at this stanza of poetry:

Stop hearing of bad speeches
One ugly face defame thousand mirrors

And also people who apparently claim to be friends and exclaim friendship, but in hardship and difficult days one knows all claims were untrue, and in current situation that we encounter with such people, Bedil points out beautifully that those friends who tell you I'm ready to scarify myself for you, be careful if you require them they don't know you and even their self.

in good days when friends claim scarifying
If there is hardship they are alien from them self either

( kazimi, 2007 :123)

Bidel considers benevolence and compassion to be the most important moral among human beings; Abo ulmaani Bedil praised human and recognized the human being as the Truth God and universal being.

> If the aim of your worship is not the owner
> Go to the walls and destroy the houses (Ka'bah)
> Claimers are that illiterate and ignorance
> Open the eyes and worship Excellency human

(kazimi, 2007 : 345)

Abo Ulmaani Bedil paying attention to the philosophical unity own existence, and believe the spirit unity of humankind and considers love and kindness of creation as the love and kindness of own and also consider all humankind as the drops connected in a wave.

> For drop wave there is no any other name
> Mindless! What is twin? We are the same like you

(rafi, 2010 : 98)

Goodwill and Benevolence in society and friendship is one of the most important things among all good human in the society, and Bidel's great vision of goodwill to all human beings and loves them, and he wishes that the flames of hell would be forbidden for everyone!

> Savior is the one who does not think of needs
> Does not think accept and reject for creatures of God
> If you don't think bad about someone else
> Hell either does not think bad about you

(habib, 1988 : 85)

Bidel is such a kind and compassionate human being that he is kind to all humans and loves them all.

> Except love what is religion and which is culture
> Be follower of butterfly and burning your belief

(mugadidi, 2006 : 54)

**Human the two-dimensional object**

Bidel on one hand admits human beings to the principle that Almighty Allah says, "We have honored man" possess dignity and wisdom and explains the following definition:

> Your head was heavier than the wing of favor
> That you found your own need to the wing of homa

(ghani, 1972 : 48)

And elsewhere Bidel regards man as the perfection of the love and meaning of being and says:

> What is a human? The perfection of the power of love
> Meaning of universe and the face of love

(qandi aqha, 2004 : 26)

Bidel, on the other hand, considers human beings caught by material world, considering the velleity as a matter of concern that one should not lose sight of his or her position of authority and vain the honor.

> In undetermined world you are beyond the circle
> But in velleity you are less than the particle

With this music you are in the lowest position
From heart burner you are in the highest position
In your word you wish the mentioned universe
Why you don't accept your truth
Trickery once tell about the reality
You are happily slept on the dark veil

(habib, 1988 : 71)

Elsewhere, put human between good and bad and points out, that if one strives for spirituality it is the good, and is the peace and the creativity of one's self and the community, the result and reward of which is best place of the heaven, when human neglect and step to the negative way, the result confusion, remorse, and regret and consequently guide to the hell.

The prosperous person is in scandal of good and bad
Pure alms and pure peace are in stepping
It's pity if you follow the bribe song
Remorse hundred remorse if you put your head before step
I have a bloody gemstone its name is heart
Branches of hundred pressure garden, knot of hundred sorrow
When reached awareness adorned as paradise
When reached ignorance, stepped toward hell

(bahdarond, 1997 : 88)

According to the above discussion, man should be very responsible for his own life, consciously taking steps to bright this life and the life hereafter by his action, and to stay safe from the consequences of bad security.

**Human essence**

Abo Ulmaani Bedil highlights the essence of humanity in three attributes of wisdom, chastity and faith, and emphasizes that man must contain these three good traits, and recognize the needs of his life and create a good and prosperous life by improving the three mentioned criteria and caution that without any of these human exit from humanity circle and takes to animals character, therefore, human must attempt to possess the three required characteristics and their developments are the necessary task of a perfect human.  (rafi, 2010 : 345)

**The essence of wisdom**

From Biedel's point of view, wisdom is one of human essence:

Adam is the heir of wisdom
Unawareness is not belong to non-animal generations
Wherever wisdom has appeared
its manifestation is nothing but human

(kawosh, 2002 : 206)

 Bidel ngates unawareness from wisdom human and points out that a society can be backward because of unawareness and emphasize that human have to use his wisdom at any time:

Till your reason is not wisdom mind
When go to the wall there is no way

(aini, 2005 : 45)

Also regarded virtue and politeness of humanity as an important sign of human rationality and says:

> Proof of wisdom is shame and politeness
> That are not belong to cow and donkey

(kawosh, 2002 : 231)

Bedil Dehlawi believes that wisdom is the tool of understanding the secret of existence and decode of universe:

> The importance if empty from wisdom
> At the end its control is impossible for rulers
> Series are connected with wisdom
> Has desire and thirsty of wisdom

(mujadidi, 2006 : 449)

## Contemporary Man in Bidel's View

This section discusses the needs of contemporary human beings that lie in the Western realm from Abo Ulmaani Bedil's points of view.

In the modern world, change has been considered an all-encompassing thing, the people of this day are in a different position than the people of the century BC, Attitudes and wills have changed today, and todays people are not satisfied with what they are, And always search of a better status; in the sense that today's man is not convinced with their situation, new and plenty of demands prevent the contemporary man from satisfaction, and there are various elements that raise the question of modernity. But perhaps there are important elements that modern man needs the human teachings of Abo Ulmaani Bedil. Among the important elements between Bidel's ideas and the components of modernity, and the world today are to be discussed here (kawosh, 2016 :180).

### a. Human-centered in Bidel's thought

Attention to man as the center of existence is one of the most important goals of all the mystics, especially Mirza Abdul Qadir Bidel, and this human-centered discussion is the main message of the Renaissance in the modern world (ghani, 1972 : 134).

Bidel strongly condemns the forgetfulness and unawareness of human beings and cognize human being as substitute to the Almighty God and states in the following beautiful poem that when you go to the Ka'bah revolve, your primary attention should be to the owner of the house which is God, Not to The house of the Ka'bah instead of its owner, and this owner is in the heart of the human being.

> If the aim of your worship is not the worship of owner
> Go to the walls and destroy the houses (Ka'bah)
> Claimers are that illiterate ignorance
> Open the eyes and worship Excellency human

(kazimi, 2007 : 432)

According to Bedil, Human being is the flower of the basket of creation as the other mystics pointed out. Every human being who surrounds himself and dominates himself and everything can be conquered, and this discussion is illustrated in the following beautiful poem:

> In four column of the house you are wander of appear
> In seven oceans your circle is precious stone
> From anything your wisdom found highness
> From anywhere your knowledge is high
> Earth and sky are the flowers of your attempt
> If you surround yourself that's the highness wheel
> The entire universe is under your command

Unaware! How you are aware of everything

(mujadidi, 2006 : 171)

According to eastern mystics especially Belil Dehlawi, human being contains two world, One is the world of the human body means the Exterior Universe, which is called the ascension Universe, and the soul that is the Great and the Absolute Universe that manifested in the human body, as illustrated in Bidel's poetry.

Name of Adam came to the tongue
In imagination came both worlds
Knowledge of man from soil to sky
Bound to divinity, sharewar and to Fetrak

(soroush, 2000 :167)

### b. Bidel's view of the religion

Bidel Dehlavi, like other mystics, insists that one should not strive for rituals, and the fact which is common to all religions, in the fundamental sense, religion is a truth about different perceptions and human capacities and It lies in different forms, and in the expression of regret, beautifully call for getting together and invite human beings to unity and fasten them all in one thread:

If beliefs are in different colors
These songs are for your unity music
We are followers of his way
In our perception we are aware of him

(aqbal, 2000 : 402)

Elsewhere, Biedel considers the struggle between human beings for their attitudes and beliefs, and human love and devotion to God as the essence of religions, and rejecting the wishes are direct way to reach God and solved this in one stanza of his poem:

This world does not have the extent of on step
But if you lose yourself there are many ways

(arzo, 2009 : 42)

For Bidel and other mystics, the principle of truth is compared to deep ocean, and the differences and different attitudes of religions have been regarded as waves of that ocean, these waves are less and broken, and knows these differences are not capable of destroying the ocean, because Bidel has realized that human beings are as long as the end of this ocean. And in his sonnets Bidel has made it clear.

The higher and lower waves do not effect of ocean
The truth does not change by infidelity and religion

(bahdarond, 1997 : 463)

Bidel considers the origins of conflicts of human in lack of awareness from essence of religion and culture and explain:

Unawareness song of the world is not sacred
I saw anywhere was Turk and Tajik discussion
We made love Bedil through our imagination fantasy
These fantasies were a sign of doubt

(bahdarond, 1997 : 345)

### c. Bidel and Rationality:

The Rationalist debate has root in a long history and is one of the most important means of knowledge, and it is only humans who have benefited from it.
Rationality and wisdom become the pride of man. The dignity of man is manifested by the essence of wisdom. In Abo Ulmaani Bidel's view, nothing makes sense unless wisdom manifested in man and he considers wisdom and rationality to be of human nature, and how beautiful he says:

<div align="center">

Adam is the heir of wisdom
Unawareness is not belong to non-animal generations
Wherever wisdom has appeared
its manifestation is nothing but human

</div>

<div align="right">(kazimi, 2007 : 206)</div>

### d. Bidel and human world

Some people think that slavery is the ultimate bliss of human beings and has no relation to this world, while it is not like this, the importance of the livelihood ensure the human hereafter.

Abo Ul maani Bidel, as a mystical Muslim sage, rejected the blindness of knowledge and understanding, led man to strive, to build the world, to have a positive worldview that is truly world-building and to attempt for better and honorable life. He knows world building as the necessities of existence in natural world.

<div align="center">

In world deception found validation
People worn-out of virtue and piety
Careless about lust of greed and fancy
The flowers of spring appreciate existence

</div>

<div align="right">(Aini, 2005 : 54)</div>

Unlike the strict religious persons, Bidel emphasizes the importance of livelihoods, informs human beings for trying and avoiding poverty and the painful consequences of poverty, and consider strive for finding food in all objects and says bread is the important need of human beings.

<div align="center">

Anywhere there is lack of bread
There is no choice except death
Anyone who opened eye in this world
When opens the eye opens the mouth
Attempts of world, up and down
All are for finding of food nothing else
Ocean and mountains searching for food
Good and bad are guests of farmer

</div>

<div align="right">(mujadidi, 2006 : 231)</div>

Bidel, unlike most mystics, considers material poverty to be an unhealthy and considers that the economy and the livelihoods of contemporary human are essential to life. In Bidel's view, it is important for human beings to have a good livelihood that not to sell his humanity, moral and virtue for money; therefore, for Bidel, business, crafts and art are not opposite of mystical interests; And this is how it is portrayed.

<div align="center">

For human creative nature
Make him Interest to gold smiting
Sky is carpenter in this time less and more
Cut the power of crafts man in pleases
Your creator attention is there

</div>

<div align="center">

Understand what relation is there
If wisdom think about nut and cover
Anything which is his crafts doing that
That's changes of crafts, not venality
Its spiritual trance not drunken

</div>

<div align="right">

(arzo, 2009 : 239)

</div>

For Bidel, possession, life and good possibilities are good, but losing pride and vanity are the sign of humility and senseless human.

<div align="center">

The universe is in his imagination
Anyone you see is perish of wealth and property

</div>

<div align="right">

(Habib, 1988 : 75)

</div>

Bidel rejects laziness and unemployment, because those are not useful for society and he consider the development of the world to the endeavors of human and encourage for its building.

<div align="center">

Nothing in this perfect object
Suspension meaning is clear here
Anything happened first and last are visible
Working remains but we are nonexistent

</div>

<div align="right">

(habib, 1988 : 132-133)

</div>

And Bidel continues: What man can achieve is the result of attempts and endeavors.

<div align="center">

Everyone find wages based on his attempts
Attempts are acceptable when the aim is good
The attempt tree is not fruitless there
That invalid magician is ineffective

</div>

It is clear from the above discussion that the world making is more considered today than ever before. In Bidel's view, unlike the majority of mystical scholars, paying attention to the world is an essential necessity of human life, and conscious people will gain a dignified future through the better world (aini, 2005 : 439).

**Conclusion**

It concludes from the above research that human life is different from other creatures, human beings carry the great responsibility that the other creatures do not have, and these unique attributes of human beings are Bidel's conclusion:

1. Self-knowledge considered the real station of the wised human being and perfection of human which is the recognition of universe creator based on knowledge and deep thought which lies on human essence.
2. Human is social object and the power of speech is all about the strengthening of one's social relationships and the factor of social development is kindness with the same creature.
3. Human is two-dimensional object, whenever grows up in the path of perfection he is the one of dignity and maturity and if left in the whim-wham he will be powerless and repulsive.
4. The essential essence of man is at the center of the three manifestations of virtue, wisdom and faith, and it is the responsibility of the responsible human to be wise, shameful, and faithful to God.
5. In Bidel's view, all of the mysteries of existence and success are tied together in human. When one understands the mystery and destiny of his own life, this will help to know Allah and responsible against the work of this world and the world hereafter and will conquer everything.
6. Livelihoods and finding Halal food is one of the necessities of human and should never give up on poverty; because attempts and endeavors are the greatest means of overcoming adversity

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# Distance Education Students' use of Activities in their Self-Instructional Modules: The Case of Distance Education Students of the University of Education, Winneba, Ghana

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## Abstract

The study explored the effectiveness or otherwise of the in-built activities in the course manuals given to DE students of the University of Education in supporting their learning. Adopting the sequential mixed method design, 156 respondents were purposively selected from two study centres of the University. Data were collected using questionnaire and interview guides. Percentages and the thematic approach formed the analytical frame. It came out strongly from the study that almost all students attempted answering the in-text activities in the course modules supplied to them. Issues like inability to manage their time, laziness, and absence of video footage on some of the activities prevented them from getting involved completely in the activities. Further, pressure from schoolwork, as most of them were teachers, and difficulty in understanding some concepts were some of their challenges. The activities, on the other hand, supported DE students to learn effectively, even though some of the activities were very challenging. It was concluded that a number of factors combine to influence how an individual is likely to respond to an activity. These include time constraints, level of difficulty of concepts, nature of the activity and the mode of delivery. It is therefore recommended, among others that the modules need reviewing to include activities that seek the opinion of learners, with most of the concepts well explained.

**Keywords:** Distance Education Students, Self-Instructional Materials, Tutorial in Print, Reflective Action Guide, Usage of Activities

## Introduction

All self-instructional materials the world over, possess one common characteristic: they all contain activities. That is, they all pose questions in the text inviting the learner to respond in some way. "The activities posed in both national and international self-instructional materials vary considerably in the modes of the teaching they adopt, the lay-out and design, the demands they make and the way they are flagged in the text" (Lockwood, 1992:22). These activities are given different names in different contexts. They are variously referred to as in-text questions (ITQs, self-assessment questions (SAQs). In the USA, the terms 'adjunct aid' and 'embedded

questions' may be used. However, in this paper, the term 'activity' will be used to encompass all the above terms.

Self-instructional materials owe their method, to those who developed programmed learning following the Second World War. The teachers and trainers were greatly influenced by psychologist B.F. Skinner and his model of the learning process based on operant conditioning (Lockwood 1992). The writers attempted to lay the sequence of a student's learning in precise, logical steps that resembled how a computer was programmed. In practice, each of the teaching materials (called frames) required a response from the learner before the programme could proceed to the next step in the sequence (Tait, 2000).

According to Lockwood (1992), activities help students to think for themselves, apply learning, monitor their progress and check their understanding. They also help learners come up with their own views, explanation and solutions to sort out the features of an argument, to draw inferences, and to engage in controversy. Again, activities provide opportunities for learners to be exposed to competing ideas and views, experiencing those tasks that are typical of the subject, to practice important objectives, relate their own ideas and experiences to the topics in question and to reflect on the implications for their learning. In sum, activities encourage learners to study their materials actively.

## Statement of the Problem

The University of Education, Winneba,(UEW) is a dual-mode institution with a vibrant Distance and e-Learning Programme which is managed by the Institute for Distance and e-Learning (IDeL). The Distance Education (DE) programme of UEW has a well-established and effectively functioning course materials, administrative and student support sub-systems. The programme employs the blended mode, which makes use of both print and electronic self-instructional modules even though the print constitutes a major component of teaching and learning.

The study materials are written by faculty members after they have undergone intensive training on writing self-instructional modules by experts in DE at IDeL to ensure uniformity in the layout and design that fosters uniform teaching strategies. In line with international standards for writing self-instructional modules, the study materials of UEW DE programme, have a number of in-text activities. As pointed out by Lockwood (1992), activities in self-instructional modules are meant to enhance active learning on behalf of students to enable them have a better understanding of what they study in the materials so that they can apply them. However, the questions that need to be asked are: Do the students do these activities? Do they derive the intended benefits from these activities? Do they have challenges working through these activities?

These foregoing questions have become necessary because, since 1996, when the programme started, there has not been any study to find out whether students do the activities and whether they derive the intended benefits from them. Again, survey of literature on DE students' use of activities in self-instructional modules has revealed a paucity of studies on this topic (Tait, 2000). Besides, the few studies identified in the literature search were very old and also were conducted outside Ghana. This is the knowledge gap the present study sought to fill.

## Purpose of study

The purpose of the study was to find out the extent to which distance education students of UEW made use of activities in their self-instructional modules to enhance their understanding of the modules.

## Specific objectives

Specifically, the study sought to:
1. find out the extent to which UEW DE students make use of the activities when studying their modules
2. ascertain whether the students find the activities useful in studying their modules

**Research Questions**

The following research questions guided the study:
1. To what extent do the UEW DE students make use of the activities when studying their modules?
2. How useful do the UEW DE students find the activities in studying their modules?

**Hypothesis**

There is no statistically significant difference between Winneba and Accra Colleges of Education DE students' perceptions on the use of activities in their self-instructional modules.

**Significance of the study**

If learners are to respond to activities in self-instructional modules along the lines and in the time suggested by a writer, they must have some incentive or reason for doing so. Equally, if a learner decides not to respond to an activity there must be some reason for this. This study seeks to identify what the distance education students think about the activities, to enable the providers of distance education and course material writers to understand the influences of these activities upon a learner better and to improve the quality of the materials.

**Literature uptake**

**Theoretical underpinning of activities**

The inclusion of activities in self-instructional modules was influenced by three theoretical constructs.  These were the concepts of **tutorial-in-print**, **reflective action guide and dialogue.**

**Tutorial-in-print**

According to Lockwood (1992), the main idea behind the concept of tutorial-in-print is asking writers to imagine they have a learner in their company for several hours and to describe the ideal form of teaching that would take place if a topic of their choice was to be taught as effectively and as efficiently as possible, to simply consider what the teacher would be doing and what the learner would be expected to do during this time. It is hoped that this would make writers produce good tutorial materials.

Rowntree (1990) regards a one-to-one tutorial as an ideal form of teaching when information, source materials, procedures, techniques, arguments, research findings, raw data, etc. would be communicated and learners would be asked to respond to a variety of questions. In some cases the actual answer would be provided, in others a commentary or feedback. In such a context a learner could be asked a whole series of questions, depending upon the nature of the topic and form the teaching was to take. The learner could be asked to recall items of information, to define concepts, draw together arguments, justify particular statements, consult other sources, interpret data, compare interpretations of the same data, work out examples, discuss things and perhaps produce something themselves. In short, teachers would expect the exercise of certain study skills by which the learner would construct their own pictures of the subject and learn to integrate what had just been taught with what had been learned before feedback was provided. Rowntree's tutorial-in-print is simply a simulation of this tutorial process, a form of teaching, in-print.

**Reflective action guide**

The concept of a reflective action guide is based upon several assumptions. A major one is that any activities within it merely offer advice and guidance to the learner's actions – actions in real and varied contexts, where some skill or ability is developed or refined, and where it is undertaken outside the confines of printed text and which cannot be predicted (Lockwood, 1990; Tait, 2000; Perraton, 2000).

A second feature of activities within a reflective action guide is that the learner must be involved in thinking critically; reflect upon their actions in order to guide the learning experience. It marks a major distinction between working within known parameters and setting them for oneself.

A third feature is that such activities are often demanding, time-consuming and relate to the unique situation in which the learner finds themselves. While resources, guidelines, and suggestions can be afforded and drawn upon as and when needed, it is virtually impossible to provide feedback that would relate to the outcome of the activity in question. Learners need to gather and asses the feedback themselves (Lockwood, 1990; Tait, 2000).

**Dialogue**

The dialogue construct is based on the argument that the more explanatory and clear the exposition, the less there was for the student to do; that some texts were as perfect as to stifle all real thinking (Lockwood, 1992). The argument continues that although many texts are attractive, accurate, readable and understandable, they are also one of the biggest deterrents to thinking in the classroom, because writers assume that students learn best by studying a polished product. The book never gives a clue that the author pondered (maybe even agonized) over hundreds of decisions. The results are that the creative process and the controversy of competing ideas are hidden from the students (Sunders, 1996).

The three theoretical constructs underpinning the inclusion of activities in self-instructional modules are informed by the constructivist learning theory which views learning as a process that brings together cognitive, emotional and environmental influences and experiences for acquiring, enhancing, or making changes to the learner's knowledge, skills and world view as argued by Weimer (2002). The result of this type of learning is that the learner is able to relate the information to any life situation, connect it with past learning and build their own knowledge (Rowntree, 1992).

Thus, for learning to take place, it is necessary that the learner understands and engages with the information to be learned. It is also important that the learner processes the information with higher cognitive operations such as comprehension, analysis, synthesis, application and metacognition. This promotes active learning and learner-centered teaching (Weimer, 2002).

The inclusion of activities in self-instructional modules is thus based on the argument that the overall quality of teaching and learning is improved when students have ample opportunities to clarify, question, apply, and consolidate new knowledge.

**Distance education students' usage of activities in modules**

There is a dearth of current studies on distance education students' use of activities in their modules. The few that are identified through literature survey are quite old.

A number of studies have reported that most distance students do not do the activities in their modules. This has principally been attributed to the study time these activities consume (Richardson, 2000, Lockwood, 1990, 1992). Lockwood (1992) for instance reports some of the comments from his research on why students are not able to complete the activities in their study modules due to time constraints. A typical example of a response in his research was:

> I rarely go anywhere near the time that you are supposed to spend on
> [activities]…you are under too much pressure to do that.

**Time management for DE students**

The acquisition of time management skills, thus, is essential for the academic success of DE students because of their multiple responsibilities that compete for their limited time (Owusu-Mensah, Amoah, & Owusu, 2015).

They pointed out that factors that hindered effective time management of the DE students included improper planning, procrastination, and peer influence, lack of self-control and fear of following routines. They again found that without proper time management, students became frustrated during examinations, which invariably negatively affected their performance because most of them were adults who combined work, studies, family and community responsibilities.

Further, Chambers (1994), for example, argues that 'many distance learning courses which specify a study time have turned out on inspection to be heavily overloaded.' Chambers' finding corroborates that of Lockwood (1992), who found that in general, students spent much longer time working on exercises and practical activities than course writers predicted. The problem DE students have with regard to time management is, therefore, a complex one.

Carnahan, Gnauck, Hoffman and Sherony (2008) also lament that, poor time management skills inevitably lead to procrastination. However, Gothberg's (2006) concern is habitual lateness. People who do not plan their use of time properly usually have a difficult time being on time to appointments or turning in work at the scheduled due date. The influence is clearly seen when it affects DE students on academic performance. This has been echoed strongly by Britton and Tesser (1991), who report that students' ability to manage their time successfully and productively is explicitly related to academic performance. In support, Nash (2005) thinks that course completion rates among distance learners have time management issues as the major reason they drop or fail a course. In his study, twenty-seven percent (27%) of all student responses indicated "I tried to accomplish too much that semester," and 17% indicated "I had difficulty managing my time." "Drop" students showed a strong preference (33%) for "Tried to accomplish too much," while "Not Success" students were more likely (25%) to select "I had difficulty managing my time." Those students who failed also selected "Course assignments too difficult" in greater numbers than the group as a whole. The implication of the above findings is that improper time management among distance learners can lead to dropout, underachievement and failures.

**Benefits distance education students derive from activities**

On the basis of studies conducted with Open University of UK, students identified three major benefits that learners claim to derive from activities. These were Course –focused benefits, Self-focused benefits and Assignment-focused benefits (Lockwood, 1990).

Course-focused benefits, according to Lockwood (1992), are those that relate to learning from a course or topic; the concepts, ideas, arguments under discussion, the techniques, procedures or skills being practised. For learners in this category, the activities are perceived as contributing to their understanding of the material.

Self–focused benefits are those that relate to one's learning and development of a person; the opportunities they provide for ideas and arguments to be explored or reconsidered, previous assumptions challenged and personal interest awakened, developed or extended. The central feature of those comments categorized as self-focused is one of thinking critically, of questioning the materials, and challenging assumptions and previous ideas.

Assignment-focused benefits are those that contribute directly to answering a test or some other form of assignment, provide an opportunity to either think about the issues to be discussed, or provide materials to be used in it.

**Methodology**

The study employed the sequential explanatory mixed methods design. While the quantitative aspect was meant to reach larger sample size, the qualitative part aimed at studying the use of activities as seen through the eyes of the learner. That was to explore the world that learners perceived and how they experienced learning.

**Sample size/Sampling techniques**

The study focused on two study centres. With a population of 583, a sample size of 156 was selected; Winneba Centre was 86 and Accra College of Education (Attraco) Centre was 70. The sampled students were all doing basic education and in level 200. The proportional stratified sampling technique and the Krecjvic and Morgan (1970) table were used to select the sample. The level 200 hundred students were used because they had experienced the use of the models developed for usage by the students. The level hundred students had not got involved very much with the course module usage whereas the level 300 hundred students were preparing seriously towards their end of programme examination.

**Instrument**

Both self-developed questionnaire and semi-structured interview guide were used to collect data for the study. The questionnaire was used to elicit information on students' opinion on the activity usage. The interview guide responses were used to triangulate the questionnaire responses.

The questionnaire was validated using the statistic of Cronbach alpha that yielded 0.78 and was considered appropriate (Ofori & Damppson, 2015). Respondent validation was what was used to authenticate the trustworthiness of the interview guide responses.

**Mode of Analysis**

Percentages and the thematic approach formed the analysis frame for the study. Verbatim quotations were used to support the qualitative aspect.

**Findings and discussion**

Table 1: Sex of Respondents

|  | **Frequency** | **Percent** |
|---|---|---|
| Male | 94 | 60.3 |
| Female | 62 | 39.7 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

This study focused on distance education students of the University of Education, Winneba, and as a result the majority (60.3%) of the respondents sampled constituted males, as shown in Table 1. From the table, 39.7% were females and 60.3% males. More males, therefore, got involved in the study.

Table 2: Marital status of respondents

|  | **Frequency** | **Percent** |
|---|---|---|
| Single | 38 | 24.4 |
| Married | 118 | 75.6 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2015)*

Table 2 indicates that 75.6 % (118) of the respondents were married, while 24.4% (38) were single. This suggests that majority of the students pursuing the distance education programme at the Winneba and Attraco study centres were married.

Table 3: Ages of respondents

|  | Frequency | Percent |
|---|---|---|
| 25-30 | 18 | 11.5 |
| 30-35 | 58 | 37.2 |
| 35-40 | 38 | 24.4 |
| 40-45 | 26 | 16.7 |
| 45-50 | 14 | 9.0 |
| 55-60 | 2 | 1.3 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

Table 3 presents the age distribution of the distance education students.  The total number of respondents was 156, out of which those aged 30-35 constituted the highest percentage (37.2%), as seen in Table 3. Those aged 35-40 representing 24.4%, while 1.3% were those aged 55-60years.

**Analysis**

Research question 1: **To what extent do the UEW DE students make use of the activities when studying their modules?**

The first research question sought to find out the extent to which UEW DE students do the activities in their modules. To answer this question, a number of sub-questions were asked.

Respondents were asked to indicate whether they practised the activities in their course books. Results presented in Table 4 indicate that majority (83.3%, 130) did try their hands on the activities in the course while 16.7% did not. Further to that, Table 5 presents data on which of the sexes did use the activity in the course book.

Table 4: Attempts made on the activities in their course books

|  | Frequency | Percent |
|---|---|---|
| Yes | 130 | 83.3 |
| No | 26 | 16.7 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

Table 4 presents attempts made by the study participants with regard to the activities in their course books. The results showed that majority, 130 (83.3%) indicated they had been attempting to engage with the activities. However, 26 (16.7%) indicated they did not attempt to engage with the activities. This seems serious because the modules are to guide these DE students to understand and learn their subjects. So if this number, even though minimal did not attempt to engage with these activities, the question is, "why were they refusing to do the activities?"

Table 5: Sex and attempts on the activities in course book

|  |  | Do you do the activities in your course book? | | | |
|---|---|---|---|---|---|
|  |  | **Yes** | | **No** | |
|  |  | **Frequency** | **Percent** | **Frequency** | **Percent** |
| **Sex** | Male | 80 | 61.5 | 14 | 53.8 |
|  | Female | 50 | 38.5 | 12 | 46.2 |
| **Total** |  | **130** | **100** | **26** | **100** |

Data presented in Table 5 shows that for those students who have hand-on-practice with the activities in the course book, majority 80 (61.5 %) were males while 50 (38.5%) were females. It could be concluded that the males made use of the activities in the course book comparatively to the females. This finding, can be attributed to the fact that women are most of the time saddled with a lot of household responsibilities and therefore, do not have the time and concentration to go through the activities.

Table 6: Factors preventing DE students from doing the activities

|  | Frequency | Percent |
|---|---|---|
| Time factor | 48 | 30.8 |
| Laziness | 36 | 23.1 |
| No video interactive | 72 | 46.2 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

Of the 26 (16.7%) students who did not work-out the activities in the course book, 46.2% attributed their inability to the fact that there was no video interaction in the course book while 30.8% indicated that they did not have time to do so; and 23.1% attributed their inability to mere laziness. The following quotations from the interviews support these findings:

> **Male R***: I'm not able to do it because I do not have the time to even study the course book hence my inability to practice the activities. I'm a teacher and always have much to do after school.*
> **R2***: The book is voluminous and I just don't have the desire to open it unless it's been taught in class. I'll say its mere laziness to study on my own.*

These findings confirm that of Lockwood (1992) and seem to suggest that time management skills is a major challenge for DE students.

The study further analysed results on how often students practised the activities provided in the course book. Data presented in Table 7 indicates that though students practiced the activities, there was 100% agreement among them that they did not always do the activities.

Table 7: Frequency on attempts to do activities

|  | Frequency | Percent |
|---|---|---|
| Sometimes | 156 | 100.0 |

*Source: Fieldwork data (2018)*

The study further ascertained whether all activities, or some, in the course book were practised. Again, all of them indicated that they did practice some of the activities outlined in the course book but not all of them.

Table 8: Doing all activities in course book

|  | Frequency | Percent |
|---|---|---|
| Some of them | 156 | 100.0 |

*Source: Fieldwork data (2018)*

The following interview data confirm this quantitative data
> **R1***: I do not practice all the activities in the course book because some of them are not straight forward and also it's difficult finding the answers. The ones that are interesting and the tutors have taught us are the ones I do practice.*
> **R2***: Sometimes the activities are just not activity related but rather an overview and also I don't try everything because sometimes the tutors tell us areas which we should concentrate for quizzes and exams. This makes me not to try everything.*

Table 9: Preferred type of activities

|  | Frequency | Percent |
|---|---|---|
| Sharing of own views | 86 | 55.1 |
| Discussion | 70 | 44.9 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

Probing further respondents' responses in Table 8, data presented in Table 9 shows that majority (55.1%, 86) of students preferred activities where they could share their own views on the subject while 44.9% were of the view that activities that involved discussion were what they preferred to practise.

> **R1:** *The activities that are open and seek for varied opinions are the ones I love practicing. This makes me think outside the box and relate to everyday life. For me, that is the essence of University Education to be able to share views personally on issues. This eliminates role learning.*
> **R2:** *I love activities that involve the discussion because it makes me have varied opinions on the question asked. Having varied opinions broadens your understanding on the course content and you are apt for exams and quizzes.*

The findings support the idea of Lockwood's (1992) assertion on the use of activities by DE students. The findings can be explained, drawing on the principle of andragogy, which among other things, suggests that adult learners are motivated to learn when the teaching-learning situation allows them to bring in their ideas and relate what is taught to their experiences (Knowles, 1990).

Table 10: Duration for stated activities

|  | **Frequency** | **Percent** |
|---|---|---|
| Yes | 28 | 17.9 |
| No | 128 | 82.1 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

To check whether students were able to complete the activities in the course book before the semester ended, the study included questions on whether students were able to do the activities within the time given. Out of the total, 82.1% (128) said 'no' while 17.9% said 'yes,' regarding whether they were able to do the activities within the given period of time.

> **R1:** *Frankly, the duration is not enough to complete everything in the course book. Even tutors are not able to finish with us and that influences my inability to also complete everything within the course book.*
> **R2:** *I tried to finish everything in the course book because I make time for the course work because it's my life and my desire to achieve more knowledge. I get the encouragement to do more from my tutors, who inspire the class always to stay abreast with issues with their tactful questions.*

Table 11: Inhibiting factors towards doing activities

|  | **Frequency** | **Percent** |
|---|---|---|
| Limited time | 64 | 51.6 |
| Pressure from school work (responsibilities) | 46 | 37.1 |
| Some concepts are difficult to understand | 2 | 1.6 |
| Too much reading becomes boring without video or clips | 12 | 9.7 |
| **Total** | **124** | **100.0** |

*Source: Fieldwork data (2018)*

Students who were not able to complete the activities within the given time were further asked to provide reasons for their inability. Table 11 indicates that limited time constituted the majority (51.6%) for students' inability. 37.1% of students also cited pressure from school work (responsibilities) as their reason while 9.7% attributed it to too much reading without video clips in the course book, which made it boring for them to complete the activities. A little below 2% (1.6%) said some concepts were difficult to understand hence their inability to complete the activities.

*R1: The time duration for the programme, for me it is too limited, and hence, I'm not able to fully participate and practice everything in the course book. I learn and do more when I'm exposed to the content first but to read on my own it's difficult. I need the expert to throw light on the content.*

*R2: Combining studies and work (school) is not easy. Sometimes you pick the book and you're sleeping behind because you are tired. The edge is there but the whole being is tired and can't do anything.*

From the arguments, students' inability to do most of the activities as well as time management and how students export their experiences make students have the opportunity to express their views in various ways. Inadequate use of time, therefore, became a major hindrance to doing of the activities. This is as a result of students' inadequate time management skills.

Research question 2**: How useful do the UEW DE students find the activities in studying their modules?**

The second research question sought to find out whether those students who tried their hands on the activities found them useful in understanding the content. The responses are captured in both Table 12 and the direct quotes from the interview data.

Table 12: Usefulness of activities

|       | Frequency | Percent |
|-------|-----------|---------|
| **Yes** | 156 | 100.0 |

*Source: Fieldwork data (2018)*

In finding out whether the activities were useful for studying the course books, all sampled (156, 100%) students agreed that activities in the course books aided their studies in reading and understanding the concepts outlined in the course book.

