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“CONTEMPORARY POSTGRADUATE DISCOURSE: ENRICHING RESEARCH QUALITY”

AUGUST 2018
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EFFECT OF VAN HIELE’S MODEL ON PEDAGOGICAL ABILITIES OF UNDERGRADUATE MATHEMATICS EDUCATION STUDENTS IN NIGER STATE, NIGERIA

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ABSTRACT

This study aimed at investigating the effect of van Hiele’s geometric model on pedagogical abilities of undergraduate mathematics education students (pre-service teachers) in Niger state, Nigeria. Two research questions and two hypotheses were formulated to guide the study. The design adopted for the study is a quasi-experimental, specifically, static group comparison design was used in the study. One hundred (56 males and 44 females) university undergraduate mathematics education students from two selected universities in Niger state were used as research sample. The sample universities were selected using purposive sampling technique. Geometry Teaching Practice Assessment (GTPS) was the instrument used for data collection for the study. It consisted of two parts. Part one evaluated the geometry lesson structure consisted of instructional units in line with van Hiele’s phase-based instruction while Part two, evaluated the teacher’s presentation of the geometry lesson in classroom. A reliability coefficient of 0.81 was obtained. The data was analyzed using independent samples t-test. The hypotheses were tested at 0.05 level of significance. The findings of the study revealed that significant difference exists between the mean scores of undergraduate mathematics teachers with geometric pedagogical abilities and those without geometric pedagogical abilities. However, no significant gender difference exists among male and female undergraduate mathematics education teachers with geometric pedagogical abilities. It was recommended among others, that emphasis should be laid on continued training of university undergraduate mathematics education student on geometry pedagogy even, after graduation so as to keep them well-informed of existing researches in geometry teaching and learning practices.

Keywords: Model, pedagogical abilities, Undergraduate, van Hiele,

INTRODUCTION

In the world today, it is evident that teaching is one of the oldest and most respected professions. The skill of conveying knowledge to learners has been one of the central educational activities in the teaching and learning process. To this end, it is the teacher who bears the responsibilities of imparting information to the learner using most effective strategy (Biong’ahu & Hyuwal, 2017). Bello and Musa (2017) asserted that the training of teachers have gone through a series of change but the need for the teachers has been vital at all times most especially that mathematics as a subject is generally accepted as an important area to be studied. Mathematics is the wheel in which science and technology move, meaning if there is no mathematics there will be no science and technology. Amoo and Efunbajo (2004) stressed that a solid training in science, technology and mathematics is vital for many vocations and job chances in today’s increasing technological society. This is affirmed by Abdullahi (2017) that the use of mathematical knowledge as a discipline has spread across all domain of human endeavor. It is in recognition of vital role of mathematics that country like Japan today has made it not only the second largest economy but intimidating even the world’s robust economy, the United States of America (USA) which has remained the most prosperous in the harnessing of collective scientific and technological
development for the attainment of its national objectives (Wasagu, 2007). Supporting the above assertion, Bot and Iliya (2015) opines that the advancement of any nation is determined by its scientific and technological growth and development which is erected on sound mathematical knowledge. For this reason, Iyekekpolor and Bulus (2009) stressed that any nation that treats mathematics education of its youths with levity does so at the detriment of her science and technology.

Mathematics educator stated among other things that there is no other subject that has greater application than mathematics (Odogwu, 2002). Today more than ever, the fields of knowledge are dependent on mathematics for solving problem, stating theories and predicting outcome (Odili, 2006). Keith (2000) caped it all by saying that today, scarcely any aspect of our lives is not affected, often in fundamental and far reaching way, by the product of mathematics. When one think of the technological and communications infrastructure that under girds our lives, you realize that we are in fact in a “mathematical universe”.

In the National Policy on Education Federal Republic of Nigeria (FGN, 2004) and 2006 curriculum reform, mathematics is one of the core compulsory subjects in basic education curriculum. The importance accorded mathematics in the curriculum reflects accurately the recognition of the vital role it plays in contemporary society. For instance in present Nigeria educational system as stated in the National Policy on Education (2013), mathematics is highly rated and this is demonstrated in the requirements for admission into any tertiary institutions, that a credit in Mathematics as well as English Language is required before students could be considered for admission for any of the prestigious courses such as medicine, architecture and engineering among other degree programmes (Akerere, 2011). It is in recognition of its important role that many countries now resorted to making special comprehensive and well programmed efforts, toward the effective teaching and learning of science and mathematics at all levels of educational system through development and implementation of innovative programmes and projects (Azuka, 2001 cited in Odili 2006).

However, in spite of the central part that mathematics shows both as academic discipline and as knowledge that everyone needs in the society as specified by the National Policy on Education (FGN, 2004), the students’ performance in Senior Secondary School is not encouraging (NECO, 2012). This is affirmed by Adaramola and Adolphus (2013) that mathematics education in general is presently in a crisis state as evidence in the poor achievement of students in examinations. The West Africa Examination council (WAEC) chief examiner reports of 2006-2014 and National Examination Council (NECO) chief examiner reports of 2006-2015 in Nigeria indicate that students’ achievement in mathematics has been poor. The incessant students’ failure as confirm above raise concern on the future of the country.

The persistent failure in mathematics is always been linked to a number of factors. Ali (2014) and Sunzuma (2013) in their separate views ascribed it to incorrect method of teaching and learning mathematics in Nigeria Secondary schools. In the view of Adebola (2012), non-utilization of suitable teaching methods and over dependence on traditional teaching technique consequently results to rote-learning and low achievement could be responsible.

In order to ameliorate this ugly trend, Eriba and Achor (2010) stress that, it is important that teachers need to be involved in the teaching-learning processes and the instructional strategy to be used should be in such a way that it create opportunity for the required interaction to take place between teacher and the learner. In the effort to improve student achievement, mathematics educators have search for various strategies that could be manipulated in favor of academic gain. The van Hiele’s model under investigation could have influence on pedagogical ability and subsequently create opportunity for improving and ameliorating the incessant students’ failure.

Pedagogical knowledge in view of Guerriero (2013) is a specialised knowledge of teachers for producing effective teaching and learning environments for all students. It includes all the required cognitive knowledge for creating effective teaching and learning environments. Research suggests that this knowledge can be studied. Identifying the content of this knowledge base, however, is a complex issue. Examining the knowledge of teachers as ‘learning specialists’, Guerriero (2013) said that teachers’ knowledge consist of understanding how this knowledge functions in the teaching-learning process; more specifically, how teachers apply their knowledge in making decisions, for example, about lesson design or making on-the-spot judgments in the classroom. He maintain that a set of research studies conceptualizes the teaching profession as a ‘clinical practice profession’ and compares it to the medical profession. Some argue that decision-making is actually a basic teaching skill – decisions are
made regularly by teachers while processing cognitively complex information about the student in order to decide alternatives for increasing their understanding.

In contrast, general pedagogical knowledge has not been the object of many research studies even though several studies indicate that it is essential for developing quality teachers. To develop quality teacher is paramount to create conducive atmosphere. One possible way to achieve this, as reported by Johnson (1999), is by giving the students the opportunity to communicate mathematically, reason mathematically and develop self-confidence to solve mathematics questions. One of the ways this can be accomplished is through van Hiele’s geometric model.

For that reason, van Hieles (1986) believed that cognitive progress in geometry can be fast-tracked by instruction, as such he suggested learning phase that are able to support in assisting learners to move from van hiele level of geometric thinking to a higher level. The five phases of instruction are: Information stage, Guided Orientation, Explicitation, Free Orientation and Integration.

As a result, mathematics teacher with knowledge of van Hiele’s geometric model can easily reached appropriate lessons preparation and other device, develop activities and knowledge for the learner so that understanding would increase from within. This is because it defines cognitive development in geometry and make available frame work for teaching geometry. Indubitably, it denotes providing cognizance to mathematics teaching of interrelating constituents in-built for teaching geometry.

**LITERATURE REVIEW**

In the review of empirical studies on van Hiele’s model of instruction, Alex and Mammen (2016) studied the effect of van Hiele theory based instruction in the teaching of geometry to Grade 10 learners and found out a statistically significant difference in the mean scores in favour of the experimental group. Chew and Noraini (2012) found out that solid geometry could enhanced students’ geometric thinking and achievement through phase-based instruction using manipulatives and The Geometer’s Sketchpad (GSP) based on the van Hiele theory. Siu and Chong (2014) on their studies to determine the effects of van Hiele’s phase-based instruction on learners’ creativity using tangrams activities with grade three (3) primary pupils indicated a significant difference favoring the experimental group. Also Abdullah, Ibrahim, Surif, and Zakaria (2014), Atebe and Schäfer (2011), and Chew and Lim (2013) in different studies reported that using van Hiele’s phase-based instruction to supplement conventional instructional strategy produce higher achievement than the conventional strategy.

Gender issues according to Gambari (2014) have been associated with achievement of students in academic tasks in numerous studies but without any definite conclusion. Some findings show that male students performed better than females in science (Kovas et al., 2015; Musa et al., 2016; Preckel et al., 2012). However, Egorova and Chertykova (2016), and Iwendi and Oyedum (2014) found no gender difference in the performance of male and female students in school mathematics. Conflicting these reports, Kuruma (2004) and Gimba (2006) found that female students performed better than male students while exposed to geometry, mensuration and 3-dimensional mathematics instructional materials respectively.

In view of the above, this study attempted to determine the effect van Hiele’s geometric model on pedagogical abilities of undergraduate mathematics education students in Niger state, Nigeria.

**STATEMENT OF THE PROBLEM**

The principal concern of teacher training is to create qualitative education, but the reverse is the case. From 11years teaching experience of the researcher in a College of Education in Nigeria, it has been observed that majority of mathematics teachers trained in teacher training institutions cannot provide any substantial progress, re-orientation and change from ineffective and unworkable instructional practices in the teaching and learning of geometry in our school as reflected in WAEC and NECO results. As a result, the teacher issue is very important catalyst if success is to be achieved in any educational programmes. Certainly, the perceived poor achievement in mathematics in general and geometry in specific is not restricted to primary school pupils and secondary school students but also to primary and secondary schools mathematics teachers as pointed by Iji and Harbor-Peters (2005), Ohakwe (2006), and Adolphus (2011). The frequent failure in mathematics is always been associated
to a number of factors. Such factor most reported in literatures such as Micheal (2015), Ali (2014), and Sunzuma (2013) is incorrect method of teaching and learning mathematics. These problems according to Hassan (2015) seem to emanate from Teachers Colleges, Faculty of Education in universities to student teachers, then to primary school pupils and secondary school students. Hence, it has become very necessary to examine the state of mathematics teacher preparation in university with special focus on pre-service university mathematics education teachers’ pedagogical ability in geometry.

OBJECTIVES OF THE STUDY

The general objective of this study is to determine the effects of van Hiele’s geometric model on pedagogical abilities of undergraduate mathematics education students in Niger state, Nigeria. Specifically, the research is carried out to determine:

1. The effect of van Hiele’s geometric model on the undergraduate (pre-service) mathematics students pedagogical abilities in teaching geometry.
2. The effect of van Hiele’s geometric model on the undergraduate (pre-service) mathematics students pedagogical abilities in teaching geometry based on gender.

NULL HYPOTHESES

The Null hypotheses were formulated from the corresponding research questions raised above.

H₀₁ There is no significant difference between the mean score of undergraduate mathematics students with geometric pedagogical abilities in teaching geometry (knowledge of van Hiele’s geometric model) and those without geometrical pedagogical ability (without knowledge of van Hiele’s geometric model).

H₀₂ There is no significant difference between male and female undergraduate mathematics students geometric pedagogical ability.

METHODOLOGY

Research Design

The study adopts a quasi-experimental research design. Specifically, Static Group Comparison design was used in the study. This design used two pre-existing or intact groups, only one of which was exposed to the experimental treatment. The subjects were not randomly assigned to the groups. The researcher believed that the groups were equivalent in all relevant aspects and they only differed in exposure to treatment (training on van Hiele’s geometric model). The research design is presented in Table 1.

Table 1
Research Design

<table>
<thead>
<tr>
<th>Groups</th>
<th>Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>X₁</td>
<td>O₁</td>
</tr>
<tr>
<td>C</td>
<td>X₀</td>
<td>O₁</td>
</tr>
</tbody>
</table>

Keys
E = Experimental group
C = Control group
O₁ = Posttest
X₁ = Treatment
X₀ = No treatment.
POPULATION OF THE STUDY

The population for the study comprises of 400 level undergraduate mathematics education students from two universities situated in Niger State, Nigeria, namely University A and University B.

SAMPLE AND SAMPLING TECHNIQUE

The sample consisted of one hundred (100) Undergraduate Mathematics Education Students (UMES) from two purposively selected university from Niger state, Nigeria. The purposive sampling was used based on the fact that only one hundred Undergraduate Mathematics Education Students were qualified to go for teaching practice as at 2017/2018 session in the two sampled universities and, most importantly, the study involved observing Undergraduate Mathematics Education Students in their respective places of teaching practice. There were 58 UMES in the experimental group and 42 in the control group. The two universities were then grouped by gender into experimental and control group and the detail is presented in Table 2.

Table 2
Sample by gender

<table>
<thead>
<tr>
<th>S/NO</th>
<th>University</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University A</td>
<td>32</td>
<td>26</td>
<td>58</td>
<td>EG</td>
</tr>
<tr>
<td>2</td>
<td>University B</td>
<td>24</td>
<td>18</td>
<td>42</td>
<td>CG</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>56</td>
<td>44</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Instrumentation

Geometry Teaching Practice Assessment (GTPA) adapted from Hassan (2015) was used for data collection. The instrument consisted of two parts. Part one evaluated the geometry lesson structure consisted of instructional units in line with van Hiele’s phase-based instruction while Part two, evaluated the teacher’s presentation of the geometry lesson in classroom. This serves as a check list of what constitutes evidence of the van Hiele’s phases in an instructional setting. Hundred was the maximum score for this instrument.

Validity and Reliability of the Instrument

The instrument (GTPA) was validated by a team of two experts, one each from sampled universities. The items were corrected and modified on the basis of suggestions and recommendations by the experts. The reliability coefficient for the GTPA was found to be 0.81 after using test retest method.

Treatment of the Experimental Group

Training manual on the theory of van Hiele model of instruction was developed by the researcher. This manual was used by the researcher on the experimental group after organizing a workshop for them on how to implement it in the classroom. The instrument served as the treatment to the research study. Therefore, it is a sensitization guide to Undergraduate Mathematics Education Students. It teaches them how to prepare, design and implement instructions on geometry lessons. Consequently, a major relevance of this treatment was that, it offers Undergraduate Mathematics Education Students a chance to identify clearly starting and ending points (identify phases of instruction) in their efforts to raise the students understanding of geometry at any given level to the next higher level during instruction in geometry.

Procedure for Data Collection

Descriptive statistics such as mean and standard deviation was used to answer all the research question while independent sampled t-test at 0.05 level of significance was used to test hypothesis formulated for the study.
RESULTS

Hypothesis Testing

Table 3
Summary of the t-test Analysis of Geometric Pedagogical Abilities of Experimental and Control Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean(X)</th>
<th>SD</th>
<th>Df</th>
<th>t-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>58</td>
<td>61.62</td>
<td>7.70</td>
<td>98</td>
<td>11.75*</td>
<td>.002</td>
</tr>
<tr>
<td>Control group</td>
<td>42</td>
<td>45.83</td>
<td>5.19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level

Table 3 shows the independent sample t-test comparison of achievement scores of experimental and control group. The table reveals that the calculated t-value (t=11.75, df=98, p<0.05) was significant at 0.05 alpha level. This implies that there was significant difference between the experimental and control group on geometric pedagogical abilities of undergraduate mathematics education graduates.

Table 4
Summary of t-test Analysis of Geometric Pedagogical Abilities of Males and Females of Experimental Group.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean(X)</th>
<th>SD</th>
<th>Df</th>
<th>t-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>32</td>
<td>61.94</td>
<td>7.04</td>
<td>56</td>
<td>.342*</td>
<td>.164</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>61.23</td>
<td>8.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not significant at 0.05 level

Table 4 shows the independent sample t-test comparison of achievement scores of male and female of Undergraduate Mathematics Students with geometric pedagogical abilities. The table reveals that the calculated t-value (t=.342, df = 56, p>0.05) was not significant at 0.05 alpha level. This implies that there was no significant difference between male and female geometric pedagogical abilities of undergraduate mathematics education graduates. This implies that the use of van Hiele model in teaching is gender friendly.

DISCUSSION

The results of hypothesis one reveals that there was significant difference between the experimental and control group on geometric pedagogical abilities of undergraduate mathematics education students in favour of the experimental group. This results agreed with findings of Alex and Mammen (2016), Chew and Noraini (2012), Siew and Chong (2014), Surif, and Zakaria (2014), and Atebe and Schäfer (2011) which in their previous studies found that experimental group performed better than their counterparts in the control group. The findings also support the earlier findings of Chew and Lim (2013) who reported that the intervention (treatment) significantly enhanced the pupils' geometric thinking about the regular polygons. The superiority of van Hiele model may be attributed to assertion of van Hieles (1986) who said and believed that cognitive progress in geometry can be fast-tracked by instruction, as such they suggested learning phase that are able to support in assisting learners to move from van Hiele level of geometric thinking to a higher level.

The results of hypotheses two shows that there was no significant difference between male and female geometric pedagogical abilities of undergraduate mathematics education graduates. This result differs
with the findings of Kovas et al. (2015), Musa et al. (2016), and Preckel et al. (2012) who reported that male students performed better than females in science. It also disagrees with the findings of Kuruma (2004) and Gimba (2006) who reported that female students performed better than male students. This result is however in agreement with the findings of Egorova and Chertkova (2016), Orabi (2007), and Iwendi and Oyedum (2014) who found no gender difference in the performance of male and female students in school mathematics.

CONCLUSION

The finding of this study has created awareness and seems to provide answer to the poor performance problem. The van Hiele model proved to be more effective in teaching the mathematical concept of geometry. The model has also proved the capability of removing gender inequality as observed in the treatment group as such, the model is gender friendly.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made.
1. Emphasis should be laid on continued training of university undergraduate mathematics education student on geometry pedagogy even, after graduation so as to keep them well-informed of existing researches in geometry teaching and learning practices.
2. van Hiele model of instruction was found to be effective as a teaching strategy for geometry instruction when compared with conventional method of instruction. Therefore, mathematics teachers should be encouraged to use it.
3. Male and female student pedagogical ability were affected positively and evenly by the use of van Hiele model. Therefore, mathematics teachers should employ this strategy to improve male and female pedagogical ability of undergraduate mathematics students in mathematics at university level in particular and other levels in general.

REFERENCES


Azuka, F.N (2003). Enhancing students performance, using computer aided instruction (CAI) in tertiary institutions. STAN Proceeding of the 44th annual Conference


ABSTRACT

This study aims to determine the character education values integrated into the Arabic learning at Arabic Development Center Indonesia University of Education Bandung and the method to integrate it and any problems faced by teacher when integrating the character education. This research is a field research. Results showed character education has been integrated include: religious, honest, tolerance, discipline, hard-working, independent, democracy, curiosity, nationality spirit, appreciates the achievement, communicative, reading fondness, environmental awareness and responsibility. The methods utilized by lecturer to integrate these are: adjust the lecture material, insert the character. As for the difficulty in integrating include: the difficulty of adjusting the character education with the existing material.

Keywords: characters education, arabic learning

INTRODUCTION

Globalization has impact all around the world, without exception in Indonesia. Globalization metaphorically is a double edge sword, positively and negatively balancing the consequences. Competition, integration, cooperation are positive effects of globalization. Meanwhile, according to Asmani (2012, 7) the negative effects are the birth of instantaneous generation, moral decadence, consumerism, and even permisivism. To some extent, other negative effects are violence, drug abuse, free sex and criminal. All those negative effects could be resulted in the decadence of nation character (Barnawi and Arifin, 2013, 5).

Society in this era, especially teenager has tendency to follow the lifestyle trend, from the clothes, speaking style, a trend that following the technology and science Development, international popular trend. According to Wibowo (2012, 8-10) stated that it decrease of positive interest among the young generation and increasing the teenager mischief, taken form in promiscuity, drug abuse, alcohol drink abuse, and gambling.

In line with the phenomenon above, education required to achive important role to halt the moral decadence of our nation, to prepare young generation for the better and brighter future (Azra, 178). In national education system, UU RI No. 20 2003, it was stated that the education purpose is to deliver a student as a religious and devout, honorable, physically and physiologically healthy, educated, creative and competent, independent, democratic citizen and responsible.

The expert had delivered numerous discourses about the model and content of education. Education increasingly more urgent to noticed, especially the nation character education. According to Samani and Hariyanto (2013, 1-2) character education is one of the most important aspect for all nation around the world, including Indonesia. The nurture of character education value should be delivered to whole Indonesian people, especially for children and young people who are inherited as a successor of this nation. The character education discourse had been held and discussed numerously in any occasion. This is very important to develop thus it implemented thoroughly and not just theory. The character education is required to be implemented and applied in daily life.
The application of character education could be implemented with the integration of learning process, inserting a character values for each of the subject material. A learning process is not a cognitive aspect only, but also affective and psychomotor aspects. This is the nature of learning process. Through the learning process, a person could acknowledge some aspect unknown beforehand. The integration is not happened in a religion subject only, but also in all subjects, including Arabic material.

Arabic is one of the main subjects delivered in many Islamic education bodies. Arabic learning in nature enables the student to achieve four language skills (maharat al-istima, al-kalam, al-qira-ah, and al-kitabah), functionally and proportionally. According to Wahab (2008, 17-18), it was because Arabic is not receptive only, but also a medium to understand (al-fahm) the listening aspect, news, text, reading, and discourse, but also has productive and expressive function, to achieve understanding (al-ifham) from other person through spoken and written communications.

Indonesia University of Education (Universitas Pendidikan Indonesia) at Bandung had an active role among society religious aspect, responsible for student’s the Arabic competence. The competence Development of Arabic is positioned as very important to comprehend, explore, and master the source of Islamic teaching, thus it could be delivered and transformed to the society. In other word, the Arabic Development is not only a respond for the religious society, but also a context of nurture the moral values among students, in this point are college students to achieve the religious, educated, and ethical alumnus.

The Arabic Developing Center UPI Bandung is a body that has important role to develop and improve the Arabic skills, especially for the college students of Arabic Education major at UPI Bandung. The learning process specifically designed with the learning system based on the character education. The character education is integrated through the subject material and also applied to the strategy and method utilized by the lecturer in a learning process.

METHODOLOGY

Qualitative research method is a research method based on the post-positivism philosophy, utilized to research the natural object (as opposed to the experiment) whereas the researcher is an instrument of key, data collection technique is conducted through triangulation (combination) data analysis is inductive/qualitative, and the result is emphasized on the generalizations of meaning (Suherman, 2014).

The descriptive method could be stated as the method aim to illustrate the image of research field systematically with the facts, with the effective interpretation and inter connected data, and not to achieve the absolute truth but to achieve the observation comprehension.

Researcher utilized these methods below:

1. Observation

Researcher collects data through the direct observation in a field. Researcher observes the college students in learning the Arabic, the result of this observation is utilized as additional information for the research.

2. Interview

According to Moleong (2012: 118) in Haris Herdiansyah book entitled Metode Penelitian Kualitatif untuk Ilmu-Ilmu Sosial, the interview is a conversation conducted by two parties. The interviewer asks the question and the interviewee answers the question. Research asks the informant about the character education integrated through learning process of Arabic. The result of the interview is utilized as a main data source in this research.

3. Documentation method
Researcher utilized the documentation method, which is a data collection through the document and literature connected with the research. These documents are the picture, member list, collection list, and other documents to improve the speed of research process.

RESULT AND DISCUSSION

Result

The Arabic Developing Center UPI Bandung has three major functions. First, conduct the second language training to assist the educative teacher and college students maintain comprehension from literature books written in Arabic. Second, assist the Arabic competence to deliver the educative teacher and college students studying abroad. Third, assist the Arabic skills for people needed.

The learning design at The Arabic Center UPI Bandung contain four major designs, there are: learning objectives design, content design, instructional strategies design and evaluation design.

1. The purpose of Arabic Learning at Language Center UPI Bandung.

The Arabic Program at Language Center UPI Bandung conducted based on these purpose:

a. Improve the Arabic skills for the college students,

b. Facilitate the integrated Arabic learning,

c. Nurture and develop the Arabian culture,

d. Bridging the target level of Arabic Education Major at UPI Bandung,

e. Construct and develop the college student character through Arabic medium.

2. The Arabic Learning Material at Arabic Development Center UPI Bandung

The Arabic material taught at the Center are classified in three levels, there are mubtadi’, muta-wassit, and mutaqaddim. The module include the four skills (maharah) or language skills, there are listening skill (maharah al istima’), speaking skill (maharah al-kalam), reading skill (maharah al-qira’ah), and writing skill (maharah al-kitabah). The four aspects are collected through the al-hiarar (conversational), al-ta’birat (expressional), al-asalib wa al-qawaid al-lughawiyyah (language style and grammar), al qira’ah (reading), al-mufrodat (vocabulary), mahfuzah mukhtarah (chosen word of wisdom), and al tadribat (training).

In all level, the material designs are listen from the easiest and modest to the more difficult and complex materials. The material content module present in chapters and sub chapters separated in one theme and the others. Other than that, the module contains the pictures thus it presented as interesting and not tedious.

To facilitate the learning process at classroom, the Language Center UPI Bandung utilizes the material books entitled ( التربية الأول). These are the material presented for each level:

ول: التعارف 8. الكتاب الأول

الباب الأول

اني: الأ سرة

الباب الثلث

البحث عن الفصل الباب
3. The Arabic Learning Method at Language Development Center UPI Bandung

The essential factors in learning process are learning method utilized at classroom. The learning method utilizes at Arabic learning at Language Center UPI Bandung are:

a. Preaching method

This method utilized by the lecturer to present the material, along with the Arabic book material and including the mufrodat or the unacknowledged phrases.

b. Demonstration method

The demonstration method is the material presentation through the display and visual of technique or situation in a learning process in line with the target purpose. e.g. the demonstration of kalam in front of class, visualizing hiwar (conversation) from the book, made speech or many others.

c. Question and Answer method

The question and answer method is the presentation method in a form of questions need to be answered by the college students. Lecturer always gave the ‘chance’ to the college students to ask about the material aspects that were presented or vice versa.

d. Discussion method

The discussion method aimed to help among the two or more college students, between the individual or group to finish the assignment. e.g. the college students were assigned to analyze the text from nahwu and sharaf perspectives.
4. The Arabic learning evaluation at Arabic Development Language Center UPI Bandung

The Arabic learning evaluations conducted at Language Center are participation and activity form of college students (evaluation process), training, and independent or group assignment (result evaluation). The composition of evaluation includes the absent, activity, independent task, mid semester exam, and end semester exam aspects; these aspects are visualized in this table below:

<table>
<thead>
<tr>
<th>No</th>
<th>Evaluated Aspects</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>End Semester Exam (UAS)</td>
<td>40%</td>
</tr>
<tr>
<td>2.</td>
<td>Mid Semester Exam (UTS)</td>
<td>20%</td>
</tr>
<tr>
<td>3.</td>
<td>Independent Assignment</td>
<td>20%</td>
</tr>
<tr>
<td>4.</td>
<td>Activity and Participation</td>
<td>15%</td>
</tr>
<tr>
<td>5.</td>
<td>Attitude</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

5. The Character Education at Arabic Development Center UPI Bandung

The result present the integration of character values though learning materials included at the Arabic module. The character education values that had been taught are:

a. Religious

This character education values are included in these materials:

1) Greetings when meeting other person,

2) The tahmid as a form of gratitude from the bless of health granted by Allah,

3) Text about the family of Rasullullah SAW,

4) The word of wisdom (نَمٍّ رَبُّصَ رَفَظَ).

b. Discipline

This character education values are included in these materials:

1) Word of wisdom (من سار على الورق وصل).

2) Qiraah Text ( نهاية الفاصية).

3) Conversational Text (الحياة اليومية).

c. Honesty

This character education values are included in these materials:

1) Word of wisdom (من قل صدقه قال صديقه).
2) Qishah su'al as-sa'b short story.

3) Word of wisdom (الحياة اليومية).

d. Independent

This character education values are included in these materials:
1) Conversational text (الحياة اليومية).
2) Word of wisdom

(انفق على قدّر ماستطعت ولا تسف وعث عيش مقصد)
من كان فيما استفاد مقصدا *لم تلقَ ر بعدها إلى أخذ
3) Qiraah text (يومية عمر).

e. Tolerance

This character education values are included in these materials:
1) Word of wisdom (الأدب)
كل شيء إذا كثر رخص إلا
2) Conversational text "limadza aslama Charles?",
3) Conversational text (طالب جديد).
4) Short story (الأسئلة الهامة).

f. Hard work

This character education values are included in these materials:
1) Word of wisdom (من جد وجد).
2) Word of wisdom

؛ ألا لن تناول العلم إلا بسنة *سالبيك عن تبيينها ببيان
نكا وحرص واصطبار و بلغة وأرشاد أستاذ وطول زمان
3) Word of wisdom (إذا صدق القدر وضح السبيل).
4) Word of wisdom (جرب ولاحظ تكن عارفة).
5) Qiraah text (دور المنظمات الإسلامية في تحرير إندونيسيا).

g. Curiosity

This character education values are included in these materials:
1) Conversational text "limadza aslama Charles?"
2) Short story (الرجل المجان.
3) Word of wisdom
4) Short story “qishah su’al assa’ b”.

h. Appreciate the achievement

This character education values are included in these materials:
1) Qiraah text (البستانرين).
2) Conversational text (طالب جديد).

i. Democracy

This character education values are included in these materials:
1) Short story (بائع السمك).
2) Short story (الملك و الشاعر).
3) Conversational text (التعليم في إندونيسيا).

j. Communicative

This character education values are included in these materials:
1) Conversational text (التعريف).
2) Short story (الملك و الشاعر).
3) Word of wisdom (خير الكلام ما قال و جهل و دل و لم يط).
4) Reading text (الرسالة عند السفر).
5) Word of wisdom (خاطبو الناس على قدر عقولهم).

k. National spirit

This character education values are included in these materials:
1) Conversational text (التعليم في إندونيسيا).
2) Reading text (دور المنظمات الإسلامية في تحرير إندونيسيا).
3) Reading text (الندوات في إندونيسيا).

l. Reading Fondness

This character education values are included in these materials:
1) Conversational text “limadza aslama Charles?”
2) Short story “Qishah su’al as-sab”

m. Environmental awareness

This character education values are included in these materials:
DISCUSSION

In nature, the character in English has several meanings; these are personality, character or trait. In Kamus Bahasa Indonesia (Bahasa Indonesia Dictionary) personality could be defined as an inner mental affecting on the mindset and behavior, i.e. character or attitude. According to Mulyasa (2011, 3) character is a personality, nature of inner mental, honor, or the attitude that differ one person to the others. Thus, character education is an effort to affect all the mindset with certain mental attributes, thus it form the personality, attitude, and achieve a characterization (Samani and Hariyanto, 2013, 44).

Samani and Hariyanto (2013, 52) also stated the values in character education source from the religion, Pancasila, culture, and national education purpose in 18 purposes, there are: (1) religious, (2) honest, (3) tolerance, (4) discipline, (5) hard-working, (6) creative, (7) independent, (8) democratic, (9) curious, (10) national spirit, (11) national love, (12) achievement appreciation, (13) friendly or communicative, (14) peace-loving, (15) reading fondness, (16) environmental awareness, (17) social awareness, and (18) responsible.

Picture 1: Integration of Mental, Mindset, Physicality, and Sense

Psychologically, individual character defined as the integration of four aspects, these are mental, mindset, physicality, and sense. Mental is about the feeling, attitude, and faith or believe. Mindset is the logical thinking to acknowledge science and utilize it critically, creatively, and innovatively. Physicality means the perception, steadiness, mimic, manipulation, creativity, and sportive. Sense has meaning as the will, motivation, and creativity reflected on the awareness, image, and innovative creation. The integration presented on the picture above.

Majid and Andayani (2012, 112) stated that in order to achieve character values in personality, it needs to emphasized on the three components of good character, there are moral knowing, moral feeling and moral action. These three components gave the comprehension about the good character should be supported with the knowledge about the virtue, willing to do favor, and ability to do kindness. In other word, the human indicator of good character is the knowledge, willing, and ability to conduct favor, coherently reflected from the mental, mindset, physicality, sense and intention. This is appropriate with the grand design developed by Kemendiknas in 2010 about the character forming for every individual.

- healthy and clean, health
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cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperative, cooperate,
The Ulwan statement (1992, 177) is very appropriate to define “Character Education” as an effort to deliver target audience a compilation of attitude, honorable character, main behavior and sense principles, thus adapted from the early until adult and facing the real life.

The purpose of the character education, generally, is to improve, develop, nurture, and practice or apply the positive character values through family, society, and among nation. Specifically, the education character is aimed to improve the awareness and acknowledgement of humanity, cultural, social and religious values; nurture the honesty, loyalty, and integrity values; improve the ability to control emotion, open minded, sensitivity and awareness of environment, responsibility and discipline values through young generation; train the ability to differ the good and the bad.

The methods utilized for the character value integration in learning Arabic at Arabic Development Center UPI Bandung are: (1) the compatibility of character values with the material taught, (2) inserting the character values or moral studies from each material, (3) deliver the character values through the utilized method, and (4) the nurture of character education values application in daily life.

Otherwise, the problems faced by the lecturer in character education are: (1) the difficulty to conform the material with character education. It means not all the material could be inserted with the character values, thus it require the lecturer to connect the material with the values hidden by it. (2) The nature and character of many different college students. It is common in any learning group that there various student backgrounds, including the different level of knowledge among them. Lecturer should maintain the class appropriately without ignores some group, thus the lecturer competence is needed and able to applied to the lecturer, especially for the pedagogic competence.

CONCLUSION

Character education is appropriately needed serious attention from any society elements. Not specifically from the theory or definition, but on the method to comprehend the character education and application to daily habit. Character education conducted to develop the good character person practicing and teaching the moral values and civilized decision making in the inter relation between human or with the God Himself.

The learning process could be utilized to nurture the character education. This aspect conducted by Arabic Development Center UPI Bandung, which had taught about the character values to the college students, there are: religious, honest, tolerance, discipline, hard- working, independent, democratic, curious, national spirit, acknowledge achievement, reading fondness, environmental awareness, and responsible.
This is the sample of the character education values application through learning process. Hopefully, this research will inspire the lecturer to deliver the material through character education values, and specifically for the researcher to develop the study about character education.

REFERENCES


ABSTRAK


Kata Kunci: Strategi pengajaran, Profesionalisme Guru, Pengetahuan Kandungan, Pedagogi, Dan Teknologi

PENGENALAN


Salah satu kerangka yang dicadangkan dapat menjelaskan sejauh mana guru mempunyai pengetahuan teknologi yang perlu diintegrasikan dengan pengetahuan bidang ilmu yang diajar di sekolah ialah kerangka Pengetahuan Teknologi, Pedagogi dan Kandungan (PTPdK) (Mishra & Koehler, 2006, Hewitt, 2008; Baran, Chuang, & Thompson, 2011). Kerangka ini telah digunakan secara meluas
dalam kajian penilaian dan pembangunan program pengintegrasian TMK dalam PdP bagi guru dalam perkhidmatan (antaranya Graham, et al., 2009; Archambault & Barnett, 2010; Koh, Chai, & Tsai, 2014) dan pra perkhidmatan antaranya (Angeli & Valanides, 2009; Chai, Koh, & Tsai, 2010; Baran, Uygun, Altan, Bahcekapili, & Cilsalar, 2014).

Dapatan kajian-kajian lepas menunjukkan pemahaman guru tentang PTPdK dapat membantu mereka melaksanakan PdP secara konstruktif dengan lebih berkesan. Justeru itu, kertas kerja ini bertujuan untuk membincangkan beberapa dapatan kajian awal bagi menentukan kebolehpercayaan instrumen kajian. Ia turut bertujuan untuk mengenalpasti tahap PTPdK dalam kalangan guru sekolah rendah dan mengenal pasti hubungan antara umur, tahun pengalaman dan lokasi sekolah dengan PTPdK.

KAJIAN LITERATUR

Pada bahagian ini penyelidik akan memperkenalkan dan menggambarkan pelbagai pembentukan PTPdK. Ini diikuti oleh tinjauan am mengenai penelitian yang dijalankan dan hasil yang dicapai setakat ini. Kajian ini memupukkan satu bahagian terutama kepada isu-isu yang berkaitan dengan pengukuran kuantitatif PTPdK, dan menyimpulkan ulasan dengan perbincangan mengenai penyelidikan umum tahap pengetahuan kandungan, pedagogi dan teknologi dalam kalangan guru sekolah rendah.

Kerangka PTPdK

Kerangka PTPdK adalah lanjutan dari pengetahuan tentang pedagogi kandungan (PPK) (Shulman, 1986). Usaha ini memperkasa pengetahuan yang diperlukan oleh guru secara berterusan, Shulman menyarankan bahawa guru bukan sahaja mempunyai pengetahuan kandungan (PK) dan pengetahuan pedagogi umum (PP) mengenai kaedah pengajaran dan pengurusan bilik darjah, tetapi mereka juga perlu memiliki satu keunikan bentuk pengetahuan yang membolehkan mereka mewakili kandungan subjek kepada kumpulan pelajar tertentu. Bentuk pengetahuan ini yang merupakan sintesis kepada pengetahuan kandungan dan mungkin bentuk pengetahuan lain seperti psikologi pelajar dan sebagainya. Proses ini dikenali sebagai pengetahuan tentang pedagogi kandungan (PPK).


PTPdK mengintegrasikan pemahaman terhadap tiga domain pengetahuan iaitu kandungan, pedagogi dan teknologi. Ia merujuk juga kepada kaedah penyampaian dan komunikasi dengan pelajar secara
konstruktif bagi memastikan pelajar dapat memahami konsep-konsep tertentu dan topik dalam pelbagai bidang dengan penggunaan teknologi (Koehler Mishra, 2008). Mishra dan Koehler (2006 ) menggambarkan rangka kerja PTPdK (rujuk Rajah 1) dengan tujuh dimensi adalah seperti berikut :

i. Pengetahuan Kandungan (PK) – PK merupakan pengetahuan pengajar terhadap kandungan yang akan disampaikan kepada pelajar. Sehubungan dengan itu, pengajar perlu menguasai kandungan seperti konsep, teori, idea-idea, rangka kerja, keterangan dan bukti serta amalan-amalan yang diperlukan ke arah membangunkan pengetahuan itu (Koehler & Mishra, 2009). Dalam konteks kajian ini, PK merujuk kepada pengetahuan subjek kepakaran mata pelajaran seperti pengetahuan tentang bahasa, Matematik, Sains dan lain-lain.


vi. Pengetahuan Teknologi Pedagogi (PTP) – PTP apabila diintegrasikan dengan PT menghasilkan domain PTP. Domain PTP merupakan pengetahuan tentang bagaimana PdP boleh berubah

Rajah 1: Kerangka PTPdK (Sumber: Koehler & Mishra, 2006; p. 63)

Mengukur PTPdK guru


Kerangka PTPdK pada masa akan datang dapat diperluaskan lagi agar memenuhi pelbagai konteks dalam pendidikan guru. Misalnya soal selidik yang dibina boleh digunakan sebagai instrumen khusus subjek, untuk pendekatan pedagogi khusus seperti penggunaan TMK berasaskan konstruktivis atau pembelajaran berasaskan masalah, dan item PT boleh disasarkan secara khusus di web 2.0 dan bukananya PT umum. Dalam kajian ini, pengkaji hanya melihat kebolehpercayaan instrumen kajian dan mengenal pasti tahap PTPdK dalam kalangan guru sekolah rendah. Di samping itu, kajian ini turut mengkaji hubungan antara umur, tahun pengalaman dan lokasi sekolah dengan PTPdK.

METODOLOGI


Borang soal selidik digunakan sebagai instrumen kajian ini. Borang selidik ini mengandungi dua bahagian. Bahagian A mengandungi 42 item yang diadaptasi daripada Liang, et al. (2013) bagi mengukur tujuh dimensi PTPdK iaitu (1) Pengetahuan Kandungan (4 item), (2) Pengetahuan Pedagogi (5 item), (3) Pengetahuan Teknologi (7 item), (4) Pengetahuan Pedagogi Kandungan (8 item), (5) Pengetahuan Teknologi Kandungan (4 item), (6) Pengetahuan Teknologi Pedagogi (8 item), dan (7) Pengetahuan Teknologi Pedagogi Kandungan (4 item). Bahagian B mengandungi soalan berkaitan latar diri guru berkaitan jantina, umur, tahun pengalaman mengajar, dan lokasi sekolah.

Maklumat berkenaan latar diri murid diukur berdasarkan skala pengukuran nominal dan nisbah (ratio). Skala nominal diguna untuk mengukur pemboleh ubah jantina, dan lokasi sekolah. Manakala skala nisbah diguna untuk mengukur umur dan tahun pengalaman mengajar. Skala selia (Interval) lima tahap iaitu 1= sangat tidak setuju hingga 5=sangat setuju digunakan untuk mengukur konstruk PTPdK. Data kajian dianalisis menggunakan statistik deskriptif untuk memperhalkan profil dan tahap pengetahuan PTPdK responden kajian berbantukan perisian IBM SPSS 22.0. Ujian alpha cronbach turut dijalankan bagi menentukan kebolehpercayaan konstruk. Manakala ujian korelasi pearson digunakan bagi menganalisis hubungan antara umur, tahun pengalaman mengajar dan lokasi sekolah dengan tujuh dimensi PTPdK.
DAPATAN KAJIAN

Demografi

Sebanyak 16.9% guru lelaki dan 83.1% guru perempuan di sekolah rendah terlibat dalam kajian ini. Majoriti guru berumur antara 31 hingga 35 tahun (42.7%), diikuti oleh guru berumur antara 36 hingga 40 tahun (27.0%) dan 41 hingga 45 tahun (20.2%). Kebanyakan daripada mereka telah berpengalaman mengajar di sekolah antara 10 hingga 14 tahun (48.3%), dan diikuti oleh guru yang mengajar melebihi 15 tahun (40.4%). Hanya sebahagian kecil guru mempunyai pengalaman mengajar antara 5 hingga tahun (11.2%). Guru-guru yang menjadi responden kajian ini terdiri daripada 32.6% orang guru di bandar, dan 67.4% guru luar bandar.

Jadual 1
Demografi Guru

<table>
<thead>
<tr>
<th>Profil</th>
<th>Kekerapan</th>
<th>Peratus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jantina</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lelaki</td>
<td>15</td>
<td>16.9</td>
</tr>
<tr>
<td>Perempuan</td>
<td>74</td>
<td>83.1</td>
</tr>
<tr>
<td>Umur (tahun)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-35</td>
<td>38</td>
<td>42.7</td>
</tr>
<tr>
<td>36-40</td>
<td>24</td>
<td>27.0</td>
</tr>
<tr>
<td>41-45</td>
<td>18</td>
<td>20.2</td>
</tr>
<tr>
<td>46-50</td>
<td>9</td>
<td>10.1</td>
</tr>
<tr>
<td>Tahun pengalaman mengajar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td>10</td>
<td>11.2</td>
</tr>
<tr>
<td>10-14</td>
<td>43</td>
<td>48.3</td>
</tr>
<tr>
<td>15 tahun ke atas</td>
<td>36</td>
<td>40.4</td>
</tr>
<tr>
<td>Lokasi Sekolah</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bandar</td>
<td>29</td>
<td>32.6</td>
</tr>
<tr>
<td>Luar Bandar</td>
<td>60</td>
<td>67.4</td>
</tr>
</tbody>
</table>

Ujian Kebolehpercayaan

Kebolehpercayaan instrumen PTPdK diuji bagi menentukan tahap ketekalan dalam pemboleh kajian (Hair et al., 2010). Nilai alpha terpiawai (Standardised Alpha) adalah petunjuk yang sering digunakan bagi menentukan ketakalan dalam pemboleh ubah. Ujian kebolehpercayaan alpha cronbach (lihat Jadual 2) menunjukkan bahawa nilai alpha cronbach bagi tujuh dimensi kajian mencapai tahap kebolehpercayaan sebagai konstruk pengukuran yang baik iaitu melebihi 0.70 atau 0.60 bagi kajian berbentuk penerokaan (Hair et al., 2010).