This consensus was captured in the following extracts from the interviews:

*R1: Personally, reading is boring and I appreciate the activity related areas in the course book. The activities are very useful for studying because it relates with the topics treated and they always come after reading the content.*

*R2: Without the course activities, I know most of my friends won't be making good grades. They share with me what the activities do to them. We are compelled to read further especially when we disagree with answers provided by friends.*

*R.1: The activities in the course book help us to reflect on the topic discussed and these questions direct us to have a better understanding. Additionally makes us feel whether we have adequately understood the topic treated.*

*R.2: Even though the questions asked in the activity section, sometimes it makes it difficult to reflect outside the book. We are compelled to stick with the course content only.*

*R.3: The activity sections are just not direct, but then it makes you to think and sometimes read over the topic again to understand and for me, this is very good because sometimes we just read through without studying it and I think that is the essence of the activity, to make you rather study.*

Table 13: Suggest ways you expect the activities to be presented to facilitate effective learning

|  | Frequency | Percent |
|---|---|---|
| Concepts should be simplified for easy understanding | 18 | 11.5 |
| More practical scenarios with pictorial illustration | 58 | 37.2 |
| Video or still pictures should be encouraged to ease boredom in reading | 38 | 24.4 |
| Allow for more personal views | 26 | 16.7 |
| Possible answers (clues) should be provided to activities to direct reasoning | 16 | 10.2 |
| **Total** | **156** | **100** |

*Source: Fieldwork data (2018)*

To achieve learning with the aid of the activities in the course books, students suggested ways to facilitate use of the activities for effective learning. Table 13 indicates that 37.2% suggested some more practical scenarios with illustrative pictures should be used to enhance effective learning. 24.4% of students were of the view that to ease boredom in reading the long texts, video or still pictures should be used to encourage and keep students on their toes to learn. Allowing for more personal views was also suggested consisting 16.7% while 11.5% indicated that concepts in the course books should be simplified for easy understanding. A little above 10% suggested possible answers (clues) should be provided to direct reasoning in practicing the activities.

> **R1:** *There's the saying that I hear, I forget; I see, I remember; I do, I understand. There should be more pictorial illustration and practical scenarios to engage us to do/ practice the activities in the course book. We might be adults but yet practical scenes and images will engage us more and hence improve our performance.*
> **R2:** *There should be simplicity and precision in the activities. The complexity makes some for us not to practice it at all. But when it's been simplified, most of us will be encouraged to try.*
> **R3:** *We can do or know we are on track if answers could be provided on the last page of the course book for reference, just to be sure that you're on course. Else you might think that is the answer but when you'll end up missing.*

Table 14: Difficulty level of the activities?

|  | Frequency | Percent |
|---|---|---|
| Easy | 92 | 59.0 |
| Difficult | 64 | 41.0 |
| **Total** | **156** | **100.0** |

*Source: Fieldwork data (2018)*

Students were asked to share their views on how they will describe the activities in the course book. Data presented in Table 14 shows that 59% of students were of the view that the activities were easy to practice and understand, while 41% thought otherwise.

> **R1:** *People will hold varied views concerning the activities in the course book, but seriously, it's straight forward and easy to understand and do. If you have really read through the topic, you will realize that the activities are just simple and easy.*
> **R2:** *The activities are complex and it makes it hard or difficult to complete even on time. Sometimes you can spend the whole night on one or two activities when if it was simple and easy to comprehend, you can do more. The activities are not student-friendly, the tutors who write the books should factor our level and condition in mind, to come down to our level.*
> **R3:** *The activities are useful and easy. People who might complain are the lazy ones. The difficulty level is easy. I don't see anything wrong about it. They have simplified them to our level and understanding.*

**Hypothesis**

There is no statistically significant difference between Winneba and Accra Colleges of Education DE students' perceptions on the use of activities in their self-instructional modules.

Table 15: Chi-Square Test analysis of the difference between Winneba and Accra centres usage of self-instructional modules

|  | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 13.303[a] | 2 | .001 |
| N of Valid Cases | 156 |  |  |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.50.

From Table 15, views expressed point to the fact that there is significant difference between how DE students in the Accra and Winneba centres use the self-instructional modules for their studies. From the analysis and the results coming from it, Pearson's chi-square ($\chi2=13.303$, $df=2$, $p<.05$) shows that the difference in views expressed by students from the two centres was statistically significant. It could be concluded that students had different views on the use of self-instructional modules.

The results could be linked to the attitude of the students which is informed by Evans and Nation's (1989a) argument where they strongly argue that students actively engaged in constructing meaning for themselves, hence in developing understanding, varied and multiple ways are used. Further as espoused by Weimer (2002) and basing the argument on the constructivist learning theory which views learning in the cognitive, emotional and environmental influences, there is the likelihood that the views expressed by the participants were influenced by the different environmental contexts and experiences for acquiring, enhancing, or making changes in their learning through the use of the self-instructional modules.

**Conclusions**

From the findings it can be concluded that logical structuring of texts and the strategic inclusion of activities to control learning is regarded by many as an admirable goal. However, research into what learners do when they study self-instructional material suggests that control may be unattainable and that numerous factors combine to influence how an individual is likely to respond to an activity. These include time constraints, level of difficulty of concepts, the nature of the activity, and the mode of delivery. This, therefore, suggests that different learning episodes are likely to occur between the learners.

**Recommendations**

Based on the conclusions, it is recommended that IDeL should encourage its module writers to explain difficult concepts and also design activities that seek the views of the learners on issues.
Secondly, IDeL should include audio and video learning materials which will engage the learners and motivate them to follow the activities that accompany them.
Finally, IDeL should support its students to acquire effective time management skills.

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# Educational Assessment and Some Related Indicators of Educational Equality and Equity

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## Abstract

The article asks three questions of equality in education. First, what kind of equality we are talking about - numerical equality, proportional equality, formal equality, or moral equity? Second, how to categorize the indicators in a practical manner? Third, how to use the equality indicators based on the national level assessment of student achievement? The article starts with a theoretical treatment and gives a framework for further studies of educational indicators. The indicators are divided into absolute- and relative indicators as well as binding- and preferable indicators. In the empirical part, 26 parity indicators are introduced and discussed based on national level datasets from student achievement.

**Keywords:** Equality, Equity, Student assessment, Educational indicators, Parity

## 1. Concepts of Equality and Equity

### 1.1 Complexities in Theorizing Equality

Equity is a value to do with justness and fairness; it is generally accepted that all the humans should be treated in a just and fair manner as implied also in the *Universal Declaration of Human Rights* (UN, 1948; see also Arneson, 2014). This could be called also as the 'basic equality' (see Nathan, 2014; Arneson, 2014). Within the educational realm, we may talk about educational equity. Levin (2010) defines educational equity as fairness in access to opportunities to benefit from education. While equity is a value and principle, equality, on its behalf, is the degree or state of being equal especially with status, rights and opportunities. Equality makes sense if the equity is accepted as a value and principle.

Though all persons, by virtue of being persons, have equal basic dignity and worth, it may be good to note some obvious oddities in equality. First, the world is *not equal* in absolute sense. Two non-identical objects are never

completely equal (Gosepath, 2007; Tugendhat & Wolf, 1983, p. 170). There really are differences, which are a basis for uniqueness, which supposedly should be taken as a good thing; 'equality' needs to be distinguished from 'identity' and it needs to be distinguished from 'similarity'. Thus, to say that children are equal is not to say that they should be identical. On the other hand, 'equality' implies 'similarity' rather than 'sameness' (Gosepath, 2007).

Second, it seems that some persons just happen to be born under a *luckier* star than some other. The same input circumstances may lead to totally different outcome results depending on random acts. Is this randomness injustice or inequality or just "luck"? On the other hand, the "happen to be born"-argument cannot be use as rationale for inequality between races, castes, sexes, or between disabled and "abled" child (see Hurley, 2001; Arneson, 2001). Why? Because when two persons have *equal* status in at least one normatively relevant respect (such as being citizens in the same country), they must be treated equally regarding this respect – "treat like cases as like" (Aristotle, *Nicomachean Ethics*, V.3. 1131a10-b15; *Politics*, III.9.1280 a8–15, III. 12. 1282b18–23).

Third, it seems that some people *use their capacity* and recourses *better* than others (of the discussion of capabilities and equality, see Sen, 2005; Rawls, 1971, pp. 60–65). Even if we could, magically, organize the world so that all the persons would have totally equal education and knowledge base, it would lead to a situation, within a year, that some of us have learnt more and some would have lost part of their knowledge. As individuals, we just have different motivational structures, interests, talents or skills, and, for example, mental capacities, which, evidently, has something to do the seemingly unequal end-product for individual students.

Fourth, in the real life, we just do not follow the rule of 'absolute equality' between humans, because of differences in the individual capabilities, resources, responsibilities, powers, or individual characteristics such as motivation, interests, or talents. This can be seen in our normal family life: in our families the small children are not given equal possibilities to affect the family decisions compared with the parents – maybe because of a fear of under-developed sense of consequences of the decisions. When the children grow older they get more responsibilities and possibilities.

Fifth, it's worth noting Levin's (2010, p. 4) note that "*There is no natural state of educational equity, but one defined by each society on the basis of its values and the imperative that it sets for the issue as a moral commitment. ... Each society may define educational equity in different ways and use different criteria for assessing equity in the overall population and among different groups.*" Hence, it is difficult to claim that, in every society, there should be equal values behind the educational equity. However, in the modern globalized world, it's difficult to claim seriously, for instance, that in our society the boys are valued so much more over the girls that we are not willing to give a proper education for girls. The same can be said with some disadvantage group based on family background, religion, or place of birth. This issue is discussed deeper when introducing the binding indicators for educational equity.

Guiton and Oakes (1995) showed the intimate relation between values on equality and measures of equality. In the educational settings, all the children should have equity to be treated fairly even though there may be inequality in their family background. On the other hand, equality does not mean much if there is not equity; just after the equity is guaranteed as a principle and practice, equality make sense. It is notable that some of the global actors, such as OECD and UNESCO are prone to use term "equity" instead of "equality" in their background papers and recent reports (OECD 2013a; Sherman & Poirier, 2007) though, in many cases, "equality" may also be an appropriate concept. Pupil-teacher ratio, for example, can be taken as an indicator for *equity* (see Sherman & Poirier, 2007, p. 58) – the students should have equal opportunities for the decent class sizes with a decent number of contacts with the teacher. Gender parity, for example, on its behalf is a typical example of an indicator for *equality*; it makes sense after confessing that boys and girls should be treated equally.

### *1.2 What kind of equality we then are seeking in education?*

When we refer to equality, what *kind* of equality we actually are talking about? Asks Rae with colleagues (1981, p. 132), equal in *what* respect? Continues Temkin (1993), what *is* equality and what is *in*equality? Gosepath (2007) discusses – based on Dann (1975, p. 997), Menne (1962), and Westen (2014, pp. 39, 120) – the terms 'equality', 'identity', and 'similarity'. 'Equality' signifies correspondence between a group of different objects, persons, processes or circumstances that have the same qualities in at least one respect, but not all respects, i.e., regarding one specific feature, with differences in other features. Thus, 'equality' needs to be distinguished from 'identity', which refers to differences between individuals regarding one or more specific features, and it needs to be distinguished from 'similarity' which approximates 'correspondence'.

The classic theorists of equality (Aristotle, Plato, Lock, Rousseau, Kant) have divided equality and justice into several categories though Rae and colleagues (1981, 132) noted that in any real historical context, no single notion of equality is superior over the others:

(1) numerical equality ("give all the same load") (Aristotle, *Nicomachean Ethics*, 1130b–1132b; cf. Plato, *Laws*, VI.757b–c),
(2) proportional equality ("give all what they can carry") (Aristotle, *Nicomachean Ethics*, 1130b–1132b; cf. Plato, *Laws*, VI.757b–c),
(3) formal equality ("give the like cases the same load") (Aristotle, *Nicomachean Ethics*, V.3. 1131a10– b15; *Politics*, III.9.1280 a8–15, III. 12. 1282b18–23), and
(4) moral equity ("everyone deserved the same dignity and the same respect") (Locke, 1690; Rousseau, 1755; Kant, 1785; 1797).

A treatment is *numerically* equal when it treats all persons as *in*distinguishable. That is not always just. A blunt example of an unjust numerical equality in the educational settings can be as follows: Because the 15 years old differs from 6 years old remarkably in perseverance, for example, we can require more of 15 years old than 6 years old. Hence, it might be unjust to require a six years old school-child be apt 8 hours in school, while we can require it from 15 years old teen. Same hours would be numerically equal but not fair for the younger child. In the educational settings, we can claim that all the students at the *same* grade could be treated numerically equal if there is no other rationale (such as retardation or serious learning difficulty) for expecting different output from different students.

A treatment is *proportional* and *formally* equal when it treats all relevant persons in relation to their due. When factors speak for unequal treatment or distribution, because the persons are unequal in relevant respects, the treatment or distribution proportional to these factors is just (Gospath, 2007). Unequal treatment or distribution must be considered proportionally: that is the prerequisite for persons being considered equally. In the educational settings, we can claim that all the students at the *different* grade should be treated proportionally equal and students with *the same grade* as *formally* equal. Proportional equality is relevant also when expecting different output from different students at the same grade if there is relevant rationale for that (such as retardation or serious learning difficulty). The differences between proportional equality ("give all what they can carry") and formal equality ("give the like cases the same load") is somewhat dim. According to Gospath (2007), the formal postulate remains quite empty if it remains unclear when or through what features two or more individuals should be considered equal. When seeking justice, one need to discuss which cases are equal and which unequal (Aristotle, *Politics*, 1282b 22). In the educational settings, we usually think that the students at the same grade should be treated as 'like' cases and the students at the same grade are assessed according to same rules. Hence, we seem to seek formal equity within the grades. However, some students at the same age cohort, shown very low performance, are sometimes given a possibility to be assessed according to a "personal" curriculum which means that the requirements are remarkably lowered. In the case, we seem to seek the proportional equality.

### *1.3 Conclusion: on what ground we should seek the equality in education?*

We may agree that all children have the moral right to get equal opportunities even though all children are different and unique. We are thus willing to give all children equal possibilities to be what they would be. It is the same as all the children should have equal moral rights to get clean water to drink. This political will of the government (and thus the society as a whole) is recorded in laws and acts and it usually operationalized in the national curricula(-um) for different subjects and topics.

It seems that, in the practical educational settings, we are willing to see the *numerical equality in some extent*: for example, we expect the equal length of the school year within a country from all schools and the numerically equal minimum number of teaching hours to be attended. However, in most cases, we expect to find *proportional and formal equality on the basis on moral equity*. That is, in each age group all the children should be given equal opportunities to learn because learning is one of the basic rights for the children.

The question is, how to measure the possible inequality in the educational system. The latter part of the article handles practical indicators for parity: In the empirical part, these are divided into four categories based on two dimensions: "binding"/ "quality" indicators and "absolute"/ "relative" indicators. The practical part introduces 26 relative preferable indicators for educational equality based on national student achievement.

### 2. Educational indicators – from Chemistry to the global actors

### *2.1 Concepts related with Indicators*

The concept of 'indicator' has been borrowed from Chemistry to the other fields such as Social Sciences and Econometrics. In Chemistry, an indicator is a substance which show characteristic change in its color when comes in contact with acid or base. Then, an indicator is used to determine the degree of acidity or basicity of any solution. Generalizing the idea: an indicator is "a measurement or value which gives you an idea of what something is like" (Collins Cobuild, 2014). Hence, an educational indicator is a pointer which shows the state of art in the educational realm. Indicators are characterized primarily by the fact that they provide information in summary form, are communicable and are subject to relative consensus (Delorme & Chatelain, 2011, p. 8). On the top of the different Philosophical domains, the theoretical framework for using indicators in the socio-economical settings and policy making comes either from the Management- or Econometric theories. Notes Delorme and Chatelain (2011), the concept of indicators can be linked to objective-based planning related with the Management domain. On the other hand, Guiton and Oaks (1995), based on Guiton (1992), have connected the equality with the econometrical theories: Libertarian, Liberal, and Democratic Liberal conceptions. These theories are not discussed here, though. This article relies more of the ideas coming from Philosophy.

Within the social sciences, the concepts regarding the indicators, indices, statistics, and datasets are not always clear. Mannis (2014) has condensed the different levels of data for policy purposes as the Information Pyramid. The fundamental basis of the pyramid are *data*; when unprocessed, data are of little value for policy purposes. If data are processed into *statistics* or *tables*, they can be used in reports, but still they can be difficult to use for policy. *Indicators* are statistics directed specifically towards policy concerns; they point towards successful outcomes for policy. These are usually highly aggregated and have easily recognizable purposes. Claims Mannis, the classical socio-economic indicators, such as the unemployment rate or Gross Domestic Product (GDP) growth*, are "numbers which are such powerful and recognizable indicators of performance that they may cause governments to fall"*. At the highest level in the pyramid are *indices*, such as the gender parity index or human development index, which combine different indicators into a single number useful for comparison over time and space. Nevertheless, though it may be possible, in theory, to separate indices from indicators, it seems that the indices and indicators may overlap each other; in all cases, the indices can be used as indicators and, in many cases, indicators could be called as indices. In this article, the two are handled as unseparated.

## 2.2 Educational Indicators in the Use of International Stakeholders

In literature, the indicators are categorized various ways. Delorme and Chatelain (2011), for example, use the term 'performance indicators'; they categorize the indicators as Input-, Output-, Outcome-, Impact-, and Context indicators. Mannis (2014) categorizes indicators as Driving Force Indicators (such as real GDP per capita), State Indicators (GDP per capita in dollars), and Response Indicators (Investment share in GDP in percentages). Also, three great players in the global educational field, World Bank (WB), Organization for Economic Cooperation and Development (OECD), and United Nations (UN) and specifically United Nations Educational, Scientific and Cultural Organization (UNESCO) have developed their own indicators for pointing the state of art of Education. World Bank indicators for the Education are divided into indicators for Efficiency, Inputs, Outcomes, and Participation (see http://www.indexmundi.com/facts/topics/ education).

The numerous list of OECD indicators in the *Education at a Glance* (OECD, 2014b) are classified, on one hand, on the basis of actors in education systems (individual learners and teachers, instructional settings and learning environments, education service providers, and the education system as whole) and, on the other hand, according to whether they address learning outcomes for individuals or counties, policy levers or circumstances that shape these outcomes, or to antecedents or constraints that put policy choices into context (see OECD, 2014b, p. 17).

The 52 educational indicators of UNESCO are classified into six baskets in the framework of Education for all (EFA): Early childhood care and education (ECCE), Universal primary education (UPE), Lifelong learning and life skills, Adult literacy and basic education, Gender equality, and Quality of Education (see UNESCO, 2011). Hence, frameworks for educational indicators and indices are many, which makes the comparison of the outcomes difficult if not impossible. On the other hand, a rich bank of indicators may enrich the view of the status of the educational settings. It is notable that, generally, the above-mentioned educational indicators of WB, OECD, and UNESCO do not include the learning outcomes as indicators for the system.

## 2.3 Educational indicators based on learning outcomes

The quality aspect of the education – especially the learning outcomes – interests us from the international comparison viewpoint. Though the sets of educational indicators of the global actors, seen above, do not include indicators based on learning outcomes, the average student achievement is used widely as an indicator of the systems. The new results from PISA (Programme for International Student Assessment, e.g., OECD 2013a; 2016a), TIMSS (Trends in International Mathematics and Science Study, Martin et al, 2012; Mullis, Martin, Foy, & Arora, 2012; Mullis, Martin, Foy, & Hooper, 2016), PIRLS (Progress in International Reading Literacy Study, Mullis, Martin, Foy, & Drucker, 2012; Mullis, Martin, Foy, & Hooper, 2017), or PIAAC (Programme for the International Assessment of Adult Competencies, OECD, 2013b; 2016b) are keenly waited news (or feared, depending on ranking) in many ministries of education, editorial boards of newspapers, and research centers. There seems to be an interest – maybe even an over-interest – in comparisons of the learning outcomes in the participating countries. The main indicator of the successful educational policy seems to be the ranking of the countries though the background information of the students, teachers, and principals gives us a firm educational context for the results. The ambitious goals to be at the best sequence of the ranking and, apparently, the seemingly low results in certain countries have raised worried voices against PISA type of global tests (see, *Guardian*, 6 May 2014, an open letter to Andreas Schleicher – notably, over 80% of the undersigned writers came from USA). One of the worries in the open letter may be worth highlighting: in many countries, because of the ranking in the international comparison, the governments have begun to amend the educational practices; countries are overhauling their education systems in the hopes of improving their rankings.

PISA results include interesting and valuable opening to glance equity in educational opportunities. First time, the equity matters are handled in a full report. The treaty in *PISA 2012 Results: Excellence through Equity* is largely based on the viewpoint of how school systems allocate their resources for education and how that allocation is related to student or school characteristics, such as socio-economic status, immigrant background or school location is a good start in raising the treatment into the next level from ranking lists to a more practical

policy issues (OECD 2013a, p. 28). Hence, the educational equity seems to be geared toward the economical perspective. However, it is notable that though the basic viewpoint in the report is economical, it allows such extensions as school characteristics, family structure, immigrant background, language spoken at home. Other volumes of PISA results include such equity discussion as gender parity in learning (OECD, 2014a), attitudes, behavior and approaches to learn which are associated with inequities in the acquisition of knowledge and skills (OECD, 2013c), and policies and practices adopted in schools and school systems and their relation to performance and equity (OECD, 2013d).

The equity indicators of OECD draw heavily from Levin (2010, see OECD, 2013a, p. 17). Basing on educational attainment and educational achievement Levin categorizes the types of equity into the baskets of educational access, educational resources, educational processes, intermediate outcomes, and educational outcomes (Levin, 2010, p. 5 ff.). Levin sees the *educational access* as a necessary indication of equity. The *educational resources* include such elements for equity indicators as teachers and leadership talent, facilities, instructional materials or the number of days and hours of instruction in a school year as well as availability of textbooks, computers and decent class sizes. The *educational processes* include such elements as types of programs, curriculum, and instruction that the schools offer. The *intermediate outcomes* include indicators like failure and grade repetition rates. Lewin also identifies general groups of students for whom we are expecting to see the educational equity (Levin, 2010, p. 8 ff.): Typical groups whose educational status differs from other groups and the educational mainstream are: gender, socioeconomic status, ethnicity, race, immigrants, language, region, and disability. Notes Levin, it is important to note that students are often found in multiple categories that exacerbate their educational challenges.

Based on the rich database in TIMSS and PISA type of inquiries, it would be possible to expand the analysis of the equity and equality in the educational settings even with the existing database. In what follows, several indicators are suggested. Some of them are already introduced above and some more are introduced and suggested. Some of the indicators above can be classified strictly as *equity indicators*; they measure whether the systems can guarantee equal opportunities for all citizens. Some other indicators may be more *equality indicators*; they measure the equality and parity between different groups based on the student achievement. The latter treaty here concentrates on equality indicators though relevant equity indicators are kept in discussion. Before suggesting some further possibilities for equality indicators, a simple framework is introduced for categorizing the indicators.

## 3. Equality Indicators based on the (Inter)National Assessment of Student Achievement

### 3.1 Absolute and relative indicators for educational equality

In the simple framework for categorizing the equality indicators in education, two dimensions are used in classifying the indicators into absolute/relative set of indicators and binding/preferable set of indicators (Table 1). The absolute and relative are clear as concepts. The binding and preferable sets of indicators may need some explanation. The binding indicators ask: "are we doing what we *should* do" and the preferable indicators ask: "are we doing what we should do with *good results*, providing all citizens *equal possibilities* with *efficient processes* with *economically sustainable* way". It is worth noting Levin's (2010) claim that there is no natural state of educational equity, but one defined by each society based on its values and the imperative that it sets for the issue as a moral commitment. Hence, the "binding" set of indicators may vary between the societies. However, there are over-cultural values shared with different societies which may be used as a basis for comparing the educational possibilities in different countries. One set of these is the UN universal declaration of human rights (UN, 1948). Though these values are ratified by most countries, it has faced critique from the Islamic countries as well as Asian countries because of a possible Western orientation (of the critique, see condensed in http://en.wikipedia.org/wiki/ Universal_Declaration_of_Human_Rights). The bottom line is, however, that there *are* universal human values and beliefs on which it is possible to build some objective criteria for "binding" indicators. One of these is the common basic worth and value of each individual.

**Table 1. A schematic division of the types of indicators**

| | Absolute indicators | | |
|---|---|---|---|
| | Absolute binding | Absolute preferable | |
| Binding indicators | • Schools/teaching available in a decent distance<br>• Students' and teachers' absence/presence in the schools<br>• Number of schooldays follows the norm<br>• School enrollment<br>• Accessibility for disabled students<br>• No bullying in schools<br>• No racism in schools<br>… | • The general average level of student achievement is decent or good<br>• The absolute level of student achievement raises in the country through the years<br>• the processes for the learning outcomes are proper and efficient<br>• The learning outcomes are produced economically sustainable way<br>• Decent student/teacher ratios<br>• No teacher's favoring in schools<br>… | Preferable indicators |
| | Parity in binding indicators between…<br>• rural/urban schools,<br>• private/community schools,<br>• geographical areas<br>• boys/girls<br>• language- or ethnic groups,<br>• different SES groups<br>• parents occupational-, educational- and economic background<br>… | Parity in preferable indicators between…<br>• rural/urban schools,<br>• private/community schools,<br>• geographical areas<br>• boys/girls<br>• language- or ethnic groups,<br>• different SES groups<br>• parents occupational-, educational- and economic background<br>• processes used in education<br>• economical resources of the schools<br>… | |
| | Relative binding | Relative preferable | |
| | Relative indicators | | |

The *absolute binding indicators* are mainly legislative orders for education: those must be fulfilled or, if not, the educational provider, school, or individual acts criminally or otherwise irresponsible. Such banal indicators as availability of a school with a decent distance, equal possibility of girls and boys to entrance the school, and absence/presence in the school, may be typical absolute binding indicator. In the modern discourse, one may say that the idea of "Education for all" is real and active when absolute binding indicators are active. Also, such obvious matters as bullying or racist behavior fall in this category. Mostly, the absolute binding indicators are hard-fact indicators; sometimes they may be taken as naive or banal – but, if there are evidently some problems in these areas, we need to monitor those. The absolute binding indicators reflect the normative equality ("same for all") and moral equity; they measure fairness in access to and to enjoy of the benefits from education as defined by Levin (2010). Many of the WB, OECD, and UNESCO indicators fall into this category.

The *relative binding indicators* point the relative differences in the binding indicators between specific groups such as geographical location of the school, school type (private/community), or schools management structures. There should not be any difference in students' and teachers' absence/presence between rural- and urban- or private- and community schools, or between the geographical areas within the country; children's possibilities in education should not be determined by an unlucky "accident" of being born in a certain city, in rural or urban area, or as boy or girl. If problems are found, such as inequality in reaching the education in different parts of the country, something should be amended in the system. Sometimes, the relative binding indicators may be more interesting than the absolute ones because they go strictly to the essence of proportional- and formal equality and moral equity; no difference should be found between the cases where there is something common between the cases and because everyone deserved the same dignity and the same respect. In the educational settings, the common element is the citizenship; all the children within one nation should to be offered the same possibilities to become what they can be.

The *absolute preferable indicators* are to do with the absolute facts of the learning outcomes and economic and efficient processes. These may be called also as quality indicators of the system related to the absolute matters. The learning outcomes and their increase in time seem to be the most used indicator of the processes in the general education (see PISA, TIMSS, PIRLS, and PIAAC results above); they can be classified as absolute preferable indicators. The economic aspect seems to be highlighted in PISA results (see OECD, 2013a). It seems that the quality of the *processes* is – for some reason – slightly on defensive. Also, decent student/teacher ratio can be taken as one of the absolute preferable indicators though there is no universal law of how many students there should or could be optimally for one teacher. The absolute preferable indicators reflect the Normative equality; "same for all", however, not that strictly as the binding absolute indicators. These indicators could be classified as equity indicators rather than equality indicators – we need to offer equal opportunities for all children to reach the preset goals for education, nuanced in the local curriculum.

The *relative preferable indicators* relate to schools, teachers and students: the schools should be given equal opportunities to provide student high level teaching, the teachers should be provided with the same kind of competencies and working conditions, and the students should be given equal opportunities to reach the same goals regardless the home background. Here the students' possibilities are highlighted over the schools' and teachers' possibilities. There should not be any difference between the learning outcomes between different geographical areas, boys and girls, or between the ethnic groups; children's learning outcomes should not be determined by an "unlucky accident" of being born as a boy or girl, in a certain ethnic group, or in low- or high SES group. If inequalities are found – such as inequality in reaching the educational goals between the language- or ethnic groups – the government should react adequately to amend in the system.

A practical difference between the relative binding and relative preferable indicators is that, while the society can do something with the access to school and with the action within the school, the society cannot change easily the reality in the students' families. It is known that the socioeconomic status (SES) of the pupil' family seems to explain the achievement level quite well but it cannot be changed easily; the poor families cannot be made rich easily, and it may be unethical to try to make the rich families poor. We cannot make the highly educated parents less educated to reach the equality of SES. Hence, one cannot do much for the phenomenon. However, if the reason for poorer results of the students from the low-SES families is the low educational level or illiteracy of the parents (part of the SES), the government can do something to increase the adult literacy rate in the country; if the reason is the low economical input from the families for their children, the government could compensate this, for example, by offering free lunches, travelling, textbooks, and so on to reduce the gap between the groups.

As a conclusion, though the absolute- and binding indicators are important in assessing the state of art of the educational equity in the country, the relative- and preferable indicators may be more interesting because they go strictly to the essence of proportional- and formal equality and moral equity; no difference should be found between the cases where there is something common between the cases and because everyone deserved the same dignity and the same respect. In the educational settings, the common element is the citizenship; all the children within one nation should to be offered the same possibilities to be what they can be regardless their home background. In what follows, mainly the *relative preferable* indicators are in focus, that is, the parity indicators based on the learning outcomes.

### 3.2 Some suggestions for parity indicators based on student assessment

The general aim of the national level assessment of student achievement is to produce objective, accurate, and comparative information of the state of art of achievement of the students in the nation to scan the possible weaknesses in the educational system. The aimed learning outcomes are usually nuanced in the national curricula.

The national level student assessment is used as an operating tool to evaluate the current state of the educational system to produce these aimed results. When there is no examination system (like in Finland) or there is a

separate student assessment and evaluation on the side of the examinations (like in Nepal), the aim of the student assessment is primarily *not* to assess the students themselves. Instead, based on the primary observations from the students, the aim is to assess the efficiency and equality in the educational *system*. The sample-based assessment is relatively cheap way to acquire this information. If problems are found – such as inequality to reach the educational goals in different parts of the country or between the language- or sex groups – something should be amended in the system. If the Ministry of Education and the other stakeholders, like teachers' unions, District Education Offices or teachers' trainers and curriculum developers, react adequately and efficiently to the assessment results, and the educational system is changed to reduce the inequality gaps between different groups, the sample-based student assessment has "barked its price". Though the discussion here, apparently, seems to focus on national assessment it does not exclude the international comparisons; the point is that the national level student assessment is organized to get information of the educational settings in the society. Very local assessment settings, like continuous assessment in schools, are not in focus here.

The indicators from here on, are called parity indicators; they can be compared with Gender parity; one expects no differences between the groups. In Tables 2a–2d, more nuanced parity indicators or indicator areas are compiled. The indicators are divided into four sets: parity indicators related the basic learning outcomes (Table 2a), parity indicators related with strict equality in learning outcomes (Table 2b), parity indicators related with other interesting factors that may have relevance in learning outcomes (Table 2c), and a selection of absolute parity indicators related with the learning outcomes (Table 2d). The suggestions are not exhaustive ones; more indicators can be found. Also, the names and abbreviations are arbitrary though justified. Except the last set, the indicators are practically *relative* ones; different groups are compared with each other. They are mainly preferable indicators; the learning outcomes are in focus. It may be possible, though out of the focus of this article, to create also indices based on the indicators.

### Indicators related to Elementary basic results of learning outcomes

The indicators related to the elementary basic results (see nuanced in Table 2a) can be divided into three. The indicators in the first set are based on the total national mean and the shape of the national distribution. These indicators are *Population Parity* Indicator (PPI, there should not be several student populations) and International/*National Parity* Indicator (INPI, the national results do not differ radically from the average international results). In language proficiency, where the criterion-based evaluation can be utilized (that is, standards such as the Common European Framework, CEFR – see also discussion of a parallel systemic in Mathematics in Metsämuuronen, 2018), the absolute ability level in the nation could be used also as an important indicator. It is not a parity indicator though.

The other set of indicators is related with content areas and item type wise results, such as *Content area Parity* Indicator (CAPI, no remarkable difference in achievement between the content areas, such as arithmetic and algebra in Mathematics), *Item type Parity* Indicator (ITPI, no remarkable difference in achievement between the subjective and objective type of items), and *Hierarchical level Parity* Indicator (HLPI, no remarkable difference in achievement between the different hierarchical cognitive levels of items, such as application type and recall type of items). The last of these (HLPI) can be questioned because the tendency in the real life is that the items reflecting higher skills (synthesizing and analyzing) are usually more demanding than the items for recalling the facts. Hence, we are expecting differences in achievement between the items reflecting the different hierarchical levels. However, there should not be any differences between sexes or school types in this regard.

The third type of indicator is *Continuity toward Parity* Indicator (CTPI, disparities are getting narrower during the years) which is, most of all, a longitudinal indicator and hence, maybe called an index.

### Indicators related strictly to equality in learning outcomes

The indicators related strictly with the equality in learning outcome results (see nuanced in Table 2b) can be divided into two. Obvious indicators related with the equality results are *Gender Parity* Indicator (GPI, no

differences between males and females), *Ethnicity Parity* Indicator (EPI, no differences between ethnic-, caste-, or religious groups), and *Home language Parity* Indicator (HLPI, no difference between the language groups).

The other set of indicators, related with geographical- and physical elements, include *District Parity* Indicator (DPI, no difference between districts or municipalities), Region Parity Indicator (RPI, no regional differences), *Geographical zone Parity* Indicator (GZPI, no differences between different living areas, such as in mountains, hills, and plains), *School type Parity* Indicator (STPI, no differences between community schools and private schools), *School location Parity* Indicator (SLPI, no difference between rural and urban schools), and *School language Parity* Indicator (SLPI, no differences in the results based on the administrative and instructional language of the schools).

### *Some relative indicators related to other factors connected with learning outcomes*

The indicators related with the other interesting factors (see nuanced in Table 2c) may be arguable. The indicators introduced here are based on the national assessment results from Nepalese reality; the large-scaled national assessments of student achievements in 2012 (Metsämuuronen & Kafle, 2013) and 2013 (ERO, 2014; Metsämuuronen & Illic, 2018) are based on very convincing datasets of more than 100.000 students from grade 3, 5 and 8 to analyze which factors seem to explain the learning outcomes in Nepal. Based on the results, some possibly interesting factors are raised here as indicators of educational parity and imparity.

The indicators include such parity indicators or indicator areas as *Parents' education Parity* Indicator (PEPI, there should be no difference in student achievement between the educational groups of the parents), *Parents' occupation Parity* Indicator (POPI, no difference in student achievement between the occupational groups of the parents), *Home possessions- and -accessories Parity* Indicator (HPAPI, no difference in student achievement with different amount of home possessions and -accessories), *Socioeconomic status Parity* Indicator (SESPI, no difference in student achievement between the SES groups), *Age Parity* Indicator (API, Students are studying with their normal age group), *Help in studies Parity* Indicator (HSPI, no difference in student achievement between the different stakeholders giving help in studies), and *Homework given and checked Parity* Indicator (HGCPI, no difference in teachers' actions in giving and checking the homework).