Jadual 2
Nilai Kebolehpercayaan Konstruk TPACK

<table>
<thead>
<tr>
<th>Konstruk</th>
<th>Nilai Alpha Cronbach (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pengetahuan Kandungan (PK)</td>
<td>.798</td>
</tr>
<tr>
<td>2 Pengetahuan Pedagogi (PP)</td>
<td>.865</td>
</tr>
<tr>
<td>3 Pengetahuan Teknologi (PT)</td>
<td>.739</td>
</tr>
<tr>
<td>4 Pengetahuan Pedagogi Kandungan (PKK)</td>
<td>.915</td>
</tr>
<tr>
<td>5 Pengetahuan Teknologi Kandungan (PTK)</td>
<td>.811</td>
</tr>
<tr>
<td>6 Pengetahuan Teknologi Pedagogi (PTP)</td>
<td>.709</td>
</tr>
<tr>
<td>7 Pengetahuan Teknologi Pedagogi Kandungan (PTPK)</td>
<td>.758</td>
</tr>
</tbody>
</table>
Tahap Pengetahuan Kandungan, Pedagogi, Dan Teknologi (PTPdK)


Tahap bagi aspek-aspek pengetahuan yang lain iaitu Pengetahuan Teknologi Pedagogi (min= 3.88, s.p = .57) dan Pengetahuan Teknologi Kandungan (min= 3.71, s.p = .67) pula berada pada tahap sederhana tinggi. Secara keseluruhan, responden kajian menunjukkan kecenderungan tahap persetujuan Pengetahuan Kandungan ke arah sangat bersetuju tentang keupayaan dalam setujuan tujuh min. Analisis secara terperinci terhadap item-item dalam setiap konstruk turut menunjukkan nilai min antara sederhana tinggi (PT4-Saya mengikut perkembangan teknologi terkini) dengan nilai min = 3.60 hingga tinggi (PK4-Saya mempunyai keyakinan untuk mengajar mata pelajaran yang ditetapkan) dengan nilai min = 4.40.

Walau bagaimanapun, terdapat satu item yang mempunyai nilai min sederhana rendah iaitu item PT5-Saya tahu membina laman web (min = 3.03, s.p = .959). Ini menunjukkan terdapat responden yang masih meragui keupayaan pengetahuan teknologi mereka untuk membina laman web. Item Tahap Pengetahuan Kandungan menunjukkan nilai min yang tinggi min=4.40 dan sisihan piawai=.578 pada item PK4-Saya mempunyai keyakinan untuk mengajar mata pelajaran yang ditetapkan. Ini menunjukkan kebanyakan responden mengajar mata pelajaran adalah mengikut opsyen yang ditetapkan.

Program Latihan Dalam Perkhidmatan (LDP) yang dijalankan oleh pihak sekolah dan peranan Ketua Panitia mata pelajaran turut membantu guru dalam meningkatkan penguasaan Pengetahuan Kandungan dan seterusnya PdP yang berkera (Ferguson, 2008; Harwood & Compton, 2007). Bagi Tahap Pengetahuan Pedagogi (PD) iaitu terdapat satu item yang mempunyai nilai sederhana tinggi iaitu item PP1-Saya berupaya membimbing pelajar tentang strategi pembelajaran sesuai dengan nilai min =4.22 dan sisihan piawai=.494. Manakala domain ketiga Tahap Pengetahuan Teknologi iaitu terdapat satu item yang mempunyai nilai min yang sederhana tinggi dengan nilai min=4.12 dan sisihan piawai=.671 iaitu item PT6-Saya tahu menggunakan media sosial (contohnya, Blog, Wiki, Facebook, Twitter dan WhatsApp). Ini kerana terdapat responden sudah terdedah dan sering menggunakan aplikasi tersebut dalam rutin harian. Bagi Tahap Pengetahuan Pedagogi Kandungan terdapat dua item yang mempunyai persamaan nilai min sederhana tinggi yang menunjukkan min=3.96 dan sisihan piawai =.656 pada item PPK2-Tanpa menggunakan teknologi, saya tahu bagaimana untuk memilih pendekatan pengajaran yang berkesan bagi membimbing pelajar berfikir dan belajar dalam mata pelajaran saya dan item PPK7-Tanpa menggunakan teknologi, saya boleh melibatkan pelajar dengan hands-on aktiviti untuk mempelajari kandungan mata pelajaran saya.

Dapat ini menunjukkan keadah PdP secara konvensional masih relevan walaupun PdP dilakukan tanpa berbantukan teknologi. Keajaiban dan keberkesanan PdP bukan hanya bergantung kepada penggunaan teknologi semata-mata tetapi yang penting adalah kebajikan guru merancang objektif yang mudah dicapai (Nelson, Christopher & Mims, 2009). Seterusnya Tahap Pengetahuan Teknologi Kandungan menunjukkan nilai min adalah sederhana tinggi iaitu nilai min=3.96 dan sisihan piawai=.498 pada item PTK1- Saya berupaya membantu pelajar saya dalam penggunaan teknologi, saya tahu bagaimana untuk memilih pendekatan pengajaran yang berkesan bagi membimbing pelajar berfikir dan belajar dalam mata pelajaran saya dan item PTK2-Tanpa menggunakan teknologi, saya boleh melibatkan pelajar dengan hands-on aktiviti untuk mempelajari kandungan mata pelajaran saya.

Dapat ini menunjukkan keadah PdP secara konvensional masih relevan walaupun PdP dilakukan tanpa berbantukan teknologi. Keajaiban dan keberkesanan PdP bukan hanya bergantung kepada penggunaan teknologi semata-mata tetapi yang penting adalah kebajikan guru merancang objektif yang mudah dicapai (Nelson, Christopher & Mims, 2009). Seterusnya Tahap Pengetahuan Teknologi Kandungan menunjukkan nilai min adalah sederhana tinggi iaitu nilai min=3.96 dan sisihan piawai=.498 pada item PTK1- Saya berupaya membantu pelajar saya dalam penggunaan teknologi, saya tahu bagaimana untuk memilih pendekatan pengajaran yang berkesan bagi membimbing pelajar berfikir dan belajar dalam mata pelajaran saya dan item PTK2-Tanpa menggunakan teknologi, saya boleh melibatkan pelajar dengan hands-on aktiviti untuk mempelajari kandungan mata pelajaran saya.

**Jadual 3**  
*Tahap Pengetahuan dalam Tujuh Dimensi PTPdK*

1. **Pengetahuan Kandungan**

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK4</td>
<td>Saya mempunyai keyakinan untuk mengajar mata pelajaran yang ditetapkan.</td>
<td>4.40</td>
<td>.578</td>
</tr>
<tr>
<td>PK1</td>
<td>Saya pengetahuan luas tentang mata pelajaran yang saya ajar.</td>
<td>4.29</td>
<td>.482</td>
</tr>
<tr>
<td>PK3</td>
<td>Saya berupaya untuk memahami kandungan mata pelajaran yang saya ajar tanpa bantuan orang lain.</td>
<td>4.29</td>
<td>.505</td>
</tr>
<tr>
<td>PK2</td>
<td>Saya boleh menjelaskan kandungan mata pelajaran seperti seorang pakar.</td>
<td>4.26</td>
<td>.489</td>
</tr>
</tbody>
</table>

| Keseluruhan | 4.31 | .51 |

2. **Pengetahuan Pedagogi**

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP1</td>
<td>Saya berupaya untuk membimbing pelajar tentang strategi pembelajaran yang sesuai.</td>
<td>4.22</td>
<td>.494</td>
</tr>
<tr>
<td>PP2</td>
<td>Saya berupaya membantu pelajar cara untuk membuat pemantauan kendiri pembelajaran mereka.</td>
<td>4.19</td>
<td>.520</td>
</tr>
<tr>
<td>PP3</td>
<td>Saya berupaya membantu pelajar cara untuk membuat refleksi tentang strategi pembelajaran mereka.</td>
<td>4.16</td>
<td>.474</td>
</tr>
<tr>
<td>PP5</td>
<td>Saya berupaya membimbing pelajar untuk berbincang dengan berkesan semasa kerja berkumpulan.</td>
<td>3.93</td>
<td>.636</td>
</tr>
<tr>
<td>PP4</td>
<td>Saya berupaya merancang aktiviti berkumpulan untuk pelajar saya.</td>
<td>3.81</td>
<td>.796</td>
</tr>
</tbody>
</table>

| Keseluruhan | 4.10 | .58 |
### 3. Pengetahuan Teknologi

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT6</td>
<td>Saya tahu menggunakan media sosial (contohnya, Blog, Wiki, Facebook, Twitter dan WhatsApp).</td>
<td>4.12</td>
<td>.671</td>
</tr>
<tr>
<td>PT2</td>
<td>Saya boleh belajar teknologi dengan mudah.</td>
<td>3.91</td>
<td>.514</td>
</tr>
<tr>
<td>PT1</td>
<td>Saya mempunyai kemahiran teknikal untuk menggunakan komputer dengan berkesan.</td>
<td>3.90</td>
<td>.544</td>
</tr>
<tr>
<td>PT7</td>
<td>Saya tahu menggunakan alat-alat komunikasi berasaskan web (IM, MSN Messenger, ICQ, Skype, dan lain-lain).</td>
<td>3.79</td>
<td>.730</td>
</tr>
<tr>
<td>PT3</td>
<td>Saya tahu bagaimana untuk menyelesaikan masalah teknikal apabila menggunakan teknologi.</td>
<td>3.64</td>
<td>.626</td>
</tr>
<tr>
<td>PT4</td>
<td>Saya mengikuti perkembangan teknologi terkini.</td>
<td>3.60</td>
<td>.669</td>
</tr>
<tr>
<td>PT5</td>
<td>Saya tahu membina laman web.</td>
<td>3.03</td>
<td>959</td>
</tr>
</tbody>
</table>

**Keseluruhan**

<table>
<thead>
<tr>
<th>Item</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.71</td>
<td>.67</td>
</tr>
</tbody>
</table>

### 4. Pengetahuan Pedagogi Kandungan

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPK2</td>
<td>Tanpa menggunakan teknologi, saya tahu bagaimana untuk memilih pendekatan pengajaran yang berkesan bagi membimbing pelajar berfikir dan belajar dalam mata pelajaran saya.</td>
<td>3.96</td>
<td>.656</td>
</tr>
<tr>
<td>PPK7</td>
<td>Tanpa menggunakan teknologi, saya boleh melibatkan pelajar dengan <em>hands-on</em> aktiviti untuk mempelajari kandungan mata pelajaran saya.</td>
<td>3.96</td>
<td>.656</td>
</tr>
<tr>
<td>PPK5</td>
<td>Tanpa menggunakan teknologi, saya boleh mengendalikan perbincangan tentang kandungan mata pelajaran saya.</td>
<td>3.93</td>
<td>.636</td>
</tr>
<tr>
<td>PPK3</td>
<td>Tanpa menggunakan teknologi, saya boleh membantu pelajar memahami kandungan pengetahuan dalam mata pelajaran saya dengan pelbagai kaedah.</td>
<td>3.90</td>
<td>.523</td>
</tr>
<tr>
<td>PPK4</td>
<td>Tanpa menggunakan teknologi, saya boleh menangani masalah berkaitan dengan mata pelajaran yang dihadapi oleh pelajar.</td>
<td>3.90</td>
<td>.544</td>
</tr>
<tr>
<td>PCK8</td>
<td>Tanpa menggunakan teknologi, saya boleh membantu pelajar untuk menguruskan pembelajaran tentang kandungan mata pelajaran saya.</td>
<td>3.90</td>
<td>.523</td>
</tr>
<tr>
<td>Item</td>
<td>Kenyataan</td>
<td>Min</td>
<td>Sisihan Piawai</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----</td>
<td>----------------</td>
</tr>
<tr>
<td>PPK1</td>
<td>Tanpa menggunakan teknologi, saya boleh menangani salah faham yang dihadapi oleh pelajar dalam mata pelajaran saya.</td>
<td>3.70</td>
<td>.647</td>
</tr>
<tr>
<td>PPK6</td>
<td>Tanpa menggunakan teknologi, saya boleh melibatkan pelajar dalam menyelesaikan masalah sebenar masalah berkaitan dengan mata pelajaran saya.</td>
<td>3.70</td>
<td>.647</td>
</tr>
</tbody>
</table>

Keseluruhan 3.87 .60

5. Pengetahuan Teknologi Kandungan

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTK1</td>
<td>Saya berupaya membantu pelajar saya dalam penggunaan teknologi untuk mereka mencari sendiri maklumat yang lebih banyak.</td>
<td>3.96</td>
<td>.498</td>
</tr>
<tr>
<td>PTK4</td>
<td>Saya berupaya membantu pelajar untuk membuat kolaborasi sesama mereka dengan bantuan teknologi.</td>
<td>3.85</td>
<td>.512</td>
</tr>
<tr>
<td>PTK2</td>
<td>Saya berupaya membantu pelajar dalam penggunaan teknologi untuk merancang dan memantau pembelajaran mereka sendiri.</td>
<td>3.81</td>
<td>.601</td>
</tr>
<tr>
<td>PTK3</td>
<td>Saya berupaya membantu pelajar dalam penggunaan teknologi untuk mempelbagaikan bentuk pembentangan.</td>
<td>3.74</td>
<td>.649</td>
</tr>
</tbody>
</table>

Keseluruhan 3.84 .57

6. Pengetahuan Teknologi Pedagogi

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTP6</td>
<td>Saya mengetahui tentang teknologi yang perlu digunakan tentang kandungan dalam pengajaran saya.</td>
<td>3.94</td>
<td>.409</td>
</tr>
<tr>
<td>PTP7</td>
<td>Saya berupaya menggunakan teknologi yang sesuai (contohnya, sumber multimedia, simulasi) untuk menerangkan kandungan mata pelajaran saya.</td>
<td>3.92</td>
<td>.527</td>
</tr>
<tr>
<td>PTP8</td>
<td>Saya berupaya menggunakan perisian yang khusus untuk melaksanakan inkuiri mengenai mata pelajaran saya.</td>
<td>3.85</td>
<td>.490</td>
</tr>
<tr>
<td>PTP5</td>
<td>Saya berupaya menggunakan perisian yang dicipta khas untuk mata pelajaran saya.</td>
<td>3.80</td>
<td>.625</td>
</tr>
</tbody>
</table>
7. Pengetahuan Teknologi Pedagogi Kandungan

<table>
<thead>
<tr>
<th>Item</th>
<th>Kenyataan</th>
<th>Min</th>
<th>Sisihan Piawai</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTPK2</td>
<td>Saya boleh menggunakan strategi yang menggabungkan kandungan, teknologi dan pendekatan pengajaran di dalam kelas saya.</td>
<td>3.96</td>
<td>.475</td>
</tr>
<tr>
<td>PTK1</td>
<td>Saya berupaya memilih teknologi untuk digunakan dalam kelas bagi meningkatkan isi pelajaran, kaedah mengajar dan pembelajaran pelajar.</td>
<td>3.91</td>
<td>.468</td>
</tr>
<tr>
<td>PTK4</td>
<td>Saya boleh mereka bentuk pengajaran yang mengintegrasikan kandungan, teknologi dan pedagogi bagi mewujudkan pembelajaran berpusatkan pelajar.</td>
<td>3.88</td>
<td>.618</td>
</tr>
<tr>
<td>PTK3</td>
<td>Saya boleh membantu orang lain bagi menyelaraskan penggunaan kandungan, teknologi dan pendekatan pengajaran di sekolah dan/atau daerah saya.</td>
<td>3.76</td>
<td>.584</td>
</tr>
</tbody>
</table>

Keseluruhan 3.88 .51

Hubungan antara umur dan tahun perkhidmatan guru dengan PTPdK

Hasil analisis dalam Jadual 4 menunjukkan umur mempunyai hubungan yang signifikan dengan Pengetahuan Kandungan \( r = .38, p < .05 \). Walau bagaimanapun umur tidak mempunyai hubungan yang signifikan dengan pengetahuan yang berkaitan dengan teknologi iaitu Pengetahuan Teknologi, Pengetahuan Teknologi Kandungan, Pengetahuan Teknologi Pedagogi, dan Pengetahuan Teknologi Pedagogi Kandungan.

Analisis hubungan antara tahun perkhidmatan dengan tujuh dimensi PTPdK pula menunjukkan tahun perkhidmatan mempunyai hubungan yang signifikan dengan Pengetahuan Kandungan \( r = .38, p < .05 \) dan Pengetahuan Pedagogi \( r = .27, p < .05 \). Walau bagaimanapun, dapatan ini menunjukkan tahun pengalaman tidak mempunyai hubungan dengan pengetahuan berkaitan teknologi dalam kerangka PTPdK.

Analisis hubungan antara lokasi sekolah dengan tujuh dimensi PTPdk pula menunjukkan lokasi sekolah mempunyai hubungan negatif yang signifikan dengan Pengetahuan Kandungan \( r = .26, p < .05 \) dan Pengetahuan Pedagogi \( r = .26, p < .05 \). Lokasi sekolah turut mempunyai hubungan negatif yang signifikan dengan Pengetahuan Teknologi Kandungan. Dapatan ini menunjukkan guru di luar bandar cenderung untuk bertanggapan bahawa mereka mempunyai keupayaan yang rendah bagi mengintegrasikan teknologi berkaitan kandungan mata pelajaran mereka.
Jadual 4
Hubungan Antara Umur Dan Tahun Perkhidmatan Guru Dengan Tujuh Dimensi PTPdK

<table>
<thead>
<tr>
<th></th>
<th>PK</th>
<th>PP</th>
<th>PT</th>
<th>PKK</th>
<th>PTK</th>
<th>PTP</th>
<th>PTPK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umur</td>
<td>.379*</td>
<td>.174*</td>
<td>-.045*</td>
<td>-.163*</td>
<td>.081*</td>
<td>.020*</td>
<td>.157*</td>
</tr>
<tr>
<td>Pengalaman Mengajar</td>
<td>.376*</td>
<td>.265*</td>
<td>.087*</td>
<td>-.112*</td>
<td>.072*</td>
<td>.063*</td>
<td>-.039*</td>
</tr>
<tr>
<td>Lokasi Sekolah</td>
<td>-.262*</td>
<td>-.261*</td>
<td>-.046*</td>
<td>-.007*</td>
<td>-.222*</td>
<td>-.196*</td>
<td>.062*</td>
</tr>
</tbody>
</table>

*p<0.5

PERBINCANGAN

Secara keseluruhannya, guru mempunyai tahap yang tinggi dalam tujuh dimensi PTPdK yang meliputi pengetahuan tentang mata pelajaran, pedagogi dan penggunaan teknologi. Keadaan ini berkemungkinan disebabkan guru sentiasa terlibat dalam program peningkatan profesionalisme yang dilaksanakan oleh Kementerian Pendidikan Malaysia. Walau bagaimanapun tahap yang sederhana rendah berkaitan pembinaan laman web memerlukan kajian lanjutan. Pelbagai kemungkinan dapat dijelaskan berdasarkan situasi ini antaranya, kini terdapat platform media sosial seperti Twitter dan Facebook sering menjadi pilihan untuk berkongsi pengetahuan di alam maya berbanding pembangunan laman web.

Kajian ini menunjukkan faktor umur dan tahun pengalaman mempunyai hubungan yang signifikan dengan pengetahuan kandungan. Ini menunjukkan guru yang lebih pengalaman dapat menguasai mata pelajaran dengan lebih baik. Walaupun beberapa kajian menunjukkan penguasaan guru terhadap pembangunan kerjaya tidak boleh diukur berdasarkan tahun (Hammerness et al., 2005; Richardson & Placier, 2001), namun guru yang berpengalaman pastinya akan lebih menguasai dan berkeyakinan terhadap isi kandungan mata pelajarnannya kerana telah mengajarnya berulang kali (Dall’Alba & Sandberg, 2006). Selain itu guru yang lebih lama mengajar, mempunyai pengalaman menghadapi pelbagai kerena murid (Broad & Evans, 2006). Pengalaman ini mematangkan guru untuk memilih kaedah pedagogi yang bersesuaian mengikut kepelbagaian ini.


KESIMPULAN

Kajian ini adalah kajian awal bagi kajian yang lebih menyeluruh meliputi persampelan yang dapat mewakili populasi guru di Malaysia. Dapatan ini menunjukkan kerangka PTPdK mempunyai kebolehpercayaan yang baik. Dapatan kajian ini juga boleh menjadi asas kepada perancangan pembangunan profesionalisme guru melalui pelbagai program Latihan Dalam Perkhidmatan. Guru perlu memainkan peranan yang lebih aktif serta perlu peka dengan pembangunan teknologi dalam pendidikan. Penggunaan teknologi dalam pendidikan dapat membantu pelajar memahami pelajaran dengan lebih mudah, malah pelajar-pelajar masa kini menggemari penggunaan teknologi dalam sesi pembelajaran kerana teknik ini dapat menarik pembelajaran yang lebih interaktif pada waktu kuliah.
atau di luar waktu kuliah. Malah sesi PdP akan menjadi lebih mantap sekiranya penggunaan PTPdK dalam sesi PdP ini digabungkan atau diintegrasikan dengan gaya pembelajaran pelajar, konsep ini dikenali sebagai teknologi (Rozhan, 2008). Secara keseluruhannya adalah disarankan guru menggunakan teknologi dalam sesi PdP mengikut kesesuaian pelajar dan subjek atau modul yang diajar bagi menarik perhatian pelajar serta memudahkan sesi PdP.

RUJUKAN


ABSTRACT

The problem of entrepreneurial learning in higher education is the limited learning media used in the class. Faster and more accessible ICT-based media to improve entrepreneurial practice skills of students are required. The purpose of this study is to present the development of entrepreneurial learning media in the form of cookie production process film. The research method used was research and development. It was conducted for three years; the first year was used to explore the potential and problems, create design, and validate the design. The research results on exploring the conditions and expectations of students show that students have enthusiasm to learn entrepreneurial theory, good cooperation with fellow learners and high expectation of entrepreneurial learning media. Designing film as a learning medium is to make the scenario design of the process of making a modern cookie with mocaf (modified cassava flour) as the main ingredient. The results of expert validity indicate that the film design is systematic from the opening, explanation of the activities and closing. In general, cookie production process film is feasible as entrepreneurial learning medium.

Keywords: entrepreneurial learning, media, film. Mocaf

INTRODUCTION

Cookie production process film is one of entrepreneurial learning media in the form of audio visual, whose contents describe the process of manufacturing cookie with cassava flour as the main ingredient, which has low value. Cassava flour is turned into cookies, which are more durable, delicious and well-packaged in order to increase its sale value. This learning media can help lecturers evoke students' entrepreneurial spirit, ranging from innovation to entrepreneurial skills in classroom learning activities.

The form of audio visual media has several more advantages: it is practical and effective, which can be learned by students independently. The duration of the movie is only 20 minutes, which is not boring for the learners.

Entrepreneurial education can create entrepreneurs in the private sector as one of the economic activities that absorb large amount of labor and improve the income distribution. Entrepreneurship is the intellectual capital and business knowledge power is practically beneficial to maximize human, natural and environmental resources as the motor of the development of the state economy. Entrepreneurial education aims to form human as a whole (holistic), as people who have good characters, understanding and skills as entrepreneurs. Basically, entrepreneurial education can be implemented in an integrated manner with educational activities in higher education. Hence, all countries are trying to develop entrepreneurship because knowledge management creates added value by converting human capital into organized intellectual assets (Sayadi, et al., 2013). Knowledge management is based primarily on facts to achieve competitive advantage and intellectual capital, which is useful for management efficiency and ultimately enhancing the economic growth of a country. In Indonesia, food and pastry business provides many opportunities for employment in the informal private sector because capital is adjustable; consumers demand many innovative and varied food. In fact, the problem is often found in the business world is the lack of skilled manpower. If entrepreneurs cannot manage the business well, there is still lack of intellectual capital as one of the quality of human resources, so that the business product is less innovative and less competitive. Educational activities can foster creativity as a major capital in improving competitiveness to solve economic problems (Shaheen, 2010).
Entrepreneurial education development is very important to foster students’ interest in entrepreneurship and start doing business after graduate from college (Manuere, et al., 2013). The objective of the curriculum of entrepreneurship course is to form students who have high entrepreneurial spirit and self-employed in work. Entrepreneurial learning activities are conducted both in theory and in practice. Entrepreneurial learning in college is an activity of teaching and learning process in the classroom; there must be harmony between the use of media, learning method and evaluation tool in learning and teaching activity. Higher education institutions need to encourage students to improve skills that concentrate on innovation (Avvisati, et al., 2013). Learning media is one component that must be met in the classroom learning to improve understanding and mastery of concepts and theories of the subject matter. The use of learning media should be tailored to the learning materials that will be delivered in the class, so the learning media will be varied; it also should be adjusted the learning methods implemented.

The problem of entrepreneurial learning which is commonly found in the classroom is educator-centered learning. According to Zebua, et al (2015), learning activity that is centered on lecturer as a center of learning activity is proved to generate graduates who are less independent. The other problems are the limited learning media; most of which is largely limited in the form of entrepreneurial books; and the lack of facilities of entrepreneurial learning media which are more authentic in the classroom. A faster and more accessible ICT-based media is needed to enhance the entrepreneurial skills of students; students require a real movie about entrepreneurship for instructional media in the classroom, for example a cookie production process film in YouTube entitled "The Way to Cook Traditional Cake in Indonesian by Dr. Ninik Sudarwati" (https://www.youtube.com/watch?v=XASGl63AGE). The film provides information limited on how to cook cakes which are not durable; creativity and innovation is highly required then (Sudarwati, 2016).

This study presents the development of entrepreneurial learning media at the stage of preparing cookie production process film as one of 3 dimensional audio visual media that is closer to real. The media is useful as a learning tool to improve the entrepreneurial ability of students in practice and foster students’ creativity in learning in the classroom.

LITERATURE REVIEW

Learning Media

Burden and Byrd (1999) define instructional media as a means of introducing learning information. Kozma (1991) described the most obvious characteristics from the aspect of technology, mechanic and electronic that determine the function, shape, and other physical characteristics. AECT (Association for Educational Communication and Technology) distinguishes six types of learning resources that can be used in the learning process:

a. Message, including curriculum (GBPP) and subjects.
b. People, including teachers, parents, experts, and so on.
c. Material, a format which is used to store instructional messages, such as course books, textbooks, modules, video programs, movies and OHT.

According to Kemp and Dayton (1985), the contributions of learning media are:

a. More standardized delivery of messages in learning and teaching activity
b. More interesting learning process
c. More interactive learning and teaching activity by applying learning theories
d. Shortened time for learning and teaching activity
e. Improved quality of learning
f. Flexible learning process (it can take place whenever and wherever as necessary)
g. Positive attitudes of students towards the learning materials, so the learning process can be improved
h. The change in teacher's role positively

Video

Video is a technology used to capture, record, process, transmit, and rearrange moving images. It usually uses celluloid film, electronic signal, or digital media. It is associated with "sight and hearing" (Diyar, 2012).
Film

Harrison and Hummell (2010) stated that animated films enrich students' experience and competence on a variety of teaching materials. Hegarty (2004) explained that with today's technological developments, animated films are able to provide stronger visual displays of various phenomena and abstract information that play a role to improve the quality of process and learning outcomes. Bogiages and Hitt (2008) added that improvement in interest, understanding, and skills in group work are part of the added value of the utilization of animated film in learning. Agina (2003) explained that the use of animated films in learning activities can improve the quality of process learning and learning outcomes.

Multimedia

Multimedia is one of the best educational techniques because it handles more than one sense simultaneously, as it handles the sense of sight & hearing. Multimedia programs provide different stimuli in their presentations which include a number of elements (Aloraini, 2005).

Beichner (1994) found that multimedia has a positive effect on the knowledge and emotions of students who study scientific subjects. Moreover, Ameen (1995) conducted research on the impact of hypermedia on students' academic achievement and attitudes toward the use of computers to teach students of the Faculty of Educational Sciences in Minia University. The study was conducted on 30 male and female students in third grade at the faculty; they represented different branches and specialties.

METHODOLOGY

This study used research and development approach. According to Borg and Gall (1989), development of learning technology is a learning resource, which is useful to improve the efficiency and effectiveness of learning, with the aim to solve learning problems and achieve the objectives of learning appropriately. Research development steps are as follows: Exploring potentials and problems, collecting data, designing, design validation, product trials, product revisions, product trials, product revisions, and ready-to-use products. This study is limited to exploring potential problems, collecting data, and designing film.

The first activity of development steps was exploring the potentials and problems of students in entrepreneurial learning, including: potential of entrepreneurial learning resources, potential of student interest in entrepreneurial learning, entrepreneurial learning barrier, obstacles faced by students in entrepreneurial learning, and expectation of lecturer and students about entrepreneurial learning media. The second step was collecting data about the criteria of cookie production process film as entrepreneurial learning media expected by students and lecturers. The third step was designing the product according to the expectations of students and lecturers. The fourth step was validation test, conducted by film design validator and multimedia expert; the validation was discussed by multimedia expert as well.

This study was conducted from March to May 2018. The data was collected from 50 students and 15 lecturers of STKIP PGRI. The data types included: (1) Qualitative data: Description of media that has been used in entrepreneurial learning, description of obstacles (need for entrepreneurial learning media), description of various instructional media, and description of the design of cookie production process film as entrepreneurial learning media; (2) Quantitative data: The percentage of product ratings and the percentage of criticisms and suggestions for product revisions.

RESULTS

The results of potential and problem exploration about students' answers were as follows:

1. The potential of entrepreneurial learning in terms of students: (a) Eighty percent of students had enthusiasm to learn entrepreneurial theory in the classroom; (b) sixty-five percent of students had entrepreneurial learning spirit in the classroom; (c) seventy percent of students cooperated with their peers; (d) fifteen percent were able to create something simply; (e) fifty percent of students were innovative and creative in making products; and (6) seventy percent of students were able to realize entrepreneurship title in public place.

2. Learning potential in terms of lecturer's skills: (a) Seventy percent of lecturers delivered learning materials in class theoretically; (b) sixty of lecturers improved entrepreneurial skill by practicing to produce craft; (c) fifty percent of lecturers applied entrepreneurial learning method in class
with varied method such as lecture, project in preparing business plans, presentation for actualization of student creativity.

3. Potential of learning resources in entrepreneurial learning: (a) Eighty percent of lecturers used learning media in the form of entrepreneurial books; (b) seventy percent of lecturers used learning media with entrepreneurial practices in the private sector of small businesses.

4. Obstacles faced by the students in entrepreneurial learning: (a) Eighty percent of students graduated from high school and had different family education backgrounds; (b) forty percent of students had limited business information; (c) forty percent of students doubted to start a business; (d) forty percent of students could not face the challenges in entrepreneurial training through.

5. Obstacles faced by lecturers in entrepreneurial learning: (a) Eighty percent of lecturers stated that the time provided for entrepreneurial learning in the classroom was very limited; (b) sixty percent of lecturers stated that they need more time to improve students’ entrepreneurial skill; (c) fifty percent of lecturers said that practice in entrepreneurial learning activity takes a longer time with student innovation; (d) sixty percent of lecturers stated that learning resources for learning in the classroom was limited.

6. Student expectations about entrepreneurship learning media include: (a) Seventy percent of students need media that can facilitate them mastering the materials in entrepreneurial learning; (b) eighty percent of students need media in accordance with the demands of technological development; (c) eighty percent of students need practical and flexibility media which can be used at any time; (d) seventy percent of students need learning media in the form of film that describe the reality; and (e) seventy percent of students require simple, clear, concise and solid learning media.

The second step was collecting data related to the need for film-based entrepreneurship learning media. The information obtained was:

1. In entrepreneurial learning, 60% of students had the spirit of learning and entrepreneurial practice, and 30% of students were trying to create innovation in their work.

2. In entrepreneurial learning, 50% of lecturers have taught varied methods, namely lecture, discussion, and practice.

3. Sixty percent of potential learning sources were derived from internet, and 40% learning resources were derived from books.

4. Problems in learning and teaching activity were indicated by 80% of lecturers stating the limited time of entrepreneurial learning in the delivery of theory and practices.

5. Eighty percent of students expected simple and complete ICT media in accordance with the reality in business world.

6. Seventy percent of the lecturers expected entrepreneurial learning media in the form of film about cookie production process, which is short, solid, complete, and simple in order to cultivate student innovation.

In general, lecturers and students need information and technology-based entrepreneurial learning media in classroom in the form of audio visual in accordance with the reality in the world of business. The third step was designing the film in terms of film scenario, and materials. The design of the film included: Opening (presenter conveys the activities to be presented and the name of the product to be produced), the presenter explains the process of making several types of cookies, namely cassava churros, cheese cassava, and cassava nastar, the presenter explains the ingredients, cooking process, and closing. The cooking process started from preparing materials, combining the ingredients into the dough, and baking the dough. Cookie production process film in YouTube entitled “Membuat Kue Kering Inovasi Berbahan Dasar Tepung Mocaf - Media Pembelajaran KWU” (https://www.youtube.com/watch?v=4l0J9gbEgtk&t=451s). The details can be seen in Table 1.

The fourth step was validating the film to the validator in multimedia through discussion; it indicated that: (1) The flow of the film scenario is systematic, from the opening (in the form of introduction of the activities), the explanation of activities and closing; (2) the lighting of the film is appropriate; the audience can watch the movie clearly; (3) the sound of the film is clear and does not emerge a different meaning or misunderstanding; (4) the presenter’s eye contact and expression is interesting. The presenter enjoys the cooking activities and faces the audience clearly. The results of validity test by the culinary expert indicated: (1) The types of cookies made are quite unique and interesting; (2) the basic ingredients (cassava) are easy to obtain and the cheap; (3) the cooking process is simple; (4) the cookies become attractive; (5) the tools and materials are simple and
affordable. In general, cookie production process film is worthy of trial as entrepreneurial learning media. In general, those are the steps of developing entrepreneurial learning media in the form of production process film of cassava cookie. It has been prepared based on the theory of development; the feasibility of entrepreneurial learning media in higher education also has been tested.

**DISCUSSION**

The results of data exploration about the potentials and problems in entrepreneurial learning were identified in terms of external factors (including teaching method used by lecturer, the quality and quantity of materials given in learning and teaching activity, pattern of interaction in teaching entrepreneurial skills, learning media, technology, establishment of learning situation, and system used by school in building entrepreneurial attitude and skill) and internal factors (the fighting spirit of students in improving their entrepreneurial ability, skill, innovative and creative intelligence). It is also in accordance with the results of a research which was conducted by Zebua, et al (2015) which found that there are two factors that affect the effectiveness of entrepreneurial learning process, namely external factor, including lecturer ability in learning and teaching process, learning material, interaction pattern, learning media, technology, learning situation and system) and internal factor (students’ spirit). They also found a few problems: entrepreneurial learning and teaching activity was less interesting because the method used by the lecturer was never real or authentic; it did not foster entrepreneurial spirit well; low learning motivation, which was shown by students getting bored, quickly expecting to get anything instantly, difficult to concentrate, having bad time management; while students must follow the learning and teaching activity passively and memorize all materials for the exam; and low entrepreneurial learning outcomes of students. The essential points of entrepreneurship are imagination, creativity, and novelty innovation, which are needed to develop new products (Buchholz, et al., 2015). In general, the effectiveness of entrepreneurial learning is determined by both external and internal factors. The use of instructional media and learning technology is one of the external factors that determine the success of learning which is more realistic in the learning process in the class.

Based on the results of the interview with students about entrepreneurial media, learning media in the form of cookie production process film is expected to: be a clearer form of audio visual, provide information on real skills and provide information which is highly required in general, simple, creative and innovative way. Audio visual media used in the learning and teaching activity was in accordance with the results of a research which was conducted by Ashaver, et al (2013) that the use of adequate audio visual material is needed by lecturers and students in learning process; it needs to be provided in higher education in terms of quantity and quality of learning media. Audio-visual media is very useful for lecturers and students in learning and teaching activity. In general, learning media in the form of cookie production process film is audio visual media that is practical, authentic, simple, in accordance with the demand for learning technology, as well as cooking activities such as baking cookies; it is a need for lecturers and students in entrepreneurial learning in class which is more real; and these activities are still needed by the consumers.

The benefits of audio visual media in the form of cake production process film is useful as entrepreneurial learning media in delivering theories and real examples; it is also one of the materials of knowledge skills for students in the practice of entrepreneurial learning activities in the field. The benefits of audio visual media in learning and teaching process have a purpose. Meenakshi (2013) explained that the purpose of using Information Communication Technology (ICT) in education includes: to improve various educational services and learning methods, promote equal opportunities in obtaining information, promote technology literacy, promote the use of educational media openly and improve the learning skills. It is also said that the use audio visual media as ICT in education becomes more effective with varied media, for example using internet facility and other electronic media.

In general, the development of learning media in the form of production process film (audio visual media in entrepreneurial learning) is one of the uses of ICT in education. The steps of learning media development proposed by Borg and Gall include exploration of potential and problems, data collection, designing, feasibility test, and evaluation; it has been proven to be more effective to cultivate student creativity. The developmental research is not much different from the developmental research using ADDIE method conducted by Zebua, et al (2013), covering: analysis, design, development, implementation, and evaluation.

**Conclusion**
Cookie production process film is one of audio visual media to help lecturer in entrepreneurial learning which has been applied in higher education; it is in accordance with some findings in the exploration of potential and problems in learning that students and lecturers really need entrepreneurial learning media that is more authentic, and production activity which is simple, short, interesting, and practical. Other findings show that the learning media is useful to embody the creativity of students in finding new product innovations through entrepreneurial learning that is more fun and attractive.

The results of the exploration of potential and issues in entrepreneurial learning indicate that there is a need for varied ICT-based entrepreneurial learning media; therefore, further researcher is suggested to conduct other developmental research on ICT media which is complementary such as in the form of brief handicraft production process film, staple food cooking process, entrepreneurial material (theory) film and others, that aim to be varied audio visual media to cultivate the creativity and innovation of new products. Audio visual media also should be adjusted to the students’ need for social and cultural environment, so that it achieves maximum benefit. Therefore, audio-visual media in entrepreneurial learning is needed as one solution to overcome the limitations and problems in learning and teaching activity.

REFERENCES


Appendix A

Table 1
Description of Film Scenario

<table>
<thead>
<tr>
<th>NO</th>
<th>ACTIVITY</th>
<th>DESCRIPTION OF FILM SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Opening</td>
<td>First, the presenter explains the cake that will be made from cassava flour. The local ingredient (cassava flour) is processed into innovative modern cookies: cassava <em>churros</em>, cheese cassava, and cassava <em>nastar</em>.</td>
</tr>
</tbody>
</table>
| 2. | Cooking process | Text appears: the process of making cassava *nastar* of mocaf (modified cassava flour). The presenter describes the compositions (basic ingredients of cassava *nastar*), demonstrates how to bake the dough, how to mould the dough, and demonstrates how to bake it.  
  Text appears: the process of making cheese cassava. The presenter explains the ingredients of cheese cassava, demonstrates how to make the dough, how to mould the dough, and how to bake it.  
  Text appears: the process of making cassava *churros*. The presenter explains the ingredients of cassava *churros*, demonstrates how to make the dough, how to mould the dough, and how to bake it |
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ABSTRACT

In the process of education, educators and learners are two entities that cannot be separated, education will work well if the realization of educators and learners who are active in learning activities. The success of learners will not be separated from the struggle, guidance and guidance of educators. Educators will be said to succeed if able to guide, foster and teach learners well and professionally. To be a good and professional educator candidate hence needed strong motivation, accurate preparation and maturation in teaching to create goal of national education that coveted.

Keywords: Motivation, Preparation, Prospective Educators.

INTRODUCTION

All praise belongs only to Allah SWT, with His grace Researchers are still given the opportunity to be able to compile articles. Only by his inay the series of compilations of this article can be completed according to the time specified. Salawat and salam may remain poured to the Prophet Muhammad, with guidance from him through his traditions we can learn and try to become educators in accordance with the guidance.

This article will be presented at the International Postgraduate Conference Conference On Research In Education (IPCoRE) seminar on 16-18 August 2018 at Sains University Malaysia, Penang, Malaysia.

LITERATURE REVIEW

Education is essentially an activity that consciously and deliberately, and full responsibility carried out by adults to the child so that the interaction arises from both in order for the child to reach the maturity that aspired and lasted continuously. (Ahmadi & Uhbiyati, 2007, pp. 70).

Meanwhile, according to Al Arifin (2012, pp. 73) Education is part of the activities of life of society and nation. Therefore educational activity is a manifestation of the ideals of the nation. Thus national education activities need to be organized and managed in such a way that national education as an organization can be a means to realize the national ideals.

In the educational process, educators and learners are an inseparable unity, education will work well if the realization of educators and learners who are active in learning activities. It was confirmed by Ramli (2015, p.61) that educators and learners are two inseparable entities in moving the education dimension.

The success of learners will not be separated from the struggle, guidance and guidance of educators. Educators will be said to succeed if able to guide, foster and teach learners well and professionally. To be a good educator and professional it is necessary motivation, preparation, maturation in teaching to create the goal of national education coveted.

There are many reasons why one chooses to be an educator, among them for reasons of sharing knowledge, loving the world of children, extending knowledge, practicing patience, wanting to provide service to the community, and other reasons. Whatever the reason, it should be understood that the position of educators as professionals aims to implement the national education system and realize the goal of national education, which is to develop the potential of learners to be human beings who believe and cautious to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen.
There are two motivations that encourage a person to choose teaching as a career, namely idealist and practical motivation. Often people choose to teach as careers depart from their educational philosophy. Some forms of motivation that encourage someone to choose a teacher as a profession include: (1) love of children, (2) desire to provide knowledge, (3) interest in teaching activities, and (4) desire to provide the best service for the community. (Ornstein, et al., 2011, p. 3).

METHODOLOGY

The research method used by researchers is (Library Research). Library Research research method is used to compose articles Motivation, Preparation, Prospective Educators. The steps of Library Research research to be conducted in this study include the following: 1) have a general idea about the topic of research; 2) find information that supports the topic; 3) to focus on research; 4) searching for and finding required reading material and classifying reading material; 5) read and record research; 6) review and re-enrich reading material; and 7) reclassify the reading material and begin writing. (Arfiani, 2013, pp. 224).

RESULTS & DISCUSSION

Motivation comes from the word motive that implies a state, need, or encouragement that is conscious or unconscious which leads to the occurrence of a behavior. Motives are the driving force from within and within the subject to perform certain activities in order to achieve a goal. Motive is an internal condition or disposition alertness. Also, motivation is the driving force that has become active, and the motive becomes active at a given moment, when the need to achieve goals is greatly felt and lived. Every human activity is basically based on the drive to achieve the goal or fulfillment of needs. The existence of that driving force is called motivation. In some terms, motivation is expressed as a need, a desire, a gesture, an instinct, and a drive, something that forces a human organism to act or act. Motivation is a concept used to describe the initiation, direction and intensity of individual behavior. Motivation is a force that drives someone to do something to achieve the goal, this power is stimulated by the existence of various needs such as: the desire to be fulfilled, the behavior, purpose, feedback. (Manizar, 2015, pp. 173).

According to E. Kusmana Fachrudin (2000: 44) Motivation is divided into two groups:
1. Original Motivation. The original motivation is the motivation to do something or the impetus to do something that appears in the kodarati on the human self.
2. Artificial Motivation. Artificial motivation is the motivation that enters in a person either a deliberate effort or by chance.

In line with Irianto’s opinion (1997: 247), external motivation is any influence with the intention of generating, channeling or maintaining human behavior. Dipertegass by Mulia Nasution (2000: 11) Motivation from the outside is a booster generator, and the driving of someone who is directed to achieve the goal. Motivation can also be said as the power of a person who can cause the level of willingness in carrying out an activity. Good will that comes from within the individual itself (intrinsic motivation) as well as from outside the individual (extrinsic motivation). (Siti Suprihatin 2015, p. 81).