**Table 2a.** Parity indicators for the basic student achievement results

| Indicator area | Rationale | A possible result | Practical note on the rationale and interpretation based on Nepalese dataset |
|---|---|---|---|
| Population Parity Indicator (PPI) | Only one (normally distributed) population should be found. | "There are two distinctive student populations:" | Several populations may indicate inequality in the student population. Two distinctive student populations (or widened normal distribution) may indicate differences between boys and girls, different geographical areas or school types. |
| International/ National Parity Indicator (INPI) | The national results do not differ radically from the average international results | "The average reading proficiency in grade 5 in English is much lower than the international average in PIRLS items. Without linking the test scores with Item Response Theory (IRT) or Rasch modeling, the comparison does not make much sense. | The challenge in the international ranking lists and scores behind the ranks is that the international tests cannot measure the national goals. However, they tend to give indicative information of crude challenges in the national results. It is possible to combine the international item banks with the national tests by using linking items. Without linking the test scores with Item Response Theory (IRT) or Rasch modeling, the comparison does not make much sense. |
| Content area Parity Indicator (CAPI) | No remarkable differences in achievement between the content areas should be found | "The learning outcomes in the content areas of Reading and Writing are 7–8 percent units lower than in Grammar and Vocabulary." | In Mathematics, for example, the learning outcomes may be lower in the content areas of Algebra and Numeracy in comparison with Arithmetic and Geometry. This may mean that the teaching in Algebra and Numeracy may be inefficient or that the curriculum favors Arithmetic and Geometry. This indicator may tell inequality between the geographical areas or school types. |
| Item type Parity Indicator (ITPI) | No remarkable difference in achievement between the subjective and objective type of items should be found | "In most cases, the students started to do the productive task, but the skills were not high enough for the highest marks." | Students tend to be better in multiple choice type of items (MCQ) than in the tasks requiring ability to produce something themselves. Hence, it is understandable that the proportion of correct answers within the open-ended items is somewhat lower than within the MCQ type of items. This indicator may tell strictly what kind of tasks the students cannot manage, which, secondary, may tell inequality between the geographical areas or school types. |
| Hierarchical level Parity Indicator (HLPI) | No remarkable difference in achievement between the different hierarchical levels of items should be found. | "18% of students were not able to solve any of the tasks requiring higher ability." | Students tend to be better in recall type of items than in the tasks requiring ability to solve problems requiring higher skills. Hence, it is understandable that the proportion of correct answers within complex items is somewhat lower than within the tasks requiring only recalling type of ability. When, in the test suitable for the age level, 10-18% of students are not able to solve any of the tasks requiring higher ability, there seems to be problem in the educational system. Maybe, all students should be able to solve, at least, one task requiring ability to solve complex problems. |
| Continuity toward Parity Indicator (CTPI) | Disparities are getting narrower during the years | "Compared with the 1998 results, the students in urban schools score remarkably higher in 2012." | This indicator needs a historical and longitudinal dataset to be used. When the disparity in any parity indicator such as between boys and girls or between geographical areas gets smaller, it is a good sign from CTPI viewpoint. On the other hand, widened differences or no difference, when originally noticed, is a sign of a need for the system to react adequately. |

**Table 2b.** Parity indicators for the basic equality results

| Indicator area | Rationale | A possible result | Practical note on the rationale and interpretation on the basis of Nepalese dataset |
|---|---|---|---|
| Gender Parity Indicator (GPI) | No differences in achievement between males and females | "Though the differences between boys and girls in proficiency are statistically significant, in fact, they are very mild (0.6 percent units)." | In many societies, the education of girls has not been, historically, profitable for the family because the girls, in any case, turn to be part of the husband's family. The modern discourse, however, requires educational equity between boys and girls. Girls tend to be better in language while boys used to be better in mathematical studies. The latter is not necessarily reality in the developed countries any more. |
| Ethnicity Parity Indicator (EPI) | No differences in achievement between ethnic-, caste-, or religious groups | "There are statistically significant though not remarkable differences (5.6 percent units at the highest) between the castes in English." | As an example of ethnic background, the caste is given here. Though the caste system is officially abandoned it still lives in the mind-sets of most people in Hindu religion settings. Historically, the Brahmans and Cheetris have been heavily involved in education, but Dalits, "untouchables", for example, have been practically outside of the educational system. Hence, the modern society has made lots of efforts to make the education possible and accessible for all children. Any differences in learning outcomes are a sign of inequality in the society. |
| Home language Parity Indicator (HLPI) | No difference in achievement between the language groups | "The difference in English between the lowest and highest language groups is 53.0 percent points (out of 100%)." | The student achievement may depend on the language spoken in their homes i.e., the mother tongue of the students. The mother tongue reflects, in many cases, the ethnical background and hence any difference may be taken as a possible source for inequality in society. The ability of reading and writing in the major language may be one reason why these students seems to perform lower in the tests administered with the second language. |
| District Parity Indicator (DPI) | No differences in achievement between the districts | "There are wide differences (51.0 percent points at the highest) between the districts" | Districts are geographical areas between the regional- and municipal level areas. In some cases, these could be called municipalities also. The point is that there should not be any differences between the educational opportunities between the larger or restricted entities in the country. District wise differences may indicate economical or educational differences (lack of high-SES families, for example). |
| Region Parity Indicator (RPI) | No regional differences in achievement | "There is a wide difference between in the capital city and in the rest country (29 percent points)." | Regions are larger geographical areas in comparison with Districts (see DPI). In some cases, these could be called counties or provinces also. There should not be any differences between the educational opportunities between the larger entities in the country. Region wise differences may indicate economical or educational differences (lack of high-SES families, for example) in the different parts of the country. |
| Geographical zone Parity Indicator (GZPI) | No differences in achievement between the geographical zones | "There are moderate differences (5.3 percent units at largest) between the student performances in three geographical zones when the Capital city is omitted" | The Mountain, Hill and Plain are examples of geographical features in certain countries. These kinds of geographical zones may include, from the population point of view, the mixed ethnicities, weather conditions, economic activities, more or less aggressive development, as well as differences in the density of the human capacity. The differences between the zones indicate unequal opportunities for the children. |
| School type Parity Indicator (STPI) | No differences between community schools and private schools | "Students in the institutional schools outperform remarkably the students in the community schools. The difference is the widest in Reading (36 percent points)." | In some countries, like in Finland, the private schools are established because of some philosophical reason; the achievement results may be lower than in the standard community schools. In some other countries, attending a private school indicates higher socioeconomic status and, hence, the results may be higher than in the community schools. The reason is not necessarily the poorer teachers nor processes but the very intensive selection of the students. In any case, wide differences between the institutional and community schools indicate educational inequality in the society. |
| School location Parity Indicator (SLPI) | No difference between rural and urban schools | "Students in the urban community schools gain 12 percent point more than the students in the rural areas." | In many countries the universities are located and the aggressive development happens in cities. This means that the country's intellectual and economical capacity may be condensed in cities. In developing countries, this may lead to uncontrolled urbanization if the families, on a large scale, send their children to big cities to study and move later themselves to seek a better life. Ultimately, if this trend continues in the future, it may lead to a wider inequality in society between rural and urban areas as well as between the geographical zones (see GZPI). |
| School language Parity Indicator (SLPI) | No differences in the results based on the administrative and instructional language of the schools | "The students in the English media schools perform in English, naturally, much higher (36 percent points) than in non-English media schools." | In some countries, like in Finland and Canada, there are several official languages and the instruction language differs school wise. In that case, it is important to take care that the learning results do not differ in these schools. When testing a specific language, like English, in the English media schools, the better results are awaited. However, if there are differences in mathematics achievement, for example, it indicates educational inequality between the students. |

**Table 2c.** Parity indicators based on interesting factors related to learning outcomes

| Indicator area | Rationale | A possible result | Practical note on the rationale and interpretation based on Nepalese dataset |
|---|---|---|---|
| Parents' education Parity Indicator (PEPI) | No difference in student achievement between the educational groups of the parents | "36.4% of the students had an illiterate mother and 16.4% an illiterate father." | In Nepalese context, parents' educational level predicts well the children's future achievement level in English. Especially harmful for the achievement level seems to be the situation where the father or mother is or both are illiterate. |
| Parents' occupation Parity Indicator (POPI) | No difference in student achievement between the occupational groups of the parents | "54.9% of the mothers and 35.3% of the fathers worked in agriculture or only home." | In Nepalese context, economic- and intellectual capacity at home seems to be connected strictly with the children's achievement levels. If the father or mother or both are coming from an agricultural or related occupation, the students' achievement in Mother language, Mathematics, and English is significantly and remarkably lower than with the other occupational groups. |
| Home possessions- and -accessories Parity Indicator (HPAPI) | No difference in student achievement with different amount of home possessions and -accessories | "2.3% of the student did not have any of the 11 home possessions asked and 26.4% had none of the 3 accessories." | In Nepalese context, when children have very few home possessions (like a desk for homework or a dictionary) the achievement level is remarkably lower than the national average. When none or only one accessory (of a mobile phone, television, and computer) out of three is met, the results are lower than there are two or more met. |
| Socioeconomic status Parity Indicator (SESPI) | No difference in student achievement between the SES groups | "13.9% of the students are at the lowest level of SES." | SES is usually a combined statistic of parents' education (see PEPI), occupation (see POPI), and economical status (see HPAPI) in the society. In Nepalese context, the difference in student achievement between the lowest and highest SES groups is remarkable (40 percent points). A special structural problem seems to be the mothers' high illiteracy rate and low educational level (see PEPI). If the problems in parents' low educational level would be solved, the results in these groups may raise remarkably. |
| Help in study Parity Indicator (HSPI) | No difference in student achievement between the different stakeholders giving help in studies | "6.4% of the student get private tuition, 18.4% was helped by their teacher. The others were mainly helped by their sisters, brothers, or parents." | In the Nepalese dataset of 5th grade English, there is about 8 percent point difference between those who get any kind of help and those who don't get any kind of help and those who receive (private) tuition. The help given by the mother and by brother and sister seems to raise the achievement level more than help given by the father or teacher. The high percentage of private tuition indicates that there is very high competition in educational system. It is possible that the group with private tuition also spent more time on their homework, which may explain the higher score. |
| Homework given and checked Parity Indicator (HGCPI) | No difference in teachers' actions in giving and checking the homework | "3.0% of the student expressed that they did not get homework or those were not checked." | In the Nepalese context, if the teacher gave homework and checked them systematically, the achievement level of the students was statistically significantly higher than without checking or issuing of homework. This may indicate lack of teacher training, or that these students are not very serious in going to school (and hence, they did not notice that teacher, in fact, always gave the homework). |
| Age Parity Indicator (API) | Students are studying with their normal age group | "25.4% of the students of 5th grade fell aside 10–12 years." | In the Nepalese dataset of 5th grade English, the highest performance is with those students studying with their normal age group, that is, at the age of 10 to 12 years. Otherwise the achievement decreases as the age increases. The too high or low age of the students may indicate repeating classes, insufficient special- and supporting education, and irregularities in entering the school. |

**Table 2d.** Selected absolute parity indicators related to the learning outcomes

| Indicator area | Rationale | A possible result | Practical note on the rationale and interpretation based on Nepalese dataset |
|---|---|---|---|
| Availability of textbook Parity Indicator (ATPI) | All students should have access to a proper textbook | "4.3% of the students lack the proper textbook in English." | In the Nepalese context, the achievement level of those students with no proper text book is significantly, though not necessarily remarkably, lower than those who have access to the textbook. Lack of textbook may indicate systematic problems in delivery systems in remote areas. In any case, lack of basic textbooks is an absolute indicator of inequity in the educational system. |
| Working after school Parity Indicator (WPI) | No paid work nor too much household chores should be required from children | "31.3% of the student worked in the paid capacity and 22.6% spent more than 2 hours in the household chores." | In Nepalese context, either working in a paid capacity or for four hours per day unpaid on household work outside school reduces statistically significantly the school achievement of the student. Though most of the low-grade students do not usually work many hours per day in the paid capacity – mostly one hour or less – their volume is too much. In any case, the child labor is prohibited by the law; something profound needs to be done to reduce the need for the school children to work in a paid capacity. |
| Student behavior Parity Indicator (SBPI) | No student should be bullied by the students nor teachers | "56.0% of the students have encountered bullying in school within the last month and 5.3% of students are experiencing a severe kind of bullying." | Bullying is one of the problems in the school that worsens the learning environment for the students. In Nepalese context, bullying seems to be quite common in schools though extreme cases of severe bullying are rare (5% of the students in Nepal). This negative phenomenon causes needless harm to young children and has to be rooted out from the schools. |
| Teacher behavior parity Indicator (TBPI) | No student should be favored or neglected in school by the teacher | "8.6% of the students feel that their teacher does not treat them fairly." | Many students may feel that their teachers are not treating the students fairly. If this appears to be reality, teachers need to change their behavior; all the students should be treated equally regardless their background, motivation, or achievement level. All the teachers, teachers' unions and teachers' trainers should be aware of this potential threat of equality. |

*Some absolute indicators related variables related to learning outcomes*

Four absolute indicators which should show zero disparity are the *Availability of textbook Parity* Indicator (ATPI, all students should have access to a proper textbook), *Working after school Parity* Indicator (WPI, no paid work nor too much household chores should be required from children), *Student behavior Parity* (SBPI, no student should be bullied by students or teachers) indicating the frequency of bullying in school and *Teacher behavior Parity* (TBPI, no student should be favored or neglected in school) indicating the sense of unfairness of the teachers among the students.

In the Nepalese context, the achievement level of those students with no proper text book is significantly, though not necessarily remarkably, lower than those who have access to the textbook. Lack of textbook may indicate systematic problems in delivery systems in remote areas. In any case, lack of basic textbooks is an absolute indicator of inequity in the educational system. In Nepalese context, also, either working in a paid capacity or for four hours per day unpaid on household work outside school reduces statistically significantly the school achievement of the student. Though most of the low-grade students do not usually work many hours per day in the paid capacity – mostly one hour or less – their volume is too much. In any case, the child labor is prohibited by the law; something profound needs to be done to reduce the need for the school children to work in a paid capacity. Most probably the need for working in the paid capacity or need to participate more than 2 hours in the household chores is only one part of a complex knot of problems involved with the low SES affecting the low learning results. Bullying is one of the problems in the school that worsens the learning environment for the students. In Nepalese context, bullying seems to be quite common in schools (round 50% of the students expressed at least one kind of bullying out of five asked incidents) though extreme cases of severe bullying are rare (5–8% of the students expressed all 5 kinds of incidents). This negative phenomenon causes needless harm to young children and must be rooted out from the schools. Many students in Nepal feel that their teachers are not treating the students fairly. If this appears to be reality, teachers need to change their behavior; all the students should be treated equally regardless their background, motivation, or achievement level. All the teachers, teachers' unions and teachers' trainers should be aware of this potential threat of equality.

## 4. Concluding remarks

The starting point of the treaty was the notion that all children have the moral right to get equal opportunities in education even though they are different and unique. The theoretical section discussed of different types of equality and equity and concluded that we do not seek numerical equality, but we seek proportional- and formal equality on the basis on moral equity. That is, in each age group all the children should be given the same opportunities to learn because learning is one of the basic rights for the children.

The empirical section of the article asked how to measure the possible equality and inequality in the educational system. A simple framework for categorizing the indicators suggested four categories based on two dimensions: binding/quality indicators and absolute/relative indicators. The binding indicators ask: "are we doing what we *should* do" and the preferable indicators ask: are we doing what we should do with *good results*, providing all citizens *equal possibilities* with *efficient processes* with *economically sustainable* way". The absolute- and binding indicators are important in assessing the state of art of the educational *equity* in the country and the relative- and preferable indicators indicate the proportional- and formal *equality*; no difference should be found between the cases where there is something common between the cases and because everyone deserved the same dignity and the same respect.

The section proposing possible indicators for further use introduced 26 parity indicators based on learning outcomes and discusses their rationale and relevance based on National assessment of Student achievement in Nepal. These indicators were divided into four categories: parity indicators related the basic learning outcomes, parity indicators related with strict equality in learning outcomes, parity indicators related with interesting factors that may have relevance in learning outcomes, and a selection of absolute parity indicators related with

the learning outcomes. The suggestions are not exhaustive ones; more indicators can be created. However, these alone would enlarge our knowledge of the state of art of equity and equality in educational settings.

An obvious question is how the suggested equity indicators relate with the equity indicators published by the global players, WB, OECD, and UNESCO? The basic indicators of WB, OECD, and UNESCO seems to be absolute binding indicators based on numerical facts of the educational system while the 26 indicators here are relative preferable indicators based on learning outcomes. OECD has published also equity indicators based on learning outcomes; small portion of the 26 indicators suggested here tangent the ones used in OECD equity report (OECD, 2013a) but they enlarge notably the possibilities to monitor the equality in the educational system. The indicators suggested here tangent also quite well with Lewin's (2010, p. 8 ff.) identification of general groups of students for whom we are expecting to see the educational equity: gender, socioeconomic status, ethnicity, race, immigrants, language, region, and disability. This article provides us practical tools for assessing the possible inequalities and understanding *what* kind of equality we are seeking with the selected indicators.

One mild disclaimer of the international testing of student achievement comes, however, from the fact that the test items need to be constructed such way that they cannot perfectly match the national curriculum of any country. The international comparisons should be used very carefully as a basis of any changes in the education. Namely, the *national* student assessment is used as a tool to evaluate the state of the current national educational system to produce the aimed results nuanced in the national curricula. We need to keep in mind that the national curriculum is the political will of the country; those contents in the curriculum must be fulfilled – not any international testing setting's goals. If a country is famous of – for example – poetry and music and the country is willing to give that inheritance to the next generation, why should they change those specific topics to more mathematical and science-oriented subject just because those happened to interest other countries? On the other hand, the selection should be conscious: what consequences there may be not to concentrate on those subjects which internationally are lifted high. This mild disclaimer does not mean that the international testing settings, such as PISA, TIMSS, PIRLS, and PIAAC, are worthless – quite an opposite: they *are* important because they give comparable information of student achievement over the countries. Their possibilities in tackling the national questions are just limited and, hence, we need also national level assessment to ask whether the national goals are achieved.

International comparisons of equity and equality are challenged by Levin's (2010) note that there is no natural state of educational equity, but one defined by each society based on its values and the imperative that it sets for the issue as a moral commitment. If really each society may define educational equity in different ways and use different criteria for assessing equity in the overall population and among different groups, the question is: how, and on what basis, we would create comparable measurement instruments for all societies for educational equity? Maybe the generic equality indicators based on national learning outcomes would be one part of this kind of toolbox.

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# Knowledge, Attitude and Practical Response of Adult Population to Global Campaign on Climate Change in Lagos State, Nigeria

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**Abstract**

This study was carried out to investigate knowledge, attitude and practical response of adult population to global campaign on climate change in Lagos State, Nigeria arising from the observation that climate change or global warming as the greatest threat facing the human race. This study adopted the descriptive survey research of the Ex-post Facto Type. The population of this study comprised all the adults resident in Lagos state with specific reference to the following: Market women association (Epe division), Radio transport workers union Epe division), Academic staff unions in tertiary institutions (Michael Otedola College of Primary Education EPE Lagos), Non-Academic staff unions in tertiary institutions (Michael Otedola College of Primary Education EPE Lagos), and Secondary school teachers (international Secondary School, (Michael Otedola College of Primary Education EPE Lagos), The sample size of 600 respondents was selected through proportionate and simple random sampling techniques. The findings showed that significant proportion of the respondents of the study had a low knowledge of what climate change is as well as its causes and effects on human existence. So also, the attitudinal disposition of majority of the respondents to climate change was indifference. The findings equally showed that both the formal and informal communication channels should be used for advocacy and public awareness of climate change particularly on how to make responsible decisions and choices towards ensuring a safer environment and healthy planet. Finally, findings revealed that the most appropriate area of focus for public enlightenment is to educate people to consume less electricity, to drive cars which burn less oil or gasoline, to buy local and organic foods/farm produce close to their areas of production, to buy local and organic foods/farm produce close to their areas of production, to buy energy-efficient electronics and appliances with energy star label.

**Keywords:** Knowledge, Attitude, Campaign on Climate Change

## 1. Introduction

Man, ever since creation has always been faced with civilization, moral, health, and environmental problems (Cortese, 2007). These problems have often been created by human progress which has accelerated in the last one thousand years. The latest of these problems, which has been universally perceived as threatening human existence, is climate change or global warming. In other words, the "Earth on Fire," a phrase which has been

aptly used to describe climate change, is now generally perceived as the greatest threat facing the human race (IPCC, 1988). In the last 100 to 200 years, scientists have observed that there had been a real increase in the average temperature of the surface of the earth. In 1896, the Swedish scientist, Svante Arrhenius, made the first actual calculations of the effect of climate change or greenhouse warming in which he estimated that a doubling of carbon dioxide in the atmosphere would increase the global average temperature by 4°C to 6°C. The three main indicators of climate change according to the science of global warming (2010) are: Rise of air and ocean temperature or global surface temperature, rise of global sea level, and loss of snow and ice cover.

Scientists have estimated that since the late 19th Century, there has been a real, though irregular, increase in the global surface temperature. This was observed during the period of 1910 to 1940. However, temperatures declined slightly from 1940 through 1975. It eventually picked-up again during the 1980s. During a 100 year period of 1906 to 2005, the global average temperature rose by 0.74°C. During the last couple of decades, the planets witnessed some of the hottest years on record. For example, 11 out of the 12 years between 1995 and 2006, ranked among the 12 warmest years since 1850 (Charron, D.F., Thomas, M.K., Waltner-Toews, D., Aramini, J.J., Edge, T., Kent, R.A., Maarouf, A.R. and Wilson, J. (2004).

During the 20th Century, scientists estimated that the sea levels rose by 17cm (6.7inches). They rose faster in the second half of the century than in the first half. It has been predicted that by the end of the 21st century, the sea level may rise by 18 to 59cm (7-23inches) depending on a range of different scenarios. It is generally believed that the sea level rise is consistent with the temperature rise and general warming tendency. Loss of snow cover is another indicator of climate change. Snow cover in the Northern hemisphere of the Earth declined by 4% between 1820 and 2005. The decrease in snow cover has also been consistent with the general warming trend.

By the middle of 1980, the world began to pay more attention to the phenomenon of climate change and the potential dangers it was posing to the planet. As a result, the international community came together to establish and institutional framework that provides space for further research and development of policy recommendations for managing climate change. A scientific body known as Inter-Governmental Panel on Climate Change (IPCC) was established by the United Nations in 1988. IPCC was established for the purposes of evaluating the risk of climate change caused by human activities.

Similarly, in 1992, the United Nations convened an international conference on Environment and Development in Rio de Janeiro, Brazil at which 162 heads of state developed a 21 point action plan for human progress in the 21st century. Agenda 21 of the conference, popularly called the Earth summit, sets the international framework for sustainable development and international environment treaties the purpose of this agenda was to improve health for current and future humans, build strong, secure, and thriving communities, and provide economic opportunity for all by restoring and preserving the integrity of life support system called the biosphere. A body known as United Nations Framework Convention on Climate Change (UNFCCC) was constituted at the summit to "stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." In the same vein, a follow up agreement to the United Nations Framework Convention on Climate Change was adopted in 1977. It is called Kyoto Protocol. The purpose of the protocol is to set out 'mandatory requirements for signatories to reduce greenhouse gas emissions to certain levels.'

In Nigeria, the media have mounted different programmes to create public enlightenment on the phenomenon of climate change. For example, in Lagos State, both the government and privately-owned media organization (LTV, Channels, Silverbird, NTA 2, and MITV) have been mounting jingles, documentaries, motivational talks, and personality interviews to sensitize the public about climate change and its potential dangers to human existence. This study is being carried out to determine the knowledge level and the attitude of adults residents in Lagos State.

## 2. LITERATURE REVIEW

This study was comprehensively reviewed. Therefore, literature reviewed covered the following:
Similarly, the theoretical framework of this study was anchored on the theory of Constructivism.

**Climate Change Impact on Public Health A Nigerian Case Scenario**

Climate change affects virtually all populations globally with the highest level of vulnerability experienced by most of the world's poorest countries. The impact of climate change on the health of the public, with for instance the warming of planet is projected to have both positive and negative consequences which vary temporally and spatially. Climate change, however, may not act to introduce new causes of morbidity and mortality, but to change the distribution of factors that affect the occurrence of morbidity and mortality.

Available evidences show that climate change will be global likewise its impacts, but the biting effects will be felt more by the developing countries especially those in Africa due to their low level of coping capabilities (Mshelia, 2005; Nwafor, 2007; Jagtap, 2007). Nigeria is one of such developing countries. Researchers have shown that Nigeria is already being plagued with diverse ecological problems, which have been directly linked to the on-going climate change (Odjugo and Ikhuon, 2003; NEST, 2003; Chindu and Nyelong, 2005; Odjugo, 2005; Ikhile, 2007). Ahmad and Ahmed (2000), IPCC (2001), NEST (2003) and Hengeveld et al. (2005) provided indicators that one could use to assess the evidence of climate change in a region. These include increasing temperature, increasing evapotranspiration decreasing rainfall amount in the continental interiors,, increasing rainfall, in the coastal areas,• increasing disruption in climate patterns and increasing frequency and intensity of unusual or extreme weather-related events such as; thunderstorms, lightning, landslides, floods droughts, bush fires, unpredictable rainfall patterns, sea-level rise, increase desertification and land degradation, drying up of rivers and lakes and constant loss of forest cover and biodiversity.

Climate change affects everyone. Those already affected by poverty, malnutrition and disease will face displacement and new, hardships. All sectors of our socio-economic development, including the natural ecosystems, are vulnerable to climate change. In general, climate change presents significant threats to the achievement of the Millennium Development Goals especially those related to eliminating poverty and hunger and promoting environmental sustainability (Adefolalu et al., 2007). Climate change would increase vulnerability and hinder or reverse the development process. In Nigeria, the sectors which are considered most vulnerable to climate change are agriculture and food security, water resources, public health, and habitat (particularly the urban center's along the coast). Vulnerable regions are coastal regions (including deltas, especially those affected by storms and storm-induced floods) and erosion and desertification-prone areas in the southeastern and northern parts of the country. Vulnerable community includes farmers, fishers (especially those living in the vulnerable region), the elderly, women, children and poor people living in urban areas (Adesina et al., 2007).

The health impacts of climate change in Nigeria occur in diverse ways and as a result of the prevailing poor health care system, the impacts are observed to be highly devastating (Odekunle et al., 2008). The impact is either direct or indirect. Some of the direct impacts of climate change on health in Nigeria include illness, injury, stroke and deaths due to increased exposure to extreme weather conditions viz: heat waves and effects on respiratory systems. Indirect effects of climate change and sea-level rise include altered spread and transmission of vector-borne diseases (including malaria, etc.) and altered transmission of contagious diseases (including cholera, influenza, etc.).

The time frames over which health consequences of climate change are anticipated to manifest are sufficiently slow to allow adaptive measures to come into play that may modulate the occurrence of these effects. Data to support a broad understanding of the susceptibility and vulnerability of the populations to a wide range of diseases caused by climate change are generally lacking in Nigeria This paper therefore focuses on the prevalence of some climate-related morbidity conditions across the different ecological zones in Nigeria with a view to establishing a baseline for instituting appropriate climate adaptation strategies.

Nigeria is made up of six ecological zones, ranging from a belt of mangrove swamps and tropical forests along the coast to open woodland and savanna on the low plateau which extends through much of the central part of the country, to the semi-arid plains in the north and highlands to the east. Between the arid north and the moist south lies a Guinea Savanna Zone sometimes referred to as the middle belt. The middle belt's southern edge represents the lower limits of the northern grain-dominated economy. Rainfall is heaviest in the south where the rain forests and woodlands benefit from abundant precipitation and relatively short dry seasons. The northern third Of Nigeria experiences a dry season of five to seven months, and lies mostly in the Sudan and Sahel Savanna zones. Iloeje (2001), grouped the country into (A) forests and (B) savanna zones. These two major zones were further sub-divided into three zones each such as (A Forests that consist of (i) salt-water swamp, (ii) fresh-water swamp (iii) high forest; and (B) Savanna zone that consist of (i) Guinea savanna (ii) Sudan savanna, and (iii) Sahel savanna. Figure 1: Ecological Zones in Nigeria



Figure 1: Ecological Zones in Nigeria
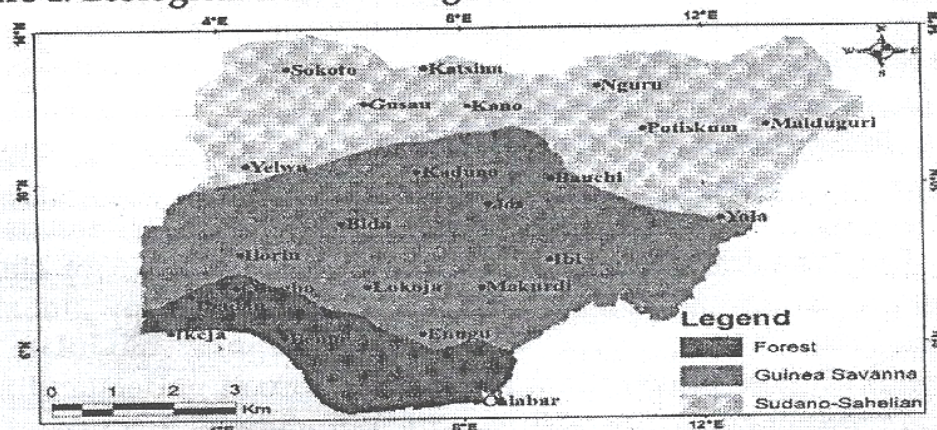
Source: Francis et al., 2011

**Meteorological Characteristics**

**Rainfall**

Trends in the total annual rainfall between 1961 and 2008 and the mean annual rainfall between 1961 and 1990 in the Sudano-Sahelian, Guinea Savanna and Forest ecological zones of Nigeria, are depicted in Figures 2a-c respectively. According to the figures, there had been declining trends since 1961 up to 1983 and upward trends thereafter till 2008. In all the ecological zones. Tests of significance show that the observed downward trends are statistically significant in the Sudano- Sahelian and Forest zones, while the upward trends were statistically significant in the Sudano-Sahelian ecological zone alone. The result of the Sudaño-Sahelian zone further confirmed the earlier findings of Haarsma et al., (2005) and Odekunle et al., (2008). Figures 3a-c depict the observations (the total annual rainfall) in 1980- 1999 and climate change scenarios predicted for 2080-2099, observations in 1980- 1999 and 2004-2008 and climate change scenarios predicted for 2080-99 and observations in 1961-1990, 1980-1999 and 2004 2008 and climate change scenarios for 2080- 2099, respectively in the three ecological zones of Nigeria.

Figure 2a: Total annual rainfall trend in Sudano-Sahelian Zone of Nigeria (1961-2008)
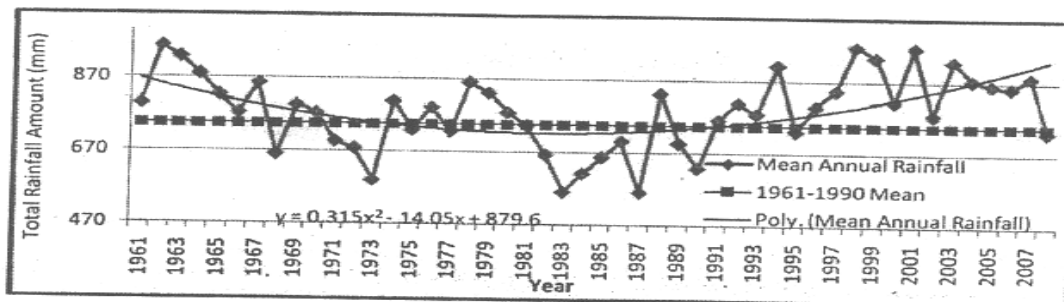


$y = 0.315x^2 - 14.05x + 879.6$

Figure 2b: Total annual rainfall trend in Guinea Savanna Zone of Nigeria (1961-2008)



$y = 0.147x^2 - 8.241x + 1362.$
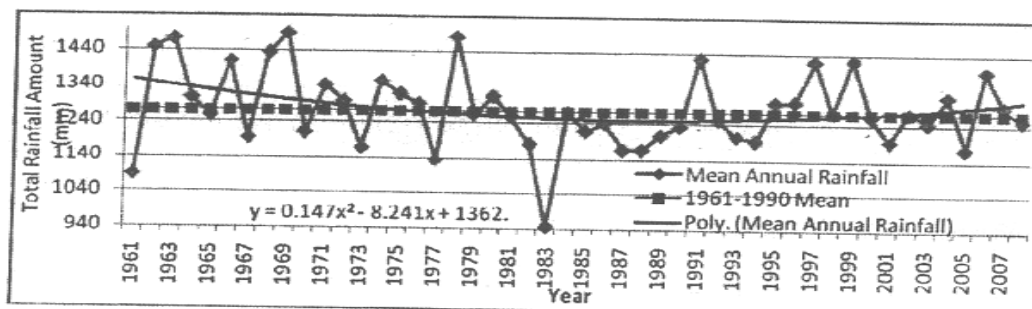
Figure 2c: Total annual rainfall trend in Forest Zone of Nigeria (1961-2008)



$y = 0.356x^2 - 18.16x + 2139.$
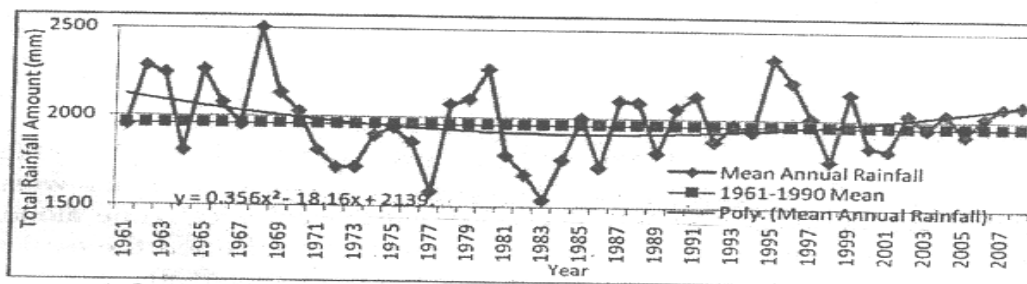
Source: Atlas on Regional Integration in West Africa, 2008

## 2. Result

The results indicate that there is no significant difference between 1961 to 1990 and 1980 to 1999 mean annual rainfalls in all the zones. The significant differences observed are among the averages of 1961-1990, 1980-1999 and 2004- 2008. The comparison of the 2004-2008 average with that of the base year of the projection (1980-1999), indicated increases in the annual rainfall of 12.4%, 3% and 3.4% in the Sudano Sahelian, Guinea Savanna and Forest zones, respectively. When these values are compared with the projected values, the projection is in the right direction but not right in terms of the magnitude especially, for those of the Sudano-Sahelian and Forest ecological zones. The projection of 15%, 10% and 5% rainfall increase in the respective zones are meant for a century (1980/99-2080/99), but have already been attained 12.4%,3% and 3.4% in 1ss than a decade (1980/99-2004/08).

## Methodology

This study adopted the descriptive survey research of the Ex-post Facto Type. This design was chosen because both the independent variable (knowledge, attitude and practical response of the adult population) and the

dependent variable (global campaign on climate change) have already occurred. Therefore, there was no need for any manipulation of the variables. Hence, in this study, the interrelationship between the independent and dependent variables were critically observed.

## 3. Empirical Result

**RQ1: What is the knowledge level of the respondents on the causes and effects of climate change on human existence?**

**Table 1**

|                                          | Non-respondent | Percentages |
|------------------------------------------|----------------|-------------|
| Academic staff:                          |                |             |
| Sufficient knowledge                     | 87             | 72.5        |
| Limited knowledge                        | 33             | 27.5        |
| Non-Academic staff:                      |                |             |
| Sufficient knowledge                     | 73             | 60.83       |
| Limited knowledge                        | 47             | 39.16       |
| Teachers(Sec.Sch.) :                     |                |             |
| Sufficient knowledge                     | 44             | 36.66       |
| Limited knowledge                        | 76             | 63.33       |
| Market women:                            |                |             |
| Sufficient knowledge                     | 118            | 98.33       |
| Limited knowledge                        | 02             | 1.66        |
| Road Transport & Okada Rider Union:      |                |             |
| Sufficient knowledge                     | --             | --          |
| Limited knowledge                        | 20             | 100         |
| Total                                    | 600            | 100%        |

The findings on this research question revealed that 87 (72.5%) academic staff members selected from Akoka College of Education, Yaba Lagos.

Lagos State had sufficient knowledge of climate change as 'well as its causes and effects on human existence while the remaining 33 respondents (27.5%) had limited knowledge of the issue. Similarly, 73 respondents (60.83%) from the non- academic staff members in the institution had sufficient knowledge of the causes and effects of climate change while the remaining 47respondents (39.16%) had limited knowledge of the issue. 44 (36.66%) teachers from the institution's secondary school had sufficient knowledge of the causes and effects of climate change while the remaining 76 teachers (63.33%) had limited knowledge of the issue. 118 (98.33%) members of the Epe market women association had no idea of the causes and effects of climate change while the remaining 02 (1.66%) had limited knowledge of the issue perhaps as a result post-secondary educational background. However, all members of the Road Transport Union, Epe Division) had no idea of the causes and effects of climate change. The implication of this finding is that a significant proportion of the respondents of the study had a low knowledge of what climate change is as well as its causes and effects on human existence.

**RQ 2: What is the attitudinal disposition of the respondents to climate change particularly with the knowledge that the excessive warming of the earth is significantly caused by the activities of humans?**

**Table 2**

|                       | Non-respondent | Percentages |
|-----------------------|----------------|-------------|
| Academic staff:       |                |             |
| Sufficient knowledge  | 87             | 72.5        |
| Limited knowledge     | 33             | 27.5        |
| Non-Academic staff:   |                |             |
| Sufficient knowledge  | 73             | 60.83       |
| Limited knowledge     | 47             | 39.16       |

| | | |
|---|---|---|
| Teachers(Sec.Sch.) : | | |
| Sufficient knowledge | 44 | 36.66 |
| Limited knowledge | 76 | 63.33 |
| Market women: | | |
| Sufficient knowledge | 118 | 98.33 |
| Limited knowledge | 02 | 1,66 |
| Road Transport & Okada Rider Union: | | |
| Sufficient knowledge | -- | -- |
| Limited knowledge | 120 | 100 |
| Total | 600 | 100% |

The findings on this research question showed that 87 (72.5%) members of the institution's academic staff submitted that they are aware that excessive warming of the earth is significantly caused by the activities of humans while the remaining 33 respondents (27.5%) had limited knowledge of the issue. Similarly, 73 respondents (60.83%) from the non-academic staff members in the institution had sufficient knowledge of the causes and effects of climate change while the remaining 47 respondents (39.16%) had limited knowledge of the issue. 44 (36.66%) teachers from the institution's secondary school had sufficient knowledge of the causes and effects of climate change while the remaining 76 teachers (63.33%) had limited knowledge of the issue. 118(98.33%) members of the Epe market women association had no idea of the causes and effects of climate change while the remaining 02 (1.66%) had limited knowledge of the issue perhaps as result post-secondary educational background. However, all members of the Road Transport Union, Epe Division) had no idea of the causes and effects of climate change. The implication of this finding is that significant proportion of the respondents of the study had a low knowledge of what climate change is as well as its causes and effects on human existence. The implication of this finding is that the attitudinal disposition of majority of the respondents to climate change is indifference.

**RQ 3: What are the various dimensions through which the people can be enlightened to make responsible decisions and choices towards ensuring a safer environment and healthy planet?**

**Table 3**

| | Non-respondent | Percentages |
|---|---|---|
| Academic staff: | | |
| Sufficient knowledge | 117 | 19.5 |
| Limited knowledge | 3 | 2..5 |
| Non-Academic staff: | | |
| Sufficient knowledge | 119 | 99.16 |
| Limited knowledge | 1 | 0.83 |
| Teachers(Sec.Sch.) : | | |
| Sufficient knowledge | 95 | 79.16 |
| Limited knowledge | 25 | 20.83 |
| Market women: | | 79.16 |
| Sufficient knowledge | 95 | |
| Limited knowledge | 25 | 20.83 |
| Road Transport & Okada Rider Union: | | |
| Sufficient knowledge | 95 | 79.16 |
| Limited knowledge | 25 | 4.16 |
| Total | 600 | 100% |

The findings on this research question showed all the respondents had different opinions on the various dimensions of enlightenment on climate change. 117 (97.5%) members of the academic union and teachers in the institution's secondary school preferred the mass media (Radio and television) as the most potent means of enlightening people on climate change while the 3 members (2.5%) preferred television alone. 119 (99.6%) members of the non-academic staff union preferred the mass media (Radio and television) as the most potent means of enlightening people on climate change while the 1 members (0.83%) preferred radio alone. 95

respondents from the markets and 95 road transport associations preferred visitation to their union's headquarters during association meetings, the use of role models in the theatre industry as well as the use of opinion leaders for advocacy and awareness creation while all the respondents from the two association preferred that these informal channels of communication should be complemented with the mass media. The implication of this finding is that both the formal and informal communication channels should be used for advocacy and public awareness of climate change particularly on how to make responsible decisions and choices towards ensuring a safer environment and healthy planet.

**RQ 4: What specific areas should public enlightenment, advocacy, and awareness campaigns on climate change among the people focus on?**

**The findings of this research question are summarized thus:**
**i**. 101 (16.83%) out of the total respondents contended that the most appropriate area of focus for public enlightenment is to educate people to drive cars that burn less oil or gasoline.
**ii**. 258 (43%) submitted that the most appropriate area of focus for public enlightenment is to educate people to consume less electricity.
**iii.** 52 (8.66%) submitted that the most appropriate area of focus for public enlightenment is to educate people to use compact fluorescent bulbs rather than normal bulbs since they use a quarter of the electricity and last ten times as long as nora1 bulbs.
**iv**. 67 (11.16%) contended that the most appropriate area of focus for public enlightenment is to educate people to plant a tree or protect a forest since tress breathe in carbon dioxide which could have been released into the air and in turn cause excessive warming of the earth.
**v.** 69 (11.5%) submitted that the most appropriate area of focus for public enlightenment is to educate people to buy local and organic foods/farm produce close to their areas of production.
**vi.** 13 (2.1%) submitted that the most appropriate area of focus for public enlightenment is to educate people to buy energy-efficient electronics and appliances with energy star label. Energy star label electronics and appliances help reduce electricity bill.
**vii.**6 (1%) submitted that the most appropriate area of focus for public enlightenment is to educate people to the advantages of using recycled materials to produce new products since products produced from recycled materials save 60 to 80% energy. -
The implication of this finding is that the emphasis should be placed on the specific areas of focus on climate change enlightenment campaigns.

**DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

This research is focused on knowledge, attitude and practical response of adult population to global campaign on climate change in Lagos State, Nigeria. As a case study, the writer chose the Market Women Association, Radio Transport Workers, and Okada Rider Union (Epe Division) Academic Staff Union in Tertiary Institution, Secondary School Teachers, MOCPED International Secondary School,  College of Education  Akoka Yaba Lagos.

This was geared towards ascertain the attitudinal disposition of the adult populace to climate change particularly with the knowledge that the excessive warming of the earth is significantly caused by activities of human. The implication of this finding shows indifference attitudinal disposition.

The study finds out the knowledge level of the respondents on the causes and effects of climate change on human existence. The significant proportion of the respondents of the study had low knowledge of what climate change is as well as its causes and effects on human existence.

The study identify the various dimensions through which the adult populace can be enlightened and properly educated to make responsible decision and choices toward ensuring a safer environment The implication is that both the formal and informal communication channels should be used for advocacy and public awareness of

climate change particularly on how to make responsible decisions towards ensuring a safer environment and healthy planet.

Finally, the area of focus for public enlightenment is to educate people to consume less electricity. To educate people to use compact fluorescent bulbs and to educate people to plant tree and to protect forest.

**Recommendations**

Based on the findings of this study, the following recommendations are made to ensure that people become more knowledgeable of the phenomenon of climate change. The recommendations are:
1.  Efforts should be massively intensified towards increased public enlightenment and awareness of climate change. Everybody must be involved. The media, particularly radio, television, newspapers, news magazines, etc. must see it as a national call and duty to educate the people on the phenomenon.
2.  The media organizations can make use of renowned personalities such as movie actors and actresses, opinion and community leaders in the communities, market leaders, road transport union leaders, politicians, local government chairmen, among others for the sensitization and enlightenment campaigns.
3.  The specific areas of focus of the sensitization and enlightenment campaigns should follow this pattern:
    i.    Enlightenment of the people to consume less electricity.
    ii.   Enlightenment of the people to drive cars which burn less oil or gasoline.
    iii.  Enlightenment of the people to buy local and organic foods/farm produce close to their areas of production.
    iv.   Enlightenment of the people to plant a tree or protect a forest since tress breathe in carbon dioxide, which could have been released into the air and in turn cause excessive warming of the earth.
    v.    Enlightenment of the people to use compact fluorescent bulbs rather that normal bulbs since they use a quarter of electricity and last ten times as long as normal bulbs.
    vi.   Enlightenment of the people to buy energy-efficient electronics and appliances with energy star label. Energy star label electronics and appliances help reduce electricity bill.
    vii.  Enlightenment of the people to take advantages of using recycled materials to produce new products since products produced from recycled materials save 70 to 90% energy.

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# Legal Aspect of Inclusive Education for Persons with Disabilities in Indonesia

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**Abstract**
Education is at the forefront of global development. Meanwhile, persons with disabilities (PWD) play a prominent role in development. Based on the importance of the role of PWD in development, it is necessary to improve the rights, dignity, and welfare of persons with disabilities. One of the action that can be taken by providing equal, equitable and quality educational services according to their physiognomies. Thus, education can be provided through Special Schools and Inclusive Education. The implementation of inclusive education in Indonesia is influence by several social phenomena, but social phenomena often coexist with legal issues. This article aims to identify the legal barriers that hinder the Indonesian government from bringing the right to inclusive education for persons with disabilities in Indonesia. This article is a socio-legal article in which all the information gathered are analysed qualitatively. The analysis shows that, there are weaknesses in the legal substance. The weakness in legal substance strengthens the shortcoming in legal culture, which constitute the social phenomena in society. Therefore, the action that the Indonesian government will take need to take into account the weaknesess in legal substance and the shortcomings in the legal culture.

**Keywords:** Inclusive Education, Persons with Disabilities, Legal Culture, Indonesia

## 1. Introduction

The commitment to uphold the human rights of persons with disabilities will only be beneficial if it includes the discussion about the right to education for persons with disabilities. The right to education as an object of rights must be fulfilled, and persons with disabilities must be regarded as the legitimate subject holders of the right. At the same time, the discussion on human rights, will covers on the responsibilities of the government as the benefactor.

The basic rights of persons with disabilities must be given special attention since they are categorized as vulnerable or marginalized groups. Generally, the community conceives that the right to education for persons with

disabilities can be fulfilled by sending them to Special Schools. However, the data from the Ministry of Education stipulates that in 2017/2018, the total number of Special Schools in Indonesia is 2,157 (Center for Education and Culture Data and Statistics, Ministry of Education and Culture Republic of Indonesia, 2018). The distribution of Special Schools in several regions in Indonesia are at the same time uneven. Therefore, many remote areas in Indonesia do not have Special Schools. The number of regular schools are higher than the Special School, for example, Natuna Island, Riau Islands, has one Public Special School only. Moreover, according to the data from the National Ministry of Education of Indonesia in 2016/2017, there are only four Public Special Schools and one Private Special School in West Papua Province (Center for Education and Culture Data and Statistics, Ministry of Education and Culture Republic of Indonesia, 2017). In general, the condition of Special Schools is of a lower standard in comparison  with regular schools.

In the 19th century, there was a debate related to education for persons with disabilities in Europe. There were pedagogical principles for schools and special classes in Germany and Norway. Norway divided students with disabilities into four categories: First, those who after two or three years of special study can be brought back to ordinary school; second, those who continue in these classes for confirmation; third, those whose are in ordinary classes are deemed insufficient will return to special schools; and fourth, those which really cannot be educated (Copeland, 1995).  In Britain, Shuttleworth advocated the establishment of separate schools for the education of persons with disabilities, especially for persons with mental disabilities. As a consequences of Shuttleworth approach,, students segregation occurs, while the approach adopted by Norway that persons with disabilities, to either re-entering regular school when achieving comparable levels in special classes allows integration . As such, Shuttleworth limits education for persons with disabilities and implies restrictions on the social experience and potential of these students.

There are several mechanism of education services that can be used for persons with disabilities. The mechanisms as proposed by UNICEF  are (UNICEF, 2012):

    a.   Exclusion, where persons with disabilities are not given any access to get an education in any form, either directly or indirectly.
    b.   Segregation is intended as education for people with disabilities by presenting a separate environment from regular students. Segregation is designed or used to respond to certain disorders from persons with disabilities. Segregation provides isolation space from regular students.
    c.   Integration is an educational service that places students with disabilities in regular schools, as long as students with disabilities can adjust to the school's standard requirements (UNICEF, 2012).[1] In this service, students can remain in a different location from regular students.
    d.   Inclusion or inclusive, involving students with disabilities along with regular students study in the same class, in the same school, in the same environment. The approach is taken to overcome barrier, providing all students with a fair and participatory learning experience and learning environment that best suits their requirements and preferences. Hence, in the mechanism of inclusive education services, there is a systemic reform process that requires changes and modifications in methods and strategies in education.

The development of human rights requires inclusive mechanism to be used as in developing education services for people with disabilities. Inclusive education is not only meant education services for persons with disabilities, but also for all individual. The aim is  to remove barriers to the limited participation of all students. Inclusive education respects the different needs of each student. Thus, it shall be expected that Education for All (EFA) will be achieved without discrimination.

Basically, inclusive education is an important educational service mechanism for marginalized students (including persons with disabilities) since the segregation education service mechanism provides marginalization within the community.  Differentiating or divide education services for marginalized groups has an impact on the ability of persons within social life in society as discussed in. the case of *Brown v. Board of Education* (Gauthier, 2014).

This case is about education for persons with disabilities, but this case offers the basis to understanding what inclusive education is about, which is education without barriers and discrimination. This case began in 1954, when a student who was not accepted to go to a regular school due to colour file a legal suit. This student was a marginalized minority student. Then, the case was brought to the United States Supreme Court, and the judge's pronounced that educational facilities were for all individuals without exception and separate education was not permitted. Gauthier draws conclusions from the above case by reflecting inclusive education for persons with disabilities. He assumes that education is inherent to all marginalized individuals, vulnerable individuals, including persons with disabilities. A similar opinion is also held by Polat. He explains that the mechanism of educational services that are able to meet the needs of every learner without conditions is amount to inclusive education because this will promote inclusive society.(Polat, 2011).

In ASEAN countries, inclusive education was first declared in Thailand through the Jomtien Declaration in 1990 by UNICEF, UNESCO, and UNDP. The Jomtien Declaration is the beginning of the United Nations' commitment in achieving the EFA. The core of the Declaration is access to education equitably for all persons or all children, ensuring education access and improving the quality of education equitably for all persons both underprivileged children, child laborers, street children, children in remote areas or minority groups, persons with disabilities, child workers migrants, refugees, child victims of war, and other marginalized persons/children. They shall get the right to free education, at least at the level of basic education. To remove barriers and to permit access to education, inclusive education adjusts the conditions of the students.

Inclusive education then develops in line with the agreement of the international community in committing to EFA. This international commitment is also influenced by the World Conference on Special Needs Education in Salamanca Statement 1994. The Salamanca Statement seems clearer in explaining inclusive education for persons with disabilities. Inclusive education for persons with disabilities has a different method than inclusive education for other marginalized groups. The removal of educational barriers for persons with disabilities, as explained by Sulaimanov, is done by other methods. The methods adjust to the conditions of persons with disabilities through adapted teaching methods, adaptation of curriculum, modified assessment techniques, and accessibility arrangements (Sulaimanov, 2015). Therefore, it is necessary to look at Salamanca's statement in paragraph two regarding inclusive education for persons with disabilities (Salamanca Statement, 1994);

a. every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning
b. every child has unique characteristics, interests, abilities and learning needs
c. education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs
d. those with special educational needs must have access to regular schools which should accommodate them within a child-centered pedagogy capable of meeting these needs
e. regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

From the understanding of inclusive education, it is tangible that Indonesia, which upholds human rights, to play a major role in the implementation of inclusive education to wipe out the barrier and ensure non-discrimination in education for persons with disabilities. Indonesia has explicitly regulated inclusive education in Article 32 of Law 20/2003 on the National Education System which stipulates that special education is provided for learners who have difficulties in following the learning process because of physical, emotional, mental, and social deficiencies, and also for those with proven intelligence and especially gifted. Furthermore, with specialeducation services is provided for learners in the remote and less developed areas, isolated areas, and/or for learners who are victims of natural disasters, suffer from social deficiencies, and those who are economically disadvantaged. Based on the issued above, it is necessary to understand the rule of inclusive education to enhance the right to education for Indonesian disable persons. This understanding is necessary to recognize the impediments that exist at the implementation stage in Indonesia, especially in terms of the law involved.

## 2. Literature Review

Persons with disabilities tend to be systematically excluded from mainstream education efforts.  Special education students still lag behind their regular peers in the achievement of education, and they tend to be considered to have lower expectations, even though education is important for persons with disabilities (Aron & Loprest, 2012). Actually, in order to succeed in school, the disabled need responsive education with a good-quality (Croft, 2013). Meanwhile, the goal of inclusive education is not only merely for  quality education but also education that lead to the social justice. Inclusive education provides an opportunity to make distinctions between 'moral' and 'mechanical' reforms. It is also revisiting the conceptions of the goal of schooling and education (Miles & Singal, 2009). For this reason, the joint commitment of the international community towards inclusive education for persons with disabilities needs to be appreciated.

Inclusive education for persons with disabilities in Indonesia is still weak since many impediments. It is still rare to find regular schools that can accept children with disabilities and there are still many regular schools that are reluctant to make these schools as inclusive schools. The findings of several previous studies concluded that problem of inclusive education in Indonesia is related to the culture, lack of understanding, ability, and experience of educators, and support from parents as well as the community (Ro'fah, 2011), (Amanda & Weny, 2015), (Satrio & Juhri, 2018) The phenomenon that occurred in previous studies shows problems from the aspects of education, social and policy. But these aspects are inseparable from the legal aspects. Legal aspects play a role in the implementation of a policy. Research findings in several countries link the sustainability of inclusive education with law enforcement. For example, the regulation regarding education in Rwanda focuses on segregation rather than on inclusion, even though there are Special Needs Education Policy in Rwanda, but the policy was not designed specifically for disabilities, it also covers other marginalized groups of vulnerable children (Vedaste, 2013). The inclusive education in Kenya are regulated in different, overlapping, and sometimes disjointed policies. In addition, there is no precise programmatic planning, thus makes it difficult to monitor the implementation (Murungi, 2013).  Therefore it can be understood  that law is the result of policy; law and public policy at the level of practice, cannot be separated and both are complementarity. Logicallylaw without a policy will lose its meaning substantially, and a policy without legal sanction will be lacking  in the operational dimension of the policy (Birkland, 2011).

## 2. Method

This article is a socio-legal research with qualitative data. Socio-legal is important as an interdisciplinary approach to analyze legal in the social phenomenon. Socio-legal research is not only relying on norms or text-based justice efforts, but also links social contexts that influence social justice. This is important for Indonesia's study since legal problem complexity that occurs and persists in Indonesia (Herlambang, 2008). This research analyzes the legal system in the implementation of national law related to inclusive education. This qualitative research selects the provincial-based on the percentage of the national gross enrolment rate of students with disabilities who enroll in an inclusive school. Those provinces are D.I. Yogyakarta and Central Kalimantan (Figure 1.). Data obtain an in-depth interview from inclusive schools; teachers, special guidance teachers (*Guru Pembimbing Khusus* - GPK), or principals from two Public Junior Secondary Schools (Sekolah Menengah Pertama Negeri – SMPN) in two provinces.  Inclusive schools are taken randomly based on a large number of students with disabilities. Those inclusive schools are SMPN 2 Sewon in D.I. Yogyakarta, which has 666 students, consisting of 643 regular students and 23 students with disabilities. Meanwhile, the second inclusive school is SMPN 5 Palangkaraya with 308 regular students and 22 students with disabilities. The large number of students with disabilities is expected due to the better understanding of problems that occur in the implementation of inclusive education.

Figure 1. Scope of research

|  | **D.I. Yogyakarta** | **Central Kalimantan** |
|---|---|---|
| Regulation | Governor Regulation on Implementation of Inclusive Education number 21 Year 2013. | Local Regulation of Central Kalimantan on Implementation of Education Number 10 Year 2012 |
| Students in regular school | 599,738 | 503,227 |
| Students with disabilities who enroll in inclusive school | 3,471 | 1,366 |
| % Students with disabilities who enroll in inclusive school from total students | 0.58% | 0.27% |
| National gross enrolment rate of students with disabilities who enroll in inclusive school | 0.34% | 0.34% |

Sources: Directorate of Special Education, Directorate General of Primary and Secondary Education, Ministry of Education and Culture Republic of Indonesia (2015/2016)

The enroll student with disabilities in inclusive school is determined 0,34% by the government.  D. I. Yogyakarta has local regulation and has higher percentage of the national gross enrolment rate. Meanwhile, Central Kalimantan has almost reached the national gross enrolment rate, but it does not have specific provincial regulation regarding to inclusive education. This preliminary data indicates the diversity of social condition in Indonesia that may influence the fulfillment of inclusive education. Other data sources are come from; Directorate of Special Education, Directorate General of Primary and Secondary Education Ministry of Education and Culture, teachers/principal, and Indonesian Child Protection Commission (*Komisi Perlindungan Anak Indonesia* - KPAI). The primary data is followed by secondary data, which divided into primary sources and secondary sources. Primary sources consist of law, provisions, such as international conventions and national law. Secondary sources consist of books, journals, official statistics, research documents, published articles, reports of government or international bodies, and other library-based sources.

**3. Results**

In general, inclusive education is recognized by community as part of the educational service mechanism for persons with disabilities, although in fact, the meaning is much broader. In International Covenant on Economic, Social, and Cultural Rights (ICESCR), precisely in General Comment number 13 related to the right to education stipulates that there are four fulfillments of the right to education, and the member states of the covenant have obligations related to fulfilling the right to education as the commitment of human rights. The four obligations are available, accessible, acceptable and adaptable. According to Katarina Tomasevski, the four indicators of fulfilling the right to education are based on human rights. This is due to the state's obligation to fulfill the right to education, which is the responsibility of the government in upholding human rights (Tomasevski).

The availability of schools in the two provinces is quite adequate. The schools are located in the city of the surrounding population. Reasonable accommodation such as physical building accommodation for students with disabilities in SMPN 2 Sewon, D. I. Yogyakarta is better than in SMPN 5 Palangkaraya, Central Kalimantan, which is still not fully friendly to disable. The reason can be observed in road conditions and toilets. The physically reasonable accommodation is far from the ease of students with disabilities to use it. For instance, there are no

ramps and handles on the toilet. Likewise, the availability of teachers, especially GPK. Fortunately, SMPN 2 Sewon D. I. Yogyakarta has GPK from a special teacher who is a teacher in special schools. She comes to inclusive school once a week to aid the students with disabilities. Whereas, there is absolutely no GPK in SMPN 5 Palangkaraya, Central Kalimantan. Regular teachers often do not understand how to deal with the students with disabilities. However, schools are capable of accepting by modification of learning to adjust the students with disabilities conditions, and the ability of regular students to tolerate the students with disabilities. Hence, the school is able to provide adaptability. This needs to be understood when talking about inclusive education in inclusive schools is when schools can design and arrange materials, learning, and assignment that are tailored to the needs of students with disabilities in indicators of accessibility divided into three access. First, the principle of non-discrimination against physical access. Both schools can be reached by all major students with disabilities. The ability of special needs to attend school near their resident is one of the efforts in inclusive education, through the principle of non-barrier. Individual non-discrimination has been embedded in regular students, thus the threat of bullying is not felt in both schools. Economic access in two junior secondary schools are public schools that are free. Thus, those schools are friendly in economic access according to the law which stipulates that basic education (primary schools and junior secondary schools) is compulsory education and shall to be free.

However, overall obstacles can clearly be felt because reasonable accommodation as a step in realizing inclusive education for students with disabilities is still not fulfilling. It was said in the General Comment, that there were eight obstacles to the implementation of inclusive education (General Comment number 4 of Article 24 CRPD):

a. the failure to understand or implement the human rights model of disability, in which barriers within the community and society, rather than personal impairments, exclude persons with disabilities;
b. persistent discrimination against persons with disabilities, compounded by the isolation of those still living in long-term residential institutions, and low expectations about those in mainstream settings, allowing prejudices and fear to escalate and remain unchallenged;
c. lack of knowledge about the nature and advantages of inclusive and quality education, and diversity, including regarding competitiveness, in learning for all; lack of outreach to all parents and lack of appropriate responses to support requirements, leading to misplaced fears, and stereotypes, that inclusion will cause a deterioration in the quality of education, or otherwise impact negatively on others;
d. lack of disaggregated data and research, necessary for accountability and program development, impeding the development of effective policies and interventions to promote inclusive and quality education;
e. lack of political will, technical knowledge, and capacity in implementing the right to inclusive education including insufficient education of all teaching staff;
f. inappropriate and inadequate funding mechanisms to provide incentives and reasonable accommodations for the inclusion of students with disabilities, inter-ministerial coordination, support and sustainability;
g. lack of legal remedies and mechanisms to claim redress for violations.

Of the eight weaknesses above, Indonesia is almost certain to experience all these weaknesses. In this study, cultural factors influence the weakness of the inclusive education implementation. These are the conclusion from interviews with teachers, GPK, and principals from both inclusive schools, SMPN 2 Sewon, D. I. Yogyakarta, and SMPN 5 Palangkaraya, Central Kalimantan. Some people tend to have different thoughts when talking about disability. Some people think the disabled persons need charity, disabled persons could be disturbing, or sometimes they feel shame if they have a disabled family member. When a regular school accepts students with disabilities, then it becomes an inclusive school, community and parents tend to judge the school unable to accept students with disabilities, or they feel worried for regular students disturbed by the behavior of students with disabilities. Conversely, there is a tendency for parents of children with special needs to choose to send their children to inclusive schools not for the child's progress but because of the shame factor when studying in Special Schools. Those skepticism of thought has been embedded into a culture. It provides a challenge in the application of inclusive education policies. Aside from the community, weakness is also felt by the local government's political will.

D.I. Yogyakarta already has rules D.I. Yogyakarta Governor Regulation 21/2013 on the Implementation of Inclusive Education stipulates that the district/municipality must guarantee the implementation of inclusive

education according to the needs of students and each education unit must accept students with disabilities. The district/municipality is obliged to guarantee the availability of teachers, including GPK, as well as infrastructures and facilities (Article 2 and Article 3 Governor Regulation of D. I. Yogyakarta 21/2013). Hence, Yogyakarta has a D. I. Yogyakarta Mayor Regulation Number 47/2008 concerning the Implementation of Inclusive Education. Even some regencies/cities in the province already have rules related to education for persons with disabilities, although not specifically inclusive education. It appears that the implementation of inclusive education in inclusive schools in D. I. Yogyakarta is better than schools in Central Kalimantan. The availability and accessibility of GPK sources are better even though for physically reasonable accommodation has not been fulfilled.

Central Kalimantan has Local Regulation 10/2012 concerning the Implementation of Education, but did not specifically regulate inclusive education. Hence, it was seen the deficiency in implementation. From the results of interviews in the field, it appears that there is no GPK available at the school and the lack of facilities available for students with disabilities. It can be concluded that local government regulations strongly support the process of implementing inclusive education in regions such as in D. I. Yogyakarta compared to Central Kalimantan.

Besides interviews with the school, interviews were conducted with the ministry of education and culture. The results of the interview can be concluded that there are still many local governments that have not implemented inclusive education policies by making regulations in their regions. Local government political will is still weak (MoEC, 2019). Likewise, the community has not yet fully brought the issue of violations related to inclusive education to the litigation path. They tend to bring into the process of deliberation (KPAI, 2019).

## 4. Discussion

Limited special schools in Indonesia should not decrease the access of the right to education for persons with disabilities. By inclusive education, students with disabilities are easy to study in an inclusive school. Therefore, various provisions are regulated to implement the policy as part of the enforcement of the right to education for persons with disabilities.

Talking about the provisions related to inclusive education for persons with disabilities means talking about the ICESCR, which regulates the right to education and the Convention on the Rights of Persons with Disabilities (CRPD), which regulates the rights of persons with disabilities. Education without barriers and non-discrimination in inclusive education puts forward the four indicators listed in ICESCR General Comment No. 13. Meanwhile, Article 24 of CRPD explains the right to education for persons with disabilities. The article states that CRPD members must ensure an inclusive education system at all levels and lifelong learning. In General Comment number 4 of Article 24 of CRPD clearly states that inclusive education requires transformation in policy, culture and practice. The reason is because of many obstacles found in the implementation of inclusive education.

The government has granted education rights to all citizens without exception in accordance with the mandate of the 1945 Constitution. Efforts are made by making regulations ranging from Law Number 20 of 2003 concerning the National Education System, Law Number 8 of 2016 concerning Persons with Disabilities, Minister of National Education Regulation Number 70 of 2009 concerning Inclusive Education For Students with Special Needs Has The Potential of Intelligence and or Students with Special Talents, and Minister of Research, Technology and Higher Education Regulation Number 46 of 2017 concerning Special Education and Special Education with Special Services.

The efforts to implement inclusive education policies are part of the state obligations to fulfill economic, social and cultural rights. Inclusive education for persons with disabilities is accomplished progressively as regulated in Article 2 of the ICESCR. Article 2 of ICESCR stipulates that state undertakes to take steps depend on the availability of resources needed in the implementation of economic, social and cultural rights. The government is gradually taking actions, but quick action is expected. If resources are limited, state has an obligation to continue to ensure the fulfillment of the wide possible rights under these limited conditions, including the provision of reasonable accommodation for persons with disabilities.

Law enforcement can be reviewed from three components namely legal structure, legal substance, and legal culture. Legal Structure is institutionalization of law, such as law-making institutions, implementing institutions or legal bureaucracies, judiciary comprises the public courts, number of judges, and integrated justice systems. The legal substance is related to the process of making a legal product carried out by law makers. Legal culture is an element of social attitudes and values. Legal culture refers to general cultures such as habits, people's opinions, and ways of thinking and acting (Friedman, 1987). In terms of legal structure, many cases related to the rights of persons with disabilities are resolved by litigation. But according to KPAI, no cases related to inclusive education have been brought to the litigation path. Generally resolved through deliberations. This is caused by factors from the community that did not bring it to the legal route. If seen from the legal substance, Indonesia issued Law 8/2016 concerning Persons with Disabilities in lieu Law 4/1997 on Handicapped Persons, by changing the paradigm of thinking with no charity based. Article 40 of Law 8/2016 has formulated regarding inclusive education, but at an advanced stage, Indonesia is still designing specifically about reasonable accommodation, thus the real impediments have not yet resolved. However, the observation results of the study appear that the impediments lie in the legal culture, in policies that have not yet fully touched down to the regional level. The weakness of political will from the regional government due to the order of the existing legal rules provides an opportunity for the regional government not to implement the policy. Before Law 8/2016, rules related to inclusive education were in Ministerial Regulation 70/2009.

Ministerial regulations are made by the relevant minister. In accordance with the task of minister in Article 17 of the 1945 Constitution, thus the functions of the Ministerial Regulation are as follows (Maria, 2007):
a.  Organise general arrangements in the context of carrying out government power in their fields.
b.  Organise further arrangements in the Presidential Regulation.
c.  Organise further regulation of provisions in the Law that explicitly state it.
d.  Organise further regulation provisions in Government Regulations which explicitly state it.

Ministerial Regulation 70/2009 was formed by referring to Law Number 20/2003 concerning the National Education System; Government Regulation Number 19/2005 concerning National Education Standards; Government Regulation Number 38/2007 concerning the division of Government affairs between the Central Government, Provincial Governments and Regency / City Governments; Presidential Regulation Number 9/2005 concerning Position, Duties, Functions, Organizational Structure, and Work Procedures of the State Ministries of the Republic of Indonesia (as amended several times, the latest by Presidential Decree of the Republic of Indonesia Number 77 / P of 2007). Article 32 paragraph (3) of Law 20/2003 enumerates that implementation of provisions for special education and education with special services, shall be further stipulated by the Government Regulation. Hence, further rules related to special education should be regulated in a Government Regulation, but there are no rules related to special education until Minister Regulation 70/2009 appears. Although there are no rules above which explicitly mention it, this Ministerial Regulation still has legal binding as a statutory regulation.

The Law on the Formation of Regulations Number 10/2004 does not regulate the laws and regulations that are formed on the basis of authority, including in the case of ministerial regulations. Ministerial Regulation established without any delegation from the higher statutory regulations before Law Number 12/2011, known theoretically as policy regulations (*beleidregels*). That is a decision of a state administration official which is regulating and indirectly general binding, but not legislation (Bagir & Kuntana, 1997). The provisions of Article 8 paragraph (2) of Law Number 12/2011 stipulate that there is no difference between Ministerial Regulations which are statutory regulations and Ministerial Regulations which are policy rules. Thus, the position of Ministerial Regulations as policy regulations have been formed before the enactment of Law 12/2011 remains valid as long as it is not revoked or canceled. The difference between Ministerial Regulations which are statutory regulations and Ministerial Regulations which are policy rules is the authority of the Supreme Court to examine regulations. Ministerial Regulation which is a policy regulation, cannot be verified by the Supreme Court.