From some opinions above then, clearly motivation is a factor that means in encouraging someone to move all the potential that exists, creating a high desire and increase the spirit so that the desired can be achieved.

Motivation of educators in learning

Motivation deliberately formed by outsiders in this case educators can be done in various ways, among others:
1. Awarding. With this award can be positive because it can foster initiative, creative abilities and a healthy competing spirit, the awarding as an effort to foster motivation does not always have to be tangible or goods, but can also be praise and prize im-material.
2. Attention. Giving sufficient attention to the students with all the potential they have is a simple form of motivation, because many who do not have the motivation to learn due to not perasakannya attention.

As explained Dimyati and Mudjiono (2002: 42) principles related to the attention and motivation of learning is an important role in learning activities. From the study of learning theory
of information processing revealed that without attention there is no possible learning. Attention will arise to the students if the lesson material is in accordance with their needs, if the lesson material is perceived as needed, it is necessary to learn more or be needed daily will generate motivation to learn it. If this natural attention does not exist, then the student needs to be raised.

3. Invitation to participate. In man there is a feeling that is appreciated when he is involved in an activity that is considered valuable. Therefore educators, should always invite and reach out for students in the learning process.

In addition to the things above, to generate an effective motivation is through the principles of motivation in learning. Every student has a curiosity, therefore educators provide reinforcement that students can definitely.

The principles of motivation in learning are as follows:

1. Meaning. Students will be motivated to learn if activities and learning materials are felt meaningful to them. Existence is commonly associated with students’ talents, interests, knowledge, and values.
2. Knowledge and skills Prerequisites. The student will be able to learn well if he has mastered all the prerequisites of knowledge, skills and attitudes. Therefore, students will use their initial knowledge to interpret their information and experiences. The interpretation will build on the understanding that is influenced by the initial knowledge. Thus, the educator needs to understand the initial knowledge of the student to be associated with the material to be studied. So making learning becomes easier and meaningful.
3. Model. Students will master new skills well if the teacher gives examples and models to be seen and imitated.
4. Open communication. Students will be motivated to learn if the delivery is structured according to the students’ cognitive development level so that the learning message can be evaluated appropriately.
5. Diversity and challenging tasks. Students will be motivated to learn if they are provided with new, novelty and different material, activities or ideas. The novelty or originality of the idea will increase the student's concentration on learning. This affects the achievement of learning outcomes. Concentration can also increase when students face challenging tasks and slightly more than ability. Conversely, if the task is too far from the ability, there will be anxiety, and if the task is less than the ability, there will be boredom.
6. Exercise is right and active. Students will be able to master the learning materials effectively if KBM provide training activities in accordance with the ability of students can play an active role to achieve the expected competence.
7. Assessment of tasks. Students will gain an effective learning achievement if the task is split in a time span not too long with high repetition frequency.
8. Fun conditions and consequences. Students will learn and continue to learn if the learning conditions are made fun, comfortable and away from the painful behavior of students’ feelings. Learning involves feelings. A pleasant learning environment is necessary because the brain will not work optimally when the feeling is depressed. Feelings of pleasure will usually arise when learning is manifested in the form of games, especially early childhood education. Furthermore, play can be developed into higher experiments.
9. Diversity of approach. Students will learn if they are given the opportunity to choose and use different learning approaches and strategies not only in textbook-oriented learning but can also be packaged in practical activities such as projects, simulations, drama, and / or research / testing.
10. Develop a variety of capabilities. Students will learn optimally if lessons are presented to develop skills such as mathematical logical, language, music, kinesthetic and inter-personal skills. Each student has more than one intelligence that includes intelligence: music, motion, body (kinesthetic), math-logic, language, space, intra-personal, and interpersonal schools need to provide a range of learning experiences that allow the intelligence to flourish: Different intelligences can be served optimally.
11. Involve as many Indera as possible. Students will master learning outcomes optimally if in student learning it is possible to use as many senses as possible to interact with the content of learning.
12. Balance of learning experience settings. Students will master the learning materials if the learning experience is arranged so that students have the opportunity to make a reflection of appreciation, disclose and evaluate what they learn. (Uus Manzilatusifa, 2007, p. 72).
Preparation Of Educator Candidates

The readiness of educators in the learning process is also needed in implementing the learning and learning process in school. Educators must present the material attractively, creatively, innovatively, pleasantly and accompanied by a varied learning methodology. With the accompaniment of good preparation teachers will be active in learning activities, especially in achieving the success of teaching and learning process.

Teacher work is a profession. In Big Indonesian Dictionary the teacher is defined as a person whose job is teaching. The word teacher in Arabic is called mua'llim, and in English is called teacher, that is someone whose job is to teach others. Teachers must have good preparation to achieve success in implementing the educational process.

Preparation is an act (thing etc.) preparing or preparing; design (action) for something (Poerwadaminta, 1984). While the teacher is interpreted professional educator, because he has volunteered himself to accept and bear the burden and responsibility of education borne on the shoulders of parents (Darajat, et al, 2004: 39). Another opinion states teachers are educators, namely education personnel who provide some knowledge to students in school (Syailuf, 2002: 126). Thus it can be concluded that the preparation of teachers is an action or action planned by a teacher or educators who provide some knowledge to students or learners in schools in teaching and learning activities and teachers or educators receive honorarium.

An educator should conceptualize teaching planning. According to Ivor K (1986) the teaching planning that teachers should prepare is to analyze the task, identify the need for practice / learning, write learning goals. Preparation or planned teacher plan is a means or tool of new teaching activities have meaning after implemented learning process teaching. Teachers in all things determine the success of learning, because good teachers are the ones who can create motivation to learn and have a harmonious relationship with their students.

Nasution (1995) states, the preferred teacher is:

a) Teachers love to help in school work, explain lessons and tasks clearly and profoundly and use examples in learning.

b) A good teacher is a cheerful teacher, has a sense of humor and likes to accept a joke on her.

c) Teachers should be intimate like friends, feel a member in a class group.

b) Teachers should show attention to students and understand them.

e) Try to make the teaching and learning activities interesting and arouse the desire to learn.

In the learning process teachers should have the motivation to encourage students to have the Pull in learning. Teachers should be able to cultivate students and have high activity power in creating success in the learning process, so that teachers can transform knowledge and residual motivation in learning, so that students have the opportunity to motivate learning and always active in engaging themselves while following the learning activities. Soetomo (1993: 141) reveals motivation is all the energy that can generate or encourage someone to do an action.

Use of Appropriate Learning Methods

All parents of students (including teachers) certainly expect the realization of conducive learning conditions through active students. Students are active in the learning process, which is active and active thinking. In doing so, students can develop understanding and change their understanding for the better. One of the efforts to realize active students in the learning process required a custom process. For that need the ability of students themselves. Have students had the following abilities:

a. Ability to communicate

In any situation communication is needed, either verbally or nonverbally. The purpose of the mastery of such communication is in order to occur a correct understanding (good and have scientific content). Thus through the process of thinking and doing, to the ideas found, finally students can develop into a broader and better understanding.

b. Ability to ask

Students should like 'journalists' have a high curiosity. Like 'journalists' who are chasing news on one resource. Journalists in hunting only rely on weapons "5W + H", has obtained a complete result. If students do not have the ability to ask, it is certain that the learning conditions
will be passive. By asking, then in students there is a desire to know through the learning process.

c. Problem solving skill
Troubleshooting is the same as looking for answers. Every problem there must be a solution. Problems that arise in the learning should be completed or searched for answers by students during the learning process. In its implementation problem solving in learning can be solved independently or in groups. Students will be happy and enjoy learning if teachers in teaching using some models of learning.

The models of learning in the classroom are many, among them are the model of learning to find a partner, the model of exchanging pairs, the model of pink-thinking learning, the learning model send in and question, the model of head numbered learning, the model of structured head learning, or live two guests, group learning model, small circle small circle learning model, jigsaw learning model, problem base introduction (PBI) learning model, and others. Active student learning can be developed in a reflective direction. Student learning experiences, either outside the classroom or in the classroom can be processed to acquire scientific knowledge. Therefore, teachers are expected to use some models of learning so that students in learning is not saturated.

In addition to the learning model, teachers can modify the management of learning by using three (3) steps, namely preparation of implementation, and evaluation. What should teachers prepare before teaching? It is undeniable that professional teachers always prepare to teach their students well. What teachers have to prepare before teaching them are; (a) prepare the materials to be taught (in accordance with the RPP), (b) prepare props to be used where needed, (c) prepare questions and directives to stimulate active students to learn, (d) learn early knowledge of students.

Furthermore, during the learning process the teacher must; (a) invite students to actively learn, (b) students are left to ask questions, (c) if necessary using scientific methods in the process of discovery of ideas, ideas, thoughts (so students feel self-discovering their knowledge, (e) using a variety of instructional models, (f) accepting alternative answers from students, (g) the students’ conceptions are expressed wisely, (h) students are given the opportunity to think and formulate their ideas, (i) students given the opportunity to seek an approach in its own way in learning, (j) not to rail against students who think wrong, (k) continuous evaluation with all processes.

Then after the learning process or called the evaluation stage among them are; (a) the teacher delivers the homework, collects it, and corrects it, (b) gives other tasks for deepening, (d) tests that make students think, not memorize. Therefore, the attitudes of the need for the teacher according to R. Rohandi and G. Sukandi (2001: 46) are (a) the students are not considered to be tabulasa rasa, but the subject who knows something, (b) the class model; active students and accompanying teachers; (c) when asked by students and unable to answer, no need to mock and revile; (d) provide space for questions and answers. (e) teachers and students learn each other (g) extensive and profound knowledge, (h) understand the context of the material to be taught. (Larlen, 2013, p.88).

CONCLUSION
Education will work well if the realization of educators and learners who are active in learning activities. The success of learners will not be separated from the struggle, guidance and guidance of educators.

So is the motivation of educators are very influential to learners. Motivation is a factor that means in encouraging someone to move all the potential that exists, creating a high desire and increase the spirit so that the desired can be achieved.

In the learning process every educator must prepare optimally by using varied methods, and educators in the learning process must be creative, active and varied in order to draw attention to the students.

REFERENCES


PEMBANGUNAN MODUL INTERDISIPLIN BTEM DENGAN MODEL REKA BENTUK INSTRUKSIONAL MORRISON, ROSS, KALMAN & KEMP

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ABSTRACT


Sampel kajian ialah 139 pelajar daripada sekolah-sekolah yang menawarkan sains tambahan Tingkatan 4 di sekitar Lembah Klang. Didapati bahawa sebanyak 68.2% daripada pelajar Tingkatan 4 luar bandar tidak mengenali bioteknologi berikutan kekurangan pendedahan bioteknologi di persekitaran mereka. Seramai 74.1% daripada pelajar ini juga mencapai skor D dan ke bawah dalam subjek sains Pentaksiran Tingkatan 3(PT3). Modul BTEM yang dibangunkan adalah untuk mengatasi masalah dalam pengajaran dan pembelajaran bioteknologi serta untuk meningkatkan minat pelajar dalam pembelajaran bioteknologi.

Kata kunci: Interdisiplin; bioteknologi; Model Reka Bentuk Instruksional Morrison, Ross, Kalman & Kemp

PENGENALAN

Masalah dalam pembelajaran dan pengajaran bioteknologi


Dalam kurikulum biologi Sijil Peperiksaan Malaysia (SPM) sekarang, komponen bioteknologi didapati tersebar secara sedikit-sedikit di beberapa bab menyebabkan guru sukar untuk mengaitkan di antara satu komponen bioteknologi dengan subkomponen bioteknologi yang lain (Rashidah et al., 2014).

Pelajar juga kurang berminat dan tidak begitu berpengetahuan mengenai kepentingan dan peluang kerjaya yang ada dalam bidang bioteknologi ini pada abad ke-21 (Rashidah et al., 2014). Mereka juga merasakan konsep bioteknologi tidak begitu penting kerana ia tidak banyak disoal dalam peperiksaan Biologi di peringkat Sijil Pelajaran Malaysia (Rashidah et al., 2014).

Menurut laporan ‘Science Outlook 2015’ oleh Akademi Sains Malaysia, kekurangan minat pelajar di dalam subjek sains dan matematik pada peringkat SPM dan peringkat tertinggi adalah disebabkan oleh polisi pendidikan negara yang sentiasa berubah secara mendadak, tenaga pengajar sains dan matematik yang berkualiti rendah dan kaedah pengajaran subjek STEM yang tidak berkesan. Guru sains masih menggunakan kaedah pengajaran secara kuliah di mana pelajar hanya mengikut kelas secara pasif (Fatin, Mohd Salleh, Mohammad Bilal & Salmiza, 2014). Instruksional yang berasaskan kuliah tanpa aplikasi pedagogikal tidak akan membuahkan hasil yang positif dalam pengajaran bioteknologi. Pelajar tidak bermotivasi untuk mempelajari bioteknologi dalam keadaan serba kekurangan ini. Hasil pembelajaran pelajar masih berfokus kepada kebolehan kognitif tetapi tidak pada proses pembelajaran aktif yang dilalui oleh pelajar untuk membentuk pemahaman yang betul dan


Kelemahan-kelemahan yang dibincangkan ini telah menunjukkan pelajar dan guru sekolah menengah di Malaysia masih belum lagi menguasai sepenuhnya pendidikan bioteknologi yang merupakan sebahagian daripada pendidikan STEM dan juga berkait rapat dengan kemahiran abad ke-21.


Pendekatan interdisiplin STEM


Pendekatan interdisiplin juga adalah sesuai dilaksanakan dalam pendidikan STEM kerana setiap disiplin dalam STEM mempunyai sifat interdisiplin secara semulajadi (Kamisah, Lee & Vebrianto, 2013; Lee, 2015). Selain itu, integrasi subjek-subjek STEM berpotensi untuk meningkatkan pengetahuan

Pelaksanaan integrasi subjek-subjek STEM tidak semestinya melibatkan keempat-empat bidang STEM secara serentak walaupun STEM terdiri daripada empat bidang ilmu iaitu sains, teknologi, kejuruteraan dan matematik (Becker & Park, 2011; Sanders, 2009). Fokus utama pendekatan interdisiplin adalah untuk memperkembangkan kemahiran kognitif dan kemahiran generik di mana ia dapat membantu pelajar untuk menjadi individu yang berdikari, meningkatkan keyakinan diri, membangunkan pembelajaran kendiri dan meningkatkan prospek kejayaan masa depan (The Scottish Qualifications Authority, 2012). Projek secara pendekatan interdisiplin dilaksanakan secara experiencial dan bukan sesuatu yang membebankan guru dan pelajar. Ini kerana guru hanya bertanggungjawab sebagai pemudahcara dan pelajar bertanggungjawab sepenuhnya ke atas projek tersebut atas kemampuan mereka sendiri.

Rasional penggunaan Model Reka Bentuk Instruksional Morrison, Ross, Kalman dan Kemp (MRK) dalam pembinaan modul BTEM

Model Morrison, Ross, Kalman & Kemp (MRK) dipilih atas beberapa sebab yang berikut;
1. Semua elemen dalam model adalah saling berkait.
2. Semua elemen boleh dijalankan serentak.
3. Reka bentuk instruksional boleh bermula di mana-mana peringkat sahaja.
4. Peringkat-peringkat tertentu boleh digugurkan dan ia bergantung kepada proses dan rekabentuk. (Kemp, 1985; Kemp, Morrison & Ross, 1994; Morrison, Ross, Kalman & Kemp, 2011; Morrison, Ross, Kalman & Kemp, 2013; Papadakis, 2014)

Model MRK mempunyai beberapa kelebihan berbanding dengan model reka bentuk instruksional yang lain seperti yang dinyatakan di atas. Perbandingan model MRK dengan model reka bentuk instruksional yang lain dari segi kekuatan dan kelemahan telah disenaraikan di dalam Jadual 1.

Jadual 1 Perbandingan Model MRK dengan model rekabentuk instruksional yang lain

<table>
<thead>
<tr>
<th>Model</th>
<th>Kekuatan</th>
<th>Kelemahan</th>
<th>Rujukan</th>
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<tbody>
<tr>
<td>Merrill's First Principles of Instruction</td>
<td>i. berasaskan masalah komponen-komponen</td>
<td>komponen-komponen perlu dilaksanakan secara linear</td>
<td>Merrill (2002)</td>
</tr>
<tr>
<td>Model ADDIE</td>
<td>i. asas kepada kebanyak variasi</td>
<td>i. mungkin tidak menyepadukan</td>
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<tr>
<td>Model ADDIE (2010)</td>
<td>ii. model rekabentuk instruksional sedia kemahiran dengan aktiviti dunia sebenar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bersambung……………</td>
<td>ada seperti Model Dick &amp; Carey dan Model Kemp</td>
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<td>Sambungan</td>
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</tbody>
</table>
ii. teknologi boleh diintegrasikan ke dalam model jika e-pembelajaran dijalankan

iii. dapat diubahsuai dengan mudah dan menjimatkan kos serta masa

The Dick and Dick Carey Model

i. mengenal pasti ciri-

ii. model ini dikemukakan

ii. ciri-ciri audiens yang dikenal pasti akan dikaitkan terus dengan kemahiran yang akan diajar

Gagne’s 9 Events of Instruction

mengingkatkan

pengetahuan baru

peningkatkan yang mementingkan pembelajaran akibat latihan bertubi-tubi

berbanding dengan pembelajaran aktif di dalam konstruktivisme

Kirkpatrick’s 4 Levels of Training Evaluation

i. model yang popular di dalam penilaian latihan dan pembelajaran

i. Aplikasi model yang menjadi kompleks apabila digunakan secara meluas

Kirkpatrick & Kirkpatrick (2006);

Kirkpatrick & Kirkpatrick (2013)

ii. Keperluan dikemukakan secara sistematik

iii. Hasil pembelajaran tidak dititik beratkan empat peringkat adalah deskriptif

iv. mudah digunakan dan kaedah pengukuran yang tidak rumit

v. Hasil pembelajaran sesi

ii. komponen perlu dilaksanakan secara linear

iii. komponen analisis dan penilaian tidak diutamakan

et al. (2005) gabungan setiap komponen yang berasingan et al. (2014)

Dick yang dikenal pasti akan dikaitkan terus dengan kemahiran yang akan diajar

Gagne (1985)

Kirkpatrick (1994);

Bates (2004);

Kirkpatrick & Kirkpatrick (2013)
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<th>Latihan mungkin tidak membantu peserta selepas tamat kursus</th>
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<tr>
<td>Cathy Moore’s Action Mapping</td>
</tr>
<tr>
<td>i. mudah dijalankan, efektif dan visual yang menarik</td>
</tr>
<tr>
<td>i. Maklumat tambahan tidak boleh dimasukkan semasa dalam proses</td>
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<tr>
<td>Moore (2008)</td>
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<tr>
<td>Shank’s Model</td>
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<tr>
<td>i. memberi penekanan kepada fasa aplikasi dalam penyelesaian</td>
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<tr>
<td>i. tidak mementingkan demostrasi</td>
</tr>
<tr>
<td>Merril (2002)</td>
</tr>
<tr>
<td>ii. tidak mengintegrasikan setiap komponen dalam model secara langsung</td>
</tr>
</tbody>
</table>

| Marzano’s 9 Instructional Teaching Strategy                |
| i. menekankan aspek psikologi dan falsafah               |
| i. tidak mudah dijalankan                                |
| i. tidak jika tahap kognitif pelajar-pelajar sangat berbeza |
| Marzano et al. (1988); Marzano et al. (2000); Marzano (2001); Marzano (2016) |

| ii. kemahiran berfikir                                   |
| ii. hasil pembelajaran secara kritis dan kreatif setiap strategi adalah dua kemahiran berbeza dan pelajar yang saling melengkapi lemah mungkin ketinggalan |

<p>| Marzano’s 9 Instructional Teaching Model Morrison, Ross, Kalman &amp; Kemp (MRK) |</p>
<table>
<thead>
<tr>
<th>i. semua elemen adalah saling berkait</th>
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<tr>
<td>Kemp (1985); Kemp et al. Kemp (MRK) (1994); Morrison et al. (2011); Morrison et al. (2013); Papadakis (2014)</td>
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<th>ii. semua elemen boleh dijalankan serentak</th>
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<th>iii. rekabentuk instruksional boleh bermula di mana-mana saja</th>
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<tr>
<th>iv. Peringkat-peringkat tertentu boleh digugurkan; bergantung kepada proses dan rekabentuk</th>
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</table>

Seterusnya, Rajah 1 menunjukkan Model Morrison, Ross, Kalman dan Kemp (MRK) yang digunakan di dalam kajian ini. Setiap langkah dalam model MRK akan diterangkan lebih teliti dalam bahagian seterusnya.
OBJEKTIF KAJIAN

Objektif kajian adalah untuk membina modul, Biotek-STEM(BTEM) berdasarkan Model Reka Bentuk Instruksional Morrison, Ross, Kalman dan Kemp untuk membantu dalam penyelesaian masalah PdP dalam bioteknolog.
METODOLOGI

Modul BTEM dibina berdasarkan Model Reka Bentuk Instruksional Morrison, Ross, Kalman dan Kemp (MRK). Terdapat sembilan langkah dalam Model MRK iaitu: masalah pengajaran, analisis pelajar, analisis tugasan, objektif pengajaran, urutan isi kandungan, strategi pengajaran, mereka bentuk mesej, pembangunan bahan pengajaran, pembangunan instrumen penilaian (Rujuk Rajah 1). Langkah-langkah lain seperti perancangan, semakan semula, pelaksana, pengurusan projek, khidmat sokongan, penilaian fomatif, penilaian sumatif dan penilaian pengesahan dilakukan selepas modul diuji semasa kajian rintis dan kajian sebenar.

Peserta Kajian Dan Lokasi Kajian

Peserta kajian adalah pelajar Tingkatan 4 yang memilih sains tambahan di sekitar Lembah Klang. Seramai 139 pelajar dan enam guru daripada empat sekolah bersetuju untuk menyertai kajian analisis keperluan ini selama 14 minggu. Bagi kajian rintis bagi modul BTEM pula, ia dijalankan di Daerah Kinta Utara, Perak. Seramai 12 pelajar dan seorang guru terlibat dalam kajian selama dua minggu.

DAPATAN KAJIAN

Pembinaan modul Biotek-STEM (BTEM)

Masalah pengajaran

Langkah pertama dalam model Morrison, Ross, Kalman dan Kemp (MRK) adalah untuk mengenal pasti masalah pengajaran. Ia dapat dicapai menerusi analisis sorotan literatur dengan teliti.

Analisis keperluan

Fasa I: Perancangan
- Kumpulan sasaran
- Strategi
- Analisis
- Peserta

i. Fasa I: Perancangan
Analisis keperluan yang berkesan selalunya dijalankan dengan merujuk kepada kumpulan sasaran yang hendak dikaji. Apabila kumpulan sasaran dikenal pasti, strategi perlu dirancang untuk mengumpul data yang diperlukan. Pengumpulan data boleh dilakukan dengan soal selidik, temuduga, perjumpaan berkumpul kecil dan catatan tulisan. Dalam kajian ini, kumpulan sasaran ini ialah pelajar Tingkatan 4 sekolah menengah yang berusia di antara 16-18 tahun yang mengambil subjek sains tambahan SPM dan guru sains tambahan.

ii. Fasa II: Pengumpulan data

iii. Fasa III: Analisis data
Output daripada analisis data menjadi keutamaan untuk meneruskan perancangan intervensi. Dalam kajian ini, masalah pembelajaran dan pengajaran bioteknologi yang dihadapi oleh pelajar dan guru telah dikenal pasti. Jadual 2 menunjukkan masalah yang dihadapi oleh pelajar dalam pembelajaran bioteknologi dalam sains tambahan. Jadual 3 pula menunjukkan masalah yang dihadapi oleh guru dalam pengajaran bioteknologi dalam sains tambahan.

Jadual 2: Masalah yang dihadapi oleh pelajar dalam pembelajaran bioteknologi dalam sains tambahan
<table>
<thead>
<tr>
<th>Bil.</th>
<th>Masalah</th>
<th>Frekuensi</th>
<th>Peratusan (%)</th>
<th>Peratusan kes(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tiada buku rujukan sains tambahan</td>
<td>105</td>
<td>18.1</td>
<td>81.4</td>
</tr>
<tr>
<td>2.</td>
<td>Kekurangan pengetahuan tentang komponen-komponen dalam bioteknologi</td>
<td>88</td>
<td>18.2</td>
<td>68.2</td>
</tr>
<tr>
<td>3.</td>
<td>Kekurangan pendedahan tentang bioteknologi</td>
<td>83</td>
<td>14.3</td>
<td>64.3</td>
</tr>
<tr>
<td>4.</td>
<td>Kekurangan bahan bantu mengajar</td>
<td>73</td>
<td>12.6</td>
<td>56.6</td>
</tr>
<tr>
<td>5.</td>
<td>Kekurangan kepakaran dalam pelaksanaan eksperimen</td>
<td>65</td>
<td>11.2</td>
<td>50.4</td>
</tr>
<tr>
<td>6.</td>
<td>Kekurangan pendedahan tentang kerjaya bioteknologi selepas tamat pengajian</td>
<td>65</td>
<td>11.2</td>
<td>50.4</td>
</tr>
<tr>
<td>7.</td>
<td>Soalan peperiksaan kurang memberi penekanan terhadap bioteknologi</td>
<td>41</td>
<td>7.1</td>
<td>31.8</td>
</tr>
<tr>
<td>8.</td>
<td>Komponen-komponen bioteknologi dalam buku teks tidak sesuai</td>
<td>32</td>
<td>5.5</td>
<td>24.8</td>
</tr>
<tr>
<td>9.</td>
<td>Kaedah pengajaran guru tidak membantu kefahaman saya tentang bioteknologi</td>
<td>25</td>
<td>4.3</td>
<td>19.4</td>
</tr>
<tr>
<td>10.</td>
<td>Bioteknologi tidak didedahkan secara umum kepada masyarakat</td>
<td>1</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>11.</td>
<td>Kekurangan pendedahan terhadap eksperimen dan formula kimia</td>
<td>1</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Jumlah</td>
<td>579</td>
<td>100.0</td>
<td>448.8</td>
</tr>
</tbody>
</table>

Jadual 3 Masalah yang dihadapi oleh guru dalam pengajaran bioteknologi dalam sains tambahan

<table>
<thead>
<tr>
<th>Bil.</th>
<th>Masalah</th>
<th>Frekuensi</th>
<th>Peratusan (%)</th>
<th>Peratusan kes(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tiada buku rujukan</td>
<td>6</td>
<td>20.0</td>
<td>75.0</td>
</tr>
<tr>
<td>2.</td>
<td>Kekurangan bahan bantu mengajar</td>
<td>6</td>
<td>20.0</td>
<td>75.0</td>
</tr>
<tr>
<td>3.</td>
<td>Kekurangan pendedahan semasa latihan perguruan &amp; IPT</td>
<td>5</td>
<td>16.7</td>
<td>62.5</td>
</tr>
<tr>
<td>4.</td>
<td>Kekurangan kepakaran dalam eksperimen</td>
<td>4</td>
<td>13.3</td>
<td>50.0</td>
</tr>
<tr>
<td>5.</td>
<td>Kekurangan pengetahuan bioteknologi</td>
<td>3</td>
<td>10.0</td>
<td>37.5</td>
</tr>
<tr>
<td>6.</td>
<td>Kaedah pengajaran</td>
<td>3</td>
<td>10.0</td>
<td>37.5</td>
</tr>
</tbody>
</table>
terkini tidak diterima

7. Susunan komponen bioteknologi dalam buku teks tidak sesuai

8. Topik sukar ialah kejuruteraan genetik & proses kultur tisu serta eksperimen

| Jumlah | 30 | 100.0 | 375.0 |

**iv. Fasa IV: Laporan akhir**

Laporan akhir mempunyai rumusan kepada tujuan kajian, proses pelaksanaan, keputusan yang didapati dan cadangan untuk penambahbaikan masa depan. Dalam konteks kajian ini, laporan akhir ini dirumuskan seperti berikut;

i. Keputusan PT3 yang lepas
ii. Hasil perbincangan dengan guru di sekolah berkaitan
iii. Kemudahan makmal sains dan makmal komputer yang lengkap
iv. Responden analisis keperluan tentang masalah PdP
v. Analisis keperluan dilaksanakan untuk memberi satu gambaran yang lebih jelas dan menyeluruh kepada pengkaji terhadap keperluan dan masalah PdP yang dihadapi oleh guru, pelajar lelaki dan pelajar perempuan.

**Jadual 4 Cadangan penambahbaikan untuk PdP bioteknologi yang diberikan oleh pelajar**

<table>
<thead>
<tr>
<th>Bil.</th>
<th>Cadangan</th>
<th>Frekuensi</th>
<th>Peratusan(%)</th>
<th>Peratusan kes(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Perbanyakkan buku rujukan</td>
<td>59</td>
<td>25.4</td>
<td>49.2</td>
</tr>
<tr>
<td>2.</td>
<td>Memberi lebih pendedahan kepada topik bioteknologi</td>
<td>36</td>
<td>15.5</td>
<td>30.0</td>
</tr>
<tr>
<td>3.</td>
<td>Kemudahan komputer dan internet dalam pembelajaran bioteknologi</td>
<td>22</td>
<td>9.5</td>
<td>18.3</td>
</tr>
<tr>
<td>4.</td>
<td>Perbanyakkan pembelajaran melalui video &amp; grafik</td>
<td>19</td>
<td>8.2</td>
<td>15.8</td>
</tr>
<tr>
<td>5.</td>
<td>Perbanyakkan sistem digital bioteknologi dalam subjek sains tambahan</td>
<td>15</td>
<td>6.5</td>
<td>12.5</td>
</tr>
<tr>
<td>6.</td>
<td>Menyebarkan kepentingan bioteknologi</td>
<td>10</td>
<td>4.3</td>
<td>8.3</td>
</tr>
<tr>
<td>7.</td>
<td>Perbanyakkan bahan bantu mengajar yang bersesuaian</td>
<td>10</td>
<td>4.3</td>
<td>8.3</td>
</tr>
<tr>
<td>8.</td>
<td>Menerangkan keraja berkaitan bioteknologi</td>
<td>6</td>
<td>2.6</td>
<td>5.0</td>
</tr>
<tr>
<td>9.</td>
<td>Perbanyakkan eksperimen</td>
<td>6</td>
<td>2.6</td>
<td>5.0</td>
</tr>
<tr>
<td>10.</td>
<td>Memberikan penekanan terhadap bioteknologi dalam soalan peperiksaan</td>
<td>6</td>
<td>2.6</td>
<td>5.0</td>
</tr>
<tr>
<td>11.</td>
<td>Lawatan sambil belajar seperti ke hospital dan pusat penyelidikan</td>
<td>5</td>
<td>2.2</td>
<td>4.2</td>
</tr>
</tbody>
</table>
12. Mengadakan kempen/ seminar tentang bioteknologi  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   4  1.7  3.3  

13. Mengadakan kelas tambahan  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   4  1.7  3.3  

14. Mendapatkan bantuan daripada guru  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   4  1.7  3.3  

15. PdP guru yang kreatif, seronok, menarik & efektif  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   4  1.7  3.3  

16. Pendedahan kepentingan bioteknologi melalui saluran media awam  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   3  1.3  2.5  

17. Mempelajari teknik belajar topik bioteknologi  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   3  1.3  2.5  

18. Menyusun konponen-konponen bioteknologi dalam buku teks  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

19. Ceramah oleh pakar  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

20. Wujudkan sudut pameran bioteknologi  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

21. Menggalakkan pembelajaran kendiiri  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

22. Perbanyakkan aktiviti di luar bilik darjah  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

23. Didedahkan kepada perkembangan semasa dalam bidang bioteknologi luar negara  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   2  0.9  1.7  

24. Penerbitan buku rujukan dengan harga yang berpatutan  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   1  0.4  0.8  

25. Kesabaran guru dalam mengajar topik bioteknologi yang susah  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   1  0.4  0.8  

26. Penambahan buku rujukan bioteknologi di dalam perpustakaan  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   1  0.4  0.8  

27. Memperbanyak soalan KBAT  
   Bil.  Cadangan  Frekuensi  Peratusan(%)  Peratusan kes(%)  
   1  0.4  0.8  

| 1.  | Lebih banyak buku rujukan sains tambahan yang menarik  
| 2.  | Aktiviti hands-on dan eksperimen diperbanyakkan  

Jumlah  232  100.0  193.3

Jadual 5 Cadangan penambahbaikan untuk PdP bioteknologi yang diberikan oleh guru
3. Manual dan modul khusus bioteknologi
   2 11.8 28.6
4. Sediakan khusus pengajaran bioteknologi
   2 11.8 28.6
5. Maklumat terkini bioteknologi dalam buku teks
   2 11.8 28.6
6. Bahan bantu mengajar Diperbanyakkan
   1 5.9 14.3
7. Wujudkan kesinambungan topik bioteknologi dari Tingkatan 4 ke Tingkatan 5
   1 5.9 14.3
8. Kekurangan penggunaan video berkaitan bioteknologi
   1 5.9 14.3
9. Terapkan kepentingan bioteknologi dalam silabus
   1 5.9 14.3
10. Pendedahan bioteknologi yang lebih jelas kepada guru
    1 5.9 14.3
    Jumlah 17 100.0 242.9

Analisis pelajar

a. Analisis pelajar
Analisis dijalankan untuk mengenal pasti ciri-ciri pelajar yang kritikal dalam pencapaian dalam objektif pengajaran. Ia dijalankan untuk mendapatkan data sekunder mengenai latar belakang pelajar.

i. Ciri-ciri umum

Jadual 6 Ciri-ciri umum pelajar kumpulan sasaran

<table>
<thead>
<tr>
<th></th>
<th>Lelaki</th>
<th>Jantina</th>
<th>Perempuan</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>12</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>11</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>15</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Jumlah</td>
<td>54</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Jumlah keseluruhan</td>
<td>139</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ii. Ciri-ciri kemasukan khas

Ciri-ciri kemasukan khas merujuk kepada kemahiran atau sikap yang ada pada pelajar untuk mempelajari sesuatu pengetahuan baru dengan berkesan (Morrison et al., 2013).

Dalam kajian ini, pengkaji membuat soal selidik tentang pengalaman pelajar menggunakan laman sesawang dan telefon bimbit di rumah. Dapatan menunjukkan bahawa hanya 49.6% daripada kumpulan sasaran mempunyai kemudahan internet di rumah. Selain itu, hanya 51.8% daripada kumpulan sasaran mempunyai telefon bimbit persendirian. Dengan kemudahan makmal komputer di sekolah, semua kumpulan sasaran dapat terlibat dalam kajian. Jadual 7 menunjukkan dapatan soal selidik tentang kemudahan internet di rumah dan pemilikan telefon bimbit persendirian.

Jadual 7 Hasil responden dari segi mempunyai kemudahan internet di rumah dan pemilikan telefon bimbit persendirian

<table>
<thead>
<tr>
<th>Kumpulan</th>
<th>Kemudahan internet di rumah</th>
<th>Pemilikan telefon bimbit persendirian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ya N</td>
<td>%</td>
</tr>
<tr>
<td>Kawalan</td>
<td>42</td>
<td>55.3</td>
</tr>
<tr>
<td>Rawatan</td>
<td>27</td>
<td>42.9</td>
</tr>
</tbody>
</table>

N- frekuensi %-peratusan

iii. Maklumat akademik

Data daripada ujian pencapaian tahun-tahun lepas memberikan maklumat penting tentang pengetahuan dan kemahiran yang telah diperoleh oleh pelajar. Sekiranya maklumat akademik khas tentang pelajar tidak dapat dicari, ujian khas boleh dijalankan untuk memperoleh maklumat berkenaan. Dalam kajian ini, pengkaji memperoleh maklumat akademik lepas melalui borang soal selidik. Dapatan menunjukkan bahawa majoriti daripada kumpulan sasaran mempunyai keputusan sains dan matematik yang sangat lemah dalam peperiksaan PT3 yang lepas iaitu; 60.4% daripada mereka mempunyai keputusan D dan ke bawah untuk subjek matematik dan 74.1% daripada mereka mempunyai keputusan D dan ke bawah untuk subjek sains. Jadual 8 menunjukkan bilangan responden kajian mengikut gred pencapaian matematik dan sains bagi kedua-dua kumpulan kawalan dan rawatan.
Jadual 8  Bilangan responden kajian mengikut gred pencapaian PT3 matematik dan sains bagi kedua-dua kumpulan kawalan dan rawatan.

<table>
<thead>
<tr>
<th>Kumpulan</th>
<th>Gred</th>
<th>Matematik N</th>
<th>%</th>
<th>Sains N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kawalan</td>
<td>A</td>
<td>2</td>
<td>2.6</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1</td>
<td>1.3</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>27</td>
<td>35.5</td>
<td>19</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>14</td>
<td>18.4</td>
<td>28</td>
<td>36.9</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>32</td>
<td>42.2</td>
<td>27</td>
<td>35.5</td>
</tr>
<tr>
<td></td>
<td>Jumlah</td>
<td>76</td>
<td>100.0</td>
<td>76</td>
<td>100.0</td>
</tr>
<tr>
<td>Rawatan</td>
<td>A</td>
<td>2</td>
<td>3.2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>23</td>
<td>36.5</td>
<td>15</td>
<td>23.8</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>17</td>
<td>27.0</td>
<td>25</td>
<td>39.7</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>21</td>
<td>33.3</td>
<td>23</td>
<td>36.5</td>
</tr>
<tr>
<td></td>
<td>Jumlah</td>
<td>63</td>
<td>100.0</td>
<td>63</td>
<td>100.0</td>
</tr>
</tbody>
</table>

N-frekuensi  %-peratusan

b. Analisis kontekstual

Dalam kajian ini, pengkaji meminta maklumat negeri yang menawarkan subjek sains tambahan di Semenanjung Malaysia daripada Unit Data, Bahagian Perancangan, Dasar dan Polisi, Kementerian Pendidikan Malaysia. Seterusnya, pengkaji meminta maklumat sekolah yang menawarkan subjek sains tambahan daripada jabatan pendidikan negeri dan pejabat pendidikan negeri. Tinjauan dijalankan ke atas sekolah. Sekolah yang dipilih mesti mempunyai:

i. Makmal sains yang lengkap
ii. Makmal komputer yang lengkap
iii. Kelas sains tambahan yang diajar oleh guru yang berpengalaman sekurang-kurangnya lima tahun.

Rajah 3 Hasil analisis ciri-ciri kumpulan sasaran

<table>
<thead>
<tr>
<th>Kumpulan sasaran</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelajar Tingkatan 4 aliran teknikal dan vokasional yang mengambil subjek elektif sains tambahan</td>
</tr>
</tbody>
</table>

**Ciri Am**

- Umur : 16-18 tahun
- Jantina : Lelaki(38.8%); Perempuan(61.2%)
- Bangsa : Melayu(71.3%); India(13.2%); Cina(11.6%); lain-lain(3.9%)

**Maklumat Akademik**

- Majoriti pelajar mempunyai keputusan D dan ke bawah (60.4%) dalam matematik PT3
- Majoriti pelajar mempunyai keputusan D dan ke bawah (74.1%) dalam sains PT3

**Kompetensi kemasukan khas**

**Kemudahan internet di rumah**

- Majoriti pelajar (50.4%) tidak mempunyai kemudahan internet di rumah.

**Pemilikan telefon bimbit persendirian**

- Sebahagian besar daripada pelajar (48.2%) tidak memiliki telefon bimbit persendirian.

**Pengetahuan tentang bioteknologi**

- Majoriti pelajar (68.2%) kurang mengetahui tentang bioteknologi.

**Analisis Tugasan**

Analisis tugasan merujuk kepada prosedur-prosedur yang dijalankan untuk mengenal pasti isi kandungan dalam unit pengajaran. Analisis tugasan bermula dengan analisis matlamat yang berdasarkan masalah pengajaran yang dikenal pasti. Selain itu, hasil analisis kumpulan sasaran membantu pengkaji merancang isi kandungan yang bersesuaian. Dapatannya analisis keperluan dan analisis pelajar kumpulan sasaran menunjukkan bahawa terdapat keperluan untuk menjalankan satu intervensi yang dapat membantu pelajar dalam penguasaan bioteknologi.

**a. Analisis matlamat**

**i. Kenal pasti matlamat**

ii. Tetapkan objektif pengajaran dan pembelajaran


Rajah 4.5 Contoh objektif dan hasil pembelajaran isi kandungan dalam topik bioteknologi

Objektif pembelajaran

2. Bioteknologi
   2.1 Memahami penapaian dalam penghasilan makanan dan antibiotik

Hasil pembelajaran

Pelajar boleh:
2.1.1 menyatakan maksud penapaian
2.1.2 memeriksa penapaian
2.1.3 memberikan contoh penggunaan penapaian dalam industri pemakanan
2.1.4 memberikan contoh penggunaan penapaian dalam industri farmaseutikal
2.1.5 menerangkan penghasilan yogurt

Rajah 5 Contoh isi kandungan topik bioteknologi dalam modul

b. Analisis topik

Rajah 6 Topik isi kandungan bioteknologi dalam modul.

c. Analisis prosedur

Analisis prosedur digunakan untuk mengenal pasti langkah-langkah yang diperlukan untuk melengkapi tugas yang diberikan. Di samping itu, analisis prosedur juga digunakan untuk menganalisis perubahan tingkah laku yang boleh diperhatikan daripada pelajar dan perubahan tingkah laku yang tidak dapat diperhatikan dari segi kognitif dan pemprosesan maklumat. Dalam kajian ini, pengkaji menjalankan aktiviti prosedur terhadap aktiviti hands-on yang dilakukan oleh pelajar semasa proses PdP. Aktiviti yang berbentuk psikomotor dalam modul ini dianalisis dengan cara ini. Rajah 7 menunjukkan contoh analisis prosedur untuk penghasilan dadih.

1. mendengar arahan guru
   a) Aktiviti berkumpulan seramai 5 orang

2. mengambil bahan dan radas yang disediakan
   a) Bahan dan radas diambil dengan cermat

3. melaksanakan aktiviti
   a) Ambil 50ml campuran susu segar dan air suling ke dalam bikar
   b) Campuran susu dipanaskan ke 50°C sehingga gelembung susu terbentuk
   c) Campuran susu dibiarkan sejuk sehingga 40°C.

Rajah 7 Contoh analisis prosedur untuk penghasilan dadih

Objektif pengajaran

Objektif pengajaran merujuk kepada hasil pembelajaran yang dicapai oleh pelajar pada akhir PdP. Objektif pengajaran yang jelas dan tepat adalah penting untuk memilih strategi pengajaran yang paling sesuai untuk membantu pelajar mencapai hasil pembelajaran yang diingini. Selain itu, objektif pengajaran berfungsi sebagai panduan untuk mereka bentuk kaedah pengajaran yang bersesuaian dan memberi satu kerangka untuk menilai hasil pembelajaran pelajar.

Berdasarkan kepada objektif pengajaran, pengkaji merancang penyusunan urutan isi kandungan, mereka bentuk strategi pengajaran, merancang mesej pengajaran dan membangunkan bahan pengajaran. Objektif pengajaran dalam modul BTEM ditulis dalam domain kognitif, psikomotor dan afektif. Jadual 9 menunjukkan objektif pengajaran dan kategori domain bagi topik bioteknologi dalam modul.