This Ministerial Regulation has become a polemic due to it reliance on good will of local government. Ministerial Regulation 70/2009 is a more technical regulation in implementing policies. As Bagir Manan and Kuntana Magnar opinion, Ministerial Regulations were formed without any delegation from higher legislation are policy regulations (*beleidregels*), which are indirectly binding on the public (Bagir & Kuntana, 1997). Ministerial Regulation 70/2009

was made by the Ministry of National Education as the central government. Meanwhile, the education sector is a concurrent government affair thus, the regional government has the authority to regulate education, vice versa the central government does not have authority. Hence, it seems that there is no need for local governments to obey the ministerial regulation. Moreover, the division of the authority of inclusive education in the regions (basic education in the district/city, while for secondary education is in the provincial level) provides local governments do the other priority policy as its concern. Each region has a priority scale in implementing policies, and there are still many provincial and district/city governments that do not yet see inclusive education as a priority scale. Ministerial Regulation 70/2009 regulates, but it is indirectly binding public, but not statutory regulations. Therefore, inclusive education in regions does not run optimally if there is no willingness from the local government.

From the hierarchy of legislation, government regulations are higher than ministerial regulations. On the other hand, the authority of the Ministry of Education and Culture as the central government and the Local Authority such as Bureau Offices (*Dinas*) at the local government are complementary to one another. The relationship lies in the vision, mission, goals, and functions of each. They serve the community fairly and evenly in various aspects of life. Thus, each has its own authority. Ministerial Regulation 70/2009 gives a mandate to local governments and cannot be implemented in the regions since local governments are not subject to regulation. Ministerial regulation does not have the power on the local government. In contrast to the government regulation issued by the president and certainly has more pressure on the local government.

Ministerial Regulation 70/2009 is specifically related to Inclusive Education for Students with Disabilities and Potential for Special Intelligence and / or Talent, while Law 8/2016 is concerning Persons with Disabilities. Certainly, Law 8/2016 does not explicitly regulate inclusive education. Therefore, Ministerial Regulation 70/2009 must be immediately revised to contain more comprehensive rules regarding reasonable accommodation for students with disabilities.

The latest rules related to inclusive education have been made, namely the Minister of Research, Technology and Higher Education Regulation No, 46 of 2017 concerning Special Education and  Education with Special Services. The regulation regarding inclusive education for primary and secondary education levels does not yet regulate. The government is currently drafting a government regulation on reasonable accommodation for the education of persons with disabilities. This draft will strengthen the legal position of the implementation of inclusive education in the regions. A reasonable accommodation is important since reasonable accommodations ensure non-exclusion from education for persons with disabilities. Failure to provide reasonable accommodation constitutes discrimination on disability grounds. All legislation and policy must be reviewed to ensure that it is not discriminatory for persons with disabilities because it shall be in violation of Article 24 CRPD (General Comment Number 4 of Article 24 CRPD).

A commitment of local government related to inclusive education for persons with disabilities can be implemented by local regulations, specially regulated the availability of reasonable accommodation in the field of education. This effort may change the existing legal culture, and thus inclusive education can be enforced. In the field finding, legal culture results seem to be the impediments. Cultural skepticism that has been inherent in society can be modified by the existence of binding rules in the regions. Strategies for strengthening the legal substance can be through the formation of local regulations. But this strategy should be followed by strengthening the awareness of the local head in committing an emphasis on local regulation-making. However, the lack of public awareness of their basic rights in economic, social and cultural life needs to be changed through the campaign for building rights awareness. The role of advocacy needs to be in accordance with the legal doctrine (Soetandyo, 2007). Collaboration with other communities can provide outreach and advocacy.

## 5. Conclusion

The key to the problem of implementing inclusive education that cannot proceed smoothly is due to the legal substance and legal culture that exists in Indonesia. The rules regarding inclusive education have been well stated in Law 8/2016, but at the implementation level, it has not been fully properly regulated. It is expected that the draft

government regulation related to reasonable accommodation for the education of persons with disabilities will bring awareness from the local government to concern and commit to inclusive education for persons with disabilities. For this reason, the legal culture of the community needs to be changed. They need to understand on the importance of education for persons with disabilities, in the same manner that the perceived the importance of education for regular children. The role of the community is enormous in providing understanding and conducting advocacy to the community.

**Acknowledgments**

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# In Support of Home-Grown Teachers: An Examination of Factors that Supported the Success of Pre-Service Teachers in a Bilingual Education Program from 2012-2017

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**Abstract**

In this research, a university professor examined the university path and ultimate career trajectory of eleven Bilingual Education pre-service teachers in a South Texas university, which serves an underrepresented population.  The study followed the set of the eleven participants who began their academic journey to become Bilingual certified teachers, earned their degrees, and then pursued professional careers in the same geographic area. The results of this five-year study revealed the barriers Bilingual Education pre-service teachers face and showed that their commitment to remain in the profession supports the movement towards home-grown teachers.

**Keywords:** Bilingual, Dual, Pre-Service, Teachers

## Introduction

Beginning in 2012, a group of preservice teachers embarked on an academic journey together in pursuit of Texas certification in the area of Bilingual Education. The eleven Latinas, all natives of the South Texas region, attended a local, Hispanic Serving Institution (HSI) with hopes of giving back to their local community. Between 2012 and 2017, the participants were enrolled in a cohort of rigorous Bilingual Education courses and field experiences. The cohort consisted of an 18-month sequential set of courses which delivered two courses with faculty instruction completely in Spanish. The same two courses also included 64 hours per course of time spent in a public school campus classroom. Critical to the success of the cohort was the consistent mentorship of an experienced faculty member and campus mentor.  As of January 2019, all members of the original cohort have remained in the teaching profession; therefore, regardless of additional factors or variables, the retention rate remains high. Despite facing adversities and multiple challenges, each of the participants has continued to work as a public school teacher; the majority of them have remained in the same geographic area and with the same school district.

**Purpose of the Study**

In 2012, the eleven participants began the academic journey to become Bilingual state-certified teachers in Texas. The students enrolled in a pre-service program at a university in South Texas which provides an educator preparation program to an underserved population and is designated as a Hispanic Serving Institutions (HSI).

For the next five years, the researcher tracked the progress of the members of the cohort as they completed the university courses and state certification exams. The purpose of the study was to determine whether these graduates who had sought state certification in Bilingual Education would remain employed as public classroom teachers. The review of the literature indicates that a high attrition rate exists in the education profession (Reyes and Alexander, 2017). Attrition has been a prevalent topic on both the state and national levels and continues to be closely monitored by education agencies. However, relatively few studies have investigated the barriers Bilingual Education (BE) teachers face to become certified and who are "home-grown" in their local communities. Home-grown teachers intend to serve the population where they grew up and to teach Bilingual children. As a result, this study provides unique and valuable insight into the subject. Furthermore, the snapshot of these eleven young women who persevered despite personal tragedies and amidst changes to the Bilingual Education certification requirements highlights their strength and personal value system in regard to their commitment to the education profession, as well as their community of Bilingual students and English Language Learners (ELLs).

**Review of Literature**

**Bilingual Education**

The demand for BE certified teachers has increased as the rise in the number of ELLs persists in our public-school systems in the United States. Accordingly, ELLs represent the fastest-growing population of students in the United States (Bardack, 2010). Consequently, a corresponding need exists for universities to provide effective educator preparation programs to produce bilingual teachers for future classrooms. Thus, universities and school districts must address these concerns in order to provide adequate services for ELLs and BE populations. For the purposes of this study, the term Dual Language (DL) refers to instruction with the goal of implementing instruction in two languages. The term DL and BE will be used interchangeably. More specifically, the two terms, DL and BE refer to those programs where instruction occurs in two languages where the goal is biliteracy

Although BE programs were developed as different waves of immigrants entered the United States, these programs usually and for the most part, consisted of Early Exit BE programs. Early Exit Programs and Late Exit Programs still maintain the goal of transitioning students towards using English most of the time and eventually eliminating their native language. However, over the last twenty years, the widespread implementation of BE programs that foster, promote and maintain the use of two languages has only seen a rise over the last twenty years. The presence of BE programs has not always meant, at least in the United States, that students receive formal academic instruction in two languages with the desired outcome of having students have equal communication and academic language skills in two languages throughout elementary school

Bilingual Education is an innovative form of schooling in the United States in which ELLs receive instruction in both their native language and in English. In the Bilingual Education classroom, ELLs strive to acquire English-speaking skills while also working and developing their native language (Krashen, 1997). The objective of the Bilingual Education philosophy is to respect both cultures and ensure that the learners acquire proficiency in two languages. The implementation of BE programs has been adopted in other countries such as Singapore and, as a matter of fact, is integral to their overall success as an educational system that is consistently ranked high in the global PISA scores (Geneser & Wu, 2015).

Successful BE programs stand as very beneficial to our society because these programs enable ELLs to develop their literacy skills in two languages. As Krashen (1997) highlights in *What is Bilingual Education?* ELL students are able to successfully develop both content knowledge and literacy, which are the two most important components of learning a new language. Through DL programs, students gain essential knowledge from subject

matter taught in their native language and also become more fluent in English as they concurrently develop the proficiencies needed to master reading material in two languages. The central aim of BE educators is to foster each student's development in a second language via the preservation of a student's native language and culture (Krashen, 1997). The scope of this research is limited to programs in South Texas and in the United States.

## Shortage of DL Certified Teachers

A shortage of DL teachers has persisted for the past three decades throughout the entire United States, not just in states that have a large immigrant population. Historically, teaching vacancies in BE programs in school districts go on due to a dearth of qualified teachers (Mitchell, 2018).

The unqualified teachers who fill open positions are a cause for concern because they often lack knowledge related to the methodology and pedagogy related to teaching DL. Often times, they also do not possess the linguistic proficiency of the students' native languages. Moreover, these same teachers remain unprepared to teach ELLs, unlike a teacher who holds BE certification. (Gandara, et al., 2003). Unfortunately, Gandara et al. (2003) have stated that, when compared with other students in the general population, ELLs are more likely to be taught by teachers who have emergency credentials. Emergency credentials, in Texas, consist of allowing an individual to enter the classroom without holding the state-required credentials for state board certification. Research shows that ELLs taught by teachers without proper BE certification do not make as much progress, as those who are taught by certified BE teachers (Gandara et al., 2003; Kane, Rockoff & Staiger, 2008).

The dire shortage of qualified BE in the United States remains a challenging predicament for the entire educational system. However, in order to make sense of the shortage of practitioners, the stakeholders in the educational system must become familiar with the essential components of a successful DL program. Another issue to take into consideration is the sobering fact that the majority of DL teachers are also part of a "cultural minority" whose enrollment in education programs has dramatically dwindled in recent years (Reyes and Alexander, 2017).

## Bilingual Teacher Retention and Why It Should Matter

Teacher retention is an important field of education research that focuses on what factors affect whether teachers stay in schools, move to different schools, or leave the profession (Betancourt, 2018). For the purpose of this study we are stepping back and looking at factors like student characteristics, demographics, faculty mentoring and support, financial assistance, high-quality induction and mentorship programs available once BE teachers are placed in a public school in a student's Teacher Preparation Program (TPP) and its implications to the overall teacher retention rate in a local district in South Texas that serves low-income students that are English Language Learners (ELLs).

The importance of this research lies in the potential impact it can have on the 100,000 + classrooms that every year across the United States are staffed by a teacher that is not fully qualified and/or certified because districts continuously face an ongoing teacher shortage (Podolsky, Kini, Bishop & Darling-Hammond, 2016; Sutcher, Darling-Hammond, and Carver-Thomas, 2016). While many would be quick to point the finger at recruitment issues the problem lies much deeper and is poorly understood. Addressing teacher retention is critical for both the College of Education and the local school districts that it serves through its pipeline. The cost of not retaining these teachers impacts student learning and student achievement while also significantly straining a districts' budget (Hanushek, Rivkin & Shiman, 2016).

The pipeline of potential teachers is shrinking and this is even more so for specialization areas such as Bilingual, Math and Science. With the diminishing number of potential applicants to Teacher Preparation Programs (TPPs), the characteristics of those applicants are also changing; BE teachers face financial barriers to higher education and likely insufficient individualized faculty advising. In addition, changes in certification requirements (TPP can only prepare candidates to meet certification requirements but do not award the certificates), many find that they can complete a program but are unable to meet the certification requirements (face tougher and pricier exams)

(Cowan, Goldhaber, Hayes, & Theobald 2016; Ronfeldt, M., Loeb, S., & Wyckoff, J., 2013; Sorensen & Ladd 2018).

Many TPPs have long ago recognized the need to increase the racial and linguistic diversity of its teacher candidate pool by removing barriers to entering the teaching profession. These barriers include learning to navigate the higher education system. When these teacher candidates are able to make it through a TPP and become certified then they are confronted with heavy workloads, lack of instructional materials (hours spent translating content and exams, supporting students from poverty, providing adequate emotional support and the increased demands for dual-language education (a complex and specialized field). Research has suggested that for bilingual teachers to be successful in the classroom they need to have knowledge of the students, the content, the language, and effective practices. They also must understand and have experienced second language learning and have positive attitudes toward the language and bilingual learners. This can be addressed through mentoring which helps teachers feel less isolated, find support and learn instructional strategies to be better able to address the linguistic and content needs of their students. Mentorship can also help with the socio-cultural as well as pedagogical concerns and issues teachers face in their daily work (Will, 2017; (Podolsky, Kini, Bishop & Darling-Hammond, 2016; Sutcher, Darling-Hammond, & Carver-Thomas, 2016).

Teacher Preparation Programs play a pivotal role in moving preparation of bilingual teachers to the forefront of the professional and institutional agendas in higher education in partnership with their local school districts. Either institution cannot act alone in solving the low retention rates of bilingual teachers. There is a need for multi-level support systems to be in place to monitor and mentor bilingual teachers throughout and beyond their certification process (Podolsky, Kini, Bishop & Darling-Hammond, 2016; Sutcher, Carver-Thomas & Darling-Hammond, 2017).

**Factors Related to Attrition of Dual Language Teachers**

Though DL education is very important, especially with the continuing increase of students who need assistance in learning English, the primary challenge that stays in many districts is the retention of BE teachers. Sadly, the BE teacher attrition rate tends to be higher than in other areas of teacher certification (Weisman & Hanson, 2002). The dilemma can be attributed to a variety of factors, yet some of them are unique to the specific field of DL education (Lara-Alecio, et al., 2004). The various contributing factors include elements such as the extreme workload in the bilingual education teacher preparation programs, the unreasonable number of tests required for BE certification, the discouraging lack of proper curriculum materials, and the demoralizing lack of consistent support from the community and school administrators (Weisman & Hanson, 2002).

Furthermore, Weisman and Hanson (2002) found that many BE teachers felt as though they worked in a hostile school climate, in which they experience unwarranted scrutiny, insufficient academic support, and an unreasonable workload (Lara-Alecio et al., 2004). Various studies (*e.g.*, Weisman & Hanson, 2002) have also noted that DL teachers must spend more time preparing for lessons in comparison with their colleagues in comparable positions on the same campus.

Dual language teachers also indicate that a lack of a proper DL curriculum is a discouraging factor in their disillusionment. Because DL teachers use a mixture of native-language instruction and English, they need texts that are written in students' native languages. However, according to Weisman and Hanson (2002), many schools do not provide these kinds of primary language texts.

Several possible solutions for retaining BE teachers in urban and rural districts have been proposed such as soliciting collaboration between teachers and administrators, providing retention incentives for returning teachers, enhancing the appropriate specialized teaching materials, and offering incentive programs for teachers to pursue advanced degrees and/or certifications for the in-demand areas (Hammer et al., 2005; Mitchell, 2018).

Retaining BE teachers must necessarily begin with increasing teacher recruitment. Local school districts can also take a look at the local universities and colleges to promote recruitment of pre-service BE teachers from the local

community. School districts could provide prospective BE teachers opportunities to work while obtaining their teaching certifications and also offer a variety of support mechanisms to fulfill their professional goals. Furthermore, mentors play a key role in the success of novice teachers, so pairing early career teachers with experienced educators who are strong role models will increase the chances of retaining qualified dual language teachers (Mitchell, 2018).

**Description of the Participants**

All eleven participants are female and are Mexican-American (a citizen or resident of the United States who is of Mexican birth or descent). All of the participants were undergraduate students at the same South Texas university. All of the participants were living in the same county where the South Texas university was found. All participants were transfers to the South Texas university given that, at the time, the university was not a four-year university yet.

All eleven participants were placed in classrooms with DL certified teachers in local public school districts for the field residency (FR) portion of their program, which occurs over two long semesters.  The FR One semester consists of a placement that lasts approximately thirteen weeks with the pre-service teacher completing close to 64 hours of classroom time. During this semester, the pre-service teacher presents two partial lessons to students in a small group setting in Spanish only.  During the second semester, FR two, the pre-service teacher completes an additional thirteen weeks with the same classroom teacher and with the same mentor/supervisor. During FR two, the pre-service teacher presents two whole group lessons in Spanish. Finally, during the last and third semester, student teaching (ST), the pre-service teachers remain on the same campus and with the same teacher and mentor/supervisor.  At this time, they actively transition into the role of student-teacher (ST), essentially taking over all of the duties for the class. The pre-service teachers continue to teach subjects in the language assigned to the subject, whether it be in Spanish or English, depending on the DL program assigned to the campus, grade level and classroom.

The aforementioned professor of record served as the teacher and overseer (supervisor) of three consecutive courses. She taught both the courses focused on the subject matter, like Math, Social Studies, Language Arts, the FB and Science the ST courses in Spanish. All of the participants took these courses together and at the same time as a cohort. The eleven participants all began the pre-service program together in 2012 and simultaneously graduated from the university in 2014.

**Methods and Procedures**

This study used a mixed-methods approach that included both quantitative and qualitative data. The eleven participants participated in an approved Institutional Review Board (IRB) research study that included two surveys. All of the participants of the study were female, Hispanic, and declared as BE majors in 2012. Furthermore, they were all enrolled at the same university in South Texas during the concurrent time frame as the study.

Initially, the researcher collected data through a survey from participants during their first semester, which was in 2012. Additionally, the participants were surveyed five years later, in 2017. The open-ended questions were analyzed using a narrative and descriptive approach. No coding was used for quantitative data.

Participants completed a survey monkey set of questions. Participants responded to open-ended questions. The data was not coded given that there were only eleven participants. The open-ended questions and the quantitative data was organized and examined using Survey Monkey charts.

**BE Teacher State Certification Results**

The following details highlight important results about the desired outcomes from a BE Pre-service program that aims to produce teachers who are "home-grown" and who intend to teach in the geographic region of their provenance.  Of the eleven participants who sought BE certification, the following results were found:

- Although all of the participants became certified teachers, less than half of the participants were able to obtain BE certification.
- The study revealed that while all of the participants initially declared BE as their major and initially sought BE certification, not all of the candidates attempted the Bilingual Target Language Proficiency Test (BTLPT) Spanish. The BTLPT is a Spanish language proficiency test. This test is separate from the content exam, which at the time was called the Bilingual Generalist exam. The Bilingual Generalist exam consists of BE theory and laws in addition to content related to all subjects.
- One participant made the decision not to challenge the BTLPT state exam at all.

According to the preservice teachers, part of the reason for these dismal results, was due to the fact that, in 2012, the Texas Education Agency (TEA) had not yet generated a practice exam or sufficient practice materials for the BTLPT; preservice teachers could not take any type of practice exam to prepare for the BTLPT. The participants reported that the dire lack of preparation materials, which could have included listening/audio files, speaking prompts or released tests, created a real uncertainty for any candidate intending to challenge the BTLPT in 2012.

In an effort to address the scarcity of preparation materials, the researcher collaborated with colleagues in the BE program at the university to create a practice test that would provide an adequate measure of preparation for the preservice teachers. The creators of the practice test named it the Spanish Language Proficiency (SLP) test. Next, they administered it to all of the participants of this study with the intent to give them feedback about their Spanish language proficiency.  No student was excluded from continuing as a result of taking the SLP assessment.

After taking the new practice test (SLP), the majority of the participants who took the state exam attempted the BTLPT once and less than one-third of the participants attempted the same exam twice.  Less than half of those participants did not successfully pass the BTLPT state exam, which is required to become a BE certified teacher in Texas.  They were the same participants who reported in 2014 that the role of debilitating emotions and anxiety, felt when testing in Spanish, often played a large role in their overall performance on the Spanish language exam (Esparza-Young, Allen & McDonald, 2015).

The participants reported cost as a primary issue for not retaking the BTLPT state exam.  They were afraid of paying for an additional registration fee and still not being able to pass. One participant retook the exam two more times, yet she still did not pass. Additionally, she paid for a rescore, which yielded the same result of a non-passing score. The same participant reported that although she recalled speaking fluently during the exam, her oral expression score was a zero. Despite encountering persistent barriers, this same participant later earned recognition as Teacher of the Year at her school district as a non-BE certified teacher. The fact that she did not pass the BTLPT did not prevent her from being an effective teacher who served ELLs and Spanish speaking students.

**Generalist and Bilingual Generalist State Certification Exams**

Between the years 2012-2014, TEA eliminated the Bilingual Generalist State Certification Exam. Prior to these years, all of the candidates seeking Bilingual certification took the Bilingual Generalist Exam, which has since been divided into two exams, the Generalist Exam and the Bilingual Supplemental. The Generalist exam focuses on subject matter knowledge, and the Bilingual Supplemental focuses on theories and laws related to BE. Although TEA presents it as a practical option, the addition of another exam has resulted in added expenses for the BE Certification pre-service teachers and candidates who must also take the BTLPT and the Professional and Pedagogy Responsibilities (PPR) exam.

**Non-Bilingual Generalist Certification Results**

After the participants took our SLP, the practice exam we created to provide feedback for candidates on their language proficiency, some of the candidates elected not to challenge the BTLPT exam or BE certification. The primary reason given by the participants was the imminent desire to secure a teaching position by completing all of the requirements to be certified teachers. Given that not all of the participants were able to pass the BTLPT state exam, several participants elected to switch degree plans during the final semester of their enrollment at the university and pursue an English as a Second Language (ESL) endorsement instead. This endorsement allows teachers to work with ELLs, but the endorsement does not require Spanish language proficiency or BE state certification.

In Texas, the requirements for acquiring the ESL endorsement has consistently changed over several decades. At the time of this study, the ESL endorsement was obtainable, if students completed three specific courses related to BE and ESL. The ESL endorsement has continue to change for different grade levels. At the time, students who were BE majors could also obtain an ESL endorsement because the BE degree plan included the three required ESL endorsement courses. Non-BE majors were required, at the time of this study, to take a minimum of three courses which then qualified these students to seek the ESL endorsement. Requirements for an ESL endorsement vary from state to state in the United States.

Any participant who was able to pass the BTLPT exam did not additionally seek the ESL endorsement within the time frame of this study. Only those participants who did not pass or did not take the BTLPT exam took the ESL endorsement certification exam.

The table below includes information about certification for the participants.

Table 1

| Participant | BTLPT passed | ESL passed | Generalist | Local Public School Employment | #of times to take the BTLPT exam | Working with ELLs or DL students |
|---|---|---|---|---|---|---|
| *P1* | | x | | x | 2 | x |
| *P2* | x | | | x | 1 | x |
| *P3* | | x | | x | 0 | x |
| *P4* | | x | | Relocated | 0 | x |
| *P5* | x | | | x | 1 | x |
| *P6* | | x | | x | 0 | x |
| *P7* | x | | | x | 1 | x |
| *P8* | x | | | Local Charter School | 1 | x |

| | | | | | | |
|---|---|---|---|---|---|---|
| *P9* | x | | | Lives locally and is a stay at home mom | 1 | |
| *P10* | x | | | x | 1 | x |
| *P11* | | | x | x | 1 | |

## ESL Endorsement

About one third of the participants were able to obtain the ESL endorsement. Of the total participants, who sought BE certification, less than half of the participants were able to pass all required state exams to obtain BE state certification. At the time that the participants were seeking BE certification, the State of Texas still offered candidates the opportunity to take either the Bilingual Generalist state exam or the Generalist exam and the Bilingual Supplemental exam separately. As of this year (2019), TEA has modified their requirements and now limits the possibilities for all teacher candidates.

## BE Majors in the Classroom

The quantitative data produced the following responses. The next set of questions focused on participant retention in the profession and whether or not they met their goal and were able to acquire employment in BE classrooms in public schools. The majority of the participants reported that they were working in a public school setting, including one charter school in the same geographic area. One participant responded that she was not teaching in order to stay at home to raise her children. When we asked how long each participant planned to remain in their current teaching position, we received the following responses:
- Only two stated they would stay on indefinitely.
- Less than half stated they would stay on the job more than two years.
- Only one stated she would stay on the job one to two years.
- Less than one-third indicated they were unsure.

## The BTLPT-Spanish Exam

The BTLPT-Spanish state certification exam specifically calls for knowledge of academic vocabulary necessary to teach at an elementary grade level.  The Spanish language used for these exams is comparable to the Spanish needed to be successful at a university in any country where Spanish is spoken. This Spanish language proficiency extends beyond basic conversational Spanish which would be part of a basic communication course. Given that over half of the participants were unable to successfully pass the BTLPT-Spanish exam and become BE certified, the researcher concluded that the state exam poses a barrier for the growing demand of producing BE certified teachers. The next questions focus on the challenges the participants faced during their pre-service program experience (Garcia, 2002).

When we asked, "Which Spanish language proficiency skill did you need the most support with?" Most of the participants selected Writing over Speaking, Listening and Reading.  The following section focuses on what preparation materials were deemed most valuable and useful by the participants as they prepared for DL certification.

## Preparation Resources for BE Certification

Participants were asked to select from a list of responses, which consisted of resources and options that are typically offered to BE majors in a pre-service program. Among the resources selected, about two-thirds stated

they wanted "more time in Spanish-dominant classrooms" and about half of the participants listed "more reviews for the tests" as the second highest response selected. One primary reason why the participants stated they needed more time in a Spanish-dominant classroom is because the term BE does not always imply or ensure that the instruction will be Spanish dominant. This meant that regardless of the previous exposure to Spanish, the participants would not have had any prior exposure to pedagogical Spanish related to BE, except in the BE degree program courses. More access to explicit modeling of subject matter curriculum in Spanish from campus mentors at the elementary level would have meant more language opportunities for the participants, in the areas of lesson planning, instruction and engagement with students.

At that time, in 2014, (TEA) had not yet developed a practice test with the Education Testing Agency (ETS) for the BTLPT-Spanish for DL majors. As of 2015, no audio files were available to candidates to review in preparation for the BTLPT exam. However, helpful audio files did become available later in 2017. As of 2018, there are still no written practice tests for BE majors to take that would allow self-scoring or online self-assessment on either the Education Testing Services (ETS) or TEA websites.

**Overcoming Adversity**

Despite facing obstacles, seemingly created by the corresponding state agency and the testing organization, all of the participants became state-certified teachers. Additionally, all of the participants reported that they stayed in touch with other members of the cohort. The cohort model provided an environment that was conducive to effective communication, emotional support, and peer mentoring.

The majority of the candidates have remained in the geographic area where they grew up and are still teaching in a public school setting. Only one candidate reported moving out of the state due to relocation by her spouse; however, she also noted that she intended to return to the same area in the near future. This high retention lends credibility to the argument for "home-grown" programs that was recently touted by Angela Valenzuela (Valenzuela, 2016, p. 1) As districts aspire to develop their BE teacher pipeline, many have begun to express interest and others to invest money into their own "Grow Your Own Teacher" programs. These programs consist of partnerships between districts and teacher preparation programs; the purpose is to proactively recruit local teacher candidates to become part of the profession and teach in their own community (Boyd et al., 2016).

**Resilience and Leadership**

Because these participants demonstrated a consistent drive to complete the BE university program, graduate, and then serve in their own communities, it is worth taking a look at what outcomes resulted from their impressive commitment and dedication. In the following list are some of the accolades and recognitions as reported by the participants:
- Two participants have been recipients of grants.
- One participant was recognized as a Teacher of the Year.
- One participant was selected to serve as the Language Proficiency Assessment Committee (LPAC) chair.
- One participant was recognized by the local newspaper as the ESL teacher of the year for working with newcomers.

**Interpretation of Results**

Although this study represents only a snapshot of a small pool of candidates who participated in one BE teacher program, we feel strongly that the results provide valuable insight into the challenges higher education institutions face when students want to complete the requirements needed to become certified as BE teachers. One of the potential factors that may provide an explanation for the high overall certification rate in our cohort could be their strong camaraderie. In this experience, the participants started together, finished together, and have stayed in touch with each other over a period of five years.

Overall, we are gratified by the results of this study. However, we would list the negative aspects of this study as the insurmountable hurdles that were created by the state and testing agency, such as a lack of appropriate and tangible preparation materials. As a result, these constraints impeded the successful completion of the program for our BE majors. We did not overly emphasize other factors such as the cost of exams and the absence of available Spanish dominant classrooms during the time of this study.

Research about the growth of DL programs including the relevance of subject matter instruction in Spanish continues. Thus, the greater availability of classrooms where subject matter instruction occurs in Spanish will also provide more opportunities for preservice teachers to observe, participate and engage in better preparation for the essential state certification exams that are required to become a BE certified teacher in Texas.

The same challenges hold true if there is a reduced number of classrooms available where little to no instruction occurs in Spanish. All BE majors need strong preparation to challenge state exams. Truly, it is a challenge for university preparation programs to prepare novice teachers for BE classrooms.

Other intangible factors to consider would be the ability for some of the participants to weather personal challenges that potentially translated into perseverance and overall resilience. These experiences merit further study and are also worthy of mentioning in order to contextualize the impressive success of these participants. Over a period of five years, the participants experienced many difficult circumstances. For example, one participant was devastated by the tragic loss of a sister during her second semester in the preservice program, which led her to forego her goal of seeking teacher certification and graduation for a year. Despite experiencing the additional tragedy of losing her second sister only one year later, she still persevered towards her ambition of becoming a teacher. Ultimately, she obtained teacher certification and was recognized as a Teacher of the Year, and received a district grant.

Another participant began her academic journey despite experiencing the painful loss of her father at the age of 13. She reported that this personal loss was so powerful at that time in her life that she had been held back for a year in middle school. Then, when her mother lost her vision, the student became her primary caretaker. Despite these tremendous personal hurdles, she overcame them and successfully graduated. She lamented having experienced language loss and reported feeling like she had run out of time to adequately prepare for the BTLPT-Spanish exam. However, she obtained gained ESL endorsement and went on to succeed as an LPAC chair.

Despite not obtaining the official BE certification, all of the participants are serving English Language Learners, whether as DL immersion teachers or as ELL teachers in a public school setting. The only exception is the lone participant who is currently raising her children as a stay at home mother. Although our data is somewhat limited due to the small size of the participant pool, we believe that the results indicate a strong commitment by BE teachers to remain in the profession, to serve BE and ELL students, and to serve as leaders in their corresponding school communities.

**Conclusion**

During the next census reporting in 2020, the results will likely show a continued trend towards a growing and changing and diverse student population. As pre-service programs at universities move forward, it is important to take a moment and listen to what BE teacher educators and educational researchers are reporting about their findings from the relevant studies in educator preparation programs. It is imperative that policymakers examine the components of a successful preparation program such as ours and make every attempt to replicate it in other locations. In order to meet the demands of culturally diverse learners and dual language learners, policy makers and administrators must strive to provide for the development of more resources, to support Spanish dominant classrooms and to recognize the efforts of BE educators. Our hard-working BE pre-service candidates should be a top priority for all of the stakeholders in the educational community.

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# Students' Perception on the Effectiveness of Industrial Internship Programme

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**Abstract**

Introduction: Educationalists and policy makers in the higher educational institutes have recently paid a closer attention to the concept of holistic education systems that focus at making a competent and versatile graduate. Incorporating an industrial internship programme in the degree curricular has been a vital requirement towards ensuring a holistic education system. Most of the educational scientists have emphasized the importance of letting the undergraduates to gain industrial exposure as a strategy to securing employability soon after their graduation. The objective of this paper is to explore the effectiveness of the industrial internship programme offered by Department of Textile of the University of Moratuwa (UoM) in collaboration with one of the leading apparel manufacturers in Sri Lanka. This paper also aims to identify existing weaknesses in the industrial training programme offered by the Department of Textile and to provide suggestions for improving the effectiveness of internship programme. Methodology: This study adopts the case study approach and as such study covers the students of the Department of Textiles who are undergoing training at the selected industrial training provider. Sample size used for the study represents 24 respondents out of the 67 undergraduates who completed industrial internship programme during the last three years and it represents approximately 35% of the population. Data were gathered by way of distributing a structured questionnaire followed by a semi structured interview for the selected sample. Findings and Conclusions: As per the findings of the study the students' positive learning experiences are the chance to build up a relationship with the industry, acquire industry work culture, develop self-confidence, execute problem solving activities, develop social interaction skill, and aspire future education and career. However, the students negatively ranked the internship programme in providing opportunities for creativity build up activities, working in teams, develop managerial skills, enhance research and project skills and desire to go on learning. Students' feedback was positive for providing a real job experience, transport, meal and good allowance. However, they have shown negative feedback on the overall structure of the internship programme since it fails to provide them an overall training covering the whole departments of the organization. Students suggest that the duration of the internship programme should be twelve months instead of six months. Study further suggests that there should be a closure dialogue between the university and the internship provider in order to address the issues face by both the interns and the training provider.

**Keywords:** Employability, Holistic Education, Industrial Internship, Industrial Training

## Introduction

The proposition whether the academic degree programmes should incorporate in its degree curricular a room for industrial internship programme has been widely debated by the academics in the national university system of Sri Lanka. While it has been a customary feature for certain degree curriculars, such as medical sciences, for many of the degree programmes industrial internship element has been an alien feature. However, owing to the industrial pressure and the growing demand for competent graduates with right knowledge, skills, and attitudes, universities and other higher learning institutes have been compelled to incorporate an industrial internship programme to their curricular. Further, owing to educational policy makers have recently given a due recognition to the industrial training, it has now been a vital requirement for certain degree programmes in getting their degree programmes an accreditation. Most of the educational scientists have emphasized the importance of sending the undergraduates to gain industrial exposure as a strategy to securing employability soon after their graduation.

The objective of this paper is to explore the effectiveness of the industrial internship programme offered by Department of Textile of the University of Moratuwa (UoM) in collaboration with one of the leading apparel manufacturers in Sri Lanka. This paper also aims to identify existing weaknesses in the industrial training programme offered by the Department of Textile and to provide suggestions for improving the effectiveness of industrial internship programme.

In order to achieve the above research objectives this study aims at exploring the followings,
- Experience gain by the students during the internship programme
- The assistance and helpfulness provided university
- The support provided by the training organization during the industrial internship
- Problems and issues encountered by the students during the internship programme

## 1.    Importance of having an industrial internship programme for undergraduates

In the context of everchanging dynamic and highly competitive business environment the industry seeks for a competent and versatile graduate. In this context both academic and professional higher education institutes have to pay a very careful attention to the industrial internship programme. Student internship programme is widely used technique by many academics and professional bodies in order to blend students' theoretical knowledge with the real-life working experiences. In the recent past many researchers have studied how internship programme affects to student career development and advancement. Literature provides very clear evidence that many of the researches have studied and explored the importance of industrial internship programmes.

Through the internship programme students are given an opportunity to experience how the theory works in the real life. Since it seems that industry prefers to absorb graduates with training experience, internship programmes help the students in securing their sooner employability. Most of the academic institutions, giving a due recognition to the internship programmes, are now tends to incorporate an internship component to their academic curricular. While it has been a compulsory requirement for some degree programmes offered by some of the management universities in Sri Lanka for certain management degree programmes it has still been an alien feature.