<table>
<thead>
<tr>
<th>Bil.</th>
<th>Objektif pembelajaran</th>
<th>Kategori domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Memahami penapai dalam penghasilan makanan dan antibiotik</td>
<td>kognitif</td>
</tr>
<tr>
<td>2.</td>
<td>Memahami kultur tisu</td>
<td>kognitif</td>
</tr>
<tr>
<td>3.</td>
<td>Memahami kejuruteraan genetik</td>
<td>kognitif</td>
</tr>
<tr>
<td>4.</td>
<td>Menyedari kepentingan bioteknologi</td>
<td>kognitif</td>
</tr>
<tr>
<td>5.</td>
<td>Menggunakan dan mengendalikan bahan dan peralatan sains dengan cermat</td>
<td>psikomotor</td>
</tr>
<tr>
<td>6.</td>
<td>Mengendalikan spesimen dengan betul dan cermat</td>
<td>psikomotor</td>
</tr>
<tr>
<td>7.</td>
<td>Melakar spesimen, bahan dan peralatan sains dengan tepat</td>
<td>psikomotor</td>
</tr>
<tr>
<td>8.</td>
<td>Membersihkan peralatan sains dengan cara yang betul</td>
<td>psikomotor</td>
</tr>
<tr>
<td>9.</td>
<td>Menyimpan bahan dan peralatan sains dengan betul dan selamat</td>
<td>psikomotor</td>
</tr>
<tr>
<td>10.</td>
<td>Menyedari dan memahami kepentingan dan keperluan sikap saintifik dan nilai murni</td>
<td>afektif</td>
</tr>
<tr>
<td>11.</td>
<td>Memberi perhatian kepada sikap saintifik dan nilai murni</td>
<td>afektif</td>
</tr>
<tr>
<td>12.</td>
<td>Menghayati dan mengamalkan sikap saintifik dan nilai murni</td>
<td>afektif</td>
</tr>
<tr>
<td>13.</td>
<td>Menghargai kepentingan pembelajaran bioteknologi dan kehidupan harian dan alam pekerjaan abad ke-21</td>
<td>afektif</td>
</tr>
<tr>
<td>14.</td>
<td>Menghargai kepentingan kemahiran abad ke-21 dalam kehidupan harian dan alam pekerjaan abad ke-21</td>
<td>afektif</td>
</tr>
<tr>
<td>15.</td>
<td>Mengamalkan kemahiran abad ke-21 dalam menjalankan penyiasatan saintifik</td>
<td>afektif</td>
</tr>
</tbody>
</table>

Urutan isi kandungan

Urutan isi kandungan disusun mengikut ciri-ciri pelajar yang dikenal pasti melalui analisis pelajar. Ia mengambil kira faktor-faktor seperti kesulitan mendapat bahan bantu mengajar, minat pelajar, pengalaman lepas pelajar dan tahap perkembangan kognitif pelajar.

Kemahiran asal yang perlu diajar kepada pelajar dahulu sebelum kemahiran yang berkaitan yang seterusnya dapat dilakukan. Tambahan pula, pengetahuan dan maklumat yang berada di dalam konteks kehidupan sebenar pelajar perlu diajar terlebih dahulu sebelum maklumat baru dan bukan rutin dapat diajar pada peringkat yang selanjutnya. Secara umumnya, kemahiran dan pengetahuan disusun dari aras mudah ke aras sukar. Pengajaran biasanya dimulakan dengan topik yang diminati oleh pelajar. Topik yang dipilih itu juga mesti bersesuaian dengan tahap kognitif pelajar.

Strategi pengajaran

Strategi pengajaran yang berkesan memotivasikan pelajar untuk belajar secara aktif dalam mempelajari pengetahuan baru. Dalam kajian ini, model 5E dipilih kerana model ini direka bentuk khususnya kepada subjek biologi (Bybee, 2014). Elemen-elemen STEM yang diterapkan dalam setiap aktiviti dalam modul BTEM juga dinyatakan sebelum pelaksanaan fasa-fasa dalam model 5E. Jadual 10 menunjukkan pelaksanaan fasa-fasa Model 5E dalam komponen-komponen modul BTEM.
Jadual 10 Komponen-konponen dalam modul Biotek-STEM(BTEM)

<table>
<thead>
<tr>
<th>Aktiviti 1</th>
<th>Bidang:Bioteknologi</th>
</tr>
</thead>
</table>
| Hasil pembelajaran: | -menyatakan maksud penapaian  
-meremahrakan proses penapaian  
-memberikan contoh penggunaan penapaian dalam industri pemakanan  
-menerangkan penghasilan yogurt |
| Masa: | 160 minit (2 minggu) |
| Perkaitan sains, kejuruteraan, matematik dan teknologi | Teknologi membenarkan proses rakaman dijalankan ke atas penghasilan yogurt melalui proses penapaian. Pengiraan matematik dalam penggunaan bahan-bahan mentah seperti tepung ubi dan air paip serta suhu pemprosesan dalam pembuatan yogurt. |
| PdP 5E | |
| Fasa I | Penglibatan (Engagement) |
| Fasa II | Penerokaan (Exploration) |
| Fasa III | Penerangan (Explanation) |
| Fasa IV | Penghuraian (Elaboration) |
| Fasa V | Penilaian (Evaluation) |

**Sub-bidang:Proses penapaian dalam industri makanan**

**Mereka bentuk mesej**

Selepas strategi pengajaran disediakan, pengkaji perlu memberi fokus kepada cara penyampaian maklumat.
a. Strategi pra-pengajaran
Strategi pra-pengajaran merujuk kepada teknik yang digunakan untuk menarik perhatian pelajar untuk mempelajari topik baru. Strategi ini meliputi penggunaan teknik penyoalan yang ringkas; fakta dan konsep dalam bentuk yang ringkas atau penggunaan advance organizer. Dalam kajian ini, setiap subbidang dalam modul ini dimulakan dengan muka depan yang mempunyai gambar grafik yang menarik dan berkaitan dengan topik yang akan dipelajari. Seterusnya, setiap aktiviti dimulakan dengan hasil pembelajaran untuk membantu pelajar memahami objektif akhir yang hendak dicapai selepas PdP. Rajah 8 menunjukkan contoh hasil pembelajaran yang ingin dicapai dalam modul.

<table>
<thead>
<tr>
<th>Pada akhir aktiviti ini, para pelajar diharapkan dapat mencapai hasil-hasil pembelajaran berikut:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Memerihalkan penapaian</td>
</tr>
<tr>
<td>ii. Memberikan contoh penggunaan penapaian dalam industri farmaseutikal</td>
</tr>
</tbody>
</table>

Selain itu, pelajar diberi penerangan ringkas sekiranya mereka perlu memainkan peranan sebagai ahli bioteknologi dalam menyelesaikan masalah dalam modul seperti yang ditunjukkan dalam Rajah 9.

<table>
<thead>
<tr>
<th>Peranan anda:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahli bioteknologi perlu mengaplikasikan ilmu bioteknologi untuk menyelesaikan masalah dengan mengambil kira aspek seperti kos pelaksanaan, faktor alam sekitar dan kesediaan masyarakat untuk menerima sesuatu yang baru. Kaedah penyelesaian yang dicadangkan mesti memberi faedah kepada generasi kini dan dapat dilanjutkan kepada generasi-generasi yang akan datang.</td>
</tr>
</tbody>
</table>

Rajah 9 Contoh penerangan ringkas aktiviti dalam modul.

b. Mereka mesej bagi teks

i. Isyarat skema teks

Apabila pelajar didedahkan kepada isyarat yang dapat mengenal pasti struktur teks, mereka boleh menggunakan maklumat itu untuk membentuk model yang dapat membantu kefahaman mereka tentang topik baru yang dipelajari. Contohnya, tajuk dan subtajuk dalam setiap topik dan nombor muka surat yang dicetak serta penggunaan perkataan-perkataan khas dalam petikan.

Selain daripada itu, latar belakang yang mempersembahkan maklumat turut membantu pelajar menerima maklumat baru dengan mudah. Contohnya, penggunaan huruf tebal (Boldface), huruf condong (Italics) dan saiz perkataan yang bersesuaian dalam petikan. Di samping itu, isyarat tempatan boleh digunakan untuk membantu kefahaman pelajar. Contohnya istilah dadih dan susu masam boleh digunakan untuk menerangkan yogurt.

Isyarat-isyarat yang digunakan dalam modul ini adalah seperti yang berikut;

i. Tajuk bagi setiap aktiviti ditulis dengan fon teks SimSun dan huruf tebal (Boldface) untuk mengemukakan masalah yang akan dikaji dan menarik perhatian pelajar. Contohnya, Aktiviti 1 Proses penapaian dalam industri makanan.

ii. Huruf tebal (Boldface) dan huruf condong (Italics) digunakan untuk
menyedarkan pelajar tentang maklumat yang penting dalam isi kandungan.

iii. Saiz fon yang berlainan digunakan untuk memberitahu pelajar tentang topik dan subtopik yang berlainan.

iv. Hasil pembelajaran disenaraikan pada awal setiap aktiviti.

v. Nombor setiap muka surat diletakkan di pepenjuru atas sebelah kanan.

vi. Setiap sub-aktiviti ditulis dengan Bahagian A, Bahagian B dan seterusnya.

vii. Arahan ditulis dengan jelas untuk setiap aktiviti.

viii. Refleksi ditulis selepas setiap aktiviti dilaksanakan.

**ii. Gambar dan grafik dalam pengajaran**

Secara umumnya, teks yang mempunyai gambar visual memudahkan pemindahan maklumat kepada pelajar. Gambar visual mempunyai kelebihan semasa menerangkan konsep-konsep yang abstrak dalam teks.

Dalam kajian ini, pengkaji menyediakan gambar visual, ilustrasi dan jadual yang boleh menjelaskan konsep-konsep bioteknologi yang abstrak seperti pengklonan dan kejuruteraan genetik. Gambar ilustrasi seperti muka depan modul pelajar dalam setiap subbidang adalah berkaitan dengan topik yang akan dipelajari. Ia boleh memberi gambaran awal kepada pelajar tentang aktiviti yang akan dijalankan.

**Pembangunan bahan pengajaran**

Langkah ini ialah proses menterjemahkan reka bentuk pengajaran kepada strategi pengajaran. Format pengajaran boleh merangkumi bahan bercetak, DVD, video, bahan pengajaran sedia ada daripada atas talian dan sebagainya. Semasa pembangunan bahan pengajaran, objektif pengajaran yang dirancangkan mesti dapat menyelesaikan masalah pengajaran yang dikaji.

Elemen-elemen mereka bentuk mesej seperti latar belakang, penyusunan tajuk dan subtajuk, penggunaan Boldface, Italics dan saiz perkataan yang bersesuaian dan susun atur slaid-slaid Microsoft Powerpoint dan video perlu diberi perhatian. Ini kerana jika penyusunan yang tidak teliti atau terlalu padat akan mengurangkan minat dan tumpuan pelajar serta menjadi bebanan kepada guru yang mengajar semasa menggunakan modul BTEM. Rajah 10 menunjukkan contoh slaid powerpoint untuk topik Gen dalam bidang bioteknologi.

Kedudukan gen adalah **tetap** pada rantai DNA.

Kedua-dua rantai DNA ini **berpintal**

membentuk struktur **heliks ganda dua**.

Heliks ganda dua ini berlipat &

bergulung membentuk **kromosom**.
Pembangunan instrumen penilaian


Penilaian modul Biotek-STEM (BTEM)

a. Penilaian formatif

Penilaian formatif akan dijalankan sepanjang fasa pembangunan modul (peringkat pembangunan modul dan semasa peringkat kajian rintis) untuk menjamin kesahan dan kebolehpercayaan modul.

Penilaian formatif akan dijalankan dengan langkah-langkah berikut:

i. Kesahan isi kandungan modul disemak oleh pakar dengan menggunakan borang penilaian pakar untuk kaedah PdP serta aktiviti di dalam modul BTEM.

ii. Penggunaan bahasa, teks dan grafik bersesuaian di dalam modul dinilai oleh dua orang pakar bahasa dengan menggunakan soal selidik muka modul.

iii. Kajian rintis dijalankan untuk menentukan kebolehlaksanaan modul BTEM di sekolah.

iv. Penilaian refleksi pelajar dan guru selepas setiap aktiviti seperti yang ditunjukkan di dalam Rajah 11 dan Rajah 12.

v. Rajah 11 Contoh penilaian refleksi guru

Refleksi guru:

i. Sejauh manakah kesesuaian aktiviti ini untuk mencapai hasil pembelajaran?

ii. Kekuatan:

iii. Kelemahan:

iv. Penambahbaikan:

v. Komen lain:

Rajah 12 Contoh penilaian refleksi pelajar

Refleksi pelajar:

i. Adakah aktiviti yang dijalankan meningkatkan pengetahuan bioteknologi anda?

ii. Bagaimanakah modul ini membantu anda meningkatkan pencapaian anda?

iii. Adakah aktiviti yang dijalankan meningkatkan kemahiran abad ke-21 anda?
i. Penilaian kesahan isi kandungan, kaedah PdP serta aktiviti modul

Penilaian kesahan isi kandungan modul BTEM telah dijalankan. Secara keseluruhannya, pakar bersetuju dengan kaedah PdP dan aktiviti di dalam modul BTEM kecuali kaedah kuliah dan lawatan yang mungkin perlu disesuaikan dengan topik bioteknologi yang diajar. Jadual 11 menunjukkan kriteria pemilihan pakar kajian.

Jadual 11 Ringkasan kriteria pemilihan pakar untuk kajian ini

<table>
<thead>
<tr>
<th>Kriteria pemilihan pakar</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Mempunyai kelayakan akademik atau kelayakan iktitsas yang berkaitan dengan bidang bioteknologi atau bidang yang berkaitan</td>
</tr>
<tr>
<td>● Mempunyai pengalaman sekurang-kurangnya 10 tahun dalam bidang kurikulum dan pedagogi dalam bidang yang berkaitan</td>
</tr>
<tr>
<td>● Mempunyai pengalaman sekurang-kurangnya 10 tahun dalam bidang kerjaya pendidikan di mana-mana bahagian yang berkaitan di bawah Kementerian Pendidikan Malaysia dan Kementerian Pendidikan Tinggi serta institusi pendidikan swasta</td>
</tr>
<tr>
<td>● Mempunyai penguasaan Bahasa Melayu atau Bahasa Inggeris atau kedua-dua bahasa yang baik</td>
</tr>
</tbody>
</table>

Empat orang pakar telah membuat penilaiannya terhadap kandungan modul MBS. Kriteria pemilihan pakar adalah seperti yang ditunjukkan sebelum ini dalam Jadual 11. Jadual 12 menunjukkan ringkasan latar belakang pakar dalam pengesahan kandungan modul.

Jadual 12 Ringkasan latar belakang pakar untuk pengesahan kandungan modul

<table>
<thead>
<tr>
<th>Bil</th>
<th>Jawatan Kepakaran/Kelulusan</th>
<th>Institusi</th>
<th>Tempoh masa mengajar / Tahun</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ketua Bahagian Pendidikan sains/PhD Penolong Pengarah, Sektor Sains &amp; Matematik</td>
<td>Bahagian Perkembangan Kurikulum</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>Pensyarah Kimia/Pendidikan sains/ kanan,Fakulti PhD Pendidikan</td>
<td>UKM</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>Ketua Jabatan Bioteknologi/Biosains/ Sains M Sc</td>
<td>IPGK Temenggong Ibrahim, JB</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>Pensyarah kanan Genetik/M Edu Jabatan Sains</td>
<td>IPGK Temenggong Ibrahim, JB</td>
<td>27</td>
</tr>
</tbody>
</table>

Seterusnya, Jadual 13 menunjukkan bahawa semua pakar kesahan kandungan modul bersetuju dengan kesesuaian modul ini untuk kajian ini dengan min setiap item secara keseluruhannya melebihi 4. Selain itu, pakar-pakar kesahan kandungan modul juga bersetuju dengan kaedah pengajaran dan pembelajaran yang dicadangkan di dalam modul.
Jadual 13 Hasil penilaian pakar dalam kesahan kandungan modul

<table>
<thead>
<tr>
<th>Bil</th>
<th>Item</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modul M-Biotek-STEM menggalakan kaedah pengajaran dan pembelajaran secara inkuiri.</td>
<td>4.00</td>
</tr>
<tr>
<td>2</td>
<td>Modul M-Biotek-STEM menggalakan pembelajaran berasaskan masalah dunia sebenar.</td>
<td>4.50</td>
</tr>
<tr>
<td>3</td>
<td>Modul M-Biotek-STEM menggalakan reka bentuk eksperimen berasaskan proses penyelidikan STEM.</td>
<td>4.00</td>
</tr>
<tr>
<td>4</td>
<td>Modul M-Biotek-STEM menggalakan penerapan teknologi digital di dalam kaedah pengajaran dan pembelajaran dengan tepat.</td>
<td>4.25</td>
</tr>
<tr>
<td>5</td>
<td>Model pembelajaran 5E (Engage, Explore, Explain, Elaborate, Evaluate) adalah selari dengan prinsip pembelajaran STEM.</td>
<td>4.75</td>
</tr>
<tr>
<td>6</td>
<td>Penggunaan model Thayer Engineering adalah bersesuaian dengan pembelajaran murid dalam menyelesaikan masalah dunia sebenar.</td>
<td>4.00</td>
</tr>
<tr>
<td>7</td>
<td>Modul M-Biotek-STEM menilai pengajaran dan pembelajaran berdasarkan pencapaian pelajar.</td>
<td>4.25</td>
</tr>
<tr>
<td>8</td>
<td>Modul M-Biotek-STEM menggunakan rubrik pemarkahan tugasan untuk menilai ulian formatif dan sumatif.</td>
<td>3.75</td>
</tr>
<tr>
<td>9</td>
<td>Modul M-Biotek-STEM memupuk kemahiran iterasi era digital di kalangan pelajar.</td>
<td>4.25</td>
</tr>
<tr>
<td>10</td>
<td>Modul M-Biotek-STEM memupuk kemahiran pemikiran inventif di kalangan pelajar.</td>
<td>4.00</td>
</tr>
<tr>
<td>11</td>
<td>Modul M-Biotek-STEM memupuk nilai-nilai kerohanian dan murni di kalangan pelajar.</td>
<td>3.75</td>
</tr>
<tr>
<td>12</td>
<td>Modul M-Biotek-STEM menggalakan pelajar bekerja secara berdikari dan berkolaborasi.</td>
<td>4.00</td>
</tr>
<tr>
<td>13</td>
<td>Modul M-Biotek-STEM menerap kemahiran abad ke-21 semasa pengajaran isi kandungan biotekologi</td>
<td>4.25</td>
</tr>
<tr>
<td>14</td>
<td>Tempoh masa pelaksanaan modul M-Biotek-STEM di sekolah adalah praktikal.</td>
<td>4.25</td>
</tr>
<tr>
<td>15</td>
<td>Modul M-Biotek-STEM adalah berpandukan kepada Spesifikasi Kurikulum Sains Tambahan Tingkatan 5 (Rujuk ringkasan dokumen: Bidang Bioteknologi).</td>
<td>4.50</td>
</tr>
<tr>
<td>16</td>
<td>Modul M-Biotek-STEM menggalakan aktiviti hands-on, minds-on dan learning by doing.</td>
<td>4.50</td>
</tr>
<tr>
<td>17</td>
<td>Modul M-Biotek-STEM adalah bersesuaian dengan pelajar Tingkatan 4 dan 5 yang berusia di antara umur 16 dan 18.</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Min purata 4.19

Selain daripada itu, pengkaji turut membuat analisis korelasi kesahan kandungan modul di antara empat orang pakar. Formula yang dicadangkan oleh Ahmad (2014) adalah seperti yang berikut:

Korelasi kesahan kandungan = Jumlah skor pakar (X)
Skor maksimum(bil. skala x bil. item)

Hasil analisis telah menunjukkan bahawa korelasi yang kuat di antara pakar-pakar yang menilai kesahan modul. Mengikut Ahmad (2014) dan Chua (2014), saiz pekali korelasi (r) di antara 0.71 dan 0.90 adalah kuat dan nilai r yang melebihi 0.91 adalah sangat kuat. Mereka bersetuju dengan kesesuaian modul MBS dalam kajian ini. Jadual 14 menunjukkan hasil analisis korelasi pengesahan kandungan modul antara pakar.

Jadual 14 Hasil analisis korelasi pengesahan kandungan modul antara pakar

<table>
<thead>
<tr>
<th>Pakar</th>
<th>Saiz pekali korelasi (r)</th>
<th>Kekuatan korelasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.73</td>
<td>kuat</td>
</tr>
<tr>
<td>2</td>
<td>0.84</td>
<td>kuat</td>
</tr>
<tr>
<td>3</td>
<td>0.80</td>
<td>kuat</td>
</tr>
<tr>
<td>4</td>
<td>0.97</td>
<td>sangat kuat</td>
</tr>
</tbody>
</table>
ii. Penilaian kesahan muka modul dan penggunaan bahasa
Borang penilaian kesahan muka modul digunakan untuk menilai kesahan muka modul dari segi bahasa, teks dan grafik yang digunakan. Berikut ialah ringkasan pandangan pakar tentang kesahan muka modul

| Setiap aktiviti dimulakan pada muka surat baru |
| Susun atur ayat tidak kemas |
| Aktiviti mungkin terlalu banyak |
| Penggunaan bahasa yang sesuai dengan tahap kebolehan pelajar |
| Betulkan kesilapan teknikal (spacing) |
| Penggunaan grafik yang berkesan dapat menjadikan persembahan yang lebih menarik |
| Jenis teks yang sesuai |
| Fon tulisan perlu menarik perhatian pelajar |

Pengkaji turut membuat pengesahan kandungan modul dari segi bahasa. Jadual 15 menunjukkan latar belakang pakar bahasa untuk pengesahan kandungan modul.

<table>
<thead>
<tr>
<th>Bil</th>
<th>Jawatan</th>
<th>Institusi</th>
<th>Tempoh masa mengajar</th>
<th>Bidang kepakaran/kelulusan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Penolong pengarah kanan/guru Bahasa Melayu</td>
<td>Jabatan Pendidikan WPKL</td>
<td>34</td>
<td>Bahasa Melayu/ M Ed</td>
</tr>
<tr>
<td>2.</td>
<td>Pensyarah, Jabatan Bahasa</td>
<td>IPGK Temenggong Ibrahim, JB</td>
<td>13</td>
<td>Bahasa Inggeris/ M Ed TESL</td>
</tr>
</tbody>
</table>

Seterusnya, pakar bersetuju bahawa bahasa yang digunakan dalam modul adalah bersesuaian dan mudah difahami oleh guru dan pelajar. Jadual 16 menunjukkan hasil analisis pengesahan kandungan modul dari segi bahasa.

<table>
<thead>
<tr>
<th>Bil</th>
<th>Item</th>
<th>Ya(%)</th>
<th>Tidak(%)</th>
<th>Komen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bahasa yang digunakan adalah tepat dan mudah difahami.</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Istitah yang digunakan adalah bersesuaian.</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Penggunaan istirah yang konsisten dalam isi kandungan.</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ejaan yang betul</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Tanda bacaan yang betul</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Kesalahan ejaan dan tanda baca adalah sangat minima dan tidak menjelaskan isi kandungan.</td>
<td>100.0 0.0</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Berdasarkan kepada pandangan dan komen pakar, pengkaji telah memperbaiki kelemahan-kelemahan di dalam modul. Antara penambahbaikan yang telah dibuat adalah seperti yang berikut:

i. Setiap aktiviti dimulakan pada muka surat baru dengan grafik yang menarik.
ii. Aktiviti dikurangkan supaya tidak membebani pelajar.
iii. Susun atur ayat (alignment) dan langkauan baris ayat (spacing) dikemaskini.
iv. Fon tulisan Times New Roman ditukar kepada SimSun yang lebih menarik dalam modul pelajar.
v. Soalan ujian diubah suai mengikut tahap kognitif pelajar.
vi. Gambar rajah yang lebih jelas dan kemas.

vii. Membetulkan kesilapan tatabahasa, ejaan dan struktur ayat.

a. Bahasa mudah difahami
b. Nilai-nilai murni dinyatakan bersesuaian dengan topik bioteknologi mengikut persepsi guru dan pelajar
c. Gambar dan video membantu saya memahami topik pengklonan dengan lebih mudah
d. Modul ini membantu saya dalam ulangkaji topik bioteknologi
e. Saya suka lihat video dan slaid berbanding dengan membaca buku teks
f. Cerita tentang Badak Sumatera di Malaysia menarik
g. Modul ini sesuai kerana topik ini kebanyakan abstrak
h. Aktiviti dalam modul ini perlu disesuaikan dengan keadaan di sekolah
i. Getah sesuai dijadikan contoh rantai pintalan DNA
j. Video yang dipaparkan dalam Bahasa Inggeris mungkin menyukarkan kefahaman pelajar yang lemah

Pengkaji telah memperbaikan dan mengubah suai modul mengikut komen dan cadangan penambahbaikan pakar dan guru serta daripada analisis data yang dikumpul.

b. Semakan semula
Semakan semula telah dijalankan dua kali sepanjang proses penilaian formatif. Pengkaji telah membuat penambahbaikan berdasarkan komen dan pandangan pakar. Kemudian, pengkaji membuat penambahbaikan seterusnya selepas kajian rintis dengan berdasarkan pemerhatian pengkaji dan refleksi guru dan pelajar.

c. Penilaian sumatif
Penilaian formatif sebelum ini menunjukkan modul Biotek-STEM(BTEM) mempunyai kesahan kandungan dan kesahan muka boleh digunakan dalam konteks kajian sebenar. Seterusnya, penilaian sumatif memberi maklumat mengenai keberkesanan modul BTEM dalam peningkatan pencapaian pelajar dan memupuk kemahiran abad ke-21 dalam topik bioteknologi pada masa hadapan.

Perancangan untuk pembinaan dan pelaksanaan modul Biotek-STEM (BTEM) ditunjukkan dalam Rajah 15 dalam bahagian yang seterusnya.
PERBINCANGAN

Pembinaan modul BTEM dapat dibangunkan dengan secara berperingkat daripada langkah pertama: masalah pengajaran sehingga langkah kesembilan; pembangunan penilaian instrumen. Isi kandungan modul BTEM adalah berdasarkan kepada kurikulum sains tambahan yang ditetapkan oleh Kementerian Pendidikan Malaysia (BPK, 2013).

Dari segi kesahan isi kandungan modul, keempat-empat pakar yang dipilih bersetuju dengan kesesuaian modul BTEM untuk kajian ini dengan min purata sebanyak 4.19. Mereka turut bersetuju dengan kaedah pembelajaran dan pengajaran yang dicadangkan dalam modul BTEM. Hasil analisis korelasi kesahan modul di antara pakar-pakar (pekali korelasi, r=0.73-0.93). juga menunjukkan bahawa mereka mencapai konsensus yang tinggi dalam kesesuaian modul BTEM dalam kajian ini (Ahmad, 2014, Chua, 2014). Selain itu, dua pakar bahasa juga menyatakan bahawa bahasa yang digunakan dalam modul BTEM adalah bersesuaian dan mudah difahami.
Apabila kajian rintis dijalankan untuk mengesahkan kebolehlaksanaan modul BTEM, pengkaji telah mendapat maklum balas yang amat menggalakkan daripada pihak guru dan pelajar. Namun, beberapa penambahbaikan perlu dilakukan agar modul BTEM dapat dijalankan dalam kajian sebenar.


KESIMPULAN

Pembinaan modul BTEM dan penilaian formatif terhadapnya telah menunjukkan bahawa modul BTEM dan instrumen kajian mempunyai kesahan kandungan, kesahan muka dan penggunaan bahasa yang sesuai digunakan dalam konteks kajian ini. Seterusnya, penilaian akan dilaksanakan untuk menguji keberkesanan modul BTEM terhadap peningkatan pencapaian dan pemupukan kemahiran abad ke-21 topik bioteknologi dalam kajian sebenar kelak.

RUJUKAN


ABSTRACT

Based on the data gathered through a case study of a low performing rural primary school in Sabah, pupils’ performance was affected interdependently by the climate and effectiveness factors within the school as well as classroom. The interrelationship between these factors was useful in finding ‘why’ such causal relations happened so that various steps on school improvement could be advocated. The data gathered through this case study had facilitated the formulation of four comprehensive instruments with detailed items that could necessitate in-depth investigation encircling pupils’ performance of the case school. For this paper, it focuses mainly on sharing one of the instruments on how to gauge classroom effectiveness factors as the classroom is the most important place for achieving educational effectiveness. An instrument with clear indicators and measurement will be a helpful guide to generate more thorough investigation so that more relevant improvement plans can be initiated by school leaders. To establish detailed indicators in this instrument, the features of the Sheltered Instruction (SI) approach are incorporated with the six teachers’ instructional roles – orientation, structuring, questioning techniques, teaching modelling, application and classroom assessment which are found to be consistently related to positive pupil outcomes. To ensure more holistic measurement of these indicators, five measurement dimensions – frequency, focus, stage, differentiation and quality are adopted. This instrument with detailed indicators using the five measurement dimensions can be useful self-evaluation tool to pinpoint more specific problems in teaching and learning process. Problems are catalysts for further investigation. The more we investigate the more we discover. More contextualised discovery may entail more objective recovery (improvement).

Keywords: orientation, structuring, questioning techniques, teaching modelling, application, classroom assessment, frequency, focus, stage, differentiation, quality

INTRODUCTION

According to Sammons (1999), it was important to take account of the relationship between school factors (such as policies, leadership and culture) and classroom processes. This is because in some institutions, the former may provide more supportive environment or exert greater influence on teaching and learning (Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988). The preliminary findings of the larger scale ethnographic case study had assisted in initiating the conceptual framework of my study.

Classroom is a subset and an integral part of a bigger social system which we call school. As rationalised by Montague and Rinaldi (2001), classroom dynamics were complex, multifaceted in nature and similar to school climate (p.1). Hence, if all the constituents that promote student learning outcomes at classroom level are augmented at the school level, then the student performance and outcomes can be better supported and galvanised. Nevertheless, Creemers emphasized that “the classroom is the most important place for achieving educational effectiveness” (Kyriakides et al., 2000, p. 504) and I had substantiated this stand in my literature review. For language learning processes, “language classrooms are specifically constituted in order to facilitate [such] learning, [thus] it makes eminent sense to observe what goes on there” (Nunan & Bailey, 2009, p. 257). Hence, classroom was the starting point of my investigation based on this model.

As reiterated by Creemers and Kyriakides (2009), the defining factors at the classroom level were considered the prerequisite for defining the school level factors. Student performance “is most strongly influenced by classroom effectiveness factors” (Creemers & Reezigt, 1999, p. 30).

As rationalised by Creemers (1994) and Wang, Haertel and Walberg (1993), effective learning would not occur without quality classroom instruction. Therefore, emphasis was on the description of the classroom level that referred mainly to the behaviour of the teacher and his/her contribution in promoting learning at the classroom level (Creemers & Kyriakides, 2008). Creemers (1994) categorised...
the classroom effectiveness factors into three key concepts of quality of instruction, time and opportunity. According to Creemers, Scheerens and Reynolds (2000), quality of instruction could contribute effectively to the effectiveness of education when it was mediated by time and opportunity.

Main Objective of this Paper

As a matter of fact, measurement in educational effectiveness has always been an issue as the constructs or factors involved which are always treated as unidimensional. However, the pupil performance in the English language which was the practical problem of my study could be affected by factors at different levels namely pupil, classroom, school and system (Creemers & Kyriakides, 2006, p. 352) and thus, this problem was obviously multidimensional in nature. Hence, for the purpose of my paper, a matrix for classroom effectiveness was created and extended by integrating the five measurement dimensions namely frequency, focus, stage, differentiation and quality which were popularized by Creemers and Kyriakides (2008). Mile and Huberman (1994) suggested the use of visual display during the data reduction process so that more systematic information could be presented. This would help to facilitate data interpretation and draw valid conclusions from the findings (p. 91) later. In view of such predicament, this form/instrument formulated in relation to the variables and the five measurement dimensions shown in Appendix A will be of great value which is considered as Conceptually Clustered Matrix. Conceptually ordered display generally orientates around concepts or variables. Such display, according to Miles and Huberman (1994) was suitable for those studies where the need to answer a string of research questions was paramount.

LITERATURE REVIEW AND METHODOLOGY

Through the synthesis of the main findings on the teacher effectiveness researches (TERs) namely Brophy and Good (1986), Kyriakides, Campbell and Christofidou (2002),Muijs and Reynolds (2000), Darling-Hammond (2000), Wang, Haertel and Walberg (1993) and, Scheeren and Bosler (1997) conducted by Kyriakides and Creemers (2008), there were eight groups of effectiveness factors on teachers’ instructional roles which were found to be consistently related to pupil outcomes. They were:

i. orientation
ii. structuring
iii. questioning techniques
iv. teaching-modelling
v. application
vi. classroom assessment
vii. management of time
viii. teacher role in making classroom a learning environment

Based on the findings of the data gathered at my case school using observation, interview and through document analysis, I focussed on the first six factors or variables – orientation, structuring, questioning techniques, teaching modelling, application and classroom assessment, to extract issues on classroom effectiveness in English language teaching and learning at my case school. This was because these six factors were closely related to the pedagogical skills of the teachers in the classroom whereas the final two factors – management of time and teacher role in making classroom a learning environment, were instead related to physical and procedural management of the teaching and learning process. In order to collect more profound data from my case school, the eight components of the Sheltered Instruction (SI) approach initiated by Echevarria, Vogt and Short (2004) were integrated as they were compatible to the data gathered through the six classroom effectiveness factors of my case school.

The SI approach is a favoured approach for English learners today and plays a major role in a variety of bilingual educational program design (Echevarria, Vogt & Short, 2004). This approach does not advocate a separate set of instructional techniques but draws from and complements methods and strategies from second language and mainstream classroom. It proposes eight main components: Preparation, Building background, Comprehensible Input, Strategies, Interaction, Practice/Application, Lesson Delivery, and Review/Assessment.
The integration of the components of the SI approach with the factors/variables of my six classroom effectiveness factors, a comprehensive set of criteria has materialised in guiding me as the researcher on what to look for to ensure more in-depth data collection of my case school.

Table 1 discusses the variables investigated in my study blending and integrating the indicators of the SI approach. The table below illustrates the compatibility of these components in relation to the effectiveness factors proposed by Creemers and Kyriakides (2008).

Table 1
Determining the indicators of the Classroom Effectiveness Factors for Data Collection and Analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Effectiveness Factor</th>
<th>Indicators (integrating the features of SI approach)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clearly defined objectives for learners</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use of supplementary materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Adaptation of (language) content</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activities that integrate</td>
</tr>
<tr>
<td>2</td>
<td>Structuring</td>
<td>Building background</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Link to background</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Link to past experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Emphasis on key vocabulary</td>
</tr>
<tr>
<td></td>
<td>Lesson Delivery</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Support content (language) objectives</td>
</tr>
<tr>
<td></td>
<td>Comprehensible input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pacing – speech</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clear instruction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use variety of techniques (Scaffolding techniques)</td>
</tr>
<tr>
<td>3</td>
<td>Questioning techniques</td>
<td>Strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Variety of Question types</td>
</tr>
<tr>
<td>4</td>
<td>Teaching Modelling</td>
<td>Strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Opportunity for learners to use strategies</td>
</tr>
<tr>
<td>5</td>
<td>Application Tasks and</td>
<td>Practice/Application Tasks</td>
</tr>
<tr>
<td></td>
<td>Monitoring</td>
<td>• Hand-on materials to practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activities to apply language learned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activities to integrate all skills</td>
</tr>
<tr>
<td>6</td>
<td>Classroom Assessment</td>
<td>Review/Assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review key content (vocabulary)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provide feedback on their output</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Conduct assessment on comprehension and learning</td>
</tr>
</tbody>
</table>

DISCUSSION AND SIGNIFICANCE OF THE PAPER

With the integration of the six classroom effectiveness factors, and the eight components of Sheltered Instruction (SI) approach as well as the five measurement dimensions, a comprehensive instrument in measuring the classroom effectiveness of my case school was formulated. The instrument was attached in Appendix A.

These detailed descriptors and measurement dimensions depicted in Appendix A provided opportunities for me “to extend patterns and discover new elements” (Nespor, 2006, p. 300) in my data in order to make my knowledge claims. The complete formulation of the form/instrument entailed document analysis of previous teacher effectiveness researches, field analysis and interpretative analysis.
This instrument in Appendix A facilitated me to scrutinise my variables from various perspectives so that “a better picture of what makes teachers and schools effective” (p. 83) or even ineffective could be drawn in order to help the school particularly to develop more specific strategies for improving the phenomena under my investigation. The instrument would facilitate handling of extended and unreduced texts that dispersed over many pages of fieldnotes.

CONCLUSION

Nevertheless, with the existence of the form, it should not be used as a one-off evaluation. It should require on-going and in-depth exploration, topping it up with the insights that other perspectives can bring.

The closet link of pupils' performance specifically in the English language (which is the main concern of my study) is resulted from pupils' learning processes. To know and understanding learning requires the studied long-term insights and analysis of teachers and pupils reflecting together. Not forgetting the external support surrounding such insights and analysis. Thus, it is important to create a continuing and continually revealing process so that possible school improvement can take root. As a matter fact, conflict, dilemma and ambiguity have formed part of the challenges in formulating this instrument for my investigation. Nevertheless, constant grappling with these complexities would make the investigation interesting and dynamic.

“We must cross over a place many times and in different directions before we could truly get to know it.”

Ludwig Wittgenstein, philosopher.

REFERENCES


<table>
<thead>
<tr>
<th>Five Dimensions in Measuring Effectiveness Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td><strong>Classroom Effectiveness Factors</strong></td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
</tr>
<tr>
<td>Preparation</td>
</tr>
<tr>
<td>• Clearly defined objectives for learners</td>
</tr>
<tr>
<td>• Use of supplementary materials</td>
</tr>
<tr>
<td>• Adaptation of (language) content</td>
</tr>
<tr>
<td>• Activities that integrate</td>
</tr>
<tr>
<td>• No. of tasks</td>
</tr>
<tr>
<td>• Length of tasks</td>
</tr>
<tr>
<td>• Specificity of tasks</td>
</tr>
<tr>
<td>• Purpose of task – single/multiple reasons</td>
</tr>
<tr>
<td>• Where tasks taken place? Esp. for lessons with diff. objectives.</td>
</tr>
<tr>
<td>• Diff. types of tasks (personality/background, teaching objectives, organisational &amp; cultural contexts)</td>
</tr>
<tr>
<td>• Lesson/task clear to Ps</td>
</tr>
<tr>
<td>• Impact on learning/ motivation/ participation</td>
</tr>
<tr>
<td><strong>Structuring</strong></td>
</tr>
<tr>
<td>Building background</td>
</tr>
<tr>
<td>• Link to background</td>
</tr>
<tr>
<td>• Link to past experience</td>
</tr>
<tr>
<td>• Emphasis on key vocabulary</td>
</tr>
<tr>
<td>Comprehensible input</td>
</tr>
<tr>
<td>• Pacing – speech</td>
</tr>
<tr>
<td>• Clear instruction</td>
</tr>
<tr>
<td>• Use variety of techniques</td>
</tr>
<tr>
<td>Lesson Delivery</td>
</tr>
<tr>
<td>• Support content (language) objectives</td>
</tr>
<tr>
<td>• Pacing of the lesson – appropriate to level of the pupils</td>
</tr>
<tr>
<td>• No. of tasks/ lessons structured</td>
</tr>
<tr>
<td>• Length of tasks/ lessons</td>
</tr>
<tr>
<td>• Tasks/lessons clearly &amp; specifically defined and arranged</td>
</tr>
<tr>
<td>• Structuring one/ more objectives (objs).</td>
</tr>
<tr>
<td>• Where is the structuring carried out?</td>
</tr>
<tr>
<td>• Diff. tasks for diff. needs according to objectives.</td>
</tr>
<tr>
<td>• Impact on learning</td>
</tr>
<tr>
<td>• Ps’ understanding the structure of the lesson</td>
</tr>
<tr>
<td>• Easy – difficult tasks</td>
</tr>
<tr>
<td>• Task – well structured, sufficiently redundant, well sequenced</td>
</tr>
<tr>
<td>• Clarity</td>
</tr>
<tr>
<td><strong>Questioning Techniques</strong></td>
</tr>
<tr>
<td>Strategies</td>
</tr>
<tr>
<td>• Variety of Question types</td>
</tr>
<tr>
<td>• Product vs process questions</td>
</tr>
<tr>
<td>• Length of pause</td>
</tr>
<tr>
<td>• Specific to the task/objectives of the lesson</td>
</tr>
<tr>
<td>• Qs raised at diff. parts of the lesson. (Intro – linking new lesson to previous lesson, core – discover problem during the lesson &amp; give further explanation,</td>
</tr>
<tr>
<td>• Direct specific questions &amp; take answers from specific Ps</td>
</tr>
<tr>
<td>• Feedback varies – to learning needs of the Ps</td>
</tr>
<tr>
<td>• Clarity – extent of Ps understanding what they are expected</td>
</tr>
<tr>
<td>• Appropriateness of difficulty level – too difficult?</td>
</tr>
<tr>
<td>• How to deal with the responses? (sustaining interaction by rephrasing/giving clues &amp; not terminate by giving the</td>
</tr>
</tbody>
</table>
### Appendix A: Operational Definitions for Measurement of Classroom Effectiveness Factors Using the Five Dimensions

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Teaching Modelling Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Opportunity for learners to use strategies</td>
<td>• No. of strategies</td>
<td>• Focus/purpose(s) of strategies used</td>
<td>• Where the sequence of modelling is offered in the lesson</td>
</tr>
<tr>
<td></td>
<td>• Scaffolding techniques</td>
<td>• Length/amount of time devoted to them</td>
<td>• Opportunity for Ps to use the strategies</td>
<td>• Teach diff. strategies to Ps to solve problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Teach diff. strategies to Ps to solve problems</td>
<td>• Adapting models to specific needs of diff. Ps</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Clarity – presenting of strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Invite Ps to explain how to solve problems then use info to promote the idea of modelling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interaction</td>
</tr>
<tr>
<td></td>
<td>• T-L interaction</td>
</tr>
<tr>
<td></td>
<td>• L-L interaction</td>
</tr>
<tr>
<td></td>
<td>• Grouping</td>
</tr>
<tr>
<td></td>
<td>• Wait time for response</td>
</tr>
<tr>
<td></td>
<td>Practice/Application</td>
</tr>
<tr>
<td></td>
<td>• Hand-on materials to practice</td>
</tr>
<tr>
<td></td>
<td>• Activities to apply language learned</td>
</tr>
<tr>
<td></td>
<td>• Activities to integrate all skills</td>
</tr>
<tr>
<td></td>
<td>• Time devoted to application tasks</td>
</tr>
<tr>
<td></td>
<td>• Focus(es) of the task(s) in relation to the lesson (part/whole lesson)</td>
</tr>
<tr>
<td></td>
<td>• No. of purposes to be achieved</td>
</tr>
<tr>
<td></td>
<td>• Which phrase application is carried out</td>
</tr>
<tr>
<td></td>
<td>• More opportunity for low performing Ps who need them</td>
</tr>
<tr>
<td></td>
<td>• T’s behaviour in monitoring, supervising and giving corrective feedback</td>
</tr>
<tr>
<td></td>
<td>• Providing encouragement and praises</td>
</tr>
</tbody>
</table>

(Nature of the task) |
• Repeat what taught? |
• More complex? |
• Or Starting point for the teaching and learning of the next lesson? |
<table>
<thead>
<tr>
<th></th>
<th>Classroom Assessment Review/Assessment</th>
<th>No. of assessment tasks</th>
<th>T’s ability to use a range of diff. ways to measure Ps’ skills (Rao et al., 2002)</th>
<th>The period the evaluation takes place</th>
<th>Instrument – valid, reliable, practical, covers the teaching content</th>
<th>Diff. techniques to measure</th>
<th>Diff. ways to provide feedback to diff. groups of Ps</th>
<th>Ps’ perceptions of testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Review key content (vocabulary)</td>
<td>• The time Ps take them</td>
<td>• Making more than one use of the info collected (identifying needs of Ps, conducting self-evaluation, adapting long term planning, as starting point for teaching) (Black &amp; Wiliam, 1998).</td>
<td>• Time lapse bet. collecting info, recording the results, reporting to Ps &amp; parents and using them for planning</td>
<td>• Feedback given by T and the way Ps use the feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Synthesised and adapted from *The Dynamics of Educational Effectiveness: A contribution to policy, practice and theory in contemporary schools* by B. P. M. Creemers, & L. Kyriakides, 2008, pp. 104-112 and 116-
ABSTRACT

Writing is a very essential language skill to be learnt by students in their academic life. When sitting for an examination or attempting any class test, they need to pay very close attention to the accuracy, appropriation and standards of language. To maintain such language standards has become challenging in modern era due to the increasing use of technology by students in their daily life. Formal writing has been reduced by abbreviation or short forms of words. This has been common in Short Message Service (SMS) texting. The students’ formal writing is being affected by SMS. The present study addresses the issue of SMS texting influencing students’ writing skills negatively at a University level in Pakistan. The present study investigated five SMS features including vowel deletion, alphanumeric homophony, graphones, short forms and emoticons and smileys in paragraphs and answer scripts of their semester examination written by 100 undergraduate students in a public university in Pakistan. The study found that the students’ formal writing is negatively affected with these SMS features. The students use these SMS features in their writing without considering the formal and informal contexts. The study recommends that the students need to avoid such technological lingo—referring to a language specific to mobiles and computers, in their academic context i.e. classroom activities and examinations. The students need to get familiar with standard variety of English and distinguish between technological and formal use of English language.