Internship programmes provide not only significant benefits to students in terms of career preparation and income, but also to strengthen their self-confidence and self-satisfaction in the lifelong learning process. Many graduates of educational administration programmes have reported that internship is the most valued experience in the educational administration preparation process (Fry et al., 2005; Hess and Kelly, 2005; Milstein and Kruger, 1997). At the same time, they said that the internship experience needs to be expanded and improved (Fry et al., 2005; Morrison, 2005). Morrison even suggests that administrative programmes provide students more leadership experiences. Interns must be welcomed into the "trenches", given problems to resolve, and allowed to truly experience what administrators do on a daily basis.

Literature shows different terms are being used to refer the term internship. Thus, terminologies used to describe this relationship between learning and work becomes important. Terms such as work-related learning, workplace

learning and work-based learning (WBL) have been used to discuss and describe internship programmes. However, the similarities and differences of these terms are not entirely clear (Streumer and Kho, 2006). The internship programme described in the paper of "Students' perception of Industrial internship programme" (Renganathan, Karim and Chong Su Li,2012) is designed for the undergraduates to gain work experience, ie, experience gained through the workplace as opposed to the experiences the students gain in lectures and classrooms. Thus, the term WBL will be used broadly to encompass these experiences and the literature on WBL is also included to explore the importance of internship programmes for undergraduates. In general, internship programmes aims to merge students' learning gained in a classroom-based environment with real-life working environment.

WBL involves a conscious effort to establish a mechanism where learning takes place in real-life contexts allowing the students learning by doing. WBL is based on the notion that "if you read something you will forget, if you see something you can remember and if you do something you will learn. WBL encourages a "more participative, learner-centered approach, which places an emphasis on direct engagement, rich learning events and the construction of meaning by learners" (Lee et al., 2000, p. 225).

Giving undergraduates an opportunity to experience in a real-world working environment will offer a chance for the students to apply theoretical knowledge learned in the earlier years as undergraduates to related, authentic working sites (Hughes, 1998). Many engineering and technology courses in higher education institutions have "sandwich" industrial internship courses where undergraduates do their industrial attachment in either year three or four of their undergraduate programme (Auburn and Ley, 1993; Foster and Stephenson, 1998). This will complement their degree programme whereby the industry location will provide the added practical learning experience. Learning is therefore seen as a two-way process whereby practical experience gained during internship can complement studies undertaken earlier in the universities (Little, 2004).

Knowledge and experience obtained from classrooms differs from that gained during industrial internships. Universities provide formal structured education which is often guided by the teaching staff whereas work placement experience promotes informal or incidental learning (Brennan and Little, 1996; Hughes, 1998; Johnson, 2000). In addition, classroom inputs are usually uniform for all students whereas during internships, the learning environment differs for each student (Agarwal and Gupta, 2008). According to Trotskovy and Sabag (2010, p. 5), students also have the opportunity to identify the differences in "traditional learning process in the academic environment and real-design process in the industrial environment." Thus, WBL can also contribute to a better academic understanding when students return to their respective universities in their final year (Jackson, 1995).

In addition to better academic understanding, participation in internships is also regarded as increasing the marketability of the students when they graduate. The employment market now does not only demand graduates who have a high level of academic knowledge, but also graduates who can demonstrate core competencies essential to succeed in the work environment (Binks, 1996; Johnson, 2000; Okay and Sahin, 2010). Some of these competencies such as working in teams, presenting orally and problem-solving skills can enhance graduate employability (Mason et al., 2006). Thus, through internship placements, students have the opportunity to develop these much-needed skills while pursuing their academic qualifications in the universities (Semedo et al., 2010; Young, 1995).

While students are still at university, internships can help them develop a core of global market skills that are now considered requirements, such as communication and time management skills, better self-confidence and better self-motivation (Gill and Lashine, 2003; Dennis, 1996). Work experience through co-operative programmes provides credible means for softening the reality shock of transitioning from the world of academics to the working world. (Garavan and Murphy, 2001; Collin and Tynjalla, 2003). In fact, internships improve job opportunities for students since it allows them to hone their job skills and work values, focus on their career choices, directly access job sources, even to impress potential employers. As a result, students who have internships tend to find jobs more quickly upon graduation than students who did not have internships (Knouse et al., 1999).

## 3. Significance of the Study

This study will benefit three parties. First, it will directly benefit students as the improving the effectiveness of the internship programme will enable the students to gain quality training and minimize their expectations gap. Second, it benefits to the industrial training provider to build up a close tie up with the university and the trainee that will avoid misunderstanding among the three parties and build up a sustainable win-win relationship. Finally, it will support the university in identifying pre-placement activities and objectively administer the internship matters more effectively and thereby improve the internship programme. An effective internship programme will reduce the university administrative burden and will uplift its reputation among the students as well as in the industry and moreover they can take competitive advantages among other universities.

## 4. Methodology

This study adopts the case study approach and as such study covers the students of the Department of Textiles who are undergoing training at the selected industrial training provider. This study recognizes effectiveness of the internship programme as the dependent variable and Organization support, efficiency of pre-placement activities by university and the assistance and support provided by university internship unit as the independent variables. Sample size used for the study represents 24 respondents out of the 67 undergraduates who completed industrial internship programme during the last three years and it represents approximately 35% of the population. Stratified random sampling technique was used to select a representative sample from each year giving relatively a high priority for the recent years.  Data were gathered by way of distributing a structured questionnaire followed by a semi structured interview for the selected sample. Student's perceptions for each variable were measured according to the students' feedback received from survey questionnaire. Questionnaire included questions to measure the students' perception on the support given by the training organization, effectiveness of the pre-placement activities, and university support for the industrial training programme. Further in order to measure the effectiveness of the internship programme, as the dependent variable, five-point likert scale was used rate the students' perception on the types of the skills they managed to improve during the training programme. In this study researchers have used both qualitative and quantitative data on which to base the study.

## 5. Conceptual model

By referring to the literature authors derive the following model to conceptualize the factors affecting to the effectiveness of the industrial internship programme. When developing this model authors have paid particular attention to the conceptualization model used by S.Renganathan et al in their study of the students' perception of industrial internship programme of the University Teknologi PETRONAS.
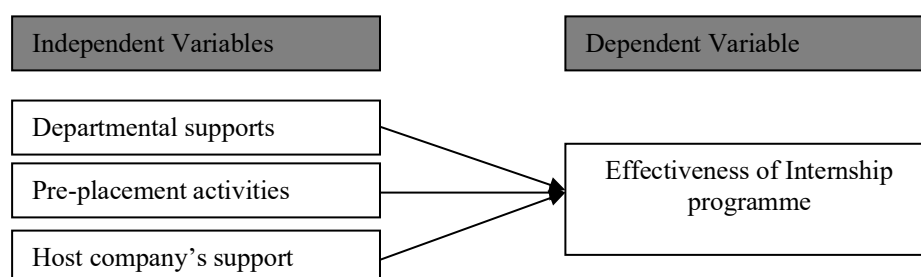


Source: Author constructed.

Above diagram illustrates that the effectiveness of the internship programme depends on the three main independent variables; host company's support, pre-placement activities and departmental support extended by the university staff for the students industrial training. The dependent variable of this study is Effectiveness of internship programme. This conceptual model can be used as a tool to achieve the research objectives in order to address the research problem.

### 5.1 Departmental support

Departmental support refers to the support extended by the staff of the Internship Unit (IU) of the Department of Textile in conducting the industrial training programme. In order to assess the student's perception on the support given by the IU following questions were included in a five-point likert scale allowing students to rank them as 1 for strongly disagree and 5 for strongly agree.

DS1:     IU maintained a good rapport with you and training provider
DS2:     IU staff was always available when required
DS3:     IU staff attended to arising issue promptly
DS4:     IU staff was always helpful

### 5.2 Efficiency of the pre-placement activities

This refers to the procedures established by the university and the guidance given by the IU before finding a training placement. It is generally accepted that students should be well guided for the internship programme so that they can understand the university expectation and the expectations of the industrial training provider as well as the expectations of the trainee. Internship orientation programmes minimizes the expectation gap among the above parties and strengthen the industrial relationship and students' confidence. Following questions are included in the questionnaire to assess the students' perception on the effectiveness of the pre-placement activities.

PA1:     The guideline provided by the IU was comprehensive
PA2:     Efficient placement procedures was carried out to select your training places
PA3:     The orientation given by university IU was sufficient and informative before starting the internship

### 5.3 Host company's support

The host company's support is very crucial for the success of any industrial training programme. In this regard there must be a relationship between the academic institute and the host company. Establishing close relationship and understanding between the two institute will create a flexible work schedule and a comfortable work environment for the trainee which will give them and opportunity to gain a training and learning experience in a wider scope. Following questions were included aiming to assess the students' perception on the host company's support for the training programme.

HS1:     Training provided was related to course
HS2:     Training programme was well-structured
HS3:     Reasonable evaluation procedure was carried out
HS4:     Provided a real job experience
HS5:     Maintained good rapport between student and mentor
HS6:     Flexibility to attend university activities

### 5.4 The effectiveness of the internship programme

In the context of this study the effectiveness of the internship programme is assessed based on the degree to which the trainee is exposed to gain skills in three areas; academic skills, personal skills and enterprise skills. Academic skills cover skills such as application of theory in practice, research skills, and report writing and presentation skills. Personal skills include implicit skills of a person such as creativity, relational skills, problem solving and analytical skills, self-confidence and hold independent judgment. Finally, enterprise skills include teamwork, acquire industry work culture, managerial skills, social and ethical behavior. In order to assess the effectiveness of the internship programme following questions were included in the questionnaire.

**Academic skills**
AS1:     You were able to apply theoretical knowledge with practices in industry?
AS2:     You could enhance your Research and project skills?

AS3:    You could develop oral and presentation skills?

AS4:    You had a chance to aspire future education and career?

**Personal Skills**

PS1: You could enhance your creativity

PS2: You could execute problem solving activities

PS3: You developed your self confidence

PS4: You could work independently

PS5: You could develop social interaction skill

PS6: You could deal effectively with conflict

**Enterprise Skills**

ES1: You were able to develop team working skills

ES2: You acquired industry work culture

ES3: You could effectively prioritized task

ES4: You were able to develop managerial skills

ES5: You could appreciate the social and ethical responsibility

## 6. Data Analysis and Findings

### Mean score analysis

Mean scores are derived to determine whether the students have positive or negative perception regarding the internship programme. As a five –point Likert scale was used, a mean score of more than three is treated as an indicator of a favorable response from the students. Mean scores of the key variables are shown in the Table I below.

| Variable | Mean |
|---|---|
| Organization support | 3.343 |
| Efficiency of the pre-placement activities | 3.739 |
| The assistance and helpfulness provided by University Internship Unit | 3.458 |
| Students' learning experience | 3.350 |
| Students' learning experience-Academic skills | 3.187 |
| Students' learning experience-Personal skills | 3.410 |
| Students' learning experience-Enterprise skills | 3.450 |

On average, the students rate their Organization support with an overall mean score of 3.343. This means that majority of them evaluated their organization support in between Neither Agree nor Disagree and Agree. But this doesn't mean that they received satisfactory or dissatisfactory support from organization. With regard to efficiency of pre-placement activities, the assistance and helpfulness provided by university internship unit and students' learning experience, the average rating given by the students stand at 3.739, 3.458 and 3.350 respectively. These findings imply that the internship programme given by host company is indeed average from the student point of view. Students' learning experience is categorized in to three dimensions as Academic skills, personal skills and enterprise skills. Mean scores stand at 3.187, 3.410 and 3.450 respectively. Comparing mean scores of above three dimensions, Academic skill development has low mean compared to others. That means students have low opportunity for Academic skill development compared to enterprise skill development. In the following sections, this paper examines in detail the four key variables.

### 6.1 Organization support

According to the above Table I, the mean score received for organization support is 3.343 and that is an average rating. By analyzing in detail of this variable, as per below Table II, the lowest rating (17 percent) by students is

for the item "Organization provided Well-structured training programme to cover all areas in the Company". A well-structured work-based learning programme will lead to graduates being employed within six months upon graduation and secure "graduate level" jobs (Mason *et al*., 2006). Student rating is 21 percent for the item "You received maximum opportunity for training in each Department of your organization." According to this percentage it is obvious that students have lower opportunity to get the internship covering each department of the organization. Further to that, 42 percent rating is given for the item "Your Organization carried out an evaluation after finished internship". Majority of students have marked that host company does not carry out an evaluation after the internship programme.

| Organization support | Students |
|---|---|
| Internship Training was highly related to your course or degree | 58% |
| Organization provided real job experience | 92% |
| Organization provided Well-structured training to cover all areas in the Company | 17% |
| Your Organization carried out an evaluation after finishing internship | 42% |
| Organization was supportive in providing transport/meal/allowances. | 79% |
| You could built good rapport with your Mentor | 71% |
| You received an opportunity to train in each Department of your organization | 21% |
| There is a flexibility to attend university activities during your internship program | 50% |

## 6.2 Efficiency of the pre-placement activities

University holds the responsibility for all pre-placement activities to prepare students for the internship programme. According to the Ball et al. (2006) a successful, meaningful and fulfilling WBL experiences for students require the centralized work placement unit to have clear guidelines and experienced staff. Therefore, it is important to examine the support provided by University for the pre-placement activities.

Table III below shows the students' perception regarding the pre-placement activities provided by University of Moratuwa. Generally, ratings are above 60% of the students' perception as "agree" or "strongly agree" for three dimensions and 58% is for the item "The briefing given by University internship Unit was sufficient and informative before starting the internship." Therefore, students' ratings are favorable for this variable.

| Efficiency of the pre placement activities | Agree/ strongly agree |
|---|---|
| The comprehensive guideline was provided by University internship unit | 67% |
| The efficient placement procedures was carried out to select your training places | 63% |
| The briefing given by University internship Unit was sufficient and informative | 58% |

## 6.3 The assistance provided by University Internship Unit

Like pre-placement activities university is responsible for the variable of assistance and helpfulness provided by internship unit. Students' perception for assistance and helpfulness for the item of "IU staffs were always available when required" is low percentage of 46 (Table IV). Others three dimensions show the more than 50 percentage as "agree" or "strongly agree."

## 6.4 Students' Learning Experience -Academic skills

According to the following Table V, majority of the students rated their perception on

"You were able to apply theoretical knowledge with practices in industry," "You could enhance your research and project skills" and "You could develop oral and presentation skills" as "disagree" or "strongly disagree." However, 54% of the students agree that they had a chance to aspire their future education and career.

| Assistance provided by the University Internship Unit | Students rating |
|---|---|
| Internship Unit (IU) maintained a good rapport with You and Organization | 50% |
| IU staff were always available when required | 46% |
| IU staff attended to arising issue promptly | 54% |
| IU staff were always helpful | 63% |

| Student Learning Experience-Academic Skills | Rating |
|---|---|
| You were able to apply theoretical knowledge with practices in industry | 46% |
| You could enhance your Research and Project skills | 33% |
| You could develop oral and presentation skills | 46% |
| You had chance to aspire future education and career | 54% |

## 6.5 Students' Learning Experience-Personal skills

As per the Table VI below, majority of the students not agree with "You could enhance your creativity" and "You desired to go on learning." As far as the other aspects are concerned majority of the students rated as they agree/ strongly agree with the fact that they got an opportunity to enhance their problem-solving skills, self-confidence, work independently, interpersonal skills and dealing effectively with conflicts. It seems that the students' overall perception on personal skill development is favorable than the academic skill development.

| Student Learning Experience – Personal Skills | Agree / Strongly Agree |
|---|---|
| You could enhance your Creativity | 38% |
| You desired to go on learning | 42% |
| You could execute problem solving activities | 63% |
| You developed your self confidence | 63% |
| You could work independently | 54% |
| You could develop social interaction skill | 58% |
| You could deal effectively with conflict | 54% |

## 6.6 Students' learning experience-Enterprise skills

Mean score of personal skills is 3.45 (Table I above). According to the detailed analysis of the dimension of enterprise skills as shown below Table VI, majority of the students not agree with "You were able to develop Team working skills" and "You were able to develop managerial skills." However, majority of the students agreed that they had an opportunity to acquire industry work culture, prioritize tasks and aspiring social and corporate ethics. It seems that the students' perception on enterprise skill development is favorable than the academic and personal skill development.

| Student Learning Experience-Enterprise Skills | |
|---|---|
| You were able to develop Team working skills | 46% |
| You acquired industry work culture | 58% |
| You could effectively prioritized task | 58% |
| You were able to develop managerial skills | 46% |
| You could appreciate the social and ethical responsibility | 50% |

**6.7 Students' perception on weaknesses and suggestions**

As far as the students' perception on strength and weakness of the existing internship programme is concerned, ten students out of twenty-four mentioned that they received specialized training apart from overall training. Moreover, nine students mentioned that they had lack of overall practical knowledge. Further to that, some students are of the view that lack of project and presentation skills, no proper evaluation done by human resource department, no creativity build up activities, no proper training schedule to cover all departments in the company and work overload and more responsibility for interns beyond their capacity. Qualitative part of the questionnaire focused on students' suggestions for above weaknesses as well. Most of them suggested that they need proper training schedule to cover all the department of the company. They preferred overall training rather than a specialized training. Also suggested that they required project allocations, need more chances to apply theoretical learning in to industrial activities, factory visits, freedom to work independently, proper evaluation and feedback by the host company.

**7. Discussion of findings**

As per the students' perceptions the positive learning experiences are the chance to aspire future education and career, execute problem solving activities, develop self-confidence, develop social interaction skill, acquire industry work culture and effectively prioritized task. Although internship presents opportunities for students to apply theoretical learning in to practice both studies' findings illustrates that students have negative perception for the item "theoretical learning in to practice" during their internship programme. Further the internship programme of the Department of Textile shows that negative feedback for creativity build up activities, working in teams, develop managerial skills, enhance research and project skills and desire to go on learning. The exploratory research done in internship at Greek universities by Mihail, D.M. (2006), has shown that internships had the greatest impact on academic and enterprise skills. According to the ratings given by the students, the most important benefits were accrued in the areas of skills such as, specialist knowledge, information technology, time management, communication skills, ability to prioritize tasks, and team work. The results clearly show that the industrial internship programme is effective in gaining skills such as personal skills and enterprise skills of the students. The finding shows that students have given average feedback for the pre-placement activities and the assistance and helpfulness provided by university internship unit during the internship programme at the host company. The mean score stands at 3.739 and 3.458 respectively. The literature also mentions that University administrative support and helpfulness is positive in student's point of view. Further, the literature suggests that a detailed investigation into the various support provided by the internship unit needs to be carried out to determine clearly its effectiveness.

This study revealed that Organization support given to students is average during the internship at Host company. The concern regarding the Organization provided Well-structured training programme to cover all areas in the Company is raised in this study. Students have shown negative feedback for this and finding suggests that there should be a proper training schedule to cover the all departments in the organization. This study also revealed that students have low opportunity for training in each department in the organization. Further to above positive feedback is given for real job experience providing, transport, meal and good allowance providing. Also, the University Teknology PETRONAS's internship at Malaysia highlights the importance of a well-structured internship programme and therefore, a well-structured internship programme will ensure greater opportunities for the interns to gain the much needed working experience in the limited time given to them. Further, it could be suggested that both industry and academic work together to develop a comprehensive industrial internship programme that will provide relevant practical experience and knowledge to the students.

Findings of this study can help to design an effective internship programme which will be beneficial for students, university and organization. Further, the feedback received from the qualitative part of the questionnaires for weaknesses and suggestions were analyzed. Majority of the students highlights that they received Job training or specialized training than overall training. They preferred to cover all areas in the company during the internship training period. Moreover, students have lack of skill development in areas such as practical knowledge, project

and presentation skills. Absence of proper training schedule to cover all departments in the organization and no proper evaluation method done by human resource department is mentioned as weak areas in the internship programme. Internship period starts from six to twelve months and students' suggestion is to have overall training period in three to six months and rest of the period for specialized training. An exploratory study of Internship at Greek universities (M.Mihali. ,2006) also revealed that brief length of internship as a weakness and it suggested that internship period ranging from six to twelve month would benefit both students and employing firms. The suggestions for improvement given by students who completed internship programme at Host company are, need for proper training schedule to cover all the departments in the company, overall training than specialized training, Projects allocation, need to give more chances to apply theoretical based learning to industrial activities, Factory visits and supplier/customer visits, Freedom to work independently, Proper evaluation should be done by HR and need more participation for team work activities. However, findings suggest that students' perception for internship programme of Host company is average and need further improvement in order to get more benefits for the students, university and organization as a whole.

## 8. Conclusion

According to the findings of this study, the mean score of students' learning experience is 3.35. That means students didn't rate their learning experience as "good" or "excellent." Also mean scores of pre-placement activities, assistance and helpfulness by university and organization support stand at 3.739, 3.458 and 3.343 respectively. All mean values are not up to 4 or above to be the "good" or "excellent". Therefore, internship programme provided by Host company is within average level and it is required further improvements to be an effective one.

As per the findings of this study both industry and university should work together to make comprehensive internship programme for students. It is required to have overall training for some period of three to six months and balance for the specialized training. Therefore, it is suggested that internship programme period to be the twelve months' time instead of six months. To success this internship programme it is important to have well-structured training schedule to cover the whole area in the organization. Since internship provides chances to apply theory-based learning in to practice, the organization should be more concerned about the students' skill development via academic, personal and enterprise. Especially creativity-based learning, projects and presentation skills, team working activities and developing managerial skills are some important skills to be developed more. Further, university administrative and academic supervision function should link with industry to build close relationship to have effective internship programme. Students should build good rapport with both industry and organization as they are the middle source of the internship programme.

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# Investigation of Teacher's Training Needs in Post-Secondary School-Apprenticeship Class: A Greek Case Study

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## Abstract

Apprenticeships in the Greek education system include the training of a new generation of professionals with parallel vocational training in the workplace and theoretical training in the school unit. Most of their training is done while working for an employer who helps trainees learn their profession, while successful completion of the program leads to the acquisition of qualifications. School-based education aims to enhance knowledge through business-based training and to ensure the acquisition of competences and skills. The aim is also to ensure that the school section of the program develops students' general competences and lays the foundations for lifelong learning. Educational systems should offer to apprenticeship's teachers the opportunities for a career development in order to maintain a high level of teaching and maintain a high-quality educational potential. Although the role of Greek teachers in apprenticeship is clearly defined, there is a lack of training opportunities in the methods and its contents, which drives to an unsuccessful implementation of an apprenticeship.

**Keywords:** Apprenticeship, Educational Needs of Teachers, Professional Development, Adults Education

## 1. Introduction

Formal educational structures have introduced apprenticeship programs that combine education and training in schools or other vocational education institutions with workplace-based education. Work-based learning refers to a series of educational, pedagogical, and assessment practices that focus on formal learning process synergy with workplace practices (Bruindiers, Wiek & Redman, 2010). An apprenticeship program contributes to skills acquisition, reduces youth unemployment, increases entrepreneurship and innovation, and finally has the potential to promote social inclusion. Whether apprentices have a positive attitude toward apprenticeships depends largely on the skills of the teaching staff. In apprenticeships, having qualified staff to supervise the trainee is usually one of the quality assurance requirements, while the effectiveness and efficiency of vocational training programs have been in place for decades in formal education policies (William T. Grant Foundation, 1988 · Womble, Jones, & Ruff, 1995). In the international literature, however, fragmentary information is presented on the roles of teachers engaged in apprenticeships, their work environment, their employment status, their qualifications and training, their entry into the profession (Broek, et al., 2017) and attitudes of professional educators towards improvement programs (Greenan, et al., 1998). The quality of teachers is difficult to determine because teachers' work contexts may vary as they work in both the education system and the world of work.

## 2. Apprenticeship

The gap between the worlds of education and work is still huge and more advanced economists are concerned about how young people can make the transition from school to work (Hanushek, Woessmann, & Zhang, 2011), since the 21st century requires individuals to be skilled professionals, trained and creative, think critically, effectively solve problems, respect different cultures and have opinions on many areas of human life. One attractive way to tackle this transitional problem - which has significant political support worldwide - is to orient students to vocational training jobs through apprenticeship programs (Ryan, 2001).

Apprenticeships are an attractive way of learning as they prepare for jobs and careers while leading to formal qualifications (Kuczera, 2017). Apprenticeship training provides learners with a number of benefits, such as gaining professional experience, developing skills such as teamwork or entrepreneurship, and offers them a real understanding of daily life and the reality of the working world (Cedefop, 2015). Apprenticeships have for many years been characterized as an important educational model for enabling a smooth transition from school to work and enabling young unemployed to improve their professional skills (Galvani, 2017). Throughout this process there have been numerous reports that apprenticeships provide a safe and uninterrupted transition to adulthood necessary to achieve adulthood status (Vickerstaff, 2007).

Teachers are at the heart of this issue, responsible for delivering high quality teaching and guidance in classrooms and businesses (Vassiliou & Andor, 2013). Clear roles and responsibilities ensure that participation, interaction and commitment are focused on achieving goals (Wilson & Pretorius, 2017).

## 3. The apprenticeship in Greece and teacher's role

Since the early 1950s, Greece has begun some form of apprenticeship programs that despite their limitations and omissions, have served as the foundation for the expansion of the program. In recent years, apprenticeships have been integrated into post-secondary education, where cooperation and coordination between all parties (schools, businesses, public bodies, chambers, social partners) and the provision of resources, tools and guidelines is proposed (Cedefop, 2018). Law 4336/2015 approved for the modernization and extension of vocational training the extension of apprenticeships and the increase of private participation. Since then, the apprenticeships have been carried out in: (a) EPAS apprenticeship schools, under OAED (Labor Force Employment Organization) supervision, for a period of 2020/21 b) EPAL (Vocational High School), within the optional year of apprenticeship class, and (c) IEK (Vocational Training Institutes), providing six months of compulsory traineeship or apprenticeship.

The apprenticeship will continue to be carried out in parallel in all three structures (EPAS, EPAL and IEK) until the school year 2020-21, so future actions will be decided on the basis of the program's evaluation. The fact that there are three separate structures that offer apprenticeships means that they operate complementary rather than competing with each other. It should not be forgotten that this whole process takes place at a time when the Greek market is suffering from the financial crisis which has resulted in the loss of over one million jobs. The economic downturn is expected to affect developments in the apprenticeship system, notably as regards the enrollment of new apprentices in small and medium-sized enterprises and the possibility of apprentices being absorbed after the end of the program.

Apprenticeship in Greece supports two roles. A professional who prepares EPAL graduates to enter the workplace successfully and is directly linked to the national effort for productive reconstruction, focusing on knowledge and work. And a social role linked to the smooth transition of alumni to extracurricular life. The dual apprenticeship system, in addition to on-the-job training for four (4) days per week, includes on-site teaching one (1) day per week for seven (7) teaching hours by school's teaching staff.

In addition to teaching, teachers 'duties include supervising apprenticeships' students in the workplace. The teacher must also handle the information system which is responsible for the apprenticeship program, supervise compliance with contract terms, write program monitoring reports, record absences and check the accuracy of

forms. In addition, the post-secondary school year apprenticeship teacher must contribute to the dissemination of practices such as project work, lifelong learning, digital skills improvement, effective communication, adoption of innovative practices, adherence to professional ethics etc. The multifaceted role of the teacher involved in apprenticeship programs is therefore clearly evident.

Because apprenticeship systems are characterized by important social aspects, such as the problem of cheap labor, prejudices about access to apprenticeships in terms of gender, ethnicity or ability issues or, finally, the worrying phenomenon of school dropout, it is important from teachers to help reduce such situations by better regulating and controlling apprenticeships. Finally, in order to improve the quality of their work, the teacher is also in charge of the need to exchange information and transfer good practice from other countries (European Union, 2012).

Differences are observed in the way "work and learning" is done between school laboratories and the workplace, so teachers need to make it easier for learners to fill this gap and during theoretical lessons at school to develop lifelong learning attitudes and skills, leading to the search for additional information that is not readily available from apprenticeships (Akkerman, & Bakker, 2011). The apprenticeship teacher will be called upon to take on the role of mentor for his apprentices. It also assumes the role of teacher, partner and person who motivates and facilitates the learner's learning path (Bass, 2017). On the other hand, it seems that the apprenticeship teacher himself needs to have a mentor to facilitate and guide his teaching work (Taylor, 2018).

It is an important issue to remove the barriers between the education world and the world of work. The shortage of qualified educators in modern technology and production processes and outdated equipment in vocational schools remains a problem. School leadership is vital to fostering teachers' professional development, identifying what teachers need, providing training and learning opportunities, recognizing skills, enhancing logistics, and promoting collaboration to support the project (Jemeljanova, 2018).

As far as Greece is concerned, our literature review has shown a lack of studies on educational needs and the role of educators in teaching the laboratory in the context of the 'Postgraduate year of apprenticeship.' In terms of training methods, it seems that short-lived in-service training seminars, laboratory courses / experiential training models and the exchange of good practice are first and foremost in teachers' preferences. They consider the mixed model as the most appropriate way of conducting training activities, namely the combination of live and distance training activities and supporting the creation of electronic study material. Among the difficulties they face; inappropriate programming, lack of software to facilitate bureaucracy, inappropriate school labs, problems with business interfaces, few apprenticeships, and low learning levels and interest of apprentices (IEP, 2018).

In their study, Anagnou and Fragoulis (2014) argue that a school unit can organize in-school professional development of teachers through non-formal learning paths, providing that it has an organized plan and taking into account factors such as context, educational needs, the people to whom it is addressed but also those who will undertake the process. Broek et al. (2017), stress that one area of further potential research is mentoring teachers involved in apprenticeship programs. This is because in most countries they are treated as general education teachers. However, this may overlook the need for specific requirements, given the specificity of the apprenticeship programs.

## 4. Methodology

The research method in the present work is qualitative, where the researcher tries to understand or interpret the phenomena in terms of the meanings that people bring to them (Denzin & Lincoln, 2005). We conducted a thematic analysis of the content using semi-structured interviews with a sample of fifteen (15) teachers teaching the laboratory apprenticeship course to EPAL graduates.

### 4.1. Purpose

The purpose of the project is to evaluate the educational identity of the teaching staff of the special laboratory of the Postgraduate Year-Class of Apprenticeships, in order to highlight the critical factors of their teaching quality.

More specifically, an attempt was made to investigate their training needs both as adult educators and as instructors of the instructional activities of the curriculum.

## 4.2. Research limitations

The research findings are not generalizable due to the methodology chosen. However they are, in our view, of wider interest.

## 4.3. The sample of the research

The research in the present work was based on semi-structured interviews given by fifteen (15) teachers of the two Kozani EPALs involved in the application of at least one of the three phases of Greece apprenticeship program. Six (6) are women and nine (9) are men. As the research teachers report, four (4) have less than nine (9) years of service in vocational education, while five (5) have been employed for ten (10) to nineteen (19) years. Of the remaining six (6), five (5) have been in vocational training from twenty (20) to twenty-nine (29) years and the latter over thirty (30).

## 5. Presentation of results

Teachers were initially asked about any training available about the apprenticeship curriculum. Fourteen (14) out of fifteen (15) stated that there was no training before undertaking apprenticeships, while the 15th reported a training on apprenticeships that took place earlier - over a decade.

Graph 1. Training before apprenticeship (N=15)
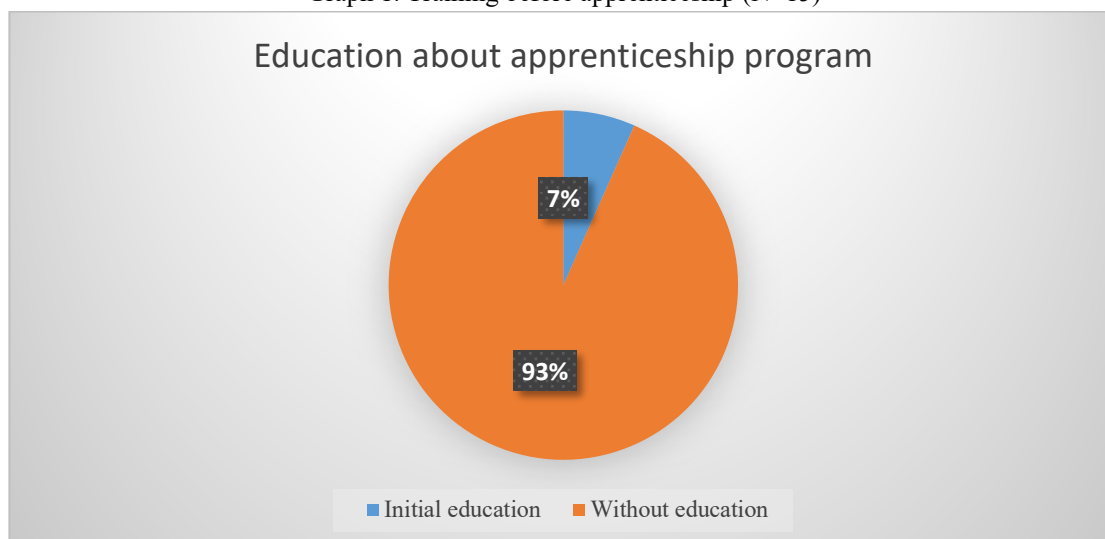


Six (6) apprenticeship teachers said they attended the training organized by the Ministry department at the end of Phase B, but three (3) found that the training provided did not offer them anything useful. Going on, eight (8) teachers reported - although not required - that although they did not receive any training, their prior knowledge and experience was sufficient for the cognitive part of the apprenticeship. Another (1) teacher stated that it was based on the knowledge and experience of colleagues who had previously engaged in apprenticeships.

Apprenticeship supervisors were also asked about their knowledge of current developments in the labor market and in the business world. The answers given are summarized in the figure below.

Graph 2. Knowledge of apprenticeship supervisor about the labor market (N=15)
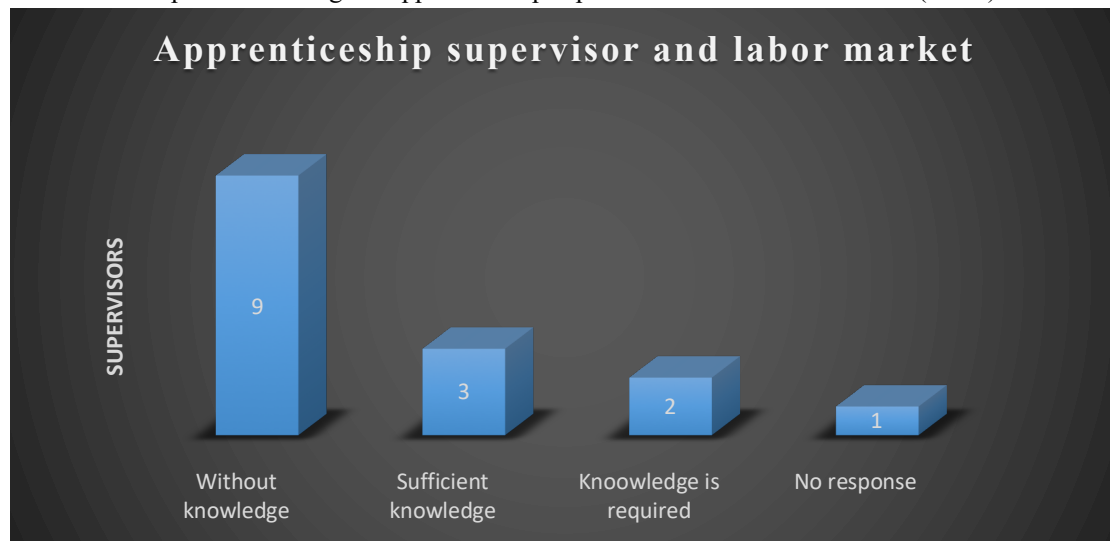


Continuing, the apprenticeship teachers were asked to indicate on what topics they needed training. We consider it worth mentioning the fact that three (3) respondents stated that they wish to be trained in everything that involves apprenticeship, such as curriculum development, teaching techniques, communication skills and counseling.

The qualitative analysis of the answers revealed six (6) subcategories:
➢ Training on new developments in the labor market - relationships with employers. Teachers focused on this category, in addition to technological developments in their fields, to become familiar with market functioning, to develop communication skills with employers and to be given the opportunity to use machines and to teach in the workplace of apprentices.
➢ Training on how to properly complete the forms. Several respondents categorically stated that this is the area they definitely need guidance.
➢ Curriculum training. Some apprenticeship supervisors found it useful to improve their knowledge of curriculum issues with a focus on those areas that are outside their specialty (sustainability, environmental protection, safety and hygiene, etc.). It is worth noting, however, that some moderators in the same question reported - without being asked - that they did not need to be trained on the curriculum.
➢ Training in teaching techniques. In their responses, teachers acknowledge that they are having a hard time in approaching the theoretical part of the students, since they are no longer high school students, they are adults and therefore need a different approach.
➢ Computer training. Few respondents stated that they would like to be trained in computer use, to assist in the bureaucratic part of apprenticeship and to be able to use supervisory tools more freely.
➢ Vocational guidance. Finally, one (1) teacher reported that he was particularly concerned each time his students asked for advice on their professional future.

In the question about the desired method of training, most said that it is not the method that matters but the efficiency and usefulness of the training. They also stated that they would prefer the training to be done during working hours so that they would not have problems managing their extracurricular activities and responsibilities. They also responded that they expect motives - such as prioritizing apprenticeships - and consider that distance learning methods are unprofitable and require specialized computer skills and appropriate technological tools. They responded that they would find it useful to exchange views and reflections on each other, while experiential seminars that included live demonstrations, even in the workplace, would achieve the goal of training.

The table below shows the categories of the training methods that emerged after the qualitative analysis of the interviews, as well as the frequency of occurrence.

Table 1. Desired training methods

| Method of training | Appearance (frequency) |
|---|---|
| Any method (purpose is the benefit of training) | 10 |
| Any method but within school hours | 8 |
| Experiential method | 3 |
| Exchange of views and best practices | 4 |
| Not distance learning | 3 |
| Workplace practice | 4 |

Note: Refers to the answers given in a total of fifteen (15) interviews

The follow-up interviews were intended to examine the sample's views on the mentor's role in apprenticeship. With the exception of one (1) teacher who stated that he or she had sufficient knowledge and experience, the remaining fourteen (14) supported the importance of mentoring in the proper functioning of apprenticeships. They argued that especially in the apprenticeship that "you are alone in the beginning!" (Interview 3), it is necessary to have the help of a more experienced colleague who can guide teachers in how the new institution works. It is noted that nine (9) respondents reported that their more experienced peers had already provided invaluable assistance to them in informal but successful and effective mentor's roles. However, three (3) apprenticeship supervisors, although supporting the role of mentor, stated that they were concerned about its appointment procedures and its actual role in the implementation of the institution.

Research participants were asked whether they would prefer their training to be organized by educational policy makers or if they could organize it themselves. Five (5) interviewers - after asking the researcher for further clarification - responded that they were positive in such a perspective, but expressed some doubts about the organization and success of the project. Two (2) supervisors stated that they were negative about such an opportunity, while another six (6) stated that they were already using this training as a tool to improve their skills and acquire new knowledge. Finally, four (4) respondents reported that they had already been proposed and in some cases implemented, apprenticeship group meetings where all problems, questions and practices were put to an open discussion-dialogue.

The next question concerned whether the sample teachers had been trained in adult education. Ten (10) respondents stated that they did not receive any training in adult education, but five (5) of them stated that they believe that they can successfully teach adults either because they have experience in adult education in the past and either believe that there is no difference from children's teaching. Of the remaining five (5) teachers in the sample, one (1) stated a certified adult trainer and the remaining four (4) stated that they attended adult education seminars or courses as part of their postgraduate studies.

Regarding the teaching techniques used during theoretical training in the school unit, their responses indicated that their first preference was to discuss - reflection and exchange of views on practical issues in the workplace followed by the use of the Internet and multimedia for either repeating knowledge or solving queries. When asked why they do not use adult education techniques, they stated that they fear that role-playing games are inappropriate for learners (Interview 9: "Methods such as role-playing games cannot be implemented because children are older ..."), that there is a lack of time (Interview 10: "They will not apply because of time ...") and that the climate in the classroom will be damaged (Interview 6: "We will not use role-playing games, etc. because they would probably bring a lot of laughter and nothing to offer ... "). They also reported that they were unaware of some techniques and would probably need to be trained on them (Interview 15: "I don't apply any techniques because I just don't know them ...") and that they might be unknowingly using some of them (Interview 14: "Of course I can use these techniques but I don't know what they say so ...").

## 6. Discussion

The transition from school reality to the world of work is a demanding process, so vocational education and training, and in particular apprenticeship training, offers learners a number of advantages. At the heart of this theme are teachers who need ongoing support to improve their knowledge and skills (Vassiliou & Andor, 2013), while educational policy should encourage flexibility and innovation in apprenticeships, contribute to promoting good practice, support employers' links with schools and finally select those teachers who are appropriately qualified (Richard, 2012).

The apprenticeship supervisors did not receive any prior training to the apprenticeship institution, thus often moving "into darkness." There were two phases of apprenticeships before they had the opportunity to participate in a training program, but again they argued that the planning of the program was not the right one, since it did not take into account their needs, capabilities and features. In addition, as the bibliographic review has shown, inadequate resources, malfunctioning school culture, inability to align policies to a common goal focused on teachers' identified needs deteriorate their qualitative professional development.

A training program covers the educational needs of teachers when it focuses on teaching strategies related to specific curriculum content, uses effective models of practice, provides expert guidance and support by focusing directly on the individual needs of the participants, providing feedback and allowing teachers to learn, practice, implement and think about new strategies that drive to changes in their practice (Avalos, 2011· Chu et al., 2016· Darling-Hammond, Hyler, & Gardner, 2017). It is therefore no coincidence that the sample of work place great emphasis on the effectiveness of modality training that respects their personal needs. Thus, they prefer experiential life-giving seminars, they pay particular attention to exchanging views and prefer any training that is convenient to their daily lives.

As in Broek et al. (2017) and IEP (2018), training on school interconnection with local labor market needs and the functioning of the business world comes first to responders' preferences. Therefore, there is a need to introduce systematic approaches and opportunities for early and continuing professional development of vocational education teachers both at school and in the workplace. This requires collaboration and dialogue, strong partnerships between various stakeholders, between the school and the local community (Broek et al., 2017). Collaboration is not an end in itself, but it is crucial for improving the quality of apprenticeships and responding to the labor market. Especially in a world where things are constantly changing in terms of jobs and skills, vocational training systems are needed as them allow trainees to manage complex ways of thinking and working. For these reasons, teachers need to constantly adapt and upgrade their knowledge and skills in a rapidly changing world.

What is more, the sample seems to be particularly concerned about proper adherence to the forms. Although they have reported difficulties in the pedagogical dimension of the theoretical seven-hour course at school, they are probably more familiar with the classroom learning process and they want immediate training in bureaucracy. Interviews also reveal that many teachers want to improve their computer skills, although in recent years there have been a number of training activities on the use of new technologies (Kalogiannakis & Papadakis, 2012).

The challenge is to design and implement teachers' professional development through non-formal learning pathways, such as engaging in professional learning communities, creating networks for exchanging good practice, peer-to-peer discussion and creating interdisciplinary teams to keep updated curricula such as apprenticeships. The sample's views coincide with the bibliography, since in their responses, although they declare ignorance and reservation about organizing informal learning, they support the usefulness of exchanging views and good practices among themselves. The same is true about the mentor's role; they express some reservations about the responsibilities of the person taking up this post but agree on encouraging and constructive feedback from the mentor in order to realize and improve their shortcomings (Anagnou & Fragoulis).

The transition from school to work is a period of volatility that has major consequences for adult life. The teachers in this work agreed that most learners change, mature and show obvious signs of adulthood during their nine

months of apprenticeship. They realize that their students need specialized teaching techniques and although they declare that they have not received any training in adult education, they believe that they can successfully teach them. Teaching techniques such as role playing are not used because they are considered ineffective and impractical, while others suggested by the curriculum such as brainstorming, concept maps, proportions and models and case studies are techniques unknown to them. We conclude that it is necessary to train teachers who know well the basic principles of adult education.

## 7. Conclusions

An apprenticeship is a real job, an educational system for a new generation of professionals that includes an educational component. It allows trainees to earn money as they learn, as well as gain a recognized national qualification. In recent years, several countries have been trying to reform their apprenticeship systems in response to a number of challenges, such as the changing nature of national economies, the growing demand for highly skilled and knowledgeable workforce, the reduced commitment of employers to meaningful training programs, the persistent problems of social exclusion and the need for lifelong learning strategies.

Apprenticeship is primarily a model of learning (Guile and Young, 1998). And in a model of learning - as a tool of government policy and institution within the vocational education system - teachers have a key role to play in trying out new policies. Teachers continue to be seen as important drivers of change and the guarantee of quality vocational education and training. But while they are vital to the quality of an apprenticeship, it seems that educational policy makers do not care enough about the qualifications or preparation of those who teach apprentices.

Although the conclusions we draw in this work are not generalizable, we recommend continued support for apprenticeship's teachers. This support can be administrative, educational and financial, peer support or more experienced. It also includes close collaboration and guidance from school principals, improving adult teaching skills, facilitating the development of school-labor market relationships and providing teachers with the opportunity to improve the use of information and communication technology (ICT) to provide access to content, professional development and learning communities. Reliable methods of obtaining this support should be the subject of future discussions.

In a rapidly changing global economy, skills building and utilization will greatly determine our ability to drive innovation, growth and maintain our social model. People need high quality skills to play an active role in the labor market today and tomorrow. Modernizing vocational education and training will enable them to develop the right skills throughout their lives, using flexible learning methods.

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# Strategic Analysis for Accreditation in Saudi Arabia: A Cross-Case Analysis of KAU and PSU

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**Abstract**

Quality assurance strategies and standards have long been employed—at least since the dawn of the industrial age, which introduced mass operations and mass production to meet the needs of consumers. In any workplace, plans and strategies are systematically devised and guidelines are implemented in order to ensure the conformity of operations and systems to government or privately established and recognized standards. The high expectations applied to the educational sector cause particularly great demand for standardized quality assurance strategies. This has led to the establishment of accreditation institutions—external organizations that have developed and promulgated standards for quality and have evaluated colleges and universities according to these standards (ESIB, 2006; NAPCIS, 2012). In Saudi Arabia, the quality assurance directives of NCAAA require educational institutions to establish dedicated quality assurance models. The present study was intended to assess the current state of quality assurance implementation at Saudi Arabian higher education institutions and develop a normative quality assurance model based upon the inferences obtained, to be used as a guideline for future quality assurance systems in Saudi higher education institutions. For this purpose, qualitative research was conducted using two case studies—KAU and PSU—and was cross-analyzed and presented. The present article provides a discussion of the findings presented.

**Keywords:** Saudi Arabia, Accreditation, KAU, PSU

## 1.1. Introduction

This study draws upon the principles of multiple-case-study qualitative research and analyzes responses from university administrative staff and faculty at both KAU and PSU. The main aims of the study are:

1. Understanding quality assurance in the context of the Saudi Arabian higher education system.
2. Determining the mechanisms and procedures the stakeholders adopted in the implementation of quality assurance.
3. Comparing perceptions of quality assurance and the implementation of these mechanisms at different organizational levels.

Towards achieving these aims, relevant research questions were formulated, institutional theory was utilized to collect and analyze data using three sources—(i) document analysis, (ii) independent observations within academic and administrative offices and quality assurance centers, and (iii) semi-structured interviews. The research questions were as follows.

1. What are the current Saudi government policies regarding quality assurance in higher education?
2. What are the current quality assurance mechanisms at PSU and KAU?
3. How are quality assurance mechanisms currently formulated and implemented at PSU and KAU?
4. What is the comparative nature of the quality assurance mechanisms used at PSU and KAU?

## 1.2. Quality Assurance Expectations Of The Saudi Government And Directives Of The Ncaaa

Globally, various governments have worked to develop standardized quality assurance strategies and systems. In the Saudi context, the industrial nature of the country's economy demands intensive output of qualified professionals from Saudi higher education institutions, and the government has been providing incentives to provide high-quality education locally. These steps have triggered a paradigm shift in learning outcomes to mitigate the challenges arising from the use of non-standardized quality assurance measures in higher educational institutions. The government of Saudi Arabia and its Ministry of Education expect a certain quality of services from HEIs and have adopted steps to further streamline quality assurance procedures in the country. One such step has been the formation of the NCAAA, which is specifically directed towards encouraging, supporting, measuring, monitoring, and assessing the quality of education and research at Saudi higher education institutions. The NCAAA has developed a national qualifications framework to ensure standardized student learning outcomes nationally as well as compatibility with global higher education standards. To implement these protocols and achieve these outcomes for higher education degrees and certificates, the NCAAA details certain best practices or guidelines for modelling systems of standardized quality assurance in higher education institutions. These guidelines are divided into six quality assurance application contexts, which cover a total of eleven standards.

However, the relationship between the NCAAA and the universities is troubled, largely because universities were warned by the secretary-general of the NCAAA in October 2010 that a loss of licensing and funding could result for those without official NCAAA accreditation. Furthermore, it seems that many institutions did not take the NCAAA standards seriously; as announced by the assistant secretary-general of the NCAAA, 90% of the universities (30 out of 33) were unable to meet the NCAAA Quality Assurance Standards (*Al-Arabiya*, March 18, 2012). This situation, according to Anderson's (2006) argument, can create "confusion and heighten animosity between university management [and] quality agencies" (p. 166).

## 3. Methodology:

In the document analysis, relevant documents, including government policy documents, were collected and analyzed in order to address the first research question at the macro level. At the meso level, documents relating to quality assurance arrangements at PSU and KAU were also collected, including documents from quality centers, strategic plans, rules and regulations, and university bulletins, which provided empirical evidence. Semi-structured interviews with faculty members and administrative staff at both institutions were used as a second source of data, applicable to all seven research questions. The interviews were intended to answer the following research questions

**Results***:*

## 1.3. CATEGORY 1: Current QA mechanisms

In this section, documentation and interview data regarding current arrangements for QA are compared across the two universities. The discussion focuses on current QA processes and mechanisms, in particular in teaching and learning. A summary of the findings appears in Table 1.

Table 1. Comparison of Current QA Mechanisms at PSU and KAU

| Thematic category | Subcategory | Key themes at PSU | | Key themes at KAU | |
|---|---|---|---|---|---|
| | | Meso level | Micro level | Meso level | Micro level |
| Current QA Mechanisms | Major processes | Use of evaluations | Use of different feedback methods | Benchmarking determines quality requirements | Conforming to standard requirements |
| | | Alignment of learning outcomes | | Seeking accreditation | Seeking international accreditation |
| | | | | Use of performance indicators | Use of feedback |
| | | | | | Use of performance indicators |
| | | Meeting accreditation standards. | Benchmarking as a strategy in quality improvement | | |
| | | Continuous planning and cyclical review | Use of data to achieve quality | | |
| | | Use of data for quality decisions | | | |
| | Mechanisms for evaluating teaching and learning | Benchmarking as quality improvement strategy | Peer review | Development of high-quality curriculum | Use of curriculum development |
| | | Use of outcomes-based assessment | Use of a range of evaluations and assessments | Reliance on student evaluations | Use of student evaluations |
| | | Use of evaluation system | Use of indicators on quality | | |

### 1.3.1. Major Processes in Quality Assurance

The adoption of QA standards at PSU illustrates the importance of institutional policies that fully support QA implementation. This institution's comprehensive QA framework, the LTQF, was designed to be a key factor providing a strong foundation for and facilitating QA implementation within PSU. The LTQF was developed to assist staff with QA; in addition to providing staff with clarity on the purposes of implementing QA, reflected within the framework as "achieving excellence in learning and teaching and producing quality graduates" (PSU, 2013 p. 2), it guides the institution in monitoring and maintaining its QA system.

Furthermore, the analysis of PSU documentation also revealed that the process of QA implementation was embedded in the LTQF. In pursuing its main purpose, of establishing a high level of continuous improvement at the university, the policy outlines the five-step PIMRI process that each PQAC must fulfill on an annual basis. This cyclic process was also aimed to assist top management in managing the several steps of the process on a yearly basis. According to the PSU LTQF, a detailed PLQAP is prepared by the PQAC of each academic unit at

the beginning of each semester so that the quality of learning and teaching in all programs may be monitored and evaluated in terms of learning outcomes.

The interview data indicated that both micro- and meso-level participants at PSU believed that these QA processes were consistent with NCAAA guidelines. For example, QM1 PSU discussed their implementation as follows:

> processes at the beginning of uh—the beginning of uh or the start of any school year, the office, the AAPC coordinates with the administrative office in providing what things are to be submitted, what things are to be accomplished within a year. And this is in conjunction with the administrative policies.

Consistent with the LTQF, the interview data revealed that PSU participants at both levels mentioned the use of evaluations and assessments as part of different processes conducted by different parties in order to receive feedback and information from a variety of sources (students, faculty, and administration). Further, it was evident that PSU participants at the micro level shared the opinion that the use of feedback and assessment was important for internal improvement.

The data also revealed that the process is aligned with the hierarchy within assessment and the interrelatedness of learning outcome data. Another meaningful finding at PSU concerned the use of data in quality decisions, namely, the utilisation of the results of multiple assessments through the development of a statistical database. This was described by several participants as contributing to the QA process. According to QM1 PSU:

> We generate a database for the university making sure that our statistics are updated in terms of number of students, number of graduates, how many are in a six-month period and how many—what is the percentage of our graduates getting employed in the six months after graduation. All these basic statistics for the university, it's our office that generates these.

This kind of coherent QA implementation was crucially supported at the meso level, facilitating and enhancing micro-level awareness of QA.

In contrast to the situation at PSU as sketched above, the KAU documentation shows that QA policies there seem to be divided into segments. Moreover, policies to promote QA implementation were scattered across different units and, while they reflected the guidelines issued by the NCAAA related to QA at the institutional, programmes, and course levels, did not explicitly indicate this in a central, clearly and thoroughly documented QA plan. Indeed, internal documentation of QA was generally lacking at KAU, although some departments did have certain procedures laid out. The investigation thus revealed that KAU had failed to lay strong foundations for the implementation of QA policies, and that there was an absence of a structured comprehensive procedure and practical processes to promote QA implementation.

As the interview data show, KAU participants did explain that KAU used QA processes to achieve international as well as national accreditation. Both meso- and micro-level participants in fact acknowledged that external accreditation was the driving force behind departmental efforts to implement QA. However, as the data revealed, such QA processes were aimed at compliance rather than improvement, and had not actually been implemented.

Furthermore, KAU participants were not consistent in their beliefs regarding the use of student evaluations. Such feedback was mentioned by participants in some departments as an important support for the QA process, although their departments were not currently using such tools on a regular basis, that is, such feedback was only being gathered from programmes with graduated students. For example, AC1 KAU stated:

> As you know, the quality assurance program is dependent on graduated students as a measure of performance. This is important because we have only one program [that meets this standard] now, and the other programs are just beginning.

The KAU data also showed that both meso- and micro-level participants reported that the use of performance indicators is among the requirements of the QA process. However, they were commenting on the general KPIs in the KAU Strategic Plan, rather than those required by the NCAAA, of which they had no detailed knowledge.

In addition, the KAU data revealed an absence of programme and course-level reporting in the university's QA procedures. QM3 KAU reflected as follows on this issue:

> *It should be emphasized that there is no program or course's report at all in the quality assurance procedures. This report is a self-assessment carried out by the teaching staff members, through the director of the program, in order to detect defects and advantages, on the basis on which they begin making [a] development plan so as to improve a program or a course.*

Finally, the data revealed that the fragmented nature of the KAU QA process was largely due to the focus on external evaluation according to NCAAA requirements and the standards of international accreditation bodies. An effective assessment system remained absent at KAU, and feedback was not used consistently to ensure the integrity of the QA process; that is, rather than enhancing the QA system, information was used solely for ensuring compliance.

### 1.3.2. Mechanisms for High-Quality Learning and Teaching

With regard to curriculum development, both PSU and KAU adopted and followed the regulations of the Ministry of Higher Education. Both universities have formal procedures for newly developed courses and programmes. Approval depends on a strictly structured process, proceeding from Department Council to College Council. In both cases, the opinions of two external experts on curriculum are required. Whereas the Academic Council makes such decisions at PSU, KAU has a permanent committee in charge of decisions regarding curriculum matters. The relevant documentation from the institutions revealed that similarly clearly defined procedures for programme amendment are followed at both universities.

However, differences exist between PSU and KAU in terms of review of curriculum. At PSU, the Department Council can conduct minor reviews. In addition, PSU requires regular periodic reviews of academic programmes every three years. Regarding the evaluation of teaching and learning, the documents indicated that PSU uses benchmarking to survey current and related programs, identifying courses offered, pedagogical and evaluation approaches, and best practices in programme structure when developing a new programme. The interview data supported this understanding, as reflected by AC1 PSU:

> *We gather that information and inculcate [it] into our curriculum. We change that curriculum based on the feedback—what we get to make current curriculum.  So this is like what we are—three practices out there. One is from graduating students, one goes [to the] employer, and third is the faculty members. We ask, what are the gaps and limitations out there and what are the shortcomings out there among the students and we try to [address] and fill them.*

In contrast, periodic reviews of KAU's programmes are carried out at variable intervals—every two, three, four, or six years, depending on the programme. KAU policy states that the results of a survey of the opinions of faculty, students, and graduates should be incorporated into the plan. Furthermore, a recent additional requirement to ensure conformance with NCAAA requirements prior to submission to the Permanent Committee is AAU approval. However, the interview data revealed that actual curriculum development at KAU varies with the interest or mood of relevant faculty and the disciplinary environment. The potential for manipulation of the process was mentioned by AC2 KAU, who stated:

> *It means I can make changes in [curriculum materials], and I can make it valid through the application, so we can say it depends on the [matter] of application itself. For example we make a description of the [new] curriculum made every year, but we can copy [this curriculum] without [making any changes] within the application.*

Furthermore, HS1 KAU spoke about the absence of genuine curriculum development:

> *We applied the old content and curriculum. There have been models, but the faculties' members were not adhering to them. Courses had been [approved] in the departments' councils, and then referred to the curriculum committee at the university, agreed upon and approved by the university's council as well. In fact it is the faculty member who designs his own course.*

Thus, the findings of this study suggest that there seems to be a significant gap between PSU and KAU in terms of curriculum reform and updating. It seems that PSU regularly revises curriculum, whereas curriculum revision at KAU varies by department depending on the level of faculty interest.

In relation to ensuring the quality of teaching and learning, a comparison of PSU and KAU again reveals differences. PSU has a clear policy outlining guidelines for evaluating QA implementation and defining the tools to be used. The documentation revealed that the AAPC evaluates the academic performance of programmes by means of a Student Experience Survey administered annually to students and the deans of the respective departments. Furthermore, a Course Evaluation Survey is also administered at the end of each semester under the e-register system of the Deanship for Admission and Registration. Finally, a Programme Evaluation Survey is completed by the student at the time of graduation. These evaluation techniques form part of the cycle of improvement applied to individual courses, programs, and institutional planning, according to policy. This policy serves as a key reference point for several quality evaluation tools used in evaluating programme and course learning outcomes.

The analysis of the PSU interview data highlighted the use of benchmarking as a method for achieving internal improvement, according to participants at both meso and micro levels. At the micro level, the use of quality indicators was also confirmed, and it was revealed that these indicators are evaluated in monthly department meetings. HS1 PSU gave a lengthy discussion of the different types of indicators employed:

> *We use several types of indicators. Uh so for instance, um one indicator is student to staff ratio. As I said earlier, we are around 20—we have such a proportion that there are 20 students for each of our faculty member….. Second thing is that uh we also assure some learning outcome—that um we make sure whether students are learning or not…. We make this evaluation using different types of methods, for instance, we have a conventional assessment method like exams, assignments, uh class participation, uh and then a formal discussion, a project, et cetera. So the second indicator is—what we are looking for is to make sure that leveling takes place…. Regarding research, they are also taking some actions as far as they can take regarding program design and delivery. Of course, we make a comprehensive assessment. Every month, we have [a] meeting. And in that meeting, we discuss the issues. So in those meetings, problems are reviewed and that's the main responsibility of management—to make sure that when problems happen, they are reviewed. So regarding management indicators, these are the things that we do.*

In addition, PSU participants at both levels shared information on the use of outcomes-based assessment and emphasized its importance in enhancing students' learning. PSU participants put forward further opinions regarding the value of outcomes-based assessment, which allows them to carry out evaluation effectively, facilitating the composition of assessment assignments and tasks. From this perspective, D2 PSU reported:

> *If you are preparing your exams or assessments based on Bloom's Taxonomy, it is something good. So we implemented that. We tried to implement that. And we found that the teachers were doing it more mechanically than with the real spirit because they had to fill certain forms. Say if they prepare an exam, they have to write, you know, whether this question is testing the knowledge or testing the—testing the analytical skills, testing uh the application side. You know, like that. They have—they have to point out and they have to balance it out.*

In contrast to the above scenario encountered at PSU, the KAU data revealed that the university tended to rely on external review. No institutional policies or procedures existed for internal evaluation, although some departments used learning rubrics; thus, academic faculties received no guidance in the area of assessment. Although KAU documentation indicated that the university monitors and evaluates quality indicators including graduation rates, student persistence, satisfaction of students with academic services, and appropriateness of programmes and services, and although an institutional assessment unit was established at KAU to ensure compliance with the minimum requirements of the NCAAA, there was little evidence of any criteria being applied comprehensively at KAU, with the main exception being the fragmented publication of NCAAA standards on its website and a statement indicating adherence to these. As such, it appeared that consistent assessment strategies had not yet been developed and implemented either in individual academic departments or across the university.

Various learning assessment processes were followed at KAU to determine students' qualifications upon admission and promotion. These policies ensure that qualified students are able to graduate and excel in their respective fields, having received academic guidance from faculty on admission, qualifications, and academic standing. The assessment process begins with admission, continues on to monitor performance, and determines the promotion of students. However, the policy lacked any means of systematic verification of the results of internal evaluation and review, and as a result, the internal assessment process is diverse across disciplines and lacks organisation or coordination, as indicated by QM2 KAU, who stated:

> Indeed, quality does exist [at KAU], but what we have been lacking is the documentation. In the past people applied quality at their own discretion, and according to their own capabilities and perception.

Although the data captured some meso participants' reflections that curriculum development is a key theme to ensure effective teaching and learning, the perceptions of participants at the micro level reflected the opposite. For example, one meso-level participant, QM4 KAU, said:

> Renewing the courses, how does it happen? Sometimes it is not even mandatory, you are supposed to have time every two years to ask if there are any changes, any new things to add, any outdated stuff to take off, how to evolve and upgrade the classroom.

Furthermore, at the micro level, participants commented on the lack of curriculum development. For example, AC2 KAU stated:

> If we come to the curriculum problems which is for a very long time not developed, the same curriculum remains.

Similarly, the absence of constructivist learning approaches was pointed out by participants at the micro level, and it was assumed that students' skills and understanding would not be reflected by their results due to the lack of constructive alignment. AC2 KAU discussed this issue as follows:

> When it comes to modern teaching methods that concentrate on constructivism. We have not yet employed this method, although we do believe the student must be the core of the educational process and must be a participant, listener, and commentator. They must think and conclude not only listen and receive. We have curriculum problems here [in that the curriculum has not been changed] for a very long time, for five years the same curriculum has remained.

Turning to student evaluations, KAU participants at both levels mentioned that they help ensure good QA in teaching and learning. Data from the micro level indicated that student evaluation was a common mechanism for assessing teaching and learning, but that misinterpretation was rife due to the absence of a coordinated QA system. When participants were asked to share their experiences related to students' learning assessment, they reported the use of tools focusing on alumni and student satisfaction. QM KAU illustrated the nature of the misunderstanding in the following:

> *We have done that through questionnaires and evaluation forms on the website and see to what extent the students, [to what extent] we see satisfaction [with their] degrees.*

The KAU participants cannot be blamed for the lack of institutional procedures by which the quality of evaluation processes may be ensured; the evaluation process has clearly been detrimentally affected by the absence of an internal QA system, as reflected in the information to the facts provided by AC KAU, who elaborated on faculty responses to QA as follows:

> *The missing link to strengthen quality was the existence of documentation and a system that enables us to prepare programs and courses' specifications, to undertake assessments, to measure graduates' outcomes ... do you see? Thus, the quality in the higher education depends mainly on a system and the awareness of the procedures to be followed within the institutions.*

Finally, participants from some departments mentioned that a feedback mechanism was being used but not on a regular basis. Thus, rather than leading to any meaningful improvement, the use of feedback served merely as a symbol of compliance. Finally, the inadequate implementation of a QA mechanism for measuring learning was revealed by the data, as assessment of students' learning for QA purposes was not mentioned by the majority of participants.

## 1.4. CATEGORY3: Parties involved in QA

This section considers the data on whom quality assurance was implemented by and more broadly who was involved in it at the case universities. A summary of the findings appears in Table 15.

Table 3. Comparison of QA Implementation and involvement at PSU and KAU

| Thematic category | Subcategory | Key themes at PSU | | Key themes at KAU | |
|---|---|---|---|---|---|
| | | Meso level | Micro level | Meso level | Micro level |
| Implementation and stakeholders involved | | Multilevel involvement in QA implementation | Formation of QA committees | involvement of external stakeholders in QA implementation | Involvement of external stakeholders |
| | | The roles of QA center | | Top-down approach | Centralization of QA |
| | | | Involvement of employers | Capacity limitations | |

### 1.4.1. Structure of the Quality Assurance System

The analysis revealed that an integrated set of organizational structures supporting QA was present at PSU. At the university level, the documentation revealed a consolidated policy describing the main structural components of the QA system. In addition to the TLC-SC, which oversees teaching and learning review and improvement processes, there was the AAPC, the first centre established in compliance with NCAAA requirements in 2005. The AAPC is staffed by three full-time employees, with the aim of providing coordination and support for QA processes. Its task is to foster QA processes across the entire organization. There was long-established awareness of the AAPC's role and engagement with it at the meso level, as reflected by QM1 PSU's description of the centre's function:

> *Since the establishment of this center, we look at these progress reports and uh identify certain areas that need to assistance, for example if there is difficulty in implementing or achieving the goal, we discuss it with the department chair or the director and together with the management and find some solutions to address the issues.*

The micro-level participants also elaborated on the roles of the AAPC, confirming its supportive function, as for example AC1 PSU:

> *The center provides adequate support services. Of course, we clearly understand that when it comes to quality assurance—they have a critical role to play. They play their role and they have their responsibility for quality assurance development.*

At the departmental level, the PQACs are another significant structural component of QA at PSU. These departmental QA committees each consist of a number of academics, along with the relevant department chair. Among other tasks, PQACs implement QA within their academic units. Reflecting on the value of PQACs in supporting QA implementation, QM3 PSU, described their function as follows:

> *So they are the ones who manage the quality for their program so it consists of three to five faculty members. So this is an additional task for them so this is uh—because AAPC support the institution so we can—because we don't have expertise for each program so our strategy is to ___ each department should come up with their committee members so they're the one who is managing the quality for their program. So it's very important that there's a staff teaching staff that will be involved in quality assurance.*

AC2 PSU, also at the micro level, expressed employees' commitment to QA, stating that:

> *Over here, every month, we have a meeting—a department meeting where everyone will come and discuss progress and we'll discuss everything.*

The interview data thus revealed that most PSU participants, at both levels, understood the roles and responsibilities of the QA structure. The AAPC was found to promote and strengthen QA, to play an important role facilitating the process of QA implementation at PSU, and to create and encourage a good quality environment within all departments by training academic and administrative staff and fostering a quality culture across departments.

In contrast, at KAU, the AAU, established in response to the national QA standards drafted in 2005 to function for QA at the university level, has only one full-time professor in charge to coordinate activities for external accreditation. The AAU falls under the Vice-Dean for Development, who is accountable to the VPD. Reviewed KAU documentation revealed that the AAU played important roles at departmental level, namely organising QA implementation and managing quality processes.

It seems that KAU's QA structure lacks the required adequacy and efficiency to effectively promote QA. In keeping with this view, QM3 KAU pointed out the lack of QA committees at departmental level, which he regarded as a result of inefficiency on the part of the head of the AAU unit:

> *There is a big load on the chief of the quality unit and the chief of the strategic planning unit, so we can say that there is no cooperation….*

At the micro level, the KAU participants were well aware of the units that existed to ensure accreditation, but had the impression that they were not concerned with academic performance. AC4 KAU shared his views regarding these units, mentioning the lack of an adequate QA mechanism within KAU, which led to the focus on meeting accreditation and filling out forms:

*I do not think that there is that level of participation they talk about with many people involved, no, there are Steering Committees that do the work and they may need somebody or some information, but it is not a proper process. The problem is that there are people who are involved and know what is going on and there are those who are not involved.*

It should be borne in mind that during the period of data collection by this study, KAU was in the process of reframing its QA structure. A range of units were being set up to supervise departments. The Administration of Assessment and Evaluation Department (AAED) was established to take responsibility for monitoring QA functions. The AAED is directly controlled by the VPD, and is divided into five units, namely the Performance Indicator and Benchmarking Unit; the Consulting, Research, and Scientific Services Unit; the Designing and Reviewing Electronic Questionnaires Unit; the Analysing Data and Reports Unit; and the Administrative, Financial Affairs, and Workshops Unit. The AAED has developed an Evaluation and Quality Assurance of University Performance (EQAUP) as one QA measure likely to be effective.