Key words: Academic Writing, SMS texting, Standard Language, Technologies, Informal context

INTRODUCTION

Writing is considered a very significant mode of communication. It helps people to exchange information and share research done in any discipline in any part of the world. Over the years, there have been variations in linguistic system which can be observed through diachronic study of any language. This phenomenon is discussed by linguists under headings like ‘language evolution’ and ‘language change’. Such change in language is also evident in modern times due to globalization which has brought a large number of technologies in the global market. Bronowicki (2014) notes that with the advancements in technology including computers, I-pads, mobile phones, the text messaging has increasingly become very important for individuals. Text messaging is not only part of their social but also academic life. This exposure to text messaging is influencing students’ academic writing in classroom negatively (Thurlow, 2006). The technology has shaped students’ attitude that they do not have to put more efforts into their writing. Thus, they use very shortened form of language in formal setting what they use in their SMS text, Chat or E-mails. As a consequence of such exposure to emerging trends in English language due to technological
developments, the students feel difficult to distinguish between the formal and informal writing (Rosen et al, 2010).

A number of scholars across the world have investigated the effects of technology on writing skills of English language. Crystal (2008) working on the relation between language and internet notes that a new variety of English is coming into play what he calls ‘textese’. Textese—the new dialect is the result of influence of continuous chats in chat-rooms online and SMS messaging through mobile phones. The linguists have coined several new terms referring to the study of technological language. Crystal (2001) calls this emerging variety as ‘Net Speak’, ‘Weblish’, ‘Netish’ ‘Internet language’ or ‘e-discourses’ (p.17). Such influence of the technology on English language is observable in different parts of the world. As elsewhere in the world, English language in Pakistan is also posed with a threat of technological lingo which refers to a particular set of words which are specifically used on internet, mobile and smart phones for communication. The students at university level highly depended on mobile phones, laptops and other forms of technology in both academic and social life. They used smart phones in classrooms for taking notes of the lectures and sharing the necessary information with their course mates. To do so, they use abbreviated language in order to save the time and energy. Consequently, this attempt of the students has resulted in harmful effects on their formal writing which is reflected in their assignments and examinations scripts. The present study, however, is an attempt to explore the ways SMS texting affects the writing skills of undergraduate students at Mehran University of Engineering & Technology Jamshoro Sindh Pakistan.

Statement of the problem

The increasing rate of SMS sending through modern technology including computers, internet and smart phones is negatively influencing writing skills of undergraduate students in Sindh Pakistan which is a threat to the standard variety of English language. Therefore, the strategies need to be formulated and implemented in the classroom so as to maintain the standards in formal writing.

Aims

The study aims to investigate the influence of SMS Texting on Writing Skills of Undergraduate Students at the Mehran University of Engineering & Technology Jamshoro Sindh. The following are the two broader aims of the present study:

- To investigate the morphological and syntactic distortion in writing skills of Undergraduate Students due to the influence of SMS texting.
- To investigate whether linguistic distortion affects the clarity of message.

Research Questions

Based on the above research aims, the following research questions were formulated to investigate the effects of SMS texting on the writing skills of undergraduates:

RQ1: What kind of morphological and syntactical distortion takes place in writing skills of Undergraduate Students due to influence of SMS Texting?

RQ2: How does linguistic distortion affects the clarity of message?

Significance of the Study

English language like any other language in the world is very complex in nature consisting of a body of rules. It has its own spellings, pronunciation, meanings and use. It is necessary to maintain the standards of any language in formal settings. In an academic setting in Pakistan where English is used as a medium of instruction, the students need to differentiate between formal and informal patterns of writing. The ‘Weblish’ or ‘Netish’ is fine in informal settings like SMS texting, chats or E-mails. However, when this is allowed in formal academic setting, it violates the very basics of English language. It violates the orthography of the words and the way they are pronounced. Furthermore, it affects the grammaticality of English language which creates problems for intelligibility of any message being conveyed. Thus, the present study is significant for the reason that it attempts to purge ‘Textese’ from the ‘Standard Written English’ in educational context. Besides, Mehran University of Engineering & Technology which is the context of the present study accepts a significant number of admissions every year belonging to varied sociocultural and educational backgrounds. Most of the candidates in the university come with varied language proficiencies. Many students come from government sector colleges where English is paid a little heed in terms of developing academic writing skills. In this scenario
where students’ academic writing skills are already crippled, use of technology including internet and mobiles phones also contribute their share in worsening their academic writing skills. Thus, a need is felt to conduct a research on this issue which in turn can help teachers and students to focus on formal variety of language while ignoring 'textese'.

LITERATURE REVIEW

There are two opposing views on whether SMS texting influences students’ writing skills or not. One school of thought is led by Crystal (2008) who is of the viewpoint that SMS texting does not negatively affect English language. In his newspaper article (July 05, 2008), Crystal argues that from the studies conducted in different countries, it can be said that there is no much threat of SMS texting on ‘standard English’ For example, an American Study revealed less than 20% participants who used abbreviated language in their formal writing; a Norwegian study showed lower population with just 6% using abbreviations; in his own study in UK, the figure is about 10%. Crystal (2008) argues that using abbreviations is not a new phenomenon and students do not habitually use these abbreviated forms in their homework and examination. Another school of thought is in conflict with Crystal’s (2008) position. Russell (2010) considers SMS language as an independent and a new language. He argues that students need to learn the basics of English language in pedagogic situations so that they could distinguish between slang texting, lingo and correct English.

Sutherland (2002) notes that the new emerging abbreviations due to technology are influencing English language negatively. He further comments that the new arrivals are yet to be recognized by dictionaries. Humphreys (September 24, 2007) highlights the threats technological lingo would have on standard variety of English language. He suggests that SMS service is destroying English language. Most common words are being replaced with abbreviations, for instance, ‘thx’ for thanks; ‘u’ for you; ‘4’ for ‘for’.

Dansieh (2011) notes that more and more people worldwide are acquiring and using mobile phones so they cannot escape text messaging which is integral part of their social life. In this situation, a substantial number of people especially students are at risk. Omar and Miah (2012) conducted a study in the USA on effects of technology on teens’ writing skills. They found that technology has had a negative impact on writing skills of teens in USA and the ‘net speak—the technological language’ they use, do not follow the grammatical and syntactic rules of written English. Rather, they are immersing inappropriately into formal school work. (p.9)

In a similar vein, Oluga & Babolola (2013) found the negative effects of SMS texting on Nigerian Students’ writing skills. The students in Nigeria mistakenly used shortened language of the SMS texting in their classroom writing tasks. For instance, words like ‘this’, ‘what’, ‘because’, and ‘people’ were found to be mistakenly written as ‘dis’, ‘wot or wt’, ‘bcs’ and ‘ppe’ respectively. Another study conducted in the African context by Veronica (2014) revealed the similar results. Veronica (ibid) holds the view that SMS language is a serious threat to standard written English especially the spellings—the orthography of words is highly under the influence of technology. British Broadcasting Company (March 04, 2003) reports that the text messaging has long been blamed for deteriorating the standards of English language. The technology, according to the report, has changed the spelling and grammar of English language, especially in paper and pencil writing.

Limited research has been conducted in the present context of the study to examine the impact of SMS texting on writing skills of students. Rafi (2010) maintains that SMS language in Pakistani context ignores orthographic and syntactic regulations of language and students’ written communication reflect these mistakes due to their excessive use of SMS texting in their everyday life. Yousif & Ahmed (2013) conducted a study in Gujrat to investigate how SMS texting influences writing skills of university students. The researchers used a survey technique and administered a questionnaire among 100 participants. The study found that most of the students receive 100 to 200 SMS texts daily and their habit of reading and sending SMS texting has influenced their formal writing. The students make spelling mistakes in their formal writing in university. The present study adopts a different from the studies done previously in a sense that it observes writing samples of students (n=100) in classroom setting and also examines their final assessment copies. The study contributes in the existing body of knowledge by investigating the influence of SMS texting on writing skills of undergraduate students at Mehran University of Engineering and technology, Jamshoro Pakistan.

METHODOLOGY

The present study used qualitative approach for the collection and analysis of data. The qualitative approach helps the researchers to understand the phenomenon in more depth. Dey (1993) holds the
view that qualitative research can be any method other than survey i.e. participant and (non-participant) observation, interviews, the collection of documentary materials and alike.

**Data Collection & Analysis**

The data of the study came from 100 undergraduate students who aged between 18 to 25 years belonging to two engineering departments i.e. Software (first year) & Telecommunication (third year) departments of Mehran University of Engineering and technology, Jamshoro.

The students were asked to write a paragraph on a topic selected by the present researchers. Besides, the final examination scripts of the same students were also used for the corpus of the present study.

The paragraph samples and examination scripts of 100 were analyzed using content analysis to investigate the SMS features i.e. vowel deletion, alphanumeric homophony, graphones and short forms. The use of emoticons and smileys were also taken into account during analysis of the scripts of population under study. Content analysis helps the researchers to codify qualitative data into themes and categories (Creswell, 2008). Qualitative researchers rely on content analysis for analyzing comprehensive data encoded in the text.

The proficiency level of students varied though all the participants studied English for almost 10-12 years. The division in line with private and government sector was the reason for varied proficiency in use of English language in class and outside.

**Explanation of the key categories under investigation**

The following categories were formulated for analysis of effects of SMS texting on academic writing skills of the students at Mehran University of Engineering & Technology, Jamshoro Sindh.

a. **Vowel Deletion**

   Veronica et al (2014) defines vowel deletion as a process referring to the exclusion of vowel letters from a given word which is used in SMS texting for the purpose of brevity. For instance, ‘pls’, ‘kds’ are used for ‘please’ and ‘kids’ respectively.

b. **Alphanumeric Homophony**

   Alphanumeric homophony is blending of letters and numbers used to give meaning of any word, phrase or sentence. Most texters commonly observed use ‘4 U’ for ‘for you’, ‘2day’ for ‘today’, ‘n8’ for ‘night’ in their SMS texts every day.

c. **Graphones**

   The word ‘graphone’ is made up of two parts: graphic and phones. The former refers to orthographic or written representation of the words while the latter means the speech sound. Brass & Mous (2013) defines graphones as SMS feature in which words are written the same way they are pronounced. For example, ‘Y’ for ‘why’, ‘U’ for ‘you’, ‘R’ for ‘are’ are commonly seen instances in SMS texting.

d. **Short forms**

   Short forms are the abbreviated spellings used in SMS texts. These are sometimes reflected in formal writing of the students. For example, ‘GM’ for ‘Good Morning’. ‘GN’ for ‘Good Night’ are used in SMS texts.

e. **Emoticons & Smileys**

   Emoticons and Smileys are icons and different faces used to express feeling of happiness, sadness, surprise, annoyance and wonder. This is every day practice of the SMS texters to convey their feelings through emoticons and smileys.

**FINDINGS & DISCUSSION**

The study analyzed 100 paragraph samples and 100 answer scripts of undergraduate students at Mehran University of Engineering & Technology, Jamshoro for highlighting the SMS features including vowel deletion, alphanumeric homophony, graphones, short forms, emoticons and smileys. The study aimed at investigating these features which in turn affect students’ formal academic writing skills of students at university level. The study indicate that students’ formal writing is highly affected with SMS features.

Vowel deletion used for the brevity purpose was most dominant SMS feature found in the samples collected for the present study. The texters mostly omit vowels and use the rest of letters to represent a word. The formal writing of the students is thus affected with such habit. The present study found many instances of the same nature in students’ answer sheets & paragraphs. These examples include ‘pls’ for ‘please’, ‘thr’ for ‘there’, ‘gd’ for ‘good’, ‘bcs’ for ‘because’, ‘wt’ for ‘what’, ‘frm’ for ‘from’ among others. These words were found with omission of vowels in students’ sentences. For example, they
wrote ‘Thr are many benefits of mobile phone’. ‘We can gain many things in life bcz of knowledge.’ Likewise, many other instances present throughout paragraph samples and answer sheets were found by the present researchers.

Another most dominant SMS feature found in the samples was alphanumeric homophony which relates to the blending of number and word to represent the word. A few instances found by the present researcher include ‘2day’ for ‘today’, ‘w8ng’ for ‘waiting’, ‘b4’ for ‘before’, ‘n8’ for ‘night’ etc. The students wrote a few sentences in their paragraphs containing alphanumeric feature of SMS texting. Students as they are more habitual in their daily life to use this feature in their SMS texting, wrote sentences like ‘In 2day’s world, a man is technologically more advanced than the past’, and ‘During n8, the people use cell phones excessively’. Use of such blending in students’ write-ups is purely the result of their regular use of alphanumeric homophony in their SMS texts.

Graphones which refers to the use of a letter or number to represent a word was third most dominant feature found in the present study. The common and frequent instances of graphones in the samples used in the present study include ‘U’ for ‘You’, ‘Ur’ for ‘Your’, and ‘C’ for ‘See’. For example, a student in his answer copy of the semester exams wrote ‘It is important to c the audience in writing any draft’. This SMS feature was more present in students’ answer sheets attempted in their exams.

The SMS features which was found in very less quantity from the corpus of the samples were short forms, emoticons and smileys. The students wrote some short forms in their answer scripts and paragraphs. These short forms were less general in nature. They used jargon-like initializations in their samples. For instance, they used ‘MUET’ for ‘Mehran University of Engineering & Technology’ and ‘pkg’ for ‘package’. Besides short forms, some students also used emoticons and smileys in their writings to express their feelings and emotions. A female student used 😊 at the completion of the answer in her copy. However, this feature was not much apparent in the samples.

**CONCLUSION AND RECOMMENDATION**

The present study aimed to investigate the morphological and syntactical distortions in students’ formal writing caused by SMS texting. Besides, the study also attempted to seek the answer whether this distortion in formal writing affects the clarity of message or not. The five SMS features including vowel deletion, alphanumeric homophony, graphones, short forms and emoticons and smileys were investigated in students’ written paragraphs and exam answer scripts to reach the objectives of the study. The study found that students’ formal writing is affected with above mentioned SMS features. The corpus from the sample showed presence of vowel deletion (most dominant feature in the sample of the present study), alphanumeric homophony (second most dominant SMS feature), graphones (third most dominant feature) and short forms and emoticons which were less evident in the study. The findings show that the regular use of SMS texting by the students in their daily life affects their formal writing. The students consciously or unconsciously bring in the ‘textese’ in their write-ups which leads to distortion of language (morphology and syntax) of English language. Thus, it affects the standards of English language. However, the present study found that the clarity of message is not affected in spite of morphological and syntactical distortion in their write ups. The intended meaning of the students in their writing is clearly understood.

Based on the findings, the present study recommends that the students need to be very careful about use of formal and standard language in their writings in an academic setting. They need to avoid SMS language in formal context including classroom activities and examinations. This violates the standards of English language. The study suggests that the teachers should play their role by getting students familiar with their use of SMS features in their writings and guide them to avoid such input at their best.

**REFERENCES**


Rosen, D. L (2010) et al. The Relation between ‘Textisms’ and formal and informal writing among Young Adults. Sage Publication


ABSTRAK

Guru Pendidikan Khas yang mengajar murid berkeperluan khas bagi kategori masalah pembelajaran (GPKMP) mengalami pelbagai isu yang menjejaskan kesejahteraan psikologi seperti tekanan, compassion fatigue dan burnout dalam pekerjaan. Penekanan yang kurang diberikan kepada aspek kesejahteraan psikologi telah menyebabkan kesan negatif kepada GPKMP. Justeru, kajian ini bertujuan mengenalpasti kesejahteraan spiritual sebagai faktor peramal kepada kesejahteraan psikologi dalam konteks GPKMP dalam Program Pendidikan Khas Integrasi (PPKI) di Zon Utara Malaysia. Kajian dijalankan terhadap 322 GPKMP di Pulau Pinang, Kedah dan Perlis. Teknik pensampelan pelbagai peringkat digunakan dan dijalankan melalui teknik pensampelan rawak strata mengikut kadar dan teknik pensampelan rawak mudah berkelompok. Kajian ini menggunakan pendekatan kuantitatif menerusi kaedah tinjauan berdasarkan reka bentuk keratan rentas dengan menggunakan instrumen Kesejahteraan Spiritual dan Kesejahteraan Psikologi sebagai alat ukur. Kaedah analisis yang sistemik digunakan dalam menentukan kesahan dan kebolehpercayaan soal selidik. Penganalisisan data kajian menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM) berbantukan perisian Smart PLS 3.0. Hasil kajian mendapati kesejahteraan spiritual mempunyai hubungan yang signifikan dan merupakan faktor peramal kepada kesejahteraan psikologi.

Kata Kunci: Kesejahteraan spiritual, kesejahteraan psikologi, guru pendidikan khas masaalah pembelajaran.

PENGENALAN

Penyataan Masalah


Seterusnya situasi di barat memperlihatkan sedikit selisihan, Ross, Romer dan Homer (2012) mendapat GPK mengalami tekanan disebabkan memikul tahap kebertanggungjawab yang lebih tinggi termasuklah perlu berhadapan dengan pelbagai kategori murid, iklim sekolah yang mencabar, dan tempoh masa jadual mengajar yang lebih pendek berbanding dengan guru biasa. Selain itu, sikap sesetengah pentadbir memandang remeh kepada tugas turut menjadi faktor tekanan kepada GPK.


METODOLOGI

DAPATAN

Penganalisisan data dijalankan dengan menggunakan teknik PLS-SEM kerana objektif utama kajian ini adalah mengkaji faktor peramalan pemboleh ubah bukannya menguji teori. Sebelum hipotesis diuji, penggunaan teknik PLS-SEM memerlukan data kajian diuji pada dua peringkat iaitu pada peringkat model pengukuran dan model struktur. Melalui penilaian model pengukuran, data kajian diuji dari sudut kesahan dan kebolehpercayaan dan bagi model struktur pula, penilaian dijalankan untuk menguji hipotesis kajian.

**Peringkat Penilaian Model Pengukuran**

Model pengukuran dalam kajian ini diuji dengan kaedah confirmatory factor analysis (CFA) dan berbentuk reflektif. Analisis model pengukuran melibatkan penguji untuk kesahan dan kebolehpercayaan pemboleh ubah yang terdiri daripada tiga penilaian iaitu yang internal consistency, convergent validity dan discriminant validity (Hair et al. 2014).

**Internal Consistency**

Kesahan dalaman (internal consistency) sesuatu alat ukur amat penting dan perlu dilihat dengan teliti. Aspek internal consistency dapat dilihat melalui nilai cronbach alpha (Urbach, Smolnik, & Riempp, 2010). Nilai cronbach alpha yang diterima adalah melebihi dari 0.6 (Nunnally & Bernstein, 1994). Selain itu, aspek internal consistency lain yang perlu dilihat adalah melalui nilai kesahan komposit (composite reliability) (Chin, 1998; Hair et al., 2014) dan hendaklah melebihi 0.70 (Chin, 1998; Nunnally & Berstein, 1994). Dalam kajian ini semua nilai tersebut meleapasi tahap yang telah ditetapkan seperti dalam Jadual 1. Oleh itu, dapatan ini menunjukkan nilai cronbach alpha dan composite reliability adalah diterima. Sekali gus disimpulkan bahawa semua pemboleh ubah reflektif ini mempunyai tahap internal consistency reliability yang tinggi dan boleh dipercayai.

<table>
<thead>
<tr>
<th>First-Order Construct</th>
<th>Second-Order Construct</th>
<th>Cronbach Alfa (CA)</th>
<th>Composite Reliability (CR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP1</td>
<td></td>
<td>0.860</td>
<td>0.905</td>
</tr>
<tr>
<td>KP2</td>
<td></td>
<td>0.885</td>
<td>0.916</td>
</tr>
<tr>
<td>KP3</td>
<td></td>
<td>0.815</td>
<td>0.871</td>
</tr>
<tr>
<td>KP4</td>
<td></td>
<td>0.789</td>
<td>0.856</td>
</tr>
<tr>
<td>KP5</td>
<td></td>
<td>0.754</td>
<td>0.859</td>
</tr>
<tr>
<td>KP6</td>
<td></td>
<td>0.809</td>
<td>0.875</td>
</tr>
</tbody>
</table>
Convergent Validity

Kesahan menumpu (convergent validity) merujuk kepada korelasi yang positif antara satu item dengan item yang lain dalam pemboleh ubah yang sama (Hair et al., 2014). Kaedah repeated indicator digunakan untuk melihat nilai convergent. Kaedah ini menguji struktur first order construct yang mengandungi lapis (sub) pemboleh ubah. Item di lapis pertama (first order) akan diulang pada lapisan kedua (second order). First order construct yang mempunyai pengukuran reflektif, dianggap mempunyai fungsi dalam pemboleh ubah latent (Hair et al., 2011). Analisis convergent validity dinilai melalui tiga ujian iaitu outer loading, composite reliability (CR) dan Average Variance Extracted (AVE) (Hair et al. 2014). Sesuatu pemboleh ubah kajian memenuhi syarat convergent validity sekiranya nilai CR sama atau melebihi 0.7. Nilai AVE adalah sama atau melebihi 0.5 dan nilai outer loading sama atau melebihi 0.7 (Fornell & Larcker, 1981). Kesemua item dan pemboleh ubah kajian melepasi tahap yang ditetapkan. Oleh itu, dapanat ini menunjukkan pengukuran kesemua pemboleh ubah reflektif mempunyai tahap convergent validity yang tinggi seperti dalam Jadual 2.

Jadual 2: Dapatan Ujian Convergent Validity

<table>
<thead>
<tr>
<th>First-Order Construct</th>
<th>Second-Order Construct</th>
<th>Item</th>
<th>Outer loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psikologi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS1</td>
<td></td>
<td></td>
<td>0.831</td>
<td>0.887</td>
<td></td>
</tr>
<tr>
<td>KS2</td>
<td></td>
<td></td>
<td>0.770</td>
<td>0.852</td>
<td></td>
</tr>
<tr>
<td>Spiritual</td>
<td></td>
<td></td>
<td>0.758</td>
<td>0.744</td>
<td></td>
</tr>
<tr>
<td>First-Order Construct</td>
<td>Second-Order Construct</td>
<td>Item</td>
<td>Outer loading</td>
<td>CR</td>
<td>AVE</td>
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<tr>
<td></td>
<td></td>
<td>KP_PG_4</td>
<td>0.784</td>
<td></td>
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<td></td>
<td></td>
<td>KP_PG_5</td>
<td>0.720</td>
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</tr>
<tr>
<td>KP4</td>
<td></td>
<td>KP_PR_1</td>
<td>0.745</td>
<td>0.859</td>
<td>0.671</td>
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<tr>
<td></td>
<td></td>
<td>KP_PR_2</td>
<td>0.730</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>KP_PR_3</td>
<td>0.773</td>
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<td></td>
<td></td>
<td>KP_PR_4</td>
<td>0.718</td>
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<tr>
<td></td>
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Discriminant Validity

Jadual 3 : Dapatan Ujian Cross Loading

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Nota: KP-Kesejahteraan Psikologi; KS-Kesejahteraan Spiritual
### Jadual 4: Dapatan Ujian Kriteria Fornell-Larcker

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<th>KP6</th>
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Peringkat Penilaian Model Struktur
Setelah pemboleh ubah yang diukur sah dan boleh dipercayai, maka langkah seterusnya adalah menilai model struktur. Penilaian model struktur melibatkan memeriksa keupayaan ramalan model struktur dan hubungan antara pemboleh ubah-­pemboleh ubah (Hair et al. 2014) dan perlu dinilai sekali gus dengan pengujian hipotesis kajian. Model struktur mengandungi anak panah (directed point) yang memberi erti hubungan antara satu pemboleh ubah dengan pemboleh ubah yang lain (hypothesized relationship) dengan mengandungi nilai beta (β) untuk pengujian hipotesis dan nilai R². Maka analisis penilaian model struktur kajian ini dilakukan untuk mendapatkan hubungan antara pemboleh ubah-pemboleh ubah, mengukur ketepatan model ramalan, dan melihat kerelevanan item-item terhadap model.

Ujian yang dilakukan terdiri daripada enam ujian iaitu penilaian collinearity antara pemboleh ubah, pengujian hipotesis, ujian ketepatan peramalan (Predictive Accuracy, \( R^2 \)), ujian saiz kesan kekakutan peramalan (predictive relevance/Q\(^2\)) dan ujian saiz kesan kerelevanan peramalan (effect size/q2) (Hair et al. 2014). Nilai collinearity bertujuan memastikan tidak wujud dua item yang mempunyai nilai korelasi yang tinggi. Sementara itu, pengujian hipotesis pula dilakukan untuk melihat hubungan yang signifikan antara pemboleh ubah-pemboleh ubah. Kemudianannya nilai pekali penentuan R\(^2\) digunakan untuk menjelaskan ketepatan peramalan sesebuah model dan melihat pemboleh ubah mana yang paling menyumbang kepada pemboleh ubah endogenous atau pun model. Seterusnya menilai predictive relevance Q\(^2\) adalah untuk menilai sama ada item untuk model adalah relevan dengan model atau pemboleh ubah endogenous (Hair et al. 2014). Akhir sekali menilai saiz kesan \( R^2 \) bertujuan menghitung saiz kesan ketepatan dan q\(^2\) untuk menghitung saiz kesan kerelevanan peramalan.
**Penilaian Collinearity**

Penilaian pertindanan (collinearity) ini dilakukan sebagai syarat sebelum melakukan pengujian dan analisis model struktur. Collinearity terjadi apabila wujud dua item yang mempunyai nilai korelasi yang tinggi. Jika wujud lebih dari dua item yang mempunyai nilai korelasi yang tinggi pula dipanggil multi collinearity. Sekiranya collinearity ini wujud maka ia menunjukkan wujud item yang bertindih yang bertindak sebagai item persendirian untuk mengukur dua atau lebih pemboleh ubah (Hair et al., 2014). Menerusi ujian Variance Inflation Factor (VIF), dapatan menunjukkan bahawa nilai VIF dalam hubungan antara kesejahteraan spiritual dengan kesejahteraan psikologi adalah 1.054. Oleh itu, nilai VIF ini membuktikan bahawa pemboleh ubah-pemboleh ubah dalam kajian ini tidak mempunyai masalah multi collinearity disebabkan nilai VIF adalah kurang daripada 5.00 (Hair et al., 2014).

**Pengujian Hipotesis**

Analisis pekali laluan model struktur dilakukan untuk memeriksa hubungan hipotesis antara pemboleh ubah-pemboleh ubah. Kaedah bootstrapping digunakan bagi mendapatkan nilai signifikan hubungan antara pemboleh ubah kajian (Hair et al. 2014). Maka dapatan pengujian hipotesis seperti dalam Jadual 6 menunjukkan bahwa kesejahteraan spiritual signifikan pada aras t (4.829) bersama dengan nilai p < 0.001 dalam hubungan dengan kesejahteraan psikologi. Dapatani ini menjelaskan bahawa kesejahteraan spiritual merupakan faktor peramal yang signifikan secara positif kepada kesejahteraan psikologi.

**Jadual 6 : Dapatani Pengujian Hipotesis**

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<th>Hipotesis</th>
<th>Peramalan</th>
<th>β</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
<th>Keputusan</th>
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</thead>
<tbody>
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<td>Ha</td>
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<td>0.189</td>
<td>0.038</td>
<td>***4.829</td>
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</tbody>
</table>

Nota: p < **0.01; p < ***0.001

**Ujian Ketepatan Peramalan (R²)**

Nilai R² adalah petunjuk kepada varian perubahan dalam pemboleh ubah bersandar dan ketepatan peramalan (Predictive Accuracy, R²). Penilaian ini membawa kecenderungan penilaian terhadap pemboleh ubah kajian. Dalam kajian ini, ia bermaksud setakat mana kesejahteraan psikologi diramal dengan tepat berdasarkan pemboleh ubah bebas yang menjadi peramal iaitu kesejahteraan spiritual. Nilai R² bermula dari 0 hingga 1 dan diinterpretasikan sebagai semakin menghampiri nilainya kepada 1, maka semakin tinggi kekuatan peramalannya. Sebaliknya jika nilai R² adalah rendah maka semakin lemah kekuatan peramalannya. Nilai R² yang dicadangkan oleh Hair et al. (2014) adalah 0.75 (besar), 0.50 (sederhana), dan 0.25 (lemah). Hasil analisis ini menunjukkan R² = 0.564 dan berada pada tahap sederhana.

**Ujian Kerelevanan Peramalan (Q²)**

Kerelevanan peramalan (predictive relevance, Q²) digunakan untuk menunjukkan setakat mana kesejahteraan psikologi relevan diterangkan menggunakan faktor peramal. Nilai Q² boleh didapati dengan menggunakan prosedur blindfolding. Prosedur blindfolding juga hanya terpakai untuk model yang mempunyai item reflektif sahaja. Nilai Q² adalah sebagai petunjuk kepada kerelevanan peramalan sesuatu model. Nilai kerelevanan peramalan adalah apabila nilai Q² melebihi 0. Secara lebih spesifik, apabila model kajian yang menggunakan PLS mampu menghasilkan nilai kerelevanan peramalan, maka ia membuktikan bahawa kajian tersebut mampu meramalkan secara tepat data kajian yang diwakili oleh item-item kajian yang bersifat reflektif (Hair et al., 2014). Berdasarkan analisis yang
dijalankan, didapati nilai $Q^2$ untuk pemboleh ubah bersandar kesejahteraan psikologi adalah ($Q^2 = 0.159$). Oleh itu, dapatan kajian menunjukkan ramalan laluan model adalah relevan untuk model ini.

**Saiz Kesan Ketepatan ($f^2$) dan Kerelevanan Peramalan ($q^2$)**

Saiz kesan peramal dapat menunjukkan ketepatan dan kerelevanan penggunaan sesuatu peramal. Saiz kesan ketepatan peramalan ditunjukkan oleh nilai $f^2$ dan saiz kesan kerelevanan peramalan diperoleh melalui nilai $q^2$. Nilai $f^2$ dan $q^2$ diklasifikasikan kepada tiga nilai iaitu 0.02 (kekcil), 0.15 (sederhana) dan 0.35 (besar) (Chin, 1998). Analisis $f^2$ dilakukan untuk menilai impak untuk pemboleh ubah ramalan terhadap pemboleh ubah endogenus tersebut. Dapatan ini menunjukkan kesejahteraan spiritual ($f^2 = 0.08$) memberi kesan saiz yang kecil kepada kesejahteraan psikologi. Seterusnya analisis $q^2$ bertujuan menghitung saiz kesan kerelevanan peramalan. Penilaian kerelevanan peramalan menunjukkan bahawa kesejahteraan spiritual ($q^2 = 0.05$) memberikan saiz kesan yang kecil. Dapatan ini menunjukkan bahawa kesejahteraan spiritual mempunyai saiz kesan kerelevanan yang kecil terhadap kesejahteraan psikologi. Akhirnya hasil pengujian model pengukuran dan struktur, dapatan kajian ini memenuhi kriteria kebolehpercayaan dan kesahan serta berjaya menjelaskan bahawa kesejahteraan spiritual ($\beta=0.189, t=4.829, p=0.000$) adalah faktor peramal yang signifikant secara positif dan memberi impak kepada kesejahteraan psikologi malaix relevan dengan model.

**PERBINCANGAN**


MBKMP dan berupaya menjadikan GPKMP seorang guru yang lebih tenang, ikhlas dan komited dalam menjalankan tugas dalam bidang pendidikan khas.

KESIMPULAN

Amalan-amalan yang berkaitan dengan spiritual perlu dilitiberatkan secara praktikal dan berterusan agar GPKMP sentiasa sejahtera dari segi psikologi dan spiritual. Penglibatan dengan amalan-amalan kerohanian (spirituality) seperti mengajar, menghadiri dan mengikuti program, kursus, bengkel, atau aktiviti berbentuk kerohanian (spirituality) adalah sangat membantu untuk meningkatkan kesejahteraan spiritual. Sebagai contoh Islam menuntut umatnya agar melaksanakan ibadah-ibadah tertentu dalam kehidupan seharihar seperti mengerjakan solat, berpuasa, bersedekah, berdoa, membaca Al-Quran, mentelaah bahan-bahan kerohanian (spirituality) seperti menganjur, menghadiri dan mengikuti program, kursus, bengkel, atau aktiviti berbentuk kerohanian (spirituality) adalah sangat membantu untuk meningkatkan kesejahteraan spiritual.

RUJUKAN


INCLUSION OF LEADERSHIP SKILLS THROUGH ENGAGEMENT IN FORMATIVE ASSESSMENTS: FINDINGS OF IN-DEPTH INTERVIEWS WITH LEARNERS IN ENGLISH LANGUAGE PROFICIENCY AND TECHNICAL COURSES

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ABSTRACT

Inculcation of leadership skills has gained increased attention among Malaysian higher education institutions following its emphasis in workplace skills, benchmarking of MQF domains, and more recently in the implementation of iCGPA and university ranking exercises. In fact, the Chartered Management Institute (CMI) raised concerns to have leadership modules integrated into all degree courses to increase chances of employability and promote advancement of global graduates. However, integration of leadership modules do not come easy with all disciplines, and this has been a constant struggle with curriculum developers and key stakeholders. It is not uncommon to have academicians puzzled when assessing the MQF leadership domain during programme review and revamp exercises. A strategic alternative to this challenge is to endorse inculcation of leadership skills through engagement in formative assessments based on principles underpinning Constructive Alignment. This study attempts to investigate the efficacy of this measure by exploring how learners in English language proficiency and technical courses acquire and inculcate leadership skills through engagement in formative assessments. Findings of in-depth interviews with 15 students indicate emerging patterns of how formative assessments do inculcate leadership skills, despite the conscious effort by the instructor. Sensitivity to these findings suggests profound implications to how formative assessments can be pedagogically designed to further heighten and objectively measure learners’ level of leadership skills.

Keywords: Leadership, Formative Assessments, Constructive Alignment, English language, Qualitative, In-depth interviews

INTRODUCTION

Leadership skills are widely discussed and emphasized in every field in the 21st century. It is the essential skill for everyone who intend to be professional in their specific field. The Chartered Management Institute (CMI), in their recent research on 21st Century Leaders, found out that seven out of ten employers wants management, enterprise and leadership modules to be integrated into all degree subjects in order to boost employability. The need for such skills are essential in order to apply and secure for a job an individual intended to work. Therefore, there is a need for the universities to equip their graduates well with these skills. However, not many researches done on language and leadership and even more not on the context of formative assessment. Thus, this study intend to explore how leadership skills can be inculcated through engagement of formative assessment, particularly in English language proficiency and technical classrooms offered by the Department of English Language and Communications, Faculty of Social Sciences and Liberal Arts.
Formative assessments

Formative assessment is part of the umbrella term of classroom assessment. Assessment are labelled through various distinctions such as classroom assessment, examination and large-scale assessments (Clarke, 2011). Classroom assessments is explained by Jabbarifar (2009) as the tool to evaluate students’ understanding of what they have learnt, rather than noticing what they have not learnt. Through assessments, educators are able to collect information to be used as feedback to modify the teaching and learning activities that student and teacher is involved in (Black & Wiliam, 2005). Formative assessment is also known as ‘assessment for learning’, and mostly used by teachers to determine strategies for individual and whole classes learning (Earl, 2012). These strategies could implement learning of skills and values. This paper aims to highlight only the aspect of formative assessment in the inculcation of leadership practices among English proficiency and technical learners.

Leadership practices

Leadership skills are known as one of the most valuable employability skill where groups of individuals work together to achieve a common goal (Northouse, 2018). In fact, educational institutions have been summoned to critically address the need and inculcation of leadership skills (Karaginni & Montgomery, 2018). This is a similar scenario in tertiary institutions where leadership skills are not explicitly taught but through engagement in formative assessments in the courses - which could potentially inculcate rehearsal of leadership skills among students.

Kouzes and Posner have been researching the field of leadership development through hundreds of interviews and reviewed hundreds of cases studies and survey questionnaires for over 30 years. In recognition of their extensive work, the Student Leadership Practices Inventory (S-LPI) was identified as a framework to guide the direction, analysis and interpretation of research results.

The S-LPI identifies specific behaviours and actions that students report using when they are at their “personal best as leaders.” These behaviours are categorized into five leadership practices (Kouzes & Posner, 2005), and was qualitatively explored by the researchers in the full scale research. For the purpose of this paper, however, only two of these aspects were discussed:

- ‘Model the way’ requires a person to justify their views and established beliefs while being a role model to others
- ‘Inspire a shared vision’ is to create a vision that are align with what most people are appeal with and share aspirations

METHODOLGY

This study is a qualitative driven research. The research design of this study is a qualitative interpretive approach (Creswell, 2012). Based on the Interpretive Phenomenological Analysis (IPA), a total of 15 students enrolled in the English language proficiency and technical courses were subjected to in-depth interviews to share their experiences of developing leadership skills through engagement in formative assessments. Based on the purposive sampling of five students from each year of study, these participants were required to be extensive users of the English language to facilitate contemporary articulations of their experiences - language being a significant component of Interpretive Phenomenological Analysis (van Manen, 2014). Pseudonyms were used to keep the confidentiality of the participants.

The qualitative data were analyzed using the constant comparative method (Ary et al., 2018; Flick 2014). The first step was to describe the phenomenon where cases can be focused and seek for link between the responses and research questions through in-depth analysis. Next, the researchers look for explanation of similarities and differences found in the responses. Finally, relevant themes are developed to succinctly explain the research findings.

FINDINGS AND DISCUSSION

The analysis of the findings from the first stage shows that 12 out of 15 students posses certain perception of formative assessment. Based on their feedback, the formative assessments are then divided into three categories, which are interaction-based, information seeking and corpus-based. It was found that interaction-based activity occurs the most in the formative assessments of these English
language proficiency and technical courses. These are assessments that require students to interact with one another and silence is not encouraged in the implementation of this assessment.

Referring to the first leadership practice is "Model the way", the participants indicated sense of understanding and self-representation as evidence to this leadership practice. For instance, Ning Ying and Shu Ern shared how they acted as catalysts in bringing the team together during group projects:

For example.. a chapter presentation [as the assignment]. so I will usually try to apply my value such as inclusiveness, I would ask everyone for their opinions and so on.

(Ning Ying)

For me, my own personal value is that I don't think one person should dictate over the team, you know, or should say “This is how we’re going to do it” or things like that; it should be a team discussion so I think, if I were to say in terms of values, I would have to say teamwork is very important.

(Shu Ern)

Referring to the second leadership practice "Inspire a vision", the participants indicated that leaders should have a vision for themselves and their team. Further, it is critical for leaders to be able to effectively persuade the members of their team.

Generally, I would suggest [my opinion]. I would throw it out as a suggestion, then do my best to convince them [others] how it is more achievable.. and how it would benefit us more.

(Terry)

He further highlighted the importance of having a vision:

I guess it [vision] is important because in a team, you need to have a unified sense of direction. You cannot have everyone going in separate directions, and the best way to do it is sharing your vision with them.. so, we can all agree on where we want to go, how we want to do it..

(Terry)

Ru Yee, Lakshimi and Shu Ern also provided similar response where teamwork is crucial and such vision has to be planted in the beginning of a group work:

My vision in a team project is to do the work successfully.. but also to make sure that the team stays bonded.. not like they don’t just breakup over a petty thing or a small things.

(Ru Yee)

CONCLUSION

Findings of this study evince that students who are placed in an effectively designed formative assessment environment possess the opportunity to inculcate leadership skills. However, this research is only at the first stage of exploring such relationship between formative assessments and leadership practices; and further research are highly encouraged with specific interest to investigate instructors’ perception of how leadership skills are inculcated through engagement in formative assessments.
REFERENCES


LOCAL HISTORY AND LOCAL WISDOM: CONTEXTUALIZATION OF HISTORY LEARNING ON SENIOR HIGH SCHOOLS IN INDONESIA

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ABSTRACT

The scientific approach to the 2013 Curriculum in Indonesia requires students to actively construct knowledge through the process of observing, asking, trying, reasoning, and communicating knowledge. If it is observed in an essential way, it is an attempt to contextualize the learning process. In history learning, contextualization can be done by presenting living history or local history found in the student’s environment as a historical learning material in the classroom. Nowadays, history learning is seen as a burdensome learning because students are required only to memorize historical facts, while efforts to understand history have not been done by teachers, especially in senior high schools. This happens because teachers are demanded to teach intensive material in a very limited time. In order for history learning to be a meaningful learning for students, one alternative approach that can be used by teachers is to present history learning based on local wisdom. Through understanding the value of local wisdom related to history in the student environment, it will build a meaningful process of knowledge transformation. So, the history learning process can be a process of reconstruct of knowledge and reconstruct of value.

Keywords: history learning, local history, local wisdom, contextualization

INTRODUCTION

Good history learning is basically not limited to mastering factual knowledge of historical facts, but demanding students to be able to understand the development of imaginative and analytical historical events (Garvey & Krug, 2015, pp. 4-5). Historical understanding is a form of time awareness in identifying change and development, as well as a deep understanding of the past that can only be understood if all aspects have been analyzed. Therefore, history learning is closely related to verstehen or understanding approaches introduced by Wilhelm Dilthey (1833-1911) as a process of living, interpreting, understanding, and discovering “meaning that exists” with the complexity of existing values. The end of the verstehen process is capturing the meaning of every human expression, thought, and action in the past (Ankersmit, 1987, pp. 162-164).

Basically, history learning is a tool to change the way of thinking, to improve abilities, not only to remember names and dates, but to understand values, and take attitudes carefully (Wineburg, 2006, p. Xxiv). Wildan (2012, p. 8) explains that history learning must not only emphasize historical factual knowledge. It does not mean that knowledge of historical facts is not important, because there is no real development of historical benefits if historical factual knowledge is weak. Historical factual knowledge is needed and must be the basis for historical development in education. It means that education and teaching history must use students’ knowledge of historical facts to achieve the significance of each history.

In order to have a more meaningful history learning process, the alternative that can be done is by presenting learning materials close to the students’ environment, or in other terms applying living history, namely the history of the surrounding environment (Darmawan, 2007, pp. 241-242 ), or
contextualizing learning material. Contextualization in the study of history according to the Indonesian education curriculum through the 2013 curriculum is defined as an effort to utilize the environment around students as a source of historical learning, such as museums, historical sites, historical buildings, which also include local wisdom. The purpose of contextualization is that to make students remain grounded in their culture, recognize and love the natural and social environment around them, and have a global perspective as well as being the heirs of Indonesia who are tough and persistent (Ministry of Education and Culture, 2016).

Contextualization in history learning can be done by presenting local historical material in the learning process, namely history that tells the dynamics of life from a community of communities with the culture they have in a particular region or the history that surrounds the students’ environment (Winarti, 2016, p. 184). Integrating local history in history learning will make the learning process become more meaningful for students, considering the material learned by students is material that is directly related to the history of their ancestors. Local history integration will also make students feel involved in history learning, and will increase their learning motivation (Sari, 2011, p. 7). Research conducted by Sudiarotuti (2014) in grade eleven of SMA Negeri 1 Jalancagak shows that the application of history learning using local history material has a positive effect on motivation and student learning outcomes. This is indicated by differences in motivation and student learning outcomes that are significant between experimental class and control class. Increasing motivation and learning outcomes in the experimental class is greater than the control class.