### 1.4.2. Stakeholder Involvement

At the meso and micro level at PSU, multiple stakeholders were identified as involved in QA through various committees, departments, and leadership roles. Although some initial uncertainty and resistance to QA was reported among stakeholders, the data suggested that implementation of QA was ultimately achieved through cooperation among multiple stakeholders on its formulation, assessment, and implementation within departments and across the institution. For example, AC3 PSU said:

*We are involved. If I would know this thing—that ___ like this one so we are involved in all this ___ like I said the workshops were conducted. Faculty was involved in that. Feedback was given. And then implementation comes, all are involved. One person, one team cannot achieve this kind of a target. All the staff—not teachers, but our secretary and staff [too], they were involved because it's the quality. And quality is for everyone. It's not for like one department. Quality means the process. Everyone should be involved in it. So staff was fully involved.*

In contrast to this scenario at PSU, KAU reportedly relied on the professional expertise of external stakeholders to determine quality standards, leading to centralization of QA strategies. As such, it was not surprising to discover that participants saw themselves as having limited capacity to participate in QA activities. Participant QM1 KAU mentioned the appointment of relevant people to limited terms as one reason for this limitation of involvement:

*Committees in the departments aren't permanent; rather they are formed just in case there is a need. For example, during the completion of National Commission models of the educational curricula and programs, there was a decision by the university Vice-President for Development that each department will have work to accomplish the duties so that Head of Department can conduct follow-up work.*

Another major finding was related to the degree and nature of student participation in QA. At PSU, students were considered to be vital stakeholders, according to the document analysis. Their involvement was clear from their integration into the QA governance structure and their involvement in assessing quality in a range of areas through the USC. According to PSU documents, the USC is embedded in university governance and considered the official representative body of students, with officers chosen by student representatives from all departments to ensure appropriate follow-up to student issues where required. In that PSU students contribute positively in this way in judging the quality of their learning, they are a vital part of QA implementation at PSU.

In contrast, KAU's governance structure makes no provision for a student council. There is a Department of Student Affairs, whose function is to manage the miscellaneous affairs of all students not already managed by other university units; these include sport, food, housing, financial awards, and psychological and educational needs.

**1.7. Discussion**

The adoption of QA standards at PSU illustrates the importance of institutional policies that fully support QA implementation. The analysis emphasized the ongoingness of QA efforts at PSU, in contrast to the case at KAU. PSU has developed a systematic procedure to monitor the implementation of QA through regular evaluation processes, which help PSU promote continuous improvement. In contrast, although KAU did formulate a general strategy, the effectiveness of internal QA evaluation at the institutional level at KAU was not corroborated by the data, which instead revealed the fragmented nature of KAU's QA policy.

Furthermore, meso-level participants at PSU strongly approved the adoption and scope of the QA system. They had substantial knowledge regarding the QA process. This high level of knowledge and approval was shared at the micro level, with some participants perceiving QA as an opportunity to grow academically, with the support of management. This corresponds to previous statements in the literature (Cardoso et al., 2011; Laughton, 2003). As such, the support of the micro level is playing a significant role in enhancing the QA implementation.

The PSU data further revealed that, conformed to NCAAA standards, the process was aligned with the hierarchy within assessment and the interrelatedness of learning outcome data. Furthermore, one significant findings at PSU related to the data used in quality decisions, to analyze which multiple assessments were utilized through the development of a statistical database. The results indicated good practice in using the data in continuous improvement. However, there was no effective assessment system at KAU, and feedback was not consistently used to ensure the effectiveness of the QA process. Rather than enhancing the QA system, information was used solely to ensure compliance.

With regard to ensuring the quality of teaching and learning, a comparison of PSU and KAU reveals that implementation of QA in this area also differed, in that PSU had a clear policy defining tools and guidelines for evaluating QA implementation. This policy serves as a key reference point for several quality evaluation tools applied to programs and learning outcomes at KAU; however, no institutional policies or procedures were developed for internal evaluation (although some departments did use learning rubrics), and thus, academic faculties received no guidance in the area of assessment. What is more, KAU documentation indicated that the university monitored and evaluated quality indicators including graduation rate, student persistence, satisfaction of students with academic services, and appropriateness of programs and services. Although an institutional assessment unit was established at KAU to meet the minimum requirements of the NCAAA, there was little evidence that such criteria were being applied comprehensively at KAU, with the exception of the fragmented publication of NCAAA standards on its website and a statement indicating adherence to these. Thus, at KAU, consistent assessment strategies had not yet been developed and implemented in academic departments or across the university.

The interview data analysis between the two universities shows further that QA procedures at PSU were well recognized and incorporated into work at both meso and micro levels, with participants who were confident in their shared QA insights. Furthermore, participants at both levels acknowledged QA mechanisms in teaching and learning, which clearly played a fundamental role in QA implementation. In contrast, KAU participants expressed the opinion that QA in teaching and learning is merely equivalent to curriculum development, and no effective QA monitoring system was reported by the KAU participants.

With regard to curriculum development, both PSU and KAU abided by the regulations of the Ministry of Higher Education (MOHE) although MOHE regulation is not consistent with the modern methods required by NCAAA. Both universities have formal procedures set for the development of new courses and programs. However, the findings of this study suggest a significant gap between PSU and KAU in terms of curriculum reform. It seems that PSU regularly revises its curriculum, whereas curriculum revision at KAU is conducted ad hoc depending upon department and faculty interest. Furthermore, at KAU but not PSU, the lack of a QA mechanism for learning assessment was revealed by the data, as assessment of students' learning was not mentioned by the majority of participants. Finally, participants from some but not all departments indicated the use of a feedback mechanism,

showing that it was not being used on a regular basis. All in all, rather than leading to improvement, the use of feedback was merely a kind of symbolic compliance.

Noticeably, there were gaps between PSU and KAU regarding the stipulations of QA policies and related practices. At PSU, alongside clarity of process, a central finding was that participants' awareness of the QA mechanisms indicated significant consistency between written internal QA arrangements and actual practices. Establishing strong QA protocols can raise employee motivation and morale; if people in the institution are made aware of the institution's commitment towards maintaining high standards of quality, they will work to the best of their ability to help the institution meet those standards (Brown, 2011).

At KAU, however, the implementation of QA appeared to be merely symbolic. This is in keeping with institutional theory, in that universities can respond to institutional pressures symbolically rather than making genuine, substantive responses.

In addition, it is noticeable that under NCAAA requirements, new programs at both universities are not included at all in the practice of QA, which is only limited to established programs that have already graduated students. This observation corresponds to institutional theory as well, in that it assumes organizations might decouple specific structural elements from the organization's major practices to achieve legitimacy and survival (Meyer & Rowan, 1991).

However, for all their academic programs, universities need to set standards with reference to the enforceability of continuous improvement, which becomes especially critical when the respective professions judge the quality of graduates. Accordingly, to implement an improvement-oriented approach, QA mechanisms should be in place to ensure the acceptance of standards by the relevant professions well in advance of the program's enrollment stage; this will ultimately ensure that the products and services offered to the public are also of high quality and in conformity with predefined standards agreed upon by the professions.

Both PSU and KAU have adopted governance structures in accordance with the regulations of the Higher Education Council. However, while at PSU the data revealed a certain amount of independence in structuring the Board of Trustees, at KAU an objective, transparent approach did not exist. According to the analyzed documents, while the University Council is the highest decision-making body at Saudi public universities, in most cases, the Minister of Higher Education, who by law chairs the University Council, delegates the authority to the president of the university. This is a potential indicator that governance might not be exercised at arm's length, which raises a serious concern in relation to management structure and ensuring that the university is in fact being managed appropriately. That is, maintaining transparency and avoiding conflict of interest should have particular importance for the higher education system in Saudi Arabia. This might hinder the implementation of quality assurance, and there is a need to change the regulations at the macro level in this regard.

Another major critical finding regarding governance structure relates to student participation. At PSU, the document analysis confirmed that students have been regarded as crucial stakeholders, and their involvement formalized by integrating them in the governance structure. With regard to QA in particular, it was found that students have been involved in assessing the level of quality achievement in different areas through the University Student Council (USC), which is embedded in university governance and considered to be the official representative body of the students, with officers chosen by student representatives from various departments. At KAU, in contrast, although there is a Department of Student Affairs with the aim of managing student services provided by the University, such as housing, food, sports, financial awards, and special educational or counseling services, there was an absence of any student council or similar representative body. This comparative study has provided intriguing indications that student involvement in QA implementation at PSU has been critical to QA, since students play an irreplaceable role in judging the quality of their learning process.

The analysis of the PSU and KAU data suggest that QA structure and management personnel both play a crucial role in institutional QA. The establishment of a QA center was essential for both universities; but a basic difference between the two was that AACP staff and departmental QA committees at PSU work in collaboration to promote

QA, while in contrast, KAU lacks an effective delivery vehicle to implement QA standards, largely due to the absence of proper policies and adequate human resources, resulting in the inability of the AAU head to do more than focus on formal accreditation.

The analysis revealed that both universities used a top-down approach to implementing QA. However, the extent of stakeholder involvement at PSU was high, with multiple stakeholders reportedly getting involved in QA implementation at departmental and institutional levels, whereas in contrast, KAU appeared to have limited involvement and capacity for QA implementation, and instead relied on the professional expertise of external stakeholders in determining quality standards and assessing compliance.

Furthermore, the data also revealed that participants at both levels at both universities perceived infrastructural limitations to QA implementation. While financial support was reported in the case of PSU, the issues of workload and poor working conditions remained problematic for participants at KAU. In addition, the data suggested that at KAU not only staff but also program quality (cf. Almstada, 2014), student quality (cf. Al Dawood (2007) and Alnassar and Dow (2013) on the very low capabilities of first-year Saudi university students), and increasing student enrollment were considered to be key factors hindering QA implementation.

Another notable difference in KAU participants' responses as compared to PSU, was the suggestion that a systemic approach and the integration of technology could enhance QA implementation. Here, as overall, the comparison between the two cases confirmed that quality assurance implementation remains a cultural matter (Harvey & Stensaker, 2008) and that culture change in institutions is needed to achieve good QA.

Finally, the study found that the type of the university, public or private, may play a significant role in the implementation of quality assurance as a result of seeking legitimacy supported by institutional theory. The age of the university was also found to be crucial, as PSU is considered relatively new and KAU is not; this is consistent with the argument that new universities have a more positive view of the self-evaluation process and consequently are more adaptable in compliance with external demands in this regard (Rosa et al., 2006). The study results support the findings of other studies that demographic variables of participants impact on perceptions of quality (Papadimitriou et al., 2008; Rosa et al., 2006; Stensaker et al., 2011).

These factors seem to be largely interrelated, requiring collaborative and integrated action from all stakeholders. For instance, faculty resistance and infrastructure development may be addressed more effectively when management and leadership are committed to providing the necessary funding and professional training in support of QA implementation.

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# Impact of Online Workshop for Youth Empowerment: Applying C-BED to Hikikomori Support in Japan

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**Abstract**
Hikikomori has been recognized as a significant social issue in Japan. It is a Japanese term that refers to young people (aged 18-39 years) who have been in an asocial state of social withdrawal and social isolation for over six months. The Cabinet Office of Japan suggests that the number of hikikomori youth has reached approximately 700,000 and is still growing. In addition, recent surveys suggest that hikikomori has a prolonged influence, such that more than 610,000 middle-aged people (aged 40-65 years) have remained in a hikikomori state which began at a younger age. The major challenge of this issue facing experts is that Hikikomori individuals usually repulse external support or interventions, either consciously or unconsciously. Hence, psychological therapies reliant on external interventions have inevitable limitations in curing hikikomori. Our methodology of C-BED (Community-Based Enterprise Development), on the other hand, has proven effective in overcoming this challenge, based on the results of our pilot study supported by Japanese NGO and TOYOTA Foundation. C-BED is a peer-to-peer learning process in which hikikomori share their thoughts with peers in similar situations through online dialogues. In developing the original program, we adopted the Dialectic Behavior Therapy (DBT) to the C-BED and produced 10 online modules for participants to interact by using online SNS group chat. The results of the online workshops (online C-BED) for five Hikikomori youth suggested that their psychological anxiety has been decreased and their willingness to participate socially has been strengthened after attending a 3-course module. In addition, C-BED has incomparable advantages in approaching hikikomori in remote areas at a meager cost, and in bringing positive changes to those who are struggling with psychological problems, no matter their cultural or economic backgrounds.

**Keywords:** Youth Empowerment, Online Education, Hikikomori, E-learning

## 1. Introduction

*1.1 C-BED Approach and Achievement*

C-BED (Community-Based Enterprise Development), a tool produced conjointly by the Japanese Ministry of Health Labor and Welfare (MHLW) and International Labor Organization Bangkok (ILO), pioneers an innovative community development methodology, which introduces a series of workshops among the vulnerable population

without trainers or external intervention. The training guidelines and modules are available online as open-source downloads, in order to allow for global availability for any user. The methodology was initially designed to help entrepreneurs and business owners plan and improve their enterprises. The defining features of C-BED are its peer-learning concept and low implementation cost. As a result, C-BED can be easily customized to suit the needs of different beneficiaries and to outreach vulnerable and remote groups, even with limited resources or capacity (ILO 2019).

Due to its accessibility and low cost, it was hypothesized that C-BED would have considerable potential in treating mental illness. Based on the funding granted by the Japan Foundation in 2015 and the Toyota Foundation in 2016, the author conducted a series of programs and studies with an integrated-methodology to prove the effectiveness of C-BED in addressing mental health issues in different countries, including Poland, Japan, Belgium, the U.S.A (California), Bangladesh, Cambodia, Sri Lanka, and China, over four years. In 2017, another project entitled "International Comparative Study on the Effect of Philosophical Dialogue in Self-help Groups," focused on awareness development in self-help groups using C-BED, was carried out and achieved great success. The author then submitted a report entitled "*Self-Help Group Guideline*" as a result of the international joint research funded by Toyota Foundation (Toyota 2018). Ahead of this report, the preliminary action-research report on Self-Help Group was submitted to the Japan Foundation in 2016 (Yokoyama 2016), and then to Kyoto University in 2017 (Yokoyama 2017). With the discoveries and practical outcomes, these projects were selected by the Ministry of Internal Affairs and Communications of Japan as one of the top 100 teleworking pioneers in 2016. In 2018, the author compiled some of the findings in a doctoral dissertation entitled "*Dialogue in Self-Help Group*" to the Graduate School of Advanced Integrated Studies in Human Survivability at Kyoto University, Japan (Yokoyama 2018). During this process, in 2016, C-BED project members from Japanese MHLW and ILO Bangkok were invited to a conference held by Toyota Foundation project in Phnom Penh, Cambodia. The conference, which was attended by upwards of 10 NGOs and two international organizations, acknowledged the initial development of C-BED and the implementation for youth self-help groups in a variety of countries.

The C-BED programs described above have had a long-lasting, positive impact on subjects with better-than-expected performance. The community users of C-BED in three cases continued to build online connections through online SNS, carrying out peer-learning activities through video communication spontaneously and consistently, several months after the project ended. In particular, the methodology has proved to be effective in solving life problems such as limited job opportunities, poverty and gender-related discrimination faced by Muslim women (Chams) in Cambodia and Bangladesh, and with young people in countries of middling development. C-BED. Furthermore, in Poland, it has been found that online C-BED has a significant impact on unemployed youth with online-game addiction. Drawing on these results and experiences, we started to explore the possibility of curing hikikomoris in Japan utilizing C-BED from June 2018. The team conducted an online pilot workshop with five hikikomoris in 2019. The following sections will discuss the background, methodologies, and results of the study in detail.

*1.2 Hikikomori Issue in Japan*

The hikikomori phenomenon in Japan has raised great concern among social activists, governments, and the media, amongst others, who have suggested that it represents significant crises in youth public health, social integration and economic activities. According to the data from the Cabinet Office of Japan, the total number of hikikomori youth who are NEETs (Not in Employment, Education or Training) has reached 710,000 (White Paper on Children and Young People, 2018). Other sources estimate that this number may have exceeded 1 million (Zielenziger, 2006). Hikikomori individuals usually have a complex psychological disorder of compounding social anxiety, high levels of inferiority complex, assumed competence and escapism.

**Social Anxiety**: A long period of social isolation can cause strong anxiety and disturbance in personal relationships. For example, in many cases, these young adults tend to have barriers in correctly interpreting others' behaviors as they lack enough social experience. In many cases, they are not able to recognize social roles or grasp a sense of their own social role, such as being a 'student' or being a 'worker'. Yokoyama (2018) suggests that the cultural peculiarity of self-negation in Japanese spiritual culture is related to 'a sense of oneness' between society and individuals. This symptom occurs because individuals with low self-esteem and high self-negation are

hypersensitive to others. This hypersensitivity may lead to a failure in building relationships and in obtaining self-affirmation from social recognition. This psychological tendency causes "self-stigmatization" to become deeply rooted during their adolescence. Scopophobia in public, such as on a crowded train, is a typical symptom of social anxiety. Usually, the young people who are suffering from scopophobia have a constant state of heavy self-criticism and self-dissatisfaction. Hence, they develop 'general negativity of others' as a view towards them and misinterpret others' behaviors as aggression or negative expression.

When parents or schoolteachers impose their own value standards on adolescents, the adolescents are inclined to internalize these general standards into their own value-system. With this 'internalization of others', value judgement causes the young person to negate herself or himself when the ideal status does not match with her or his reality. Furthermore, with a stubbornly fixed value system, the children also tend to become disrespectful and detrimental to others, as a result of judging themselves by these internalized standards. Due to this judging tendency and stereotyped discrimination fostered in childhood, uncontrolled emotions dominate the youth and can trigger acute anger and emotional explosion, expressed by words and behaviors which instigates their inferiority complex. For instance, if the parents disrespect low-waged workers, their children may also look down on people who work for a lower salary, exposing themselves to self-criticism as they are often also. It becomes especially problematic when these tendencies result in a severe state of prolonged isolation and poverty as an adult, often referred to as the '8050 issue,' which indicates 80-year-old parents supporting their 50-year-old children. Nevertheless, the Japanese government and NPOs have been providing various types of supports for more than 10 years, including third-place provision, job counselling, psychological treatment, housing and workshops. The young person will often reject these support and counselling services that make him or her confront their feelings of inferiority. Thus, when the youth is not able to observe their own psychological difficulties, they will be trapped in an inferiority complex, and social disabilities manifest through fastidious and unpleasant behaviors toward others, causing them to be social excluded and isolated in the end.

**Addiction caused by escapism from the reality**: The long-term, jobless isolation deteriorates the youth's mental health, making them inclined towards addiction to online games and internet surfing in many cases. Virtual reality and society in online games or similar online services provide them with an opportunity to communicate and interact with others as if it were real life. The virtual reality enables hikikomori to escape from reality, and it makes the youth more dependent on the internet or game. However, when parents give criticize the youth for playing online games, the children will feel 'guilty' about gaming even though it is what they like to do. Gradually, they consider what they enjoy and want to do as wrong. The days hooked on the game strengthen their guilty feelings, bringing self-negation in addition to discordance with family members.

Due to the above reasons, the youth choose to be isolated, rejecting others including family members, as the result of their resistance against an abstracted value system of family and society. Even after getting out of hikikomori state and regaining connection to society, the suffering from a long-term hikikomori often causes individuals to be highly dependent on social security or pension for disability in most of the cases. Once social security is no longer available, the youth becomes homeless after their parents' death. One shocking news story reported that a mother living with her daughter in Hokkaido district starved to death without any social supports and remaining isolated in her house in January 2018. Without an effective method of identification and treatment, hikikomori has been becoming chronic, leading to an eminent social problem named '8050 problem,' which indicates a household in which parents in their 80s live with their sons or daughters who are in their 50s without income. Finally, the state of hikikomori and the fear of it can lead to violence in extreme cases. In 2019, a father killed his own son, who was hikikomori, after becoming convinced that the son would kill kindergartners (Sankei 2019). This case occurred after the Japanese media broadcasted a case of indiscriminate murder against primary school students committed by hikikomori in Kawasaki district. To make things worse, the cases above and other serious cases enlarge the negative image of prolonged hikikomori in society in TV broadcasting and internet news. The image brings about reflexive self-stigmatization when the parents and youth identify as hikikomori. This stigmatization also pressures the hikikomori family, who are ashamed of their son or daughter, also suffer from an inferiority complex by hiding their issue from neighbors, resulting in negative spirals and moral panics in Japan. Thus, to a greater extent, uncritical journalism and societal gossip have been exacerbating hikikomori problem in Japan.

*1.3 The difficulties and limitations of the existing psychological treatment*

As mentioned in the previous section, the biggest challenge in approaching the youth in social isolation in Japan lies in limited accessibility of external support. In the U.S.A, more impoverished households were found to be more likely to resist authority and reject welfare support in the 1950s. Similarly, the essence of the recent social problem in Japan can be found in an ignorant cognition: those in the most need are the most likely to reject help. Even though there are plenty of policies and social resources for supporting people in social isolation and poverty, isolated citizens do not try to utilize them.

When hikikomori does seek help, social workers may recommend the youth see a psychiatrist and receive mental disability or developmental disorder certification in order to prevent from being homeless. This treatment, however, ironically has resulted in an increasing number of alleged psychiatric misdiagnoses in Japan, where citizens have not enough opportunities to receive psychoeducation in order to avoid the risk of institutionalization (Yoneda, 2018). Nowadays, a growing number of the youth are become addicted to drugs and have fallen into apathy after being diagnosed as a hikikomori. In some cases, self-help groups have formed to support parents whose children are apathetic due to the side effects from the limitless prescription given by psychiatrists. Inherently, there are issues regarding human rights violation, poor understandings of how to support adolescents in decision-making, as well as inadequate medical education accessibility (Yoneda, 2018), which has been serious enough to be reported by the United Nations in 2019[1].

*1.4 Research Design -introducing C-BED to Hikikomori care*

Different from expert support and external interventions, the peer-to-peer learning concept of C-BED enables young people of similar social status and common feelings to get together, creating a comfortable environment for them to interact and communicate without any medical authoritative/hierarchical relationships. It overcomes the disadvantages of external intervention, psychological barriers and other environmental difficulties for hikikomori. Alterations to the original C-BED were made in order to make this program more suited to the needs and wishes of hikikomori. Firstly, this project adopts text-dialogue with online-group chat, which is popular among the young people. The text-dialogue aims to dispel the social anxiety and interpersonal fear. Secondly, the modules adopt Dialogical Behavioral Therapy (DBT) after learning of the practice through the Mental Health America (MHA) California, Project Return Peer Support Network, who participated in the joint-research project funded by Toyota foundation in 2016. Kawasaki, an author of this paper, analyzed the DBT, selected frameworks which are meaningfully adaptable and incorporated them into the modules.

Based on the analysis, we consider hikikomori as a habitual reaction from an interaction of social environment and individual consciousness. The reason for its prolongment incorporates multiple factors, which means that every individual has a different recovery process.

The most effective approach that manages this psychological uniqueness is called a "recovery" model advocated in the mental health discipline. One of the hikikomori self-help groups in Japan has reported this method's positive effect (Warita et al., 2016) on the hikikomori youth. "Recovery" is a concept which focuses on self-realization. It does not regard the symptoms of mental illness as the object of being cured but as a unique individual reaction to the environment. Along with this recovery philosophy, the individual who struggles with psychological or mental difficulty is envisaged to have a holistic personality in the process of a unique life, instead of a fragmented human being as a patient with a specific sickness or difficulty. The recovery process attempts to repair human relationships with this vision of self-realization against self-stigmatization. This concept was originated by the MHA.

The author of this report, Yokoyama, spent a week interviewing 9 members of MHA to study on the practical implementation of recovery policy. The findings suggest integrating DBT with Motivation Interviewing (MI; Miller 2002), a method which provisions non-hierarchical relationship and welcomes open questions enabling free talking between counselor and patient (literally it is not therapy but interviewing) at the implementation phase. The integrated approach is the practically embodied methodology of recovery.

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[1] Committee on the Rights of the Child Concluding observations on the combined fourth and fifth periodic reports of Japan、1 February 2019、CRC/C/JPN/CO/4-5

For the above reason, this project adopts DBT with MI in developing the modules. The details will follow in the next section.

**2. Method**

As shown in Table 1, we developed 10 C-BED modules targeting hikikomoris. Due to the time limitation, we only used #1, #5 and #10 in this action research. The tests were conducted once every two weeks (8 pm to 9: 20 pm on the 9th, 16th, 24th February 2019, respectively) through online group meetings. The study was designed and facilitated by Taizo Yokoyama, Akira Kawasaki, and Tomoe Mitsumiya.

*1.4 Test Process*
1. Finding participants in Self-Help Group (5 participants expressed interests)
2. Contacting individuals through e-mail or phone
3. Forming a group-chat for the pilot and inviting the testers
4. Implementing the pilot C-BED
5. Conducting follow-up interview surveys through e-mail or phone two times (one month and three months after the pilot study respectively)

Table 1: List of the developed modules

| | Title | Content Purpose |
|---|---|---|
| #1 | Adopting self-caring into your life | Make a habit of mindfulness mediation (as DBT does) in daily life to calm down and relax the stressful mind. |
| #2 | Learn how to avoid denials | Understand the feeling of being in denial; forgiving and permitting different value judgement, accepting diversity of opinions in addition to practicing not the negation of others, but keeping a positive attitude. |
| #3 | Observe yourself | Practice "the ability to observe the mind/ consciousness" and consider what makes you happy and feel good. |
| #4 | Deal with inferiority complex | Accept imperfectness; as there are no perfect personalities, the others have weaknesses as you do, allowing imperfectness. |
| #5 | Learn that people can change | Realize all the personalities and properties change constantly in time and environment, including one's own. |
| #6 | Get rid of your frames | Stop thinking "I can't change anything because I was born like this" and convert to "change myself", getting rid of the fixed framework. |
| #7 | Dissolving stress | Learn DBT skills through exercises to mitigate stress in daily life. |
| #8 | Control your emotions | Acquire capacity of controlling your emotion by having a bird's-eye-view of yourself and sorting emotions along with the list of emotions (DBT). |
| #9 | Communicate smoothly | Study the skill for sustainable relationships, balanced with self-respect. |
| #10 | Think of your next step | Realizing that small steps build up to a big goal, setting vision after C-BED. |

*2.2 Participant (Subject) Characteristics*

Five hikikomoris living in Osaka, Kyoto, and Nara prefectures participated in this online-C-BED pilot project. All the participants are mobilized through the Self-Help Group in Osaka. Furthermore, the participants are informed of the project concept by telephone or e-mail and consent to test the modules under the condition of anonymous participation. All the modules are translated into Japanese and distributed to the testers before the C-BED workshop. Smart phones were used as a communication device among the participants (one of them borrowed her mother's phone). Therefore, the project platformed the social-networking service with mobile application in Japan.

## 3. Results

The five participants' status before/ after pilot C-BED is shown below.
＊When the participants answer that positive change has occurred after C-BED in the follow-up survey, we marked P (positive) in the chart. When they answer no change or if they dropped out during the pilot, we marked N (negative) in the chart.

| Sex/ Age | Before the Pilot | After the Pilot |
|---|---|---|
| Female A・34 | Living alone in the apartment, which her parents rent for her.<br>6 years of unemployment period<br>Usually spends time with surfing the internet all day long | P：Starts a part-time job (being a waiter at a Chinese restaurant) after the second module of this pilot project. (According to the follow-up survey, she was still working after three months of the project when this paper was written) |
| Female B・16 | Has been a hikikomori for 14 years since junior high school<br>Sometimes go out with mother for shopping, but keep being in jobless | P：After the third module of the pilot, she looked into her daily schedule and launched a project with a small volunteer group consisting of friends met on the Internet (In May 2019, the follow-up survey found that she started her project activity in her living area) |
| Female C・21 | After matriculating university, she failed to adapt to the new environment and became hikikomori at the apartment rented by her parents<br>Playing games all day long, considering dropping out of the university | P: After completing the three modules, she examined her life habit and got motivated to study for a national license |
| Female D・25 | Has been hikikomori for 7 years, before the second grade in high school when her parents divorced<br>Playing online games all day long | N: Only participated in the first module, dropped out following pilot modules |
| Male A・35 | Has been hikikomori for 20 years since he was in junior high school<br>No addiction to the games, nor the Internet<br>Possible to go out with his mother | P: Participated in all three modules, and realized the importance of finding a life partner,<br>The follow-up survey showed that he visited a volunteer information Centre and joined in community activities. |

*3.1 Key Findings - at the development stages-*
We found the successful factors ascribed to the following features, in addition to the lessons learned during the experiment.

*3.1.1 Concerning Mobilization phase*
The most challenging stage of the C-BED is at the mobilizing phase. Especially for hikikomori in this project, as the focal issue is 'social-relationship', mobilizing action itself connotes supportive care to the expected participants. For instance, in targeting youth in online-game addiction with family problems and so forth, there should be connections and partnerships with social/public services, ideally multiple stakeholders. From this regard,

self-help group formation with support agencies is supposed to be the best methodology to lead this online approach. Moreover, in Japan, the Support for Livelihood of Needy Law (*Sei katsu Konkyusya Jiritsu Shien*), which was legislated in 2013 and began its implementation in 2015 as a second national safety net, is envisaged to be linked with this project attempt.

### 3.1.2 Taking advantages of case-study in developing modules

We aimed to create a relaxed atmosphere to let the participants open their hearts to other unfamiliar members and to enable free text-dialogues. Also, we set our team goals to "bringing a change in daily life", "introducing a new habit", and "achieving meaningful vision-setting" in this pilot project.

When selecting three modules from the total of ten modules which we developed, we carefully avoided some types of activity which might directly recall the past traumatic experiences in testers. At the same time, we also refrained from any treatment and assumption of the participants as 'patient' or 'problematic' population. Even though we paid attention to this perspective in advance, one participant complained after the first module about an activity which seemed to request her to reflect on her experience and which triggered negative personal emotions.

After reviewing the feedback mentioned above, we considered whether the second and the third modules should have case studies at each initial session. Case study works well in the project because it provides reflection and change in consciousness in the process as well as fostering objective thinking about the situation, allowing for some distance from personal experience. Despite plenty of contents which appeal to emotions and thinking of participants in our prepared ten modules, it turned out that the case study is the best formality to enable smooth and natural dialogue among the participants.

### 3.1.3 Concerned period and length of the modules

A lengthy workshop could result in imposing psychological burdens on the mentally vulnerable youth. In this pilot project, we held workshops once a week for three weeks. Female D dropped out after the second module and gave feedback about the time length of more than 90 mins. Receiving this feedback, we modified the content and shortened the third module into 60 mins.

### 3.1.4 Introducing mindfulness/ meditation

At the beginning of each module, we introduced mindfulness meditation for 5 minutes, which plays a key role in DBT. In order to signal the end for testers, we utilized the video navigation by sharing the link in group chat. According to our follow-up surveys, one of the participants, Female B, made it a habit and incorporates into her regular exercise.

### 3.3.5 Introducing challenge task

Taking advice from MHA, we introduced a session of a "challenging task" from the beginning. The session navigated the participants to determine "a new life habit" and report daily achievements to the group chat. To avoid too much pressure on testers, we set the challenging task as a voluntary option. However, the participants reported a task for only two days after the first module, and we failed to make it become habitual. In future programs, there ought to be another mechanism, and an incentive could help strengthen this system.

## 4 Discussion – key practical recommendations –

This pilot project demonstrates how an online version of C-BED (text dialogue) works effectively, and how it can help change and influence the youth who live in an isolated situation. This attempt also unlocks a way to empower (1) marginalized populations with culturally limited social participation, like Muslim women, and (2) people living in isolated or remote areas (e.g., mountain areas or islands) with available Internet access. It envisions a new empowerment methodology with a relatively small budget, suitable for both developed or developing nations.

### 4.1 Target habitual / behavioral change for entrepreneurship

The advantage of online C-BED is 24-hour accessibility and that it encourages participants to report, post (voicing), and to smoothly exchange their ideas and opinions. Furthermore, online C_BED may bring alternative

way of thinking to the subjects. The online relationship does not require physical commute, and this feature is suitable to establish a third place in their busy daily life. Because people in poverty usually have difficulty finding the chances to participate in educational seminars and workshops offered by development agencies and facilities, the portability and accessibility of online C-BED will doubtlessly work for them.

However, the modality of online workshop is, in both positive and negative ways, a distinctive form compared to the ordinal face-to-face session. It is difficult to achieve multiple objectives in cognitively limited text workshops. In other words, online interaction should not be the main agent of human-support approach; yet, it works well as an alternative and accompanying instrument which brings human interactions directly in reality. Therefore, targeting habitual or behavioral change is a moderate step to initiate a relationship with the participants, helping them to grasp the concept of C-BED.

*4.2 Considering time-requirement in text-based activities*

Long, text-based activities cause fatigue and stress in the participants. One module should be compacted to, at most, 60 mins. Also, every workshop should reserve 5 minutes for smart-phone users who take more time to type than computer keyboard users. The dialogue activity, which attempts to motivate and facilitate opinion exchange, requires 15 minutes minimum to deepen the discussion.

In addition, the question and required task must be clear so that anyone can understand and participate in the discussion in the chat. The program must prepare a technical manual which explains how to operate the application in smartphone. For instance, this pilot project tested the chart-fulfillment in paper to gather visualized answers from the participants; however, most of them had trouble understanding how to do this, such as how to take and send pictures. A prepared description or technical manual document, such as pictures or video interaction, should be shared in advance. At an initial stage of the online interaction, simple open-ended questions work better to facilitate participants to understand the concept of C-BED.

*4.3 Case-Study based, consistent module*

With adequate case studies, the activity works well in eliciting individual value judgement and opinions, and letting the participants express a unique personality in a relaxed mood. The module development should simplify every activity and connectivity between activities and modules: for instance, after introducing their 'ideal working places' in future, next activity should contain a topic related to it. Topics and themes of dialogue ought to be made very clear by establishing guidelines and examples of the expected answers in activities that the participants can reply with 5W1H. In addition to the individual digital task, physical activity may encourage more motivation, for instance, writing a diary, interviewing people, sketching a scene in life, researching on certain topics, presenting the findings and opinions in the video, and reporting the progression of change, to name a few. From this perspective, *tsudurikata* (writing) education, a unique, writing-intensive educational movement in pre- and post-War Japanese social education, should be reexamined with regards to its approach to psychological development and empowerment through active learning for adolescent youth.

*4.4 Fun and Re-creation oriented*

Follow-up surveys suggest that the participants are looking for more 'fun' in interaction, and at least demand on 'to notice' in activities. In addition to the equality amongst participants, the flat relationship between organizer and participants elicits new perspectives and valuable change for all the related persons. The interaction through dialogue can also delimit the goal of online C-BED. When this goal gets achieved, the change is also more beneficial for all.

With regards to the amusement modality, from a more micro, technical aspect, online text-dialogue permits funny stamps, private pictures, and chatting exchanges, which can be part of the interactions required to re-create their life with human relationships. Incorporating "fun" should be a core value in developing online C-BED.

Our pilot modules were overambitious given the limited sessions. After all, interestingly, and regrettably to some degree, the follow-up surveys found that 'the most exciting activity' for the participant was an initial self-

introduction regarding, for example, personal hobbies. Such casual interaction would be enough to bring a small change, which may lead to bigger changes in personal life.

### 4.5 Possible web-based platform

An online platform would design a meta-field of online C-BED which allows the participants to view the developed modules and feedback from other users who experienced the same C-BED, as well as to mobilize the workshop partners and members spontaneously. Construction on such community in the web platform makes C-BED more familiar to their interests, and it would also resolve the challenge in mobilizing phase. The first expected task in the possible construction of the platform is to draft the guideline for the participants, as well as depicting the developer's visions.

### 4.6 Introducing Video/ Movie technology

This pilot adopted online videos to explain mindfulness meditation to the participants. If it does not diminish the active learning of the participants, video instruction and input could play a broader role through audio-visualized lessons, combining well-controlled e-learning and communication with peer-learning. For instance, instead of the case-study written in text, movie and audio materials could play a more intuitive role in peer-learning. With a view towards smooth facilitation and functions of such online-based learning, an adoption of multi-cognitive media should be considered in developing more appealing tools of human development for potential users of C-BED.

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