Local history has special meaning for a community (Lionar, Mulyana, & Isrok’atun, 2018, p. 356). The urgency of local historical material implemented in the history learning process is caused by local historical discussion that is directly related to the nearest environment and student culture, this will be the basis for the development of students’ personal, cultural and social identity (Hasan, 2012, pp. 123-124) The implementation of local history material also deals with the development of local potential as a source of creative motivation to advance people’s lives. The enactment of the Regional Autonomy Law which is accompanied by power sharing has opened up opportunities for each region to explore and introduce their respective identities to the wider community which in the previous period were not so free due to centralistic flows (Wiriaatmadja, 2007, p. 212 ; Zuhdi, 2017, p. 37).

Local history material is an important part that is inseparable in the current history education curriculum (Supriatna, 2016b, p. 189). The 2013 curriculum through a scientific approach basically provides an opportunity for teachers to integrate local historical material in the process of learning history in schools, through the process of observing, asking, collecting information, processing information, and communicating (Abidin, 2016, p. 8). Hasan (2016, p. 520) clearly describes the steps of implementing a scientific approach in history learning including (1) observing, through reading books or documents, and observing artifacts and fossils; (2) asking, through physical questions to the abstract, and causality; (3) collecting information, through a number of types and types of sources that are single to diverse, which share the same opinion to different, determine source and source criticism, and collect information from selected sources; (4) manage information and reconstruction, through grouping information, determining the relationship of one information with other information, giving meaning/meaning to one event, and building historical stories; (5) communicating, by presenting historical stories in the form of writing, pictures, photos, videos in class, or through newspapers and media outside of school.

The step of the scientific approach can be done by the history teacher through bringing students closer to local history material, namely by presenting learning material that has a direct relationship with the culture, experience, and emotions of students. Through this way, there will be a knowledge construction process according to Supriatna (2007, p. 91) by borrowing the term from Miller and Seller (1985) which states that it does not only require the transmission process, but also requires the transaction process, and the contextual transformation of knowledge and values.

There are many learning resources to develop learning with local historical material. One of which is by utilizing local wisdom that grows and develops around students environment as learning material (Mulyana & Gunawan, 2007, p. 2). Local wisdom is a thought, awareness, action, proven belief, which is practiced by the community for generations and becomes their basis in carrying out their lives (Supriatna, 2016a, p. 61). Local wisdom-based learning is learning that teaches students to be close to the real situations they face every day (Wirdanengsih, 2017, p. 263). Local wisdom as part of local history can be used by the teacher as a learning resource, considering that there are many values that can be developed (Supriatna, 2016b, p. 189), by identifying values in local wisdom will make the
process of learning history meaningful for students. Research conducted by Sari (2011, pp. 1-16) on students of MAN Koto Kecil, West Sumatra using local wisdom in the biography of Siti Manggopoh shows that history learning using local wisdom has a positive impact on student learning motivation, but it requires creativity from the teacher to package learning becomes something that is easily understood by students.

HISTORY LEARNING

Learning is a series of activities carried out by students in order to achieve certain learning outcomes under the guidance, direction, and motivation of teachers (Abidin, 2016, p. 6). Rusman (2016, p. 134) explains that learning is a process of interaction between teachers and students, both direct interactions such as face-to-face activities and indirectly using various learning media. This definition positions students and teachers as interacting subjects to achieve learning outcomes. Another understanding of learning is expressed by Aunurrahman (2014, p. 9) who mentions learning as an empowerment process that encourages students to increase their knowledge and understanding of aspects learned. Meanwhile, Irham and Wiyani (2017, p. 131) mention that learning as an activity guides students towards the process of maturing themselves. Based on some understanding above, it can be concluded that learning is a series of processes that stimulate students to develop their potential to acquire knowledge and skills so that the output obtained is students’ behavior changes.

Learning has two characteristics, namely (1) the learning process that involves students mentally to the maximum, not only requires students to just hear, record, but want the activities of students in the thinking process; and (2) the learning process which builds an atmosphere of dialogue and a continuous question and answer process that is directed to improve and improve students’ thinking skills, which in turn can help students to acquire the knowledge they construct themselves (Sagala, 2014, p. 63).

History learning is part of learning that focuses on the process of internalizing knowledge about the past to students. According to Sardiman (2012, p. 207), history learning is a learning process that encourages and stimulates students to reconstruct and gain historical knowledge, the process of understanding and internalizing values about various aspects of life, and developing the personality and character of students. The Department of National Education (in Supardan, 2013, pp. 287-288) provides an understanding of history learning as a subject that instills knowledge and values regarding the process of change and development of society and the world from the past to the present. Thorp (2016, p. 24) explains that (1) history learning as a basis for developing national identity and recognition of heritage; and (2) history learning as a highly valuable way of investigating the implementation of historical culture in explicitly educational, but implicitly society context.

Joebagio (in Garvey & Krug, 2015, p. Xi) explains that history learning is a process of internalizing the values of past events in the form of origin, genealogy, collective experience and the example of historical actors with output which includes understanding the history of the nation's history, imitating wisdom, and the wise attitude of historical actors. From this definition, it can be interpreted that history learning is not just a process of transferring knowledge that is identical to memorizing historical facts, but is a process of guiding students to think critically and analytically, build students’ understanding of historical facts, to the process of reconstruct of values.

History learning is learning about humanity in all of its aspects, such as social, political, cultural, economic and other aspects of life (Mulyana & Gunawan, 2007, p. 1). Learning history will lead to the presence of awareness of the nature of the development of culture and human civilization. These results of learning became known as historical consciousness (Sayono, 2015, p. 12). Through history learning students are expected to be able to think critically and be able to study any changes in their environment, and have an awareness of the changes and values contained in each historical event (Subakti, 2010, p. 4). Sardiman (2012, p. 205) mentions that history learning actually does not merely answer what to teach question, but how the learning process takes place in order to capture and instill values and transform students.

Another opinion about history learning is expressed by Wineburg (2006, p. 6) who states that history learning has the potential to make humanity human. This opinion is reasonable because historical learning material covers many aspects of life and provides a lot of knowledge about human
moral values. Supardan said (2013, p. 309) the educational function of history is to teach wisdom, whereas according to Abdullah & Surjomiharjo (1985, p. Xxi) learning history will affirm values.

There are several objectives of learning history. Garvey & Krug (2015, p. 2) express five objectives of learning history such as (1) obtaining historical knowledge; (2) getting an understanding of historical events; (3) obtaining the ability to assess and criticize writing about history; (4) learning how to conduct historical research; and (5) learning how to write history. This opinion confirms that history learning facilitates students to develop their thoughts and skills to understand historical narratives. The same thing was stated by Kamarga (2012, p. 70) that the purpose of history learning is to make students gain the ability to think historically and understand history.

A more comprehensive purpose of history learning was expressed by Kochhar (2008, p. 31), that the purpose of history learning is to (1) develop an understanding of oneself; (2) provide an accurate picture of the concept of time, space and society; (3) make people able to evaluate the values and results achieved by their generation; (4) teach tolerance; (5) instill intellectual attitudes; (6) expand intellectual horizons; (7) teach moral principles; (8) instill an orientation into the future; (9) provide mental training; (10) train students to handle controversial issues; (11) help find solutions to various social and individual problems; (12) strengthen the sense of nationalism; (13) develop international understanding; and (14) develop useful skills. From aforementioned objectives, it can be concluded that history learning is a strategic learning in developing students’ personalities, honing students to think critically and analytically, and helping students understand the values and meanings hidden behind historical facts.

LOCAL HISTORY

Local history includes the history that occurred at the village level, several villages, and limited regions below the provincial level. Finberg and Skipp (1973, p. 39) illustrate local history as a history that lies in a consecutive circle surrounded by national and supranational environments. With regard to the understanding of local history, Abdullah (2010, p. 15) simply defines local history as the story of the absences of groups or groups of people who live in a limited geographical area. Furthermore, the notion of local words is not complicated, only place and space. So, local history is only the history of a place, a locality, whose limits are determined by the agreement put forward by the history writer.

Similar understanding was also expressed by Winarti (2016, p. 184) who defines local history as history which tells the dynamics of life of a community with the culture they have in a certain region. Meanwhile, Kamarga (2007, p. 221) explains that local history refers to the understanding of historical events or events within a limited scope of a particular locality.

The scope of local history is the whole surrounding environment which can be in the form of territorial unity such as villages, sub-districts, districts, small towns and others. Unity of the size of the region along with elements of social and cultural institutions that are in that environment, such as: family, settlement patterns, population mobility, mutual cooperation, markets, agricultural technology, local government institutions, arts associations, monuments and others (Widja, 1991, pp. 14-15).

Local history is the smallest historical unit that should be from where the nation’s historical writing begins (Priyadi, 2012, p. Xii). If the historical principle as a unique one is applied, then it can be said that all history is actually local history (Purwanto, 2007, p. 35). This reality is undeniable because each locality becomes the arena of historical events, and the accumulation of all local history then becomes national history when the local history has a connection with the other local histories. Local history elasticity is able to present a variety of phenomena, including the role of local heroes in local and national struggles, the dynamics of interaction between ethnicities, to aspects of local wisdom related to history.

Alfian (1983, p. 29) divides local history into two categories of local, namely (1) special local history, in the form of internal dynamics that occur in each region; and (2) the history of local warning (local level history), it is how an aspect that is national is realized in the area or interaction between the center and the region. Meanwhile, Finberg and Skipp (1973, pp. 25-44) explain that the objectives of local history are the origin, growth, development, and fall of local community groups so that the main problems in their development must be based on local reality.
The urgency of local history to be taught in schools is to make students know the world around them (Douch, 1967, p. 7). Local history learning needs to be introduced to students to make them recognize their local identity and to respect other ethnic and regional identities in Indonesia, taking into account the principles of learning and the stages of student development (Supardan, 2004, p. 262). Local history as a material in the history curriculum becomes very essential, considering that education must start from the immediate environment of students (Julaeha, 2016, pp. 198-199). Douch (1967, pp. 3-6) divides three main approaches of the use of local history in schools, they are (1) the value of local history, which is said to lie in the vivid illustrations which can be provided for general history of national history; (2) the increasing emphasis which educationists have laid on the importance of interpreting the environment to the boys and girls who are growing up in it; and (3) methods of studying, in details and in a more scientific manner, an aspect, or aspects, of local history.

Through local history learning, it is expected to be easier to bring students in an effort to project their past experiences with the current situation, even in the future. In other words, students will more easily grasp the concept of time or development which is the key to connecting the past, present and future (Widja, 1991, p. 117). Hasan (2012, p. 126) said that the position of local historical material namely local events is no longer merely a source but also an object of historical study for students. On this occasion, they learn to develop insight, understanding, and historical skills. They can deal directly with original sources and review original sources in a historical research process. They can train themselves in historical interpretation and even if there are differences between them, it will have a very high educational value. After all, historians have never had a common view and interpretation of a historical event.

Studying local history will get students closer to the real reality, so that between the texts in the form of books learned in school has a clear connection with the context of the student environment. Such things will facilitate students in constructing knowledge. In addition, local history learning will realize a learning situation that allows students to understand history to get the value and meaning of a historical event (Lionar, 2016, p. 252, 2017, p. 298).

LOCAL WISDOM

Local wisdom in foreign languages is often conceptualized as local knowledge or local genius (Fajarini, 2014, pp. 123-124). There are many understandings of local wisdom, as expressed by Khusniati (2014, pp. 68-69) that local wisdom as a wisdom or original knowledge of a society derived from the noble values of cultural traditions to regulate the order of community life. Local wisdom can also be interpreted as a local cultural value that can be used to regulate the order of community life wisely and wisely. Asriati (2013, p. 111) said that local wisdom is a conceptual idea that lives in society, grows and develops continuously in public awareness, from its nature related to a sacred life to the profane (a daily part of life and mediocre). Meanwhile, Fajarini (2014, pp. 123-124) describes local wisdom as a view of life and science, as well as various life strategies that manifest activities carried out by local communities in answering various problems in meeting their needs. According to Leyd (Santosa, 2015, p. 14) that “Local wisdom represents the local knowledge based on local cultural values. Local wisdom can be perceived through people everyday life because of the end of sedimentation from local wisdom is tradition. Local wisdom can be potential energy to develop their environment to become civilized. Local wisdom is the result from common response with environment condition around them”.

Based on some of the aforementioned definitions, it can be concluded that local wisdom is a cultural identity which is created from the creativity of a society, and has been tested as something good to regulate the lives of local people. Cultural identity is the identity of a nation that causes the nation to be able to absorb and process foreign culture in accordance with its own character (Gunawan, 2012, p. 16).

Local wisdom in society can be in the form of values, norms, ethics, beliefs, customs, customary law, and special rules. There are many noble values related to local wisdom including love of God Almighty, responsibility, discipline, independence, honesty, respect and courtesy, compassion, caring, confidence, creativity, hard work, never giving up, justice, leadership, humility, tolerance, love of peace, unity, and so on. Meanwhile, anthropological scientists, such as Koentjaraningrat, Spradley, Taylor, and Suparlan, have categorized human culture into a container of local wisdom including ideas, social activities and artifacts (Fajarini, 2014, p. 124). Alwasilah (2009, p. 21) describes the characteristics of local wisdom, including (1) based on experience; (2) tested has been used for years; (3) can be adapted
to contemporary culture; (4) contained in institutional and community life practices; (5) commonly used by individuals and communities; (6) is dynamic and changes; and (7) related to the public trust system.

Local wisdom is in the form of rules concerning (1) human relations, such as marriage; (2) human relations with nature, as an effort to conserve nature, such as customary forests; and (3) the relationship with the unseen, such as God and the spirit of magic; (4) local wisdom can also be in the form of customs, institutions, words of wisdom, and proverb (Gunawan, 2012, p. 16). Referring to the form of the aforementioned rules, local wisdom in the Tanjung Tanah Manuscript can be categorized as local wisdom that regulates the relationship of human beings, and humans with nature. Some sentences in the Tanjung Tanah Manuscript explain the rules for community members who exploit and damage the environment.

There are several dimensions in local wisdom. Sibarani (2012, pp. 114-115) divides 5 (five) cultural dimensions of local wisdom, including:
1) Local knowledge is in accordance with data and information about the character of local uniqueness as well as the knowledge and experience of the community to deal with their problems and needs and the solutions;
2) Local culture is linked to cultural elements that have been patterned and at the same time as local traditions;
3) Local skills are related to the expertise and ability of the local community to apply and utilize the knowledge gained;
4) Local sources are linked to the availability of unique access, potential, and local sources;
5) Local social processes are linked to how certain societies carry out their functions, the system of social action carried out, the social relations between them the tools used, and the social control carried out.

History teachers can take advantage of local wisdom as material in class, the effort is made to bring students closer to understanding the surrounding environment (Supriatna, 2016, p. 189; Winarti, 2016, p. 186). One of the essences of history learning is taking values that are relevant to the present context. The use of local wisdom as a material for learning history is an important thing to do because local wisdom is laden with noble values that must be inherited (Supriatna, 2016, p. 189). This is also in line with the demands of the 2013 Curriculum which requires contextualization of learning resources for students. Contextualization of historical learning resources according to the 2013 Curriculum is “the use of historical learning resources in the student environment such as historical heritage sites or the natural environment that surrounds the school or the nearest environment and has relevance with historical material being studied” (Ministry of Education and Culture, 2016, p. 9). Therefore, utilizing local wisdom as historical learning material is part of the contextualization process of historical learning resources.

HISTORY LEARNING BASED ON LOCAL WISDOM

Learning history based on local wisdom can be interpreted as a learning that utilizes the value of local wisdom around the student environment to be used as learning material in school. The wisdom value in question is good values which are still inherited by a community. To be able to do history learning which is based on the value of local wisdom for students, it is necessary to understand the meaning behind the values of local wisdom (Wirdanengsih, 2017, p. 264). Teachers can act as directors for students in understanding the local wisdom so that students can clearly understand it.

Local wisdom related to history can be found from various aspects, such as from local culture that is still inherited, folklore, and historical relics such as artifacts and ancient manuscripts that are widely available in various regions in Indonesia. Ancient manuscripts such as tambo, babad, and saga basically contain many elements of local wisdom. Ancient manuscripts are part of traditional historiography that has differences with modern historiography, traditional historiography generally requires a deeper understanding to interpret the messages contained in it (Ekadiji, 1983, pp. 19-21; Mulyana & Darmiasti, 2009, p. 34) Indah (2016, pp. 150-153) in his research on the Gelumpai manuscript in South Sumatra explained that ancient manuscripts had a special meaning for a community, because they contained various local wisdoms that were actually still relevant in answering current problems.

Ancient manuscripts are a source of information on the past regional culture which is very important and has very meaningful meaning. It contains ideas and various kinds of knowledge about
the universe according to the cultural perception of the society concerned, moral teachings, philosophy, religion, and other elements that contain noble values (Soebadio in Mulyana & Darmiasti, 2009, p. 32). Almost all regions in Indonesia have ancient historical texts, such as Lontarak in South Sulawesi, Babad Ratu Galuh, Sri Baduga, and Stories of Parahyangan in West Java, Gelumpai in South Sumatra, Hikayat Banjar in South Kalimantan, Kronik Maluku in Maluku, Hikayat Aceh in Aceh, and Tanjung Tanah Manuscript in Kerinci, Jambi. The presence of the manuscript shows that the archipelago has been inhabited by humans who are civilized with all forms of their understanding of writing. The presence of the manuscript is also a reflection of past cultures which are certainly related to the present.

CONCLUSION

Looking at the urgency of local wisdom to be known and understood by current generations, it is supposed to have a history of learning oriented to local history that is close to the student environment. This urgency was confirmed by Diamond (2012, p. 34) who said that “The world of yesterday was not erased and replaced by a new world of yesterday, is still with us. That is the world. Traditional societies may not only suggest to us some better living practices, but may also benefit from our own society that we take for granted”.

Studying the value of local wisdom is a form of inheritance of values so that the current generation does not experience cultural disintegration over the influence of foreign culture. Moreover, the wisdom of the past is still relevant to answer current problems. Many problems nowadays cannot be solved by modern methods, so they need traditional methods obtained from the local wisdom of the local community.

Noting the importance of inheriting the value of local wisdom, the local wisdom should be brought into the classroom. It aims to make that the process of learning history not only dominated by material contained in textbooks. Based on the results of observations and interviews with several history teachers in several high schools in Kerinci district, it is known that the teacher’s tendency is still based on the use of textbooks as the only source of history learning. This habit has placed history learning as learning that is far from the context of the student’s environment. The material contained in textbooks is generally not directly related to the history in the student's nearest environment, so that what is learned is things that are not directly related to the memory or collective memory of students. Meanwhile, according to Hamalik (2008, p. 159) the development of learning material in a new form (novelty) that is close to students will be one of the factors of students’ interest in learning. That interest will lead to learning motivation, and learning motivation will determine the success of the learning process.

Learning history based on local wisdom will dismiss the notions that have been attached to history learning, such as learning orientation problems that have been considered to have placed students as “bank data” to remember historical facts which they did not understand their meaning are (Lionar, 2016, p. 301). According to Wineburg (2006, p. 125), history teachers must build historical material that can make students understand historical facts. These efforts will have an impact on increasing students’ learning history motivation. Fordham (2012, p. 249) states that “History teachers have the ability to facilitate facilitating inquiry-based learning in their classrooms, have deep content knowledge, and wisdom in practice that allows students to engage in thinking that is logical, rational, and sustainable”.

Through history learning using local wisdom, it will make the process of transforming knowledge become more meaningful. Students are invited to understand the history of their ancestral heritage, thus, it also increases their motivation to learn history. Learning motivation is very essential, because it is a key factor for successful learning.

REFERENCES


DEMOKRASI PENDIDIKAN MENURUT JOHN DEWEY : SUATU TINJAUAN DARI ASPEK PEMIKIRAN PENDIDIKAN ISLAM

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ABSTRAK


Kata Kunci:
John Dewey, demokrasi, pendidikan

BIODATA JOHN DEWEY : RIWAYAT HIDUP DAN SUMBANGAN


Pada tahun 1874 ketika berusia 15 tahun, beliau telah diterima masuk ke University Vermont dan berjaya menamatkan pengajianannya pada tahun 1879 bersama-sama dengan 17 orang kawannya.


ilmiah, Dewey telah dianugerahkan sebagai pelopor pembangunan Falsafah Pragmatisme Amerika (*ibid*)

Antara tahun 1908 hingga 1930 Dewey Dewey telah memberi tumpuan yang mendalam dalam bidang penulisan. Ia terbukti apabila beliau bekerja sama dengan James H. Tufts telah menghasilkan buku yang bertajuk *Ethics* pada tahun 1908 dan pada tahun 1910 beliau telah menulis sebuah buku yang terkenal iaitu *How We Think*. Buku ini dikatakan telah mendapat tempat yang tinggi di kalangan pemikir dan penyelidik sehingga ia telah diterjemahkan ke dalam beberapa bahasa asing di seluruh dunia seperti Perancis, China, Rusia, Sepanyol, Poland dan lain-lain lagi (Musa bin Daia,1973)


KONSEP PENDIDIKAN MENURUT JOHN DEWEY

John Dewey telah membahas dengan panjang lebar mengenai konsep pendidikan di dalam banyak karyanya yang masyhur. Sebagaimana Dewey berpegang kepada falsafah pragmatisme dalam aliran pemikiran falsafahnya, beliau juga telah membina falsafah pragmatisme dalam pemikiran pendidikannya. Dewey berpendapat bahwa pragmatisme telah memberi perhatian utama dalam pendidikan. Dalam ungkapaninya yang jelas, Dewey menyatakan...philosophy may even be defined as the general theory of education... Hal ini disebabkan aspek pendidikan yang memberi nilai kepada falsafah. Bagi Dewey, keperluan pendidikan telah membawa kepada kemunculan falsafah sejak zaman Greek lagi (John Dewey,1957)

Dewey melihat pendidikan sebagai alat untuk mengeluar dan memindahkan manusia dari kepompong kejahilan kepada keadaan yang dapat meninggikan martabat kemanusiaan. Selaras dengan kenyataan yang tersebut, Dewey telah mendefinisikan pendidikan secara terminologi dengan the process of forming fundamental dispositions, intellectual and emotional forwards nature and fellow me (http://ms.wikipedia.org/wiki/Institusi_pendidikan_dalam_Islam) iaitu proses pembawaan asas pembawaan, intelektual dan emosi terhadap alam dan manusia. Dewey selanjutnya menjelaskan bagaimana pendidikan merupakan kerja mengatur pengetahuan untuk menolong manusia menambahkan lagi pengetahuan yang ada padanya, iaitu pengetahuan yang semula jadi agar dengan pendidikan itu akan dapat hidup dengan lebih selamat, berguna dan bertambah tinggi lagi darjat pengetahuannya (John Dewey,1957)

Meskipun Dewey telah mentakrifkan pendidikan secara terminologi, namun dalam banyak perbahasan mengenai pendidikan Dewey sering mengalirkan pendidikan dengan proses dan sistem pendidikan itu sendiri yang menjadi sandaran definisi-definisi pendidikan yang lain. Dalam kajian ini penulis ingin menyebut beberapa definisi pendidikan yang telah dinyatakan oleh Dewey dalam tulisannya. Antaranya ialah:

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PENDIDIKAN MERUPAKAN AKTIVITI YANG SENTIASA BERKEMBANG DAN PROGRESIF


Dewey, sama juga seperti orang lain; tertarik kepada betapa senang dan sukanya apabila melihat kanak-kanak belajar tentang apa yang mereka ingin pelajari terutamanya mengenai perkara yang berkaitan dengan kehidupan mereka di rumah. Ia dapat dilihat melalui perbandingan yang dilakukan terhadap murid-murid apabila mereka disuruh melakukan aktiviti yang biasa mereka lakukan di rumah dengan pelajaran di sekolah; tenyata perasaan boleh menyelungkung mereka apabila dihidangkan dengan pelajaran (A.D.C Peterson, 1987). Justeru, Dewey melihat perlunya ada suatu aktiviti dan pendekatan yang terkini untuk menarik minat murid supaya mereka merasa gembira belajar. Pendidikan progresif yang pada umumnya memberi penekanan kepada dunia sekarang atau masyarakat masa kini dilihat cuba menolak atau perloncatan diri dengan persekitaranannya dan membentuk semula persekitaran untuk memperbaiki hidup manusia (Abdul Rahman Md. Aroff & Zakaria Kasa, 1987). Oleh itu, bagi kebaikan proses pelajaran itu berlaku, maka didacangkan tiga prinsip yang telah diterima umum oleh ahli pendidikan progresif:

a) Kanak-kanak mestilah menjadi pusat yang menjadi tumpuan penggunaan alat-alat bantuan.

b) Bahawa sekolah yang ideal itu ialah perluas dari rumah tangga yang sempurna; dan bahawa aktiviti-aktiviti pendidikan itu kurang dipraktikkan di rumah, dan sekolah mestilah menerima tanggungjawab yang bertambah bagi mereka.

c) Bahawa kanak-kanak mestilah diberi peluang yang cukup untuk aktiviti peribadi bagi mengembangkan apa yang diperolehi dari baku, dan bahawa aktiviti ini mestii dikendalikan supaya murid dapat dibekalkan dengan suatu motif bagi mendapatkan kemahiran-kemahiran asas (A.D.C Peterson, 1987)

Meskipun usaha-usaha ini dilihat sebagai kemajuan yang semakin ke hadapan, namun Dewey mengakui bahawa memang mudah untuk memuji atau memperkenalkan sesuatu aktiviti kepada sekolah; namun tidaklah begitu mudah untuk melaksanakannya sehingga dapat menjadi dorongan bagi mendapatkan kemahiran-kemahiran asas. Masalah utama yang telah dikesan dalam pendidikan progresif ini adalah kaedah progresif memerlukan guru-guru yang mempunyai kualiti yang lebih tinggi dan nisbah pelajar-guru yang rendah. Masyarakat, dalam kebanyakan kes masih belum bersedia untuk membiayainya (ibid)

Selanjutnya dalam menghuraikan fungsi dan peranan guru dalam pendidikan progresif, Dewey berpendapat bahawa guru berperanan sebagai pembimbing atau penasihat membantu pelajar-

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pelajar mengenali masalah yang dihadapi oleh mereka dalam persekitaran yang berubah. Pendidik haruslah cerdik untuk membentuk situasi yang dapat disesuaikan dengan situasi yang sedia ada. Oleh kerana itu, pengetahuan sebagai penerangan tentatif yang sesuai dengan realiti semasa dan ia mestilah mempunyai kegunaan dan kepentingannya. Amalan guru seperti mendedahkan pelajar kepada pengalaman sosial, melaksanakan projek, kajian sosial, masalah-masalah dan eksperimen yang mana apabila dipelajari dengan menggunakan kaedah saintifik, (The Encyclopædia Britannica Vol.9, 1876) akan menghasilkan pengetahuan yang boleh digunakan dalam semua bidang yang dipelajari. Sementara itu buku dianggap sebagai alat dalam proses pembelajaran dan bukan sebagai sumber-sumber pengetahuan yang tidak boleh dipersoalkan.


PENDIDIKAN ADALAH AKTIVITI SOSIAL; YANG BERPERANAN UNTUK MELAKSANAKAN KELANGSUNGAN KEHIDUPAN, BUKAN SEMATA-MATA PERSEDIAAN UNTUK HIDUP

Dewey berpendapat bahawa aktiviti pendidikan yang dijalankan di sekolah itu sebenarnya bukanlah persediaan untuk memulakan kehidupan akan tetapi ianya merupakan sebahagian daripada penghidupan itu sendiri (Musa bin Daia, 1973) Di dalam bukunya yang berjudul The Social and the Society, Dewey menyatakan bahawa sekolah bukan sahaja tempat untuk mengisi pelbagai ilmu dan pengetahuan ke dalam otak kanak-kanak semata-mata tetapi lebih dari itu ia merupakan tempat mereka hidup secara bermasyarakat dan juga dapat menyediakan penghidupan yang seimbang dengan perkembangan umur dan bakat kanak-kanak (John Dewey, 1920)

Bagi Dewey, bilik darjah dan sekolah perlu menjadi mikrokosmos bagi masyarakat. Lanjutan daripada itu, Dewey mahukan supaya sesuatu sekolah itu mestilah memainkan peranan dan menjalankan tugas atas dasar yang praktikal seperti mengadakan pelajaran pertukangan tangan, kecekapan (skill), perusahaan dan pelajaran yang dapat membulatkan daya usaha murid-murid. Cara yang sebeginilah yang dapat membentuk jiwa daya cipta dan mampu untuk membina keyakinan diri (Musa bin Daia, 1973).


Suatu kemajuan yang mungkin tidak terduga mengenai pendapat Dewey ini yang dibukukan dalam The School and Society bahawa buku ini telah meningkatkan keyakinan masyarakat tentang kekepentingan sekolah terhadap usaha-usaha pembentukan minat murid dan pembekalan latihan untuk dijalankan sebagai bekalan hidup serta tanggungjawab mereka terhadap masyarakat sosial (Ibid). Tidak hairanlah sekiranya buku ini mempunyai pengaruh yang besar sehingga dicetak lebih dari 13 bahasa di seluruh dunia. Hasilnya dapat dilihat dengan lebih jelas apabila Dewey mendapat perkenan daripada pihak pentadbiran University of Chicago untuk mendirikan ‘Sekolah Eksperimen’ yang juga dikenali dengan ‘Sekolah Dewey’. Di dalam sekolah inilah Dewey mempraktikkan segala teori yang dikemukakan dengan menjadikan murid-muridnya sebagai sampel kajian dengan penerapan latihan serta pemebentukan masyarakat kecil yang dibekalkan dengan pengalaman yang kukuh bagi menjalani hidup seharian (Dr. Ibrahīm Zakaria, t.t.). Dalam memperkatakan tentang kaitan aktifiti yang dijuran di ‘Sekolah Dewey’ serta sambangannya terhadap masyarakat Amerika, ia dapat dilihat dengan bertambahnya bilangan belia di negara Inggeris dan Amerika yang telah mencapai kedewasaan di sekolah, maka kefasihan latihan demikian dalam kerja-kerja sekolah ia telah membantu mereka untuk mencapai kehidupan yang sempurna. Justeru itu, usaha yang dilakukan oleh Dewey telah mendapat...
dorongan yang kuat dan menganggap doktrin Dewey ini sebagai suatu yang sangat mustahak (John Dewey, 1920)

PENDIDIKAN SEBAGAI PROSES MEMPERBAHARUI PENGALAMAN YANG BERTERUSAN

Sebagai pelopor dan penganut mazhab pragmatisme dalam pemikiran pendidikannya, Dewey meletakkan pengalaman sebagai senjata utama dalam merealisasikan matlamat tersebut (Sharifah Alwiah Alsagoff, 1984). Barangkali, ungkapan yang paling tepat untuk menjelaskan kenyataan tersebut adalah pendidikan sebagai ... process of renewal of the meaning of experience... dengan penyampaian sama ada melalui interaksi dengan orang yang lebih tua atau melalui institusi pendidikan formal (John Dewey,1957). Barangkali ungkapan yang paling mudah untuk menjelaskan pentakrifan ini adalah belajar melalui amalan learning through doing atau belajar sambil bekerja. Teori ini menjelaskan kepada pelajar bahawa mereka akan belajar dengan baik melalui pengalaman.

Dewey ketika menjelaskan maksud pengalaman beliau berpendapat bahawa pengalaman merupakan kombinasi pelik yang terdiri daripada dua unsur iaitu aktif dan pasif. Dari sudut aktif pengalaman merupakan suatu percubaan atau eksperimen manakala dari sudut pasif pengalaman bermaksud sesuatu yang sedang berlangsung. Apabila kita mengalami sesuatu pastinya kita akan bertindak dan apabila kita bertindak kita akan merasai kesannya. Apabila kita melakukan sesuatu tindakan, maka kita akan mendapat balasannya; inilah yang dikatakan sebagai kombinasi yang pelik. Hubungan antara dua fasa pengalaman ini (perbuatan dan tindakbalas); ia boleh mengukur nilai dan hasil daripada pengalaman (John Dewey,1957)


Di dalam membezakan pendidikan baru dengan yang lama, Dewey berpendapat bahawa pendidikan baru itu menentang penentuan dari atas yang selama ini melakukan pembentukan keindividualan; kepada disiplin luar, aktiviti bebas, belajar dari buku-buku teks dan guru-guru, belajar melalui pengalaman terhadap pemerolehan kemahiran-kemahiran yang berasingan melalui latih tubi; pemerolehannya sebagai cara pencapaian yang memberi tarikan terus yang penting sebagai persediaan masa depan yang jauh dengan menggunakan sepenuhnya peluang-peluang yang ada dalam kehiduan kini terhadap kebendaan dan tujuan yang tetap serta dapat memberi pengenalan kepada dunia yang berubah (John Dewey, 1920)

Di sini, Dewey sendiri tidaklah menuntut lebih dari apa yang telah dibuat pada mulanya, bahawa tugas pendidikan adalah untuk merubah masyarakat tetapi adalah lebih bertujuan untuk mengenalkan murid-murid kepada masyarakat yang sebenarnya berubah. Walaubagaimanapun, terdapat pendapat yang melampau yang mengatakan bahawa pendidikan itu adalah faktor yang menentukan progres atau perkembangan masyarakat terus menjadi lazim dikalangan pengikutnya (A.D.C Peterson, 1987)

mengajarkan teori-teori kepada murid bahkan dia melaksanakan teori tersebut secara eksperimen dan praktikal

**DEMOKRASI DAN PENDIDIKAN DEWEY : TINJAUAN DARI ASPEK PEMIKIRAN PENDIDIKAN ISLAM**


Dewey membina falsafah pendidikannya berdasarkan demokrasi ideal yang diimpikan oleh seluruh masyarakat. Beliau telah menggariskan dua perkara penting yang terdapat dalam sistem demokrasi itu sendiri;

1. **Pertama**: demokrasi bukan hanya semata-mata suatu hasrat dan impian yang ingin dicapai secara bersama oleh sebuhah komuniti masyarakat, akan tetapi yang lebih penting daripada itu adalah pengiktirafan kepada hubungan yang dimeteri bersama itu dapat di laksanakan dalam masyarakat (*ibid.*). Fakta ini menegaskan bahawa prinsip yang terkandung di dalamnya adalah setiap manusia mempunyai hak-hak tertentu yang dijamin kebebasannya serta menghormati hak masing-masing. Dalam konteks pendidikan pula, setiap individu mempunyai hak untuk mendapatkan pendidikan sama rata tanpa mengira jantina, keturunan bangsa atau agama. Paling penting yang perlu ditekankan di sini adalah ikatan perhubungan yang dijalinkan tanpa memandang perbezaan antara satu sama lain baik hubungan antara sesama murid atau antara murid dengan pendidik yang saling menghargai dan menghormati antara mereka (Tri Prasetya, 1997).

2. **Kedua**: demokrasi bukan hanya bertumpu kepada kebebasan individu dalam menyuarakan pendapat sesama masyarakat sesama-mata, akan tetapi perkara yang patut diberi perhatian adalah perubahan tabiat masyarakat kepada situasi yang baru dibentuk daripada hubungan yang pelbagai (John Dewey,1957). Dalam amalan sistem demokrasi yang membenarkan kebebasan bersuara, seseorang itu haruslah menggunakan haknya dengan tidak berbuat sesuatu hati sehingga merosakkan kebebasan orang lain dan kebebasan dirinya sendiri. Dengan adanya norma-norma atau aturan dan tata nilai yang terdapat dalam masyarakat, secara langsung ia dapat membatasi dan mengendalikan kebebasan setiap individu. Oleh kerana itu, setiap warganegara yang dekromatis akan menerima pembatasan kebebasannya itu dengan rela hati (Tri Prasetya, 1997). Dengan kata lain, warganegara hendaklah memahami kewajipannya sebagai anggota masyarakat yang berada dalam sebuah negara demokrasi dengan mengamalkan prinsip-prinsip yang terkandung di dalamnya, bertujuan untuk memberikan kesejahteraan kepada masyarakat. Dalam konteks pendidikan, Dewey berpendapat bahawa setiap individu bebas untuk mendapatkan ilmu pengetahuan tanpa sebarang sekatan dan halangan. Melalui pendidikan inilah manusia akan memahami perubahan dan tabiat manusia yang pelbagai.

Berkut huraian yang lebih lanjut mengenai demokrasi pendidikan yang terkandung dalam ajaran Islam, Abdul Halim Mat Diah (1989) menggariskan dua perkara pokok yang menjadi asas penerimaan demokrasi dalam pendidikan itu sendiri;

1. **Pertama**: Islam meletakkan demokrasi sebagai asas kehidupan bermasyarakat. Untuk mengukuhkan argumentasi ini, didatangkan beberapa hujah bagi menyokong fakta yang tersebut di atas. Firman Allah SWT bermaksud;

   "..."
Hai sekalial manusia, bertakwalah kepada Tuhamu yang telah menciptakan kamu dari seorang diri (Adam), dan daripadanya Allah menciptakan isterinya (Hawa), dan daripada kedua-duanya Allah memperkembangkan laki-laki dan perempuan yang banyak ...

(al-Nisa' : 1)

Ayat di atas secara jelas menunjukkan bahawa manusia yang pada asalnya adalah satu; lalu diciptakan pasangannya untuk mengembangi-akan keturunannya sehingga menjadi kelompok masyarakat yang ramai. Ia secara tidak langsung memberi gambaran bahawa kehidupan manusia secara fitrahnya memerlukan kepada masyarakat.

Dalam kehidupan bermasyarakat, manusia yang mempunyai pelbagai jenis ragam, keturunan, bangsa, warna kulit, agama, aliran pemikiran dan pemahaman, pastinya terdapat satu neraca pengukur keistimewaan seseorang itu dalam kalangan manusia yang sangat ramai. Lantaran itu dalam ayat al-Quran seterusnya, Allah menegaskan bahawa tiada sebarang keistimewaan di antara manusia kecuali sifat takwa kepada Allah. Ia dapat dilihat melalui firman Allah SWT yang bermaksud;

Hai manusia sesungguhnya Kami menciptakan kamu dari seorang laki-laki dan seorang perempuan dan menjadikan kamu berbangsa-bangsa dan bersuku-suku supaya kamu saling kenal mengenal. Sesungguhnya orang yang paling mulia di antara kamu di sisi Allah ialah orang paling berhak di antara kamu di sisi Allah...

(al-Hujurat : 13)

Di atas dasar ini, maka Islam merupakan agama yang menjamin adanya demokrasi dalam ajarannya; dalam ertikata yang sangat jelas iaitu manusia tidak diukur melalui warna kulit, keturunan, ras, kabilah, bangsa dan seumpamana ia dikuatkan lagi melalui hadis Nabi saw yang bermaksud;

Semua kamu adalah keturunan Adam, dan Adam diciptakan dari tanah. Suatu kaum hendaklah menghentikan berbangga-bangga dengan keturunan mereka ...

(HR Bukhari)

Keduanya ; Islam mengajarkan demokrasi pendidikan


Dalam konteks demokrasi pendidikan atau hak mendapatkan pendidikan, Islam menjamin hak setiap individu untuk mendapatkan pendidikan yang secukupnya. Dr Mustafa Husni al-Sibai' (1969) menyatakan bahawa di antara hak-hak yang dijamin oleh Islam adalah;

i. Hak hidup

ii. Hak kemerdekaan

iii. Hak berilmu

iv. Hak kehormatan, dan

v. Hak pemilikan

Jaminan terhadap demokrasi pendidikan dalam ajaran Islam ini merupakan suatu ketetapan yang jelas. Bagi merealisasikan ketetapan itu, Abdul Halim Mat Diah (1989) menggariskan dua perkara penting yang melibatkan masyarakat dan pemerintah;
a. Kesempatan menggunakan demokrasi pendidikan itu adalah merupakan hak semua orang dan hak itu wajib digunakan dan dijalankan. Ia sebagaimana yang terkandung dalam saranan dan tuntut hadis Nabi saw yang bermaksud; Mempelajari ilmu pengetahuan adalah wajib bagi tiap orang Islam laki-laki (dan perempuan)  

(HR al-Baihaqi)


Daripada keterangan yang telah dibincangkan dapat disimpulkan bahawa demokrasi merupakan suatu perkara asas yang terkandung dalam ajaran Islam. Ianya tidak hanya tertumpu kepada demokrasi politik dan pentadbiran sahaja bahkan ianya merentasi demokrasi pendidikan yang menjadi tujuan sosial dalam kehidupan bermasyarakat.

KESIMPULAN

Melihat kepada huraian dan hujahan yang dikemukakan didapati bahawa idea dan gagasan yang dibawa oleh Dewey dalam meriasisasikan matlamat demokrasi secara umum dalam kehidupan bermasyarakat ia dilihat sejajar dengan tuntutan yang terkandung dalam ajaran Islam. Namun begitu perkara yang membezakan gagasan demokrasi Dewey dengan demokrasi Islam adalah aspek pengukur sejauh mana keistimewaan manusia itu dinilai. Dalam Islam ukuran bagi sesesuaian untuk melayakkan dirinya menjadi insan terbaik melalui sejauh mana ketakwaannya kepada Allah sedangkan dalam gagasan idea Dewey penilaian terbaik terhadap manusia adalah sejauh mana manusia itu dapat menjadi warganegara yang baik dalam kehidupan bermasyarakat.


RUJUKAN


____________ (1897), *My Pedagogic Creed*, The School Journal, Volume LIV, Number 3 (January 16, 1897)


J. Donald Butler (1957), *Four Philosophies and Their Practice in Education and Religion*, Newe York: Harper and Brothers Publisher.


ABSTRACT

In this millennial age, the information development and communication has reached a very astonishing stage. Consequently, one side gives positive values and is able to elevate the standard of human life. However, on the other side, the information development and communication through interconnection-networking (internet) access, if it is not framed by the Qur'an values, it will only cause unrest and destruction for a human. The method used in this research is a qualitative method (library research) with a descriptive thematic analysis approach. There are at least three points of Qur'an educational orientation which is also appropriate in overcoming the rise of interconnection-networking (internet) abuse, including; investment orientation, maintenance orientation and healing orientation (curative).

Keywords: Qur'an Education, Excess, Internet Usage

INTRODUCTION

Interconnection-networking (Internet) users are increasing every time. Interconnection-networking (Internet) is a global information system logically linked by a globally unique address based on Internet Protocol (IP), supports communications using TCP/IP, provide, use and make it accessible both publicly and specifically. (Serlyanita & Rakhmawati, 2016: 17).

Interconnection-networking (internet) currently plays a role in human life and technological advancements now also support the role so that interconnection-networking (internet) is used in various fields such as: doing homework, learning, managing family finances, listening to music, watching videos, and enjoying the game (Maryono and Istiana 2007: 33). In the field of education, economics, social, etc., utilization of interconnection-networking (internet) has long been used in developed countries. Indonesia is currently implementing learning by utilizing interconnection-networking (internet) has begun to be socialized throughout the country.

According to Maryono and Istiana (2007: 34) the use of technology, especially interconnection-networking (internet), it has many benefits. Students can obtain learning materials through electronic libraries (e-library) or electronic books (e-books) to get library collections in the form of books, modules, journals, magazines or newspapers. Internet presence also allows for distance learning (e-learning). It means to get the subject matter, students or college students do not have to be tied to the space and time in the classroom during the lesson hours. Materials can be obtained through computer at home connected to internet or through internet cafes that provide interconnection-networking (internet) access services. In fact, it is possible for students or college students to communicate with teachers or lecturers through email or talk or face-to-face session via teleconference (video-conference).

The rise of interconnection-networking (internet) use in the world, especially in Indonesia, also contributes to the education world in Indonesia which also began to apply the use of computer technology and interconnection-networking (internet) on the curriculum system. Currently the benefit of technology through the application of interconnection-networking (internet) is expected to spur and improve the quality of education. From the positive side of course, all parties must support the computer utilization and internet technology in the school curriculum. But on the negative side, all parties must work together in such a way as to minimize the impact, especially for learners.

One functions of the internet is the center of search and supply of data, interconnection-networking (internet) is not always used for positive things, especially by high school teenagers.
Learning activities nowadays demand students to have the ability to find materials—certain subject matter through interconnection-networking (internet).

In general, adults have been able to filter good or bad things from the internet, adolescents as one internet users just the opposite. Teenagers appear not to be able to sort out useful interconnection-networking (internet) activities and tend to be easily influenced by the social environment without first considering the positive or negative effects that will be received during interconnection-networking (internet) activities. Therefore, it is not surprising that all this time when high school teenagers using interconnection-networking (internet) are always become main focus for study, both by the government and academic environment.

The latest study notes that "interconnection-networking (internet) users in Indonesia who mostly children and teenagers are predicted to reach 30 million. The study also notes that there is a strong digital gap between children and teenagers living in urban areas with those living in rural areas. The data is the result of a study entitled "The Use of Digital Media Security in Children and Teenagers in Indonesia" conducted by UN agencies for children, UNICEF, stakeholders— including the Ministry of Communications and Information and Harvard University, USA. The study tracked online activities of children and teenagers sample involving 400 respondents aged 10 to 19 across Indonesia and representing urban and rural areas. As much as 98% children and teenagers claim to know about internet and 79.5% of them are interconnection-networking (internet) users. In this study, there are about 20% of respondents who do not use the internet. The main reason, they do not have the device or infrastructure to access interconnection-networking (internet) or they are prohibited by parents to access interconnection-networking (internet). There are three motivations for children and teenagers to access interconnection-networking (internet), i.e. to search for information, to connect with friends (old and new) and for entertainment. The search for information is often driven by schoolwork, while the use of social media and entertainment content is driven by personal needs. Almost all of them disagree toward pornographic content on the internet. However, a large number of children and teenagers have been exposed to pornographic content, especially when it comes accidentally or in the form of ads featuring nuanced content". (Kompas.com/19/02/2014).

The source of the conflict as mentioned above indicates that changes in how to use this communication medium encourage a change also in the pattern of human life. This is as mentioned by Potter in Littlejohn and quoted by Ardianto (2011: 53), "a new period in which interactive technologies and network communications, particularly the internet, would transform society". The change of the pattern is a period where interactive technologies and communication network, particularly interconnection-networking (internet) will change the shape of society. The mastery of internet-based technology drives every individual to change his/ her lifestyle, and ultimately changes the way they live in society. But in fact, it is not a change to a good life, but a change that leads to demoralization, dehumanization and de-spiritualization.

The use of interconnection-networking (internet) has many positive benefits, but the excesses of using interconnection-networking (internet) have a negative effect that is not less much. And if it is allowed, it will become an epidemic for Indonesian people, especially among teenagers.

We note that violent and sadistic appearances are becoming more and more rampant, the myths of magic-mythologies are increasingly entrenched, even liberal sexual-erotic entertainment increasingly prospering, mingling, even mushrooming in the midst of society. The excesses, due to violence there is a commotion in the family, brawl between students, fights between villages and even inter-ethnic warfare. As a result of magical-mythological spectacle, the birth of irrational society, verses of the Qur'an mocked, even religion traded. Due to erotic and sexist entertainment, there is rape and adultery, even lately thrown by the rise of free sex practices by students and college students.

From the data and facts above, we can already judge that the excesses of using interconnection-networking (internet) if left unchecked, plague, spread, and even destroy the moral of the nation. In fact, in an age filled with challenges and globalization, we must be able to maximize interconnection-networking (internet) in order to compete with other countries.

The Qur'an itself encourages many human beings to master the science and technology as the sign of Allah SWT in Qur'an Surah Ar-Rahmān verse 33:
It means: "O company of jinns and mankind, if you are able to pass beyond the regions of the heavens and the earth, then pass. you will not pass except by authority".

The verse above is come from the past fourteen centuries has given scientific gestures to Jin and Mankind, that they have been invited by God to explore in outer space provided as long as they have the ability and strength. The power referred here as interpreted by scholars is science and technology, this has been proven in the modern era today, the discovery spaceship which can penetrate space, nations who have made progress in the field of science and technology has repeatedly landing on the Moon, Mars, Jupiter and other planet (Qutub, 2011: 1341).

For these reasons, the author sees, the basic thing to do is to cultivate the quality of the faith, maintain and internalize the values of Qur’an in everyday life, so that deviations caused by technological advances, especially excesses in the use of interconnection-networking (internet) which destroys the nation’s moral can be eroded and no longer exists. The problem formulations in this study are: a) how is the Isyarah education in the Qur’an? b) What are the Qur’an educational concepts which can be used as a method to overcome the excesses of interconnection-networking (internet)?

METHODOLOGY

To answer the problem formulations, author in this case will further elaborate through qualitative method (library research) with thematic analytical descriptive approach which will be further explained in the following discussion. Based on the data which will be collected, the research method, used by the author in conducting this research is library research method or also called non-interactive qualitative research. One form of non-interactive qualitative research is concept analysis. (Sukmadinata, 2007: 65). Non-interactive research is also known as analytical research, i.e. research which examines based on document analysis. Researcher collect, identify, analyze, synthesize data, then provide interpretations to the concept. (Sukmadinata, 2007: 66). The study of literature in this case can be books, journals, magazines, and others which posses’ significance with the theme studied.

In accordance with the type research is literature review, and then the method used is documentation. Documentation technique or document collection is a technique of collecting data by collecting and analyzing documents, either written or unwritten documents.

Images or electronics; Then the collected documents are selected according to the purpose and focus of the problem. Sukmadinata (2007: 221).

Data processing techniques in qualitative research is to organize, sort, group, code or mark, and categorize the data so that it can be found and formulated the working hypothesis based on the data. (moloeng, Lexy J, 2001: 248)

In this case, the data are analyzed inductively based on direct data from the research subject. Therefore, data collection and analysis are done simultaneously, not separately as quantitative research where data is collected first, and then analyzed.

Data analysis used in this research passes through the steps as follows: a) Find a particular pattern or theme. b) Look for a logical relationship between one topic and another. c) Classify in the sense of making a grouping. d) Seek generalization of specific ideas.

DISCUSSION

Qur’an Isyarah on Education

If it speaks of education, the Qur’an clearly advocates human beings to be educated, to have their degree glorified. In addition, Allah SWT explains the urgency of education (Surah Al-Mujādalah:
Based on this concept, Sultan (1979: 53) explains that education is focused on human coaching as a whole, so able to perform its function as a servant of Allah and His caliph to build this world in accordance with the concept set by Allah. If this can be realized in reality then Muslims will be able to implement Islamic teachings comprehensively.

For Muslims, the Qur'an serves as a guide for the righteous life for the sake of happiness in the world and the Hereafter. (Minhaji, 2001: 103). The happiness in question can be achieved when Muslims based on their activities on the Qur'an and Hadith, both vertical and horizontal. Prophet Muhammad SAW said:

\[
\text{تركت فيكم أمرين لَّن تضلوا ما تسكنتم بهما: كتاب الله، وَسلة نبِيِّه. (رواه الحاكم)}
\]

Meaning: "I have left two heirlooms to you. You will not go astray as long as they are (made as a guide), that is the Book of Allah (Qur'an) and my Sunnah (Al-Hadits)." (HR. Hakim)

Because the Qur'an is a source of teaching and the most important source of law for Muslims activities, the concept of Islamic education is inseparable from the Qur'an. But in the Qur'an there are no details about the nature of education, its definitions, its processes and objectives. In this holy book there are only terms which are deemed to contain the meaning of education, so that if these terms are dug up the meaning, it is hoped will be found also the education ins and outs in the Qur'an perspective.

In general, education in the Qur'an interpreted with the term al-tarbiyah. The term has a synonym of al-ta'dib and al-ta'lim. Each has a different meaning according to the text and context of the sentence, although in some respects the meaning is the same. Here are the elaborations of these three terms.

**Al-Tarbiyah**

Etymologically, al-tarbiyah is the masdar form of the word rabba, which has the same meaning as the word rabba, its meaning substance is the same as the word rabb which is one of God's name. Eventhough, the Qur'an does not find the term al-tarbi explicitly, but it contains terms which identical to it, al-rabb, rabbayānī, nurabbī, rabbān, and ribbiyūn.

All of these terms have different meaning connotations. If al-tarbiyah is identical with al-rabb, then al-tarbiyah means the owner, the master, the All-Fixing, the All-Governing, the Changing, and the All-Mighty. Al-tarbiyah which is also identical with al-rabb means al-tanmiyah, meaning growth and development.

Tarbiyah which has the basic word al-rabb has a broad meaning. Among them means to have, to control, to organize, to nourish, to feed, to cultivate, to develop and to educate (Anis 1972: 321). As mentioned in the Qur'an, Allah as al-rabb is associated with al-alam in as in QS. Al-Fātihah: 2 and al-rabb associated with al-nas as in QS. Al-Nās: 1 means that in the essence Allah educates, cultivates, and develops nature including mankind gradually so as to the degree of perfection.

If the term al-tarbiyah is identified with the form of his madi of Rabbayānī as in QS. Al-Isra: 24, from his mugan's form nurabbi as in QS. Al-Shu'ara: 18, then al-tarbiyah means to nurture, to bear, to feed, to develop, to produce, to raise and to tame. Term rabbayānī is not just an oral teaching which has a cognitive domain but also includes behavioral teaching which has an affective domain. Meanwhile, according to the interpretation of Qutub (1992: 15) the word rabbayānī means as the child maintenance and foster their mental attitude maturity.

If based on QS. Āli Imrān: 79 and 146, the meaning of al-tarbiyah (the equivalent of rabbāniyyān and ribbiyūn) is the science transformation and attitudes to students, who have a high spirit in understanding and realizing their life so as to manifest piety, character and noble personality. This word also has the meaning of the science perfection and its Fear of Allah SWT. The Prophet Muhammad SAW also gave the meaning of education of al-tarbiyah with the terms rabbāniyyān and rabbān as follows (Bukhari, 2000: 59):

\[
\text{كَوْلُوا رَبَّنَيْنَ خَلَّامَيْنَ مَفَاهِيمَ عِلْمَاءَ وُقَلَّا الرَّبَّانِيَّانَ الَّذِينَ يُرُنِّنَ اللَّهُ بِصَغَرِ الْعَلَمِ قَبْلَ كِتَابٍ (رواه البخاري)}
\]
Means: “Be you educators who have manners, fiqh experts, and knowledge. And it is said the predicate "rabbāni" if one has educated man with knowledge, from the smallest to the higher.” (Narrated by Bukhari)

According to the Hadith, al-rabbāni is identified with al-tarbiyah, means the transformation process of knowledge which is done in stages. The preceding is done through the introduction, memorization and remembering which have not yet been able to understand the process of understanding and expression. In the rise of Islam early historical context, the first educator was the Prophet Muhammad SAW especially when the Prophet for 13 years was in Mecca. In this case, education is expressed as the word-root of rabbā yurabbi.

Al-Ta’dib and al-Ta’lim

The word ta’dib, etymologically is the form of masdar word addaba which means akhlaq, its synonym is manners, good behavior, morals. The word al-ta’dib is commensurate with the word al-ta’lim derived from the basic word ‘allama, which means teaching, instilling confidence and knowledge. (Anis, 1972: 9)

In both words it contains the meaning of teaching. According to Jalal (1977: 16) the meaning of al-ta’lim is broader and more general than the word al-tarbiyah, for the Prophet was sent to be a teacher or mu’allim, as affirmed in QS.al-Jumu ‘ah verse 2:

"هو الَّذِى نُبِئَتْ بهُمْ نُورُمُنَّ بِهِمْ بَعْدَ غَيْبَةِهِمْ وَيَتَأَمَّلُونَ فَتَأُمَّلُوا عِندَهُمْ وَيَرْكَبُونَ وَيُعْلِمُونَهُمْ كُلَّ كِتَابٍ وَالْجَهَّامَةَ وَإِنَّ كَانُوا مِنْ قَبْلِ لَمَّا يَنَالُوا مِنْ فَوْضُوٍ (16)"

It means: "it is He who has sent among the unlettered a Messenger from themselves reciting to them His verses and purifying them and teaching them the Book and wisdom, although they were before in clear error."

Based on the above verse it is clear that Islam considers the process of al-ta’lim more universal than al-tarbiyah process. Because when teaching the Qur’an to his companions, the Prophet Saw teaches not only to read but to read with contemplation which contains understanding, responsibility, and planting trust. With the reading process like this, the Prophet SAW brought his companions to the level of tazkiyah (purification), namely the purification and cleansing of all the soul impurities and make themselves in a condition which allows to accept the noble values of Islamic teachings and to learn all that is beneficial his people not forever in ignorance.

Tarbiyah Terminology Discourse

Terminologically, education is identified with the word altarbiyah of which interpreted by:

a. ‘Aṭīyah al-Abrāšī (1955: 14) explains that education with the meaning of al-tarbiyah is an effort to prepare individuals which cover all education aspects. Al-Tarbiyah is not only oriented to the cognitive domain, but also the affective and psychomotor spheres.

b. According to Jalal (1977: 17), al-tarbiyah is the process of preparation and upbringing in the infant and the childhood phase. This notion is the manifestation of the word interpretation of rabbayāni in the QS. Al-Isrā’: 24 and the word nurabbī on QS. Al-Syu’arā’: 18. The essence of al-Tarbiyah in these two verses shows that the process of preparation and childhood maintenance within the family environment.

c. Ghalāyaynī (1949: 185) interpreted al-tarbiyah as the noble ethical cultivation of the growing child by giving instruction and counsel so that they have the potency and competence of a solid soul that can produce wisdom, good character, love of creation, and useful for the environment. The implications of this meaning is in the uswah area (exemplary) and maw’izah (advice) in education.
Education in the Qur’an and Its Purpose

As mentioned earlier that in Islamic education termed by the words tarbiyah, ta’lim, tazkiyah, tahdīb, and so on. However, from some of these terms, the Qur’an only uses the word tarbiyah, ta’lim, and tazkiyah as a term that refers to the substance meaning of education.

The term education which is contextualized with the word Islam is not merely the transmission of science, knowledge, and technology but also as a process of cultivating values because the essence of education in the Qur’an is to make people have Fear of Allah to achieve success (al-falaḥ), both in the world and in the afterlife.

Each of it is widely expressed by experts of Islamic education. The opinion revolves around the fact that the purpose of education in Islam is to make people who pay obeisance or worship and surrender to Allah SWT, develop the potential, and inculcate noble character. Jalal (1977: 59) states that in general, Islamic education aims at preparing the worshiper of Allah SWT or ‘ābid, that is, the man who possesses noble qualities which Allah SWT gives to man with the title ‘ibādal-raḥmān. The primary goal of education is the increasing people who worship and serve Allah SWT and fear Him. Allah’s word in QS. Adz Dzāriyāt verse 56:

\[\text{It means: "And I did not create the jinn and mankind except to worship Me."} \]

According to Qurtubī (TT: 55) that liya’budun is interpreted by liyuwa ḥḥidun in the sense of proclaiming Allah SWT. Qurtubī (TT: 55) also quotes ‘Ali Rādiyallāhu’ anh, this verse shows the command to worship Allah SWT for mankind. As well as quoting Mujāhid’s statement that this verse shows that jinn and especially mankind should know Allah SWT better.

In addition to making Allah’s servants who serve Him and who know Him better, based on that verse, the purpose of education is to create Allah’s servants who have a virtuous character socially. This is then called a Muslim who has social piety. Based on that opinion it can be said that the educational objectives in Islam outlined in the Qur’an are religious, but the religion intended by Islam is not only personal, but also inherently social and cultural. In addition, education in the Qur’an has three aspects of the goal attaining ḥabl min Allah (the relationship with Allah SWT), the goal of ḥabl min al-nās (the relationship with mankind), and the attainment of the goal of ḥabl min al-‘ālam (relationship with nature). This is as in the word of Allah in QS. Āli Imrān verse 112 and QS.al-A'rāf verse 56:

\[\text{It means: "They have been put under humiliation [by Allah] wherever they are overtaken, except for a covenant from Allah and a rope from the Muslims."} \]
It means: "And cause not corruption upon the earth after its reformation.

The Concept of Qur'an Education Orientation as a Method in Overcoming Excess of Interconnection-Networking (Internet) Usage

It means: "The child born is fitrah (sacred). Both parents who made them Jewish, Christian or Majussi." (HR Bukhari Muslim)

This Hadith teaches how the role of parents is very important in shaping the child character. Parents are the main teacher and family as the first school to give birth to the best generation. (Surah Al-Bayyinah: 7).

The Qur'an reminds Muslims not to generate weak generation (dzurriyyatan dhi 'āfan) (QS Annisā': 9), but a strong, intelligent, cordial and kindhearted generation and the leader of the righteous. (Surat al-furqān: 74). Therefore, in this millennium era with the widespread and spreading activity of interconnection-networking (internet) which ignores the values of religion and ethics, education must be oriented on Qur'an namely the formation of Islamic character. Not oriented to value (number) academic and graduation, let alone ignore morals (morality).

Al-Hazimi (2005: 55) describes three orientations of Qur'an education:

1. Investment Orientation

Basically, to get something qualify must start with planting, growing, and developing it. (Tanjung, 2015: 1033). Like a tree, it begins from the seed of choice, planted with studiousness and sincerity, until it grows and develops into a sturdy, shady and fruitful tree. So it is with humans. From millions of sperm, only one succeeds in fertilizing an egg with the best seed. (Surah Al-Insān: 1-2). In the womb, he is breathed the Divine soul with the potential of monotheism (Surah Al-A'rāf: 172). At birth, he is listened to Athan and Iqamah to hear the phrase of tauhid and ṭayıyibah.

The True Educator, Luqman al-Hakim, has set an example in educating the right child that is the cultivation of the creed first. If the creed of tauhid is strong, then his personality will be good. (Surah Luqman: 12-19).

Therefore, the stages in strengthening the faith to the students should really take precedence. So worthy, one of the Da'is of a million people of Indonesia's pride advised in one of his enlightenment, "Educate them with the soul of monotheism crystallizing within them, seeping up to the bone of the marrow, which will not even split from its body, the creed will not separate from his heart." In fact, he will be able to firmly say, 'I am better off destroying the faith of a luxurious life by selling faith'.

As for the sentence of ṭayıyibah mentioned above, it is like a tree whose roots are thrust into the earth and its branches rise to the sky, with many fruits. (Surah Ibrahim: 24-25). The Arabic proverb says:

"Whoever plants, He will harvest"

According to Al-Hazimi (2000: 55) that the Investment Orientation in Qur'an education includes several things, among them:

a. The Cultivation of Piety Values

The cultivation of piety values is the most fundamental thing, because it will be a very strong foundation for the students in facing the challenges and situations of the times in the future, including one giving the values of fear to Allah SWT, faith to Him, knowledgeable by knowing His nobility, a commitment in obedience by keeping His commandments and avoiding His prohibitions.

To instill the values of piety is based on the word of Allah SWT Surah Al-Hashr verse 18:
It means: “O you who have believed, fear Allah. And let every soul look to what it has put forth for tomorrow and fear Allah. Indeed, Allah is acquainted with what you do.”

Piety is an attempt to do what is commanded and to forsake what is forbidden, to calculate before counting and to see what has been prepared from righteous deeds to meet Allah. With the piety cultivation to the students, there will arise awareness to always believe in the presence of Allah SWT every time and place (Tanjung, 2015: 1033).

b. Planting Commendable Moral Values

Mankind is perfect beings among the other creatures, created by the Creator. Mankind is given the advantage, and then it is fitting to be praiseworthy and should serve as an example for those around him.

Indeed, in Islam, which became the basis of morality is the Qur'an and al-Sunnah. Good and bad in Islamic morals size is not according to human sources. Because according to Marzuki (2009: 34) if the size is human, then good and bad can vary.

Al-Hazimi cites the opinion of Ibn Qayyim al-Jawziyyah that faith according to Ahlussunnah will increase with commendable moral values manifested in the form of obedience and away from disobedience. The ugliness makes the heart black and fades the light. Faith is the light in the heart. The ugliness will reduce and eliminate it. Goodness will increase the light of the heart and badness put it out. The more pious deeds are done, the more faith and evil will be. (Tanjung, 2015: 1034).

As for some methods which can be used in the cultivation of commendable moral values, including:

1. Parable Method
   This method makes it easier for students to understand abstract concepts, to take concrete objects such as the weakness of the infidels as compared to the spider's web, where the spider's webs are weakly touched with the stick can be damaged. The phenomenon is described in sura Al-'Ankabūt verse 41:

   \[
   \text{متلك الربت أتخذوا من دَوَابِلِ الله} \text{ أولياء كمثل العنكبوت أتخذت نـبتاً} \text{ وإن أواه،} \text{ النبوب لـبت العنكبوت لأومت} \text{نـبتاً يغمرهَ} \]

   It means: “The example of those who take allies other than Allah is like that of the spider who takes a home. And indeed, the weakest of homes is the home of the spider, if they only knew.”

2. Exemplary Method
   Exemplary method is to provide a good example or model to the students in daily life. This method is a guide to act in realizing the goals of educators. Students tend to emulate educators, this should be done by all education experts, essentially because psychologically students are happy to imitate, not only good, but also the bad ones. As the statement of Allah SWT in Surah Al-Ahzab verse 21:
It means: “There has certainly been for you in the Messenger of Allah an excellent pattern for anyone whose hope is in Allah and the Last Day and [who] remembers Allah often.”

3. Ibrah and Mau‘izah Method
The method of Ibrah is the presentation of learning materials which aims to train the learning power of the learner in capturing the hidden meaning of a statement or a psychic condition which conveys the human to the essence of something witnessed, faced by reasoning. Whereas the mau’izah method is the motivation provision by using profit and losses in doing deed.

4. Habitation Method
Familiarize in behaving commendable, active learning, working hard, responsible for every task that has been given. Shalat/ worship is performed 5 times a day overnight is to familiarize humankind to live clean with a symbol of ablution, time discipline marked with than at every prayer time, responsible for the confession symbol in the iftitah prayer readings "indeed my prayer, my worship, life and death for Allah" this prayer gives a hint of responsibility for the grace which Allah has given. At times of bowing and prostrating, Muslims are taught to be humble. This humble attitude is the beginning of one's glory.

5. Targīb and Tarhīb Methods
This method in the theory of modern learning methods is known as reward and punishment. That is a method where rewards and punishments become consequences of student learning activities, if the student can reflect a good attitude then he is entitled to a prize and vice versa get punishment when he cannot properly carry out his duties as a student. Similarly to prayer, when one do a prayer well and able to be implemented in everyday life then he gets good deed from Allah SWT and society. As the reply of Allah to those who keep the prayers in surah Al-mu'minūn verses 9-11:

It means: “And they who carefully maintain their prayers (9) Those are the inheritors (10) Who will inherit al-Firdaus. They will abide therein eternally (11).”

And the punishment of Allah to those who neglect prayer in surah Al-Mâ‘un verses 4-5:

It means: “So woe to those who pray (4) [But] who are heedless of their prayer (5).”

2. Maintenance Orientation
Students must be maintained (maintenance) well to grow into a sturdy tree, as well as strengthen it with fertilizer which contains noble morals, so as not to fall into the negative things.
In addition to investment orientation, Alhazimi (2005: 60) says that the characteristics of Qur’an education also contain aspects of maintenance, and it can be internalized in the following activities:

a. Keep away from Syubhat

Syubhat is an agitated region or path. Therefore mankind is required to always be vigilant not to be trapped to cause harm to him. In addition, according to Tanjung (2015: 1035) syubhat things plunge mankind on the haram (the forbidden). When someone used to do and not avoid it then it is hindered from the truth. His protection is to abandon the syubhat things. The Prophet said:

"Verily, the lawful thing is clear, the forbidden is clear, and between them there are vague things (syubhat), which are not known by many mankind. Whoever avoids syubhat is that he has cleansed himself for his religion and honor. Whoever is falling into syubhat means he has fallen into a forbidden matter, like a shepherd (herd) around the forbidden area, almost all of whom will go to herd the area." (HR. Bukhari & Muslim).

Nawawi said: "A Muslim should leave the syubhat because it is the fortress of his religion and honor, and be careful not to fall into it." (An-Nawawi, 1992: 49). The Prophet affirmed: "Leave whatever doubt you and turn to the things that you do not doubt." (HR. anNasā’î).

b. Syahwat (Lust) Control

Human behavior is strongly influenced by what syahwat is dominant in itself; syahwat for possession of property, sexual syahwat, syahwat of comfort, etc. Syahwat is childish, if removed and do not noticed then it will do whatever without control. The syahwat which left behind will plunge humans into negativity in pushing them to a hedonist pattern. Therefore in life of the world, there always appear temptation and exam. If not careful, then mankind will fall into his lap. The Messenger of Allah compares this world as a sweet and wonderful date palm to those who see it as a slander to prove who the best of charity is." (HR. Al-Qurthubi).

God has made treasure and descent as the slander of life. As the statement in Surah Al-Imrān verse 14:

\[
\text{It means: “Beautified for people is the love of that which they desire- of women and sons, heaped-up sums of gold and silver, fine branded horses, and cattle, and tilled land. That is the enjoyment of worldly life, but Allah has with Him the best return.”}
\]

Hamka (1997: 719) explains the meaning of syahwat as the desires which create an appetite that attracts syahwat for having it. Then it is mentioned on the six types of things which mankind love it because they want to have and master it, so that is seen by man is only profit, so that humans do not care about his dullness to love it.

c. Keeping Sense

The means to keep sense is knowledge. The first sentence of revelation that came to the Prophet Muhammad and touched his ear is the word iqra’ (read), after which the sentence in surah Al-‘Alaq verse 5:

\[
\text{It means: “Taught man that which he knew not”}
\]

Because reading is a way to gain knowledge and science, though it’s not the only way, but knowledge and science is the most important way. Allah SWT says in Surah Thāha verse 114:
It means: "So high [above all] is Allah, the Sovereign, the Truth. And [O Muhammad], do not hasten with [recitation of] the Qur’an before its revelation is completed to you, and say, "My Lord, increase me in knowledge."

However, this science must be accompanied by doing a good deed. Knowledge is not just known, but with the science to be cautious, submissive and obedient to Allah SWT, do good deeds, and abstain from immoral acts.

3. Healing Orientation (curative)

The growing trees will continue to face difficulty and pests. He should be given an antidote to fight pests. If not, he could die or live reluctantly to die.

It is similar to the children development in the midst of social chaos due to the shift and eviction era. Systematic and massive attempts to undermine the creed, thought and morals of children are very heavy and insistent, including the misuse of interconnection-networking (internet) access, TV broadcasts which preach violence, pornography, and porn-action.

They must be embraced and guided to the right path. Do not leave them in error. We guide them by reading and meditating on the Qur’an, because it is the medicine and heart-warming (QS Al-Isrā: 82), repent and say istighfar (QS. Al- Taubah: 8), doing a good deed and muhasabah.

In the three orientations, such as: investment, maintenance and healing (curative) orientation; they are very in accordance with the values or characteristics of Qur’an education.

CONCLUSION

From the above elaboration can be concluded that the information development and communication has reached a very astonishing stage. Consequently, one sides gave birth to positive values and able to raise the level of human life. However, on the other hand, the information development and communication through interconnection-networking (internet) access, if not framed with the values of Qur’an; they will only give birth to unrest, destruction and defamation for mankind.

Besides that, Qur’an education is very relevant to face information and era’s development. Moreover, Qur’an education as a medium to counter excesses from technological advances which its realization in interconnection-networking (internet) misuse. Thus, Qur’an education can be done by relying on three orientations such as: investment, maintenance, and healing (curative) orientation.

REFERENCES


ABSTRAK

Kajian ini dijalankan untuk mengenal pasti dan menilai elemen-elemen kemahiran sosial dan nilai sosial yang sesuai bagi program sistem dual dengan mengaplikasikan Teknik Kumpulan Nominal. Elemen-elemen ini akan diambil kira dalam reka bentuk pembangunan model kompetensi kemahiran sosial dan nilai sosial bagi program sistem dual yang akan digunakan sebagai rujukan utama pengajar kemahiran. Peembentukan elemen-elemen ini adalah berdasarkan kepada pandangan dan kesepakatan barisan panel pakar. Seramai 13 orang pakar terlibat secara langsung dengan program sistem dual telah dikenal pasti. Analisis data Teknik Kumpulan Nominal dapat ditentukan melalui nilai skor undian yang dilakukan oleh setiap panel pakar yang ditukarkan kepada bentuk peratusan dan dibandingkan dengan syarat yang telah ditetapkan. Kesepakatan pakar dan persetujuan yang dicapai telah menentukan senarai akhir elemen-elemen kemahiran sosial dan nilai sosial. Proses pengundian dalam sesi Teknik Kumpulan Nominal bukan bertujuan untuk menghapuskan atau menggugurkan mana-mana elemen yang telah dipersetujui bersama oleh pakar. Sebaliknya, proses pengundian ini bertujuan untuk menentukan peringkat keutamaan setiap elemen-elemen mengikut keutamaan setiap panel pakar secara individu berdasarkan kepada interpretasi skala. Teknik Kumpulan Nominal mengandungi lima peringkat yang perlu dipatuhi iaitu kajian, penjanaan idea, perkongsian dan perbincangan idea; proses pengundian idea yang terbaik dan pembentukan kajian. Elemen-elemen yang terbentuk akan memberikan implikasi yang besar terhadap pembinaan model. Oleh itu, dapat diancam kajian ini akan dijadikan sumber rujukan terpenting dalam pembinaan model kompetensi kemahiran sosial bagi program sistem dual.

Kata kunci: Kaedah konsensus, Kemahiran sosial, Nilai Sosial, Teknik kumpulan nominal ubahsuai, Sistem dual

PENGGENALAN


Cadangan dan idea yang kreatif, pandangan berbentuk positif dan negatif akan dikemukakan oleh ahli kumpulan daripada perbengkelan Teknik Kumpulan Nominal (Williams et. al, 2006).
Pelaksanaan Teknik Kumpulan Nominal akan dikawal selia oleh fasilitator yang bersikap adil dan tidak berat sebelah dalam menerima maklumat dan cetusan idea daripada ahli (Perry & Linsley, 2006; O’Neil & Jackson, 1983). Fasilitator tidak dibenarkan menyembunyikan, menambah, mentafsir semula idea dan membuat keputusan dalam proses sumbangan saran. Ahli kumpulan perlu diberi tempoh masa yang sesuai untuk berfikir dan tidak digalakkan untuk mencabar antara satu sama lain.

Kelebihan utama Teknik Kumpulan Nominal adalah peluang untuk semua ahli menyumbang idea dan meminimumkan penguasaan penguasaan atau dominasi individu yang lantang (Vella, Goldfrad, Rowan, Bion & Black 2000). Kelebihan lain (Nelson, Jayanthi, Brittain, Epstein & Bursuck 2002; de Ruyter 1996; Fox 1989; Moore 1987; Delp, Thesen, Motiwalla dan Seshardi, 1977; Delbecq, Van de Ven & Gustafson 1975) adalah merangkumi perkara-perkara berikut iaitu:

1. Penjanaan lebih banyak idea berdasarkan kepada pengalaman dan pengetahuan masing-masing terhadap sesuatu masalah atau isu dengan beranggapan tahap pendidikan dan pangkat ahli adalah tidak jauh berbeza.
2. Teknik ini dilaksanakan secara berkumpulan dan bersemuka bagi memberi ruang dan peluang kepada ahli untuk sesi perbincangan dan perlakuan tentang isu yang dikaji
3. Rasa pencapaian yang lebih besar untuk ahli kerana hasilnya tersedia sejurus selepas sesi
4. Terdapat peringkat perbincangan dan perbincangan idea di antara barisan panel pakar untuk mengurangkan kekeliruan dan salah faham ahli terhadap sesuatu masalah atau isu.
5. Teknik ini dapat meningkatkan idea yang lebih kreatif
6. Mudah mentafsir keputusan (sebagai idea dijana, mengundi/ keutamaan dan dinilai pada sesi itu sendiri)
7. Keperluan sumber minimum (tempat, fasilitator, papan tulis, kertas dan pen)
8. Penggunaan masa yang efisien

TUJUAN KAJIAN

Tujuan kajian ini adalah untuk membentuk model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual seperti berikut:

a) Apakah elemen-elemen dalam model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual berdasarkan kesepakatan pakar?

b) Apakah elemen-elemen yang sesuai untuk menjadi keutamaan dalam model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual?

METODOLOGI KAJIAN

Dalam kajian ini, penyelidik menggunakan Teknik Kumpulan Nominal Ubahsuai untuk mencungkil, mengenalpasti dan mengesahkan elemen-elemen kemahiran sosial dan nilai sosial. Teknik Kumpulan Nominal merupakan proses yang berulang bagi menggabungkan kepelbagaian pandangan untuk mencapai kesepakatan dan persetujuan dalam menyelesaikan sesuatu masalah atau isu yang dikaji (Delbecq, Van de Ven & Gustafson, 1975; Broome & Cromer, 1991). Dalam konteks kajian ini, penyelidik telah mengenal pasti prosedur Teknik Kumpulan Nominal sebanyak lima peringkat yang berselari dengan kajian yang telah dijalankan oleh Broome & Cromer 1991; Williams et. al., 2006, Harvey & Holmes 2012; dan Dung 2015 iaitu:

i. Peringkat 1: Taklimat kajian yang akan dilaksanakan

Penyelidik memainkan peranan sebagai fasilitator memulakan sesi sumbangan saran, tetapkan objektif sumbangan saran dan menyatakan maklumat latar belakang dan tujuan kajian. Sesi pengenalan amat penting untuk memastikan setiap pakar lebih mengenal antara satu sama lain dan selesa untuk berinteraksi. Penyelidik menjelaskan perincian dan prosedur kajian untuk mereka bentuk model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Penetapan lokasi dan tempat sumbangan saran Teknik Kumpulan Nominal sebaik-baiknya mampu mewujudkan persekitaran yang selesa dan kondusif untuk menggalakkan sesi sumbangan yang produktif. Fasilitator adalah kunci utama kejayaan sesi sumbangan saran dan berperangahruh dalam mengawal kelancaran Teknik Kumpulan Nominal. Dalam kajian ini, penyelidik tidak menggunakan Teknik Kumpulan Nominal klasik yang melibatkan masa yang panjang terutamanya untuk mengumpulkan idea-idea daripada panel pakar dalam sesi sumbangan saran. Sebaliknya,
penyelidik menggunakan Teknik Kumpulan Nominal Ubahsuai dengan menggunakan borang soal selidik yang mengandungi draf awalan elemen-elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Draf awalan ini merupakan instrumen pertama kajian yang menjelaskan skop kajian bagi membuka minda barisan panel pakar sebelum mencetuskan idea baru elemen kemahiran sosial dan nilai sosial.

ii. Peringkat 2: Penjanaan dan penjelasan idea oleh barisan panel pakar

Penjanaan idea atau elemen-elemen yang terkandung di dalam setiap elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual dihasilkan melalui sesi sumbang saran. Setiap panel pakar dibenarkan untuk mengutarakan idea dan justifikasi masing-masing. Barisan panel pakar diberikan ruang untuk sesi soal jawab terhadap idea atau elemen-elemen yang tidak difahami atau tidak jelas pada peringkat ini. Barisan panel pakar juga boleh mengemukakan idea yang difikirkan bersesuaian dengan elemen-elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Teknik Kumpulan Nominal dapat memendekkan tempoh masa perbengkelan daripada 4 jam kepada 90 minit.

iii. Peringkat 3: Perkongsian dan Perbincangan idea di antara barisan panel pakar

Kesemua idea yang dijana oleh barisan panel pakar disenaraikan dan dipaparkan di atas papan putih untuk dikongsi bersama panel pakar yang lain. Barisan panel pakar dibenarkan untuk berbincang sesama seserorang terhadap idea atau elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Pada peringkat ini, fasilitator berperanan untuk membacakannya setiap elemen-elemen dengan penerangan ringkas. Panel pakar boleh mengemukakan idea baru yang adanya atau tidak jelas pada setiap elemen-elemen yang dipaparkan. Idea yang berlaku pertindihan idea atau elemen, idea atau elemen tersebut boleh digabungkan dan dikategorikan mengikut persetujuan ramai untuk panel pakar membuat penilaian bagi menghasilkan senarai akhir elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Senarai akhir ini digunakan sebagai instrumen kedua kajian ini.

iv. Peringkat 4: Pengundian melalui borang soal selidik berdasarkan idea yang dikemukakan oleh barisan panel pakar

Di dalam sesi perbengkelan Teknik Kumpulan Nominal, barisan panel pakar mengemukakan pemilihan kesesuaian elemen kemahiran sosial dan nilai sosial masing-masing melalui borang soal selidik yang disediakan. Setiap panel pakar diberikan tempoh masa untuk menilai semuanya atau elemen-elemen kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual melalui borang soal selidik yang diberikan. Proses pengundian dilakukan secara individu untuk menentukan keutamaan setiap elemen. Nilai skala likert yang ditandakan oleh setiap panel pakar diinterpretasi dalam jumlah peratusan sekurang-kurangnya 70 peratus (Deslandes, Mendes, Pires & Campos, 2010). Pengundian dalam Teknik Kumpulan Nominal bukan untuk menghapuskan atau menggugurkan elemen-elemen yang telah dipersetujui oleh barisan pakar sebaliknya, bertujuan untuk menetapkan kedudukan mengikut keutamaan setiap elemen. Tafsiran skala yang digunakan adalah seperti berikut:

1 = Teramat Tidak Sesuai
2 = Sangat Tidak Sesuai
3 = Tidak Sesuai
4 = Sederhana Sesuai
5 = Sesuai
6 = Sangat Sesuai
7 = Teramat Sesuai

Pemilihan skala 1 hingga 7 adalah bagi memberi ruang yang lebih besar kepada barisan panel pakar untuk menyatakan tahap persetujuan. Pemilihan skala yang lebih besar akan memudahkan penyelidik untuk menentukan keutamaan apabila kebarangkalian berlakunya pertindihan jumlah undian adalah lebih kecil. Angka-angka yang diberikan oleh barisan pakar dijumlahkan untuk memberi nilai keutamaan bagi setiap elemen. Elemen yang mempunyai jumlah keseluruhan yang paling tinggi merupakan elemen yang paling diberi keutamaan dalam senarai. Skala 1 hingga 7 digunakan untuk
menentukan kedudukan elemen-elemen di mana skala 1 menunjukkan teramat tidak sesuai dan skala 7 adalah sangat sesuai. Skala yang diberikan oleh setiap pakar akan dikumpulkan dan akan memberikan nilai-nilai keutamaan untuk elemen-elemen yang terkandung di dalam model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Nilai skor pengundian yang diperoleh diubah ke dalam peratusan dan hendaklah sama atau melebihi 70 peratus. Proses penyusunan ini dilakukan untuk memudahkan pengendalian kajian dalam sesi yang selanjutnya. Setelah tamat, borang soal selidik dikumpulkan semula oleh fasilitator.

v. Peringkat 5: Pembentangan dapatan kajian

Data daripada borang soal selidik akan dimasukkan ke dalam Microsoft Excel bagi dijumlahkan dan diberi nilai keutamaan berdasarkan peratus persetujuan dan tahap penerimaan panel pakar. Selanjutnya, dapatan kajian peringkat ini akan diperembahkan kepada barisan panel pakar. Elemen yang mempunyai jumlah tertinggi akan menjadi keutamaan dalam menandai akhir elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Prosedur Teknik Kumpulan Nominal dijelaskan dalam Rajah 1 di bawah ini.

![Carta alir prosedur Teknik Kumpulan Nominal](image)

**Instrumen 1**
Kaji selidik menggunakan draf awalan elemen kepada 13 orang panel pakar untuk dinilai

Menyenaraikan semua elemen berdasarkan kali selidik dalam sesi sumbang saran

Pembentangan (penjelasan, mengkategorikan elemen yang sama, menambah dan memansuhkan elemen)

**Instrumen 2**
Senarai akhir elemen model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual

Proses pengundian melalui borang soal selidik untuk susunan keutamaan bagi setiap elemen kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual

**Kumpulan Nominal**
Teknik Kumpulan Nominal boleh diaplikasikan merentas pelbagai bidang seperti pendidikan, pengurusan, kejururan, sains sosial, perubatan klinik dan sebagainya. Tempoh masa bagi sesi perbengkelan Teknik Kumpulan Nominal ini adalah selama 2 jam setengah sepertimana kajian oleh O'Neil dan Jackson (1983) yang menegaskan tempoh masa yang ideal adalah masa yang mencukupi untuk panel pakar menjawab persoalan dan berbincang secara aktif dalam mencapai sesuatu konsensus.

Kriteria utama pemilihan panel pakar adalah peserta kajian hendaklah berpengalaman, mahir dan mempunyai kefahaman yang mendalam di dalam bidang yang dikaji (Dalkey dan Helmert, 1963). Terdapat perdebatan tentang saiz kumpulan optimum dalam mengaplikasikan Teknik Kumpulan Nominal. Berikut merupakan kepelbagaian bilangan pakar yang dicadangkan oleh penyelidik sebelum ini:

<table>
<thead>
<tr>
<th>Pengkaji</th>
<th>Tahun</th>
<th>Cadangan bilangan pakar kajian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van de Ven dan Delbecq</td>
<td>1971</td>
<td><em>kumpulan kecil:</em> tidak melebihi 5 hingga 9 orang</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>kumpulan besar:</em> 9 hingga lebih daripada 200 orang</td>
</tr>
<tr>
<td>Carney, McIntosh dan Worth</td>
<td>1996</td>
<td>minimum 6 orang</td>
</tr>
</tbody>
</table>
Penyelidik telah menyenaraikan barisan panel pakar seramai 13 orang yang terdiri daripada penggubal kurikulum, pengajar pakar, pakar industri negara, pegawai kanan Jabatan Pembangunan Kemahiran, pensyarah kanan IPTA, coach SLDN, pengajar SLDN dan penyelaras SLDN. Rasional pemilihan panel pakar ini adalah kerana mereka mewakili kumpulan yang terlibat secara langsung dalam usaha melatih dan menerapkan kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Kriteria pemilihan ahli kumpulan adalah sangat penting bagi meningkatkan kesahan dan kebolehpercayaan Teknik Kumpulan Nominal dan penentuan soalan perbincangan yang tepat (Williams et. al, 2006). Agihan panel pakar ditunjukkan dalam Jadual 1.

<table>
<thead>
<tr>
<th>Bil</th>
<th>Jawatan</th>
<th>Bidang Kepakaran</th>
<th>Tahun Pengalaman</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pengajar Pakar (PAJAR)</td>
<td>Penggubal kurikulum sektor pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Pengajar Pakar (PAJAR)</td>
<td>Penggubal kurikulum sektor pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Pakar Industri Negara (PIN)</td>
<td>Penggubal kurikulum sektor pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Pakar Industri Negara (PIN)</td>
<td>Penggubal kurikulum sektor pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Pegawai Kanan Jabatan Pembangunan Kemahiran</td>
<td>TVET dan terlibat secara langsung dalam program SLDN</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>Pensyarah Kanan IPTS</td>
<td>TVET dan terlibat secara langsung dalam program SLDN</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Professor di IPTA</td>
<td>Terlibat secara langsung dalam program SLDN</td>
<td>23</td>
</tr>
<tr>
<td>8</td>
<td>Pensyarah kanan di IPTA</td>
<td>TVET dan terlibat secara langsung dalam program SLDN</td>
<td>19</td>
</tr>
<tr>
<td>9</td>
<td>Coach SLDN</td>
<td>Sektor Pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>Coach SLDN</td>
<td>Sektor Pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>11</td>
</tr>
<tr>
<td>11</td>
<td>Pengajar SLDN</td>
<td>Sektor Pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>Pengajar SLDN</td>
<td>Sektor Pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>Penyelaras SLDN</td>
<td>Sektor Pembuatan dan terlibat secara langsung dalam program SLDN</td>
<td>7</td>
</tr>
</tbody>
</table>
DAPATAN KAJIAN

Dalam sesi perbengkelan Teknik Kumpulan Nominal yang dilaksanakan, elemen asal (Instrumen 1) dari penyelidik dibentuk oleh fasilitator untuk dibincangkan dari segi kesesuaian elemen, ketepatan maksud elemen dan struktur ayat bagi setiap elemen kemahiran sosial dan nilai sosial program perantisan sistem dual. Barisan panel pakar telah mencapai persetujuan dan kesepakatan bersama untuk menggugur, menambah dan membuat penambahbaikan pada elemen bagi menghasilkan elemen yang berkualiti. Setiap elemen yang disenaraikan akhir dilihatkan tahap mengikut keutamaan melalui proses pengundian oleh setiap panel pakar secara individu. Analisis dijalankan berdasarkan skala yang dipilih untuk menentukan kedudukan setiap elemen tersebut.

Penyelidik telah menyenaraikan elemen asal kemahiran sosial yang terdiri daripada 8 elemen. Penyelidik telah menyenaraikan berdasarkan elemen nilai sosial yang terdiri daripada 15 elemen. Penyelidik menentukan bilangan senarai awal dan akhir elemen yang terbentuk hasil daripada persetujuan dan kesepakatan pakar seperti dalam Jadual 2.

Jadual 2: Perbandingan bilangan senarai awal dan akhir elemen

<table>
<thead>
<tr>
<th>Bil</th>
<th>Elemen</th>
<th>Senarai Awal Elemen</th>
<th>Senarai Akhir Elemen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kemahiran Sosial</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Nilai Sosial</td>
<td>16</td>
<td>15</td>
</tr>
</tbody>
</table>

Jadual 3 memperlihatkan senarai akhir elemen kemahiran sosial mengikut keutamaan pilihan barisan panel pakar. Berdasarkan Jadual 3, barisan pakar telah bersetuju untuk menjadikan elemen pertama mengikut kedudukan dan keutamaan melalui keputusan undian pakar bagi elemen kemahiran sosial iaitu kerja berpasukan diikuti oleh komunikasi dan interpersonal. Manakala elemen yang keempat dan elemen terakhir adalah kepimpinan dan kेपेलबागाइन Tugas.

Jadual 3: Senarai akhir elemen Kemahiran Sosial

<table>
<thead>
<tr>
<th>Elemen Komponen Kandungan Set Kemahiran</th>
<th>Pakar</th>
<th>Jumlah Undian</th>
<th>Peratus</th>
<th>Keutamaan kedudukan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Komunikasi</td>
<td>7 6 7 7 6 7 8 9 1 0 1 1 1 2 13</td>
<td>84</td>
<td>92.3%</td>
<td>2</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>7 6 7 6 6 7 8 7 7 5 6 6 6</td>
<td>83</td>
<td>91.2%</td>
<td>3</td>
</tr>
<tr>
<td>Kepimpinan</td>
<td>7 5 7 6 6 7 6 7 7 6 6 6</td>
<td>82</td>
<td>90.1%</td>
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<tr>
<td>Kėpėlbaigāna Tugas</td>
<td>7 5 7 6 6 7 5 7 7 5 5 5</td>
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<tr>
<td>Kerja Berpasukan</td>
<td>7 6 7 7 7 6 7 7 6 7 7 6</td>
<td>85</td>
<td>93.4%</td>
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Berdasarkan analisis nilai keutamaan yang ditunjukkan dalam Jadual 3, elemen kemahiran sosial dapat disusun mengikut keutamaan seperti berikut:

1. Kerja berpasukan
2. Komunikasi
3. Interpersonal
4. Kepimpinan
5. Kėpėlbaigāna Tugas

Lapan (8) elemen dalam senarai awal untuk elemen Kemahiran Sosial menjadi 5 elemen setelah terdapat pengguguran dan penambahbaikan elemen dilakukan oleh barisan panel pakar. Begitu juga untuk elemen Nilai Sosial, terdapat satu sahaja perbezaan bilangan elemen yang terpilih iaitu 15 elemen setelah dilakukan penggabungan dan penambahbaikan oleh barisan pakar yang terlibat.
Berdasarkan Jadual 4, dapatan kajian terhadap sesi sumbang saran menggunakan Teknik Kumpulan Nominal untuk elemen Nilai Sosial adalah Ketelitian, Kesabaran dan Ketepatan masa. Analisis dijalankan berdasarkan interprestasi skala yang dipilih untuk menentukan kedudukan setiap elemen mengikut keutamaan. Nilai skala terendah yang dipilih oleh barisan pakar adalah 4 iaitu 'sederhana sesuai' dan nilai tertinggi skala adalah 7 iaitu 'teramat sesuai'.

Jadual 4: Senarai akhir elemen Nilai Sosial

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</table>

Berdasarkan analisis nilai keutamaan yang ditunjukkan dalam Jadual 4, elemen nilai sosial dapat disusun mengikut keutamaan seperti berikut:

1. Ketelitian
2. Kesabaran
3. Ketepatan masa
4. Kerjasama
5. Keyakinan
6. Kejujuran
7. Permuafakatan
8. Kepatuhan
9. Ketekunan
10. Keadilan
11. Keberadaban
12. Keberdikarian
13. Penghargaan
14. Kerasionalan
15. Kekreatifan

PERBINCANGAN

Kajian ini menggapiikan Teknik Kumpulan Nominal ubahsuai di mana sesi perbengkelan dibuat untuk menemukan panel pakar kajian secara beremuka bagi mengenalpasti elemen-elemen kemahiran sosial dan nilai sosial mengikut turutan keutamaan. Pemilihan penggubal kurikulum,
pengajar pakar, pakar industri negara, pegawai kanan Jabatan Pembangunan Kemahiran, pensyarah kanan IPTA, coach SLDN, pengajar SLDN dan penyelaras SLDN yang terlibat secara langsung dengan program perantisan sistem dua sebagai barisan panel pakar adalah bertepatan kerana elemen-elemen yang dikenal pasti ini akan digunakan dalam sesi perbengkelan yang selanjutnya. Dapatan kajian telah menyenaraikan lima elemen kemahiran sosial dan 15 elemen nilai sosial yang perlu dimasukkan ke dalam model kompetensi kemahiran sosial dan nilai sosial bagi program perantisan sistem dual. Elemen kemahiran sosial yang paling utama adalah kerja berpasukan. Manakala elemen nilai sosial yang menjadi prioriti adalah ketelitian, kesabaran dan ketepatan masa yang telah dipilih berdasarkan kesepakatan pakar.

RUJUKAN


PHENOMENON BASED-LEARNING FOR COMMUNITY DEVELOPMENT AND SKILLS ACQUISITION: CHALLENGES FOR NIGERIAN HIGHER INSTITUTIONS' CURRICULUM DESIGN STRUCTURES IN THE 21ST CENTURY

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ABSTRACT

Education generally, aims at fostering quality of life that encompasses moral, intellectual and economic growth of an individual and the larger society. The success of any society hinges on the nature of its education; and this saliently, can be determined through the framework of its curriculum design, which part of its sources, society and the learners' needs count much weight. Considering the nature of unemployment in Nigeria, and dearth of modern skills among many apprentices, no one will dispute that there is need to have a curriculum design, particularly at higher institutions, capable of empowering individuals to satisfy their optimal needs in the modern-world. This paper attempts to review the nature and problems of Nigerian education, especially tertiary level, through content analysis. The exertion suggests that one of the best ways to reduce the mentioned problems is to bring about new curriculum design at tertiary higher institutions of learning, called 'phenomenon based-learning'. It is a design/program attempts to capture a phenomenon in formation. It is a multi-dimensional and skills-oriented program, which through its design, individuals (students and non-students) having unique passions will be accommodated to learn modern skills related to their jobs/businesses or passion. Hence, it will enable them to enhance their jobs, become more independent and generally serve as means for community development.

Keyword: Phenomenon, based-learning, community development, self-reliance, curriculum design, self-actualization, higher institutions;

INTRODUCTION

Education has been a tool for training and forming the personality of an individual. Numerous educationists have outlined countless definitions of education. For instance, Adegbija (2011), asserted that the process of education evolves from the three basic sources namely, nature, humans and objects. The first involves the natural compulsions and competences, which individuals obtain through the developmental stages of their organs; these are termed as responses to nature that occur without any influential factor. The second source, entails interaction with the family and societal members by utilizing the precursory and natural impulses, which enable the individuals to obtain another education from 'humans'. Thirdly, naturally human beings are surrounded with different kinds of tools; thus, interaction with such tools provided by the environment, prompts us to another experience or education called 'personal experience'. More so, education is seen as a process of preparing individuals for a better life; it is a means of transmitting societal values to individuals for their integration into the society (Asogw & Diogwu, 2007). Ultimately, education is a social phenomenon that plays many roles to individuals, which include enhancing creativity, promoting social, economic and cultural participation and increases human development (Eze, 2013).
No doubt, education has always stand as a salient vehicle through which societal development is achieved. Thus, globally the educational sector has been experiencing transformations and innovations that bring about new techniques and models in meeting the challenges of modernity (Aderogba, 2011). In line with this, education as well, is the unified process that strengthens the bond exists between an individual and the society. This signifies that education represents the societal ‘language’ through which its needs and aspirations are translated into concrete, valuable and achievable realities (Momo, 2012). Modern societies are changing; hence, education with its dynamic process is supposed to address those changes through curricula reformation. Technical, social and economic changes as well as “globalized market” are regarded as revolutions that shaped the demands, thinking and lifestyle of the individual societal members (Ojimba, 2012). These call for “phenomenon based-learning” in which new pedagogical instructions and educational designs of enhancing competence and meeting the individuals’ needs and passions in the 21st century are needed.

LITERATURE REVIEW

The high rate of unemployed among graduates of higher education in Nigeria as a country, is becoming horrendous day after day. It is a fact that the cause cannot be separated with the graduates’ dearth of employable skills (Akram, 2012). Numerous scholars have been seen unemployment as the persisting, fastest and despicable phenomenon that destroys the socio-economic progress of most of the developing nations (Adawo, 2013). Furthermore, it has been expatiated that several factors such as curricula deficient, dearth of concrete national employment policy, lack of enabling business environment and especially, absence of standard curriculum design that is tallied with the industrious needs, accumulatively caused the increased rate of unemployment in the nations. Other factors may include change of government, which so often results in change of educational policies that might affect the current good practices (Aderogba, 2011).

To reiterate, the fastest growth of unemployment among the graduates of higher institutions of learning today, in Nigeria and other developing countries, emerge as a bottleneck, which incapacitates both labor market and the general progress of the economy. The backwashes cause by unemployment in developing countries are countless as well as outrageous. They are identified in two categories; those that affect psychological stage of an individual, which later it’s effect exceeds to affect the social and economic levels of individual as the second category. The former, derives away the affected individuals from community engagement. It makes them feel unfulfilled and dishonored, which in essence, destroys their level of self-esteem (Ayomnike, 2010).

Unemployed graduates in Nigeria and other developing countries, feel marginalized; and in essence, being workless and unhappy in a world of material consideration, they are prompted to violence. Again, such individuals feel inferior within the societal context; their relatives and friends often look at them as liabilities (Dubb & Howard, 2007). While the economic effects of unemployment in such countries, include “reduction in gross domestic product” (Adawo, 2013). This however, leads to other effects like demoting the economic welfare of a nation, destroying of human capital and degrading the output of the economy In Nigeria, these and other consequences drastically, cripple the economy; and in recent decades, promote massively, other social menaces such as stealing, robbery drug abuses and kidnapping, which jeopardize immensely, the peace and stability of the country and brings about increase in poverty (Eze, 2013).

Moreover, currently in Nigerian context, there have been an intense increase of higher institutions of learning across the country. It is so pitiable to notice that the expansion did not align with the demands of both the individuals and the work place (Uwaifo, 2009). The country has more than 478 higher institutions of learning, yet the country is suffering from a dreadful issue of graduates with unrelated employable skills, which could be a bottleneck in meeting the challenges of the modern world (Akram, 2012). It is expatiated that despite the expansion of higher institutions of learning in Nigeria, graduates are still unable to have entrepreneurial skills that promote creativity and self-reliance. Thus, there is need to improve the quality of Nigerian higher institutions of learning by modifying the curriculum framework to ensure “inculcation of marketable skills” and maintain proper and serious implementation of the higher education goals as preserved in the Nigerian National policy on Education (Ayomnike, 2010).

Yang (2008), stated that successful implementation of educational policies needs an adequate monitoring and supervision. He added that policies without accurate implementation will surely cripple
the national development. Scholars have expatiated that the quality of a national development is determined by the adequacy and quality of the manpower of a nation. Similarly, skill acquisition is the criterion for determining the manpower quality (Oduk, 2010). In more than a decade, Nigerian government economy has been termed as static and conservative, which failed to diversify in order to achieve optimal progress. Although, the curriculum, right from the secondary to the University level has experienced number of innovations, aiming to promote entrepreneurship interest among the Nigerian citizens (Okorie, 2012). However, absence of harmonious and comprehensive plan that can possibly harness between the number of graduates and the available employment opportunities, both trigger the disheartening issue of graduate unemployment in Nigeria

CURRICULUM DESIGN: STRUCTURES AND CONSIDERATIONS

curriculum is an organized set of formal education or process of training intentions. It is a four-step plan that comprises four phases (purpose, design, implementation and assessment (Federal Republic of Nigeria, 2013). These definitions, sequentially stress on plan that has determined goals to achieve. Curriculum is the foundation of teaching and learning process. It is all-inclusive framework that encompasses development of educational program, planning teaching and learning process, selecting and utilization of instructional materials and advocating the appropriate modes of evaluating the learning outcomes (Sharma, 2013). Designing a curriculum is very crucial; hence, there are several paramount sources need to put into consideration. The most cardinal ones among others are the learner and the society. The two majorly, shape the nature and the outlook of a curriculum. The societal and the learners’ needs are the pivotal aspects that influence the curriculum nature (Adibisi, 2012).

Curriculum reform has been prevalent among countries around the globe in their bid to produce graduates fit for globalization and the knowledge-based economy. For instances, on 8 June 2001, the Chinese Government admitted that its current curriculum policies and practices are outdated, thus failing to meet the needs of the 21st century. Hence, the curricular goals of education were re-designed to respond to the needs of international scholarship and trends in education and curriculum (Biesta, 2012). This signifies that every curriculum development and design is supposed to consider the needs, values and passions of individuals and the society in context.

HIGHER INSTITUTIONS OF LEARNING IN NIGERIA: ROLES AND UNIQUENESS

Higher Education is given so many names including ‘tertiary Education’. The national policy on Education of Nigeria (FRN, 2013: Section 8, No. 57, p. 28) (Federal Republic of Nigeria, 2013) stresses that Tertiary Education is “the education offered after secondary education in the universities, colleges of education, polytechnics, including those institutions offering correspondence courses”. The level of human resources development is key determinant factor for the strength and level the developmental level of any nation. Efficient and effective human resources are achieved through organized and robust higher educational system (Adibisi, 2014). Curricula on the other hand, serves as an engine which drives educational issues. Skills development issue is very crucial to national development (Adibisi, 2012). In this respect, higher education is a connecting link through which individuals acquire the desired skills to function well in a society.

The demand of globalized market and the general improvement in technology have made liberal education less relevant and “called for skill-oriented higher education” (Aderogba, 2011). In response to this, Nigerian government in an attempt to meet the challenges streamlined her national policy on Education (NPE), with set of modes, operations and processes that could help in fostering skills acquisition at Nigerian higher institutions of learning (Burker, 2012). Higher institutions of learning are defined as educational centers designed to transmit knowledge and skills for the members of society to compete in the world. These individuals are expected to see the realities and practical implication of the acquired skills for the benefit and the larger society (Cantor, 2009). However, it is unfortunate to realize that there has been no serious and firm commitment on the implementation of the newly recommendations by the NPE. This in turn, resulted to have many graduates of higher institutions of learning without employable skills. Thus, the rate of unemployment in the country is still drastically increasing. Therefore, the higher education in Nigeria is supposed to be revitalized to conform with the rationalized objectives proposed by NPE in terms of “skill acquisition and skill development” (Fakomogbon & Adegbija, 2011).
PHENOMENON-BASED LEARNING: A CONCEPTUAL ANALYSIS

Different scholars have defined phenomenon-based learning (PBL) from various point of views. Although, almost every definition emphasizes on holistic curricula approach that advocates on teaching real life issues, ideas based on students' needs and problem solving training (Biesta, 2012). PBL is defined as a “cross-curricular” and pedagogical approach, which aims at preparing students for the 21st century challenges. These include skills acquisition training through using technologies (Akram, 2012). Furthermore, PBL is a curricula shift-emphasis from what learners learn, to how best they learn. More so, PBL is a multidisciplinary curricula design that calls for constructivist means of learning, where students are exposed to a topic or skills of their interest in a holistic approach, rather than “subject based approach” (Schuller & Watson, 2009).

In addition, PBL encompasses topical learning, whereby the phenomenon of interest could be a peculiar topic, fact or event, which in other words known as theme-based learning approach (Eurydice, 2015). It is almost a unanimous view that PBL emerged as a replacement to traditional learning approach (subject-based), which perceived to be outdated and irrelevant in terms of development of the 21st century skills (Finnish National Board of Education (FNBE), 2016). Similarly, the approach (PBL) is student-centered approach to learning that engages learners to a unique environment, which enables them to explore a phenomenon of their interest to the optimal level of satisfaction (Biesta, 2012). Likewise, the phenomena under study are explored holistically. In other words, skills, events or a phenomena are not only studied within their real context, rather the skills of interest are studied cross-sectional (across related subjects) (Finnish National Board of Education (FNBE), 2016).

In modern world, educationists are much interested in discussing and addressing the importance and the nature of knowledge and the learning environments of the 21st century. Many are of the view that educational system needs change for the purpose of 21st century learning (Sharma, 2013). The traditional approach on the concept of schooling, the curricula and the learning are all questioned in the 21st century. Living in a globalized society (21st century) demands for competencies, dispositions and skills, which the traditional settings and approaches of the present education and schooling cannot provide (Adebisi, 2014).

Again, for individuals to successfully live in the 21st century society, there is need to provide learning environment that promotes problem solving, critical thinking, creativity, communication and collaboration; and most importantly which accommodates the needs and passions of the societal members (Tuomi-Grohn, 2007). This stresses that it is quite essential that educational curricula of the 21st century is supposed to promote activities within and across “formal and informal settings” that stresses on skills training acquisition, aims at individual and community development. In this context, learning is not seen as a recycling of ideas, but rather entails transformation of ideas, innovating new environment of learning that provides optimal satisfaction to the members of the society (Akram, 2012). To respond to this call, especially in a Nigerian context, there is need to introduce what is called ‘phenomenon based-learning’. It is a curricula approach that stimulates nurturing individual’s creativity, self-reliance, independent and employability.

COMMUNITY DEVELOPMENT AND SELF-RELIANCE ACTUALIZATION: EDUCATION AS AN INTERSECTION

Undoubtedly, community development cannot be separated from the standard and function of education. In developed and many other developing countries, community needs and aspirations are the integral part, which determine the aims, objectives and structural foundation of a national education. Nowadays, community development hinges on the social conditions of the individuals and ultimately focuses on the “realization of their hopes” (Carnegie Foundation for the Advancement of Teaching, 2006). Again, in developed nations, education is not only meant to achieve both economic and social objectives; however, the generated knowledge through research, is utilized also in actualizing the observed individual’s personal development (Cruz & Giles, 2000). Primarily, education is expected to sustain both individual and community development. Educational policies and programs serve as pivotal keys to enhance these individual and community developments (Dubb & Howard, 2007). To put it differently, it is from the educational structures and the curriculum framework that a general development of a community in terms of socio, cultural and economic aspects are determined. To
reiterate, society is a complement of education; it’s the natural and communal conditions that define the function and role of education (Harkavy, 2006). Development is to elevate the status or the structure of a given community within the available socio-economic guidelines. This affirms that development calls for “both an economic and educational process” (Jacoby, 2009). Again, community development demands satisfaction of individual’s needs and passions, which as well stresses increasing the person’s level of knowledge, skills and worldviews. Development is all inclusive that encompasses economic and social conditions of individuals (Maurasse, 2001). In line with this, school is an essential institution that provides instruction which promotes community development and economic progress. The cardinal roles of school as an institution in relation to community are two. One, to sustain and regulate the social norms and values of a given society. Second, accommodate the socio-cultural and individual aspects in terms of designing the school objective (O’Meara, 2007).

Community and human development are inseparable; and it is asserted from sociological point of view that promoting the mental level of the societal members is a pivotal sign of community improvement. This process calls for some level of knowledge or ideas from local to modern fashion; and education stands as the essential means to accomplish this task. Knowledge is an important criterion that defines the status of every community in the world. Again, “it is a mental product of mind operations”, which is obtained through research, instruction, observation and education.

**CHALLENGES FOR HIGHER INSTITUTIONS OF LEARNING IN THE 21TH CENTURY NIGERIA**

Constant innovative changes in technology and changes of societal demands have always made education to become more flexible and dynamic in nature. These changes call for a unique skills and competencies that higher institutions of learning are supposed to provide in order to revive the social, political and economic growth of a nation and meet the challenges posed by modernity (Asogwa & Diogwu, 2007). In response to such innovations and societal demands, Nigerian system of education has witnessed almost a comprehensive change, which affected the structures, organization and the overall educational purpose (Aderogba, 2011). For example, from 1970s up to early 1980s the system of education was 6-5-4; however, in the late 1980s up to 2005, the system was restructured to 6-3-3-4. In the same vein, the system also encountered another structural reformation as 9-3-4 in 2008 (Adibisi, 2012).

In essence, the reformation as well result to change in the national educational objectives. At each level of the educational system (primary, secondary and higher institutions of learning) there are new specific objectives the system intends to accomplish (Burker, 2012). Most of the educational system of higher institutions in many developing countries, including Nigeria experiences same curricula problems. In such countries, the curriculum at higher institutions of learning is “dominated by liberal subjects” (Okorie, 2012). This stresses that the education offered neglects technical, vocational and other forms of education like entrepreneurship, which exhibit elements of improving national economic growth.

**CONCLUSION**

In modern world, the educational policy makers are moving away from designing and prioritizing high level literacy education towards emphasizing on skills training to promote workforce and economic growth of a nation. Introducing educational system of new approaches that addresses cultural success and promote economic competitiveness, is a prerequisite to every national education. In this context, the real phenomenon based-learning, aims at assimilating the individual needs of students and that of the general members of the society is recommended. It is a new curriculum design proposing to quench the students’ ‘thirst’ to obtain technical and theoretical knowledge on a specific skill of interest. In addition, it is proposed curriculum framework to also accommodate societal members (technical apprentice), who wish to enhance their skills through acquiring advanced knowledge in modern trends. Likewise, manpower production is one of the fundamental purposes of creating higher institutions of learning in Nigeria. Therefore, work-skills training that promote individuals’ empowerment is indispensable from the role of higher education institutions of learning. Such empowerment should prioritize inculturation of skills that would enable citizens to become employable, self-reliant and productive. The possibility of actualizing these, requires inculcation of right attitudes, habits and marketable skills that can enable individuals to utilize the available resources and opportunity within the environment.
RECOMMENDATIONS

Based on the foregone discussions and reviews on the nature and problems of Nigerian higher institutions of learning, there are two major loopholes identified in the system, which include absence of curricula-skills oriented and mismatch between the demands of the employers and the curriculum structure. Therefore, the review recommends the followings:

1. There is need for a robust and effective revitalization of the Nigerian National policy on Education to introduce a ‘phenomenon based-learning’ instructional approach at higher institutions of learning for skills acquisitions and self-reliance training.

2. The curriculum framework of higher institutions of learning should be reformed to provide an avenue whereby community members with a passion to obtain expertise on a particular skill, will be accommodated. This could be achieved through introducing a part-time program on various skills training. In this context, lecturers from related areas will be utilized as resource persons to provide the required training. Again, the training will be meant to intensively expose individuals of interest to a particular skill-training within period of at least three (3) months and issue them with a certificate of attendance.

3. In essence, the above proposed curricula approach should target both graduates and community members, especially local apprentices who want to learn modern knowledge and technical skills related to their work in order to meet the challenges posed by the 21st century.

4. Relatively, the curricula should also provide room to accommodate the passion and needs of those graduates who wish to obtain rigorous skills-training on a particular area in order to compete in a globalized market place.

REFERENCES


ABSTRACT

Transiti\(ng\) into 21\textsuperscript{st} century learning warrants novel pedagogical measures to accommodate new approaches to utilizing resources for learning, and renewed perspectives of student engagement. Over the years, notions of student engagement have evolved from obedience to didactic teaching; to attempts of higher-order thinking skills; and more recently, seamless synthesis of engagement, cognitive skills and learner ownership. In fact, 21\textsuperscript{st} century learning promotes several waves of interest in the English language curriculum inclusion for Science, Technology, Engineering and Mathematics (STEM); and this attempt is, of late, strongly advocated through students’ interaction with LEGO\textsuperscript{\textregistered} Technic. In light of these emerging patterns of forceful interactions, this study explored how LEGO\textsuperscript{\textregistered} Technic are used in Task-Based Language Teaching (TBLT) to facilitate development of student engagement among primary school pupils. Based on data elicited from in-depth interviews with pupils and instructors, teaching-learning observations and researcher’s field notes, findings indicate emergence of three significant attributes of student engagement: (i) Constructive engagement, (ii) Concretization of information and skills, and (iii) Sense of belonging. These findings addressed profound implications to how LEGO\textsuperscript{\textregistered} Education can be integrated into TBLT framework to promote attributes of STEM curriculum, producing skills of inquisitiveness in wanting to learn more about the environment and society.

**Keywords:** TBLT, LEGO\textsuperscript{\textregistered} Education, Student engagement, STEM, English language, 21\textsuperscript{st} century learning, In-Depth Interviews

INTRODUCTION

With the advancement of social economy, different times portray different needs for unique and respective skilled set of human capital. A forum report *The Future of Jobs* extracted from the World Economic Forum listed a series of skills necessary for the 4th Industrial Revolution (4th IR), such as, complex problem solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence (World Economic Forum, 2016). Exposure to development of such skills should rightfully commence during the younger years when pupils are more susceptible to cultivate and rehearse the aforementioned skills.

Active engagement in task-based language teaching (TBLT) environment promotes cultivation of such skills through input-based tasks and form-focused work to facilitate development of authentic communication (Shintani, 2014; Nunan, 2006). Hence, this study aimed to explore potential development of student engagement among primary school pupils through interaction with LEGO\textsuperscript{\textregistered} resources in a task-based language teaching environment.

Understanding Task-Based Language Teaching (TBLT)

Task-Based Language Teaching (TBLT) was initially established for students to achieve grammatical conformity in their use of language along with the meaning of language use (Prabhu, 1987). By placing communication tasks as the core component in TBLT framework learners will be able
to develop their cognitive capability in language understanding and comprehension (Willis, 1996; Prabhu, 1987).

Collaborative learning typically emerge as one of the primary learning outcome from engagement in TBLT environment - which emphasizes information building and knowledge transfer. The platform TBLT provides for pupils promotes communicative engagement through tasks and classroom instructions addressing TBLT capabilities in stimulating Second Language Acquisition (SLA) such as the relationship between target language perception, processing, production and language learning (Izadpanah, 2010).

In the context of this study, the variable student engagement materializes from pupil's physical and psychological behaviour towards the collaborative learning environment, their peers, teachers, as well as the tasks given to them. One of the three main dimensions of engagement that constitutes to student engagement is behavioral engagement (Appleton et al., 2008). Behavioural engagement refers to the students’ involvement in academic and social activities, where a potential relationship between students themselves with teachers and peers are constructed. Through this dimension of engagement, the psychological component regarding to students’ sense of belonging to the learning environment as well as the reception to school values are developed (Johnson et al., 2001).

LEGO® Education

The current trend of economic growth relies on individuals who are good at science, technology, engineering and math (STEM), and LEGO® has emerged as an innovative method to conduct teachings about science and math (Kazez & Zulfu, 2016). Initially a mere toy for young children, LEGO® has now become one of the most effective tool to develop young learner’s thinking skills, decision-making, critical thinking and gain hands-on experience alongside with their friends throughout the building process (Nugent, Barker, Grandgenett, & Adamchuk, 2009). The idea of learning through construction of physical objects promotes a learning pattern where hands-on approach prioritizes over a one-sided transfer of knowledge; which in turn serves as a tool to enable students to be an active citizen in the class (Bilotta, Gabriele, Servidio, & Tavernise, 2009).

METHODOLOGY

This research paper advocates the design of qualitative study, which focuses on the encoding and decoding of primary school pupils’ social and behavioural interactions who attended Bricks4Kidz enrichment centre’s Technic LEGO® class. This paper attempts to highlight only the in-depth interview findings with pupils engaged in the Technic LEGO® class. These findings are a part of a much larger Hermeneutic Phenomenological study which involved data collection through means of in-depth interviews with the three pupils and three teachers, and subsequently validated through participation observation of student engagement.

FINDINGS AND DISCUSSION

Throughout the data analysis, pupils in the TBLT driven Technic LEGO® class has clearly demonstrated interactions where they value their peers and the learning environment they are in. This value reflects the behavioural engagement the pupils possesses in the task-based language teaching environment. Among the findings established, this paper aims to highlight the finding “Sense of Belonging” - where affective reactions the pupils project such as interest, happiness or anxiety ties a bond to their teachers, friends, classroom and the task itself.

This particular finding describes how the pupils identify themselves as a vital member of their classroom learning community that aims to establish and achieve classroom goals, and ultimately enhancing the learning experience. Based on the recognition of this process, motivation attained from the inner drive of the pupils themselves meet their psychological needs which in turn contributes to autonomy, increase of competency in task completion and sense of belonging to their learning community (Finn & Zimmer, 2012).

Findings also indicated how conversational interactions (language) acts as a catalyst for the pupils to form a social community among themselves. One apparent example is the frequency of the pupils to call out their friend’s name in the class, and autonomously engage among themselves through conversation. This sense of community and motivation among the pupils are driven by their yearning of
friendship in the class, hence leading to student engagement. Student engagement is strongly related to student’s behavioral pattern as it facilitates student development (Dörnyei, 2009; Astin, 1999).

CONCLUSION

The constant progression from traditional teaching approaches to the current trend of utilizing LEGO® as core tasks in language teaching has emphasized potential of student engagement as an integral element to promote effective learning. Findings of this study also concluded that engagement in task-based language teaching also accentuates student engagement and sense of belonging through active participation in collaborative learning environment. Curriculum developers and relevant stakeholders should utilize these findings to effectively design and implement teaching modules and tasks that promote student engagement.

REFERENCES


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ABSTRACT
Improving individual sense of self, ability to interact in a constructive way with others, communicate feelings positively and regulate behavior, is widely recognized as critical to addressing student’s psychosocial dysfunction. Poor emotional literacy, depression and anxiety, and delinquency, aggression, and truancy level are important issues in developing countries especially Nigeria that have contributed to school student's low state of mental health. Social and emotional learning approach (RULER) is one of the social and emotional learning interventions that have been developed to promote the development student’s emotional literacy, pro-social behavior, and mental health through it universal classroom-based social and emotional learning. In view of the high rates of psychosocial dysfunction among Nigerian secondary school students, the paper proposed a RULER approach framework to be integrated into teaching and learning with a view to create emotional awareness and subsequently reduce psychosocial dysfunction among students. It is expected that the proposed framework would be empirically tested by future researchers to ascertain it effectiveness. Hence, government, policy makers and school administrators can develop effective ways through which it usage could be stimulated and encouraged in the minds of teachers and students.

Keywords: Psychosocial development, disadvantage youth, RULER approach, Social and Emotional learning

INTRODUCTION
Every youngster has the fundamental right to grow up in a supportive, considerate, caring, and safe environment with optimal developmental opportunities (United Nations, 1989a, 1989b). Equally, parents and educators want their youths to have the motivation and ability to achieve; establish positive relationships with their peers and adults; adapt to the complex demands of growth and development; contribute to their peer group, family, school, and community; and make responsible decisions that enhance their health and avoid risky behaviours. At times, however, risky circumstances such as Psychosocial development problem, synonymous with internalizing and externalizing emotional and behavioral disorders create profound psychosocial development problems among youths. Most commonly depression and anxiety (internalizing disorders), and delinquency, aggression, bullying, educational difficulties, truancy, peer pressure and competition, violence, drug use, risky sexual behaviours, or early school withdrawal, drinking and smoking and negative group identification (externalizing disorders) (Ahmad, Khalique, Khan, & Amir, 2007). These have all been shown to generate weighty psychosocial developmental difficulties for children and youth. The burden of psychosocial problems especially depression and other mental health conditions is on the rise worldwide; depression is a leading cause of disability and has been projected to become the 2nd most burdensome disease by the year 2020 (World Health Organization, 2017). Indeed, depression has been found to be the strongest single risk factor for attempted or completed suicides (Rockett, Regier, Kapusta, Coben, Miller, Hanzlick, & Smith 2012; Beautrais, Joyce, & Mulder 1996). Suicide is the
second leading cause of death in 15–29-year-olds (World Health Organization, 2017) and was the leading cause of injury mortality in 2009 for all age groups combined (Rockett, Regier, Kapusta, Coben, Miller, Hanzlick, & Smith 2012).

Globally, 26% of young people (16-24 years old) have a mental health problem (Australian Institute of Health Welfare, 2012). In addition, some other studies have noted the high prevalence of psychosocial problems in adolescent’s youths (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski 2010; Harder, Knorth, & Kalverboer, 2013). It is reported that 10% to 25% of adolescent’s youths experience psychosocial problems and/or mental distress during adolescence (Ahmad, Khaliqe, Khan, & Amir, 2007; Harder, Knorth, & Kalverboer, 2013). According to mental health report by University of Washington (2016), many adolescent’s youths today are suffering from depression, anxiety and stress which are psychosocial problems characterized by absence of happiness and pleasure, sadness, low self-worth, disordered sleep, poor appetite, feelings of tiredness, poor concentration and failure to academic achievement (University of Washington Mental Health Reporting, Fact sheet, 2016). High prevalence of depression, anxiety and stress symptoms among adolescent’s youths is a risk factor for their mental health (Mental Health Disorders in Children and Teens 2006). These risk factors could even affect mental health in adolescence and become a threat to adolescent’s youth’s future negatively (Lawrence, Johnson, Hafekost, De Haan, Sawyer, Ainley, & Zubrick 2015).

Lack of attention to the psychosocial development problems among the disadvantage youths, may lead to mental health consequences that may remain throughout life and reduces the capacity of societies’ human resource and socioeconomic productivity (Durlak et al., 2011; Eccles & Roeser, 2011; Evans & Wachs, 2010; Sayers, 2001). Disadvantaged youth refers to young people with fewer chances to achieve goods such as education or societal positions. It is used as an umbrella category which embraces all young people with fewer opportunities than their peers and in some countries other terms like youth-at-risk, vulnerable youth, disconnected youth or social excluded youth are preferred to describe social inequality among young people (Bhatti-Sinclair & Sutcliffe, 2012; Pinto & Maia, 2013; Bendit & Stokes, 2003). Therefore, lack of attention to the disadvantage youth psychosocial problems in developing countries especially in Nigeria, led youths engaging into violence, drug use, risky sexual behaviours, early school withdrawal, forming political thugs group. These conditions are linked to violent tendencies and may be a threat to school environment, community and the public. In the Nigerian context, South eastern Nigeria (Chinawa, Manyike, Obu, Odetunde, Aniwada, Ndu, & Chinawa 2014) found that Adolescents youths engaged in one form of mental health problem or the other such as substance abuse, unprotect sexual behaviors, and worse situation are those who attempted suicide from 15 years and peaked at 18. Eighty-three (11%) adolescent’s youth who are 15 years old attempted suicide in a year; this peaks at 17 years where 235 (30.8%) committed suicide. Similarly, In Edo state, Nigeria 106 youth (24.8%), of the respondents had been found to have schizophrenia, while 74 (17.3%), 49 (11.5%) and 36 (8.5%) were diagnosed of depression, mania and unspecified psychosis, respectively (Ogboghodo, Omuemu, Obarisiagbon, Olaniyi, Francis, & Michael 2018). These situation is alarming and require urgent attention.

More so, it has been argued that the scarcity of positive models and approaches that will promote psychosocial development, especially among disadvantage youth in schools, elucidate the relatively low aspirations and self-esteem, and the observed tendency to select and identify with advantage youth as significant others; but such identifications have been shown to be frustrating and self-destructive. Research on this phenomenon demonstrates a declining interest in school, intrinsic motivation, and self-esteem (Durlak et al., 2011; Keyes, 2007; Muramyl, Kishore, & Semwal 2009; Eccles, Lord, Roeser, Barber, & Jozefowicz, 1997). Therefore, the need to prevent this phenomenon became imperative. In response to this assertion, schools are challenged to offer more than basic instruction in the traditional academic areas so that the focus will be on preparing youth for social, emotional, academic and life success. In view of that, an evidence based social and emotional learning approach, based on coordinated social, emotional and academic learning could be an effective method of supporting disadvantage youth in school who are at the greatest risk of psychosocial development problems, and academic difficulties (Durlak et al., 2011; Muramyl, Kishore, & Semwal 2009; Greenberg et al., 2003). Educational settings have the potential to engage a wide range of young people in opportunities to define their identity and importance (Bird & Sultmann, 2010). In additionally, studies demonstrate that well-designed, well-implemented, social emotional learning approach can influence a diverse array of social, health, and academic outcomes (Durlak et al., 2011; Greenberg et al., 2003). Social and emotional competencies, such as self-regulation, responsible decision-making, and goal-setting can enhance educational efforts aimed at addressing academic abilities (Lawrence Aber, Searle Grannis, Owen, & Sawhill, 2013). Healthy social and emotional attitudes and skills can also help
disadvantage youth feel motivated to succeed, believe in their success, communicate well with teachers, set academic goals, organize themselves to achieve these goals, and overcome obstacles—eventually leading to effective school performance (Zins, Bloodworth, Weissberg, & Walberg, 2004). Academic abilities are thereby enhanced, rounded out, and improved by social and emotional skills such as self-regulation and coping (Dembo & Eaton, 2012; Lerner et al., 2011). Kress and Elias (2007) indicate that social and emotional skills are “best taught when infused throughout the school day in all aspects of a student's experience” (p.596).

Though evidence is building to supports the proposition that schools play an important role in preparing youths for social and emotional skill development in the classroom and life success (Dymnicki, Sambolt, & Kidron, 2013; Jones, Bouffard, & Weissbourd, 2013; Weissberg & Cascarino, 2013; Bierman et al., 2010; Harlacher & Merrell, 2010) but, few studies outline explicit approach that foster the development of social and emotional competencies in middle school curricula for youth students (Gestsdottir, Bowers, von Eye, Napolitano, & Lerner, 2010; Mueller et al., 2011). Additionally, current research studies do not address the practical ways to integrate these approach into classroom setting (Bird & Markle, 2012). It is against this background that the present study proposed a conceptual framework that promote the social and emotional competencies of middle school disadvantage youth students through social and emotional learning. The paper will describe the importance of social and emotional learning and its link with academic and psychosocial adjustment. Next, the social and emotional learning approach (RULER) will be discussed as a means and end enabler of disadvantage youth psychosocial development.

Social and emotional learning

Social and emotional learning (SEL) is a process that encompasses a variety of noncognitive or socioemotional skills and traits. Specifically, SEL is the process through which individuals learn to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors (Durlak, Domitrovich, Weissberg, & Gullotta, 2015). These competencies include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Zins et al., 2004). In a Meta-analysis (Durlak et al., 2011) and systematic reviews (e.g., Aviles, Anderson, & Davila, 2006) of school-based SEL interventions demonstrate that SEL approaches can improve academic performance and reduce psychosocial problems such as substance use, aggression, and other antisocial behaviors (Durlak, et al., 2015). Furthermore, efforts to develop these skills in adolescence will provide primary prevention outcomes (Durlak et al., 2011; Heckman & Kautz, 2012; Levin, 2012), averting emotional difficulties later in life and addressing issues (Levin, 2012). Due to its many positive attributes, SEL has been touted as a pathway to fostering positive youth psychosocial development (Heckman & Kautz, 2012), both as a framework and outcome. SEL is gaining traction, in part because of the mounting evidence that social and emotional competencies are critical not only for well-being and relationship quality, but also for academic success (Durlak et al., 2011; Heckman & Kautz, 2012; Levin, 2012).

Social and Emotional Learning Approach (RULER)

RULER is an evidence-based approach to SEL, that encompasses a set of practices for comprehensive SEL integration across entire school or district (Brackett & Rivers, 2013). This approach asserts that personal, social, sound decision making, physical and mental health, and intellectual functioning improves by teaching students and educators the knowledge associated with emotions. RULER is an acronym that represents five skills: recognizing emotions in the self and others, understanding the causes and consequences of emotions, labeling emotions with a diverse and accurate vocabulary, expressing emotions constructively across contexts, and regulating emotions effectively (Brackett & Rivers, 2013). Grounded in Emotional Intelligence theory (Mayer & Salovey, 1997; Salovey & Mayer, 1990) and employing an ecological system approach to its implementation (Bronfenbrenner, 1979). RULER concurrently emphasizes on developing emotional intelligence skills in children, youths and adults and enhancing the climate of learning in school. Emotional intelligence (EI) is a set of skills that helps individuals reason with and about emotions. These skills are key building blocks for other outcomes that SEL approaches target (Brackett & Rivers, 2013), which include the ability to persist in the face of challenges (Ivcevic & Brackett, 2015), move between expansive thinking and deductive reasoning (Fredrickson, 2001), manage stress (Ciarrochi, Deane, & Anderson, 2002), get along with others (Lopes, Salovey, Cote, & Beers, 2005), and inspire trust and confidence (George, 2000).
Emotional intelligence theory proposes that skills for recognizing, understanding, and regulating emotions are critical for human to act on emotions adaptively (Mayer & Salovey, 1997). EI encompasses the capacity of individuals to process emotions to guide thought and actions and to enhance reasoning and decision-making. Nearly two decades of research has shown that EI, when measured as a set of skills, is associated positively with important outcomes for children, youth and adults, including cognitive, social functioning, psychological well-being, academic and workplace performance, and leader effectiveness (Mayer, Robert, & Barsade, 2008). In efforts to design a robust approach that will serve as means and end enabler of disadvantage youth psychosocial development, the RULER framework encompasses Mayer and Salovey’s four-branch ability model, which specified four well-defined, interrelated emotions skills that is (perceiving, using, understanding and regulating emotions). Each of the skills in the original ability model is incorporated into RULER, with aligned training components (Brackett & Rivers, 2013). Similarly, when youth and children use RULER components and practice the skills in daily interaction they develop emotional intelligence and improve emotional climates in classrooms, schools, homes and communities. Over time, the combination of enhanced individual skills and improved emotional climate leads to changes in mental health and well-being, responsible decision-making, and academic performance.

Proposed conceptual framework

The proposed framework is designed to help youth develop their sense of self and others as well as relationship management. The framework consists of a set of approaches, which introduce emotional skills into everyday classroom routines. The approach will be introduced to students as part of the general literacy studies in any content area through numerous interactive and engaging activities such as general literacy study, self-reflection, analysis of academic materials and current events, family conversations, symbolic representations of emotions terms, classroom discussions and creative writing (Brackett, Rivers, Reyes, & Salovey 2012; Maurer, Brackett, & Plain, 2004). The approaches are: 

The Charter, is a statement about the school and classroom environment that a group (of youth/students in the classroom) is expected to maintain. Students should consider how they want to feel at school, what they need to do to experience those feelings consistently, and develop guidelines to both prevent and manage challenging situations including conflict. The Mood Meter, teaches students to consider two dimensions of emotions: valence or pleasantness and arousal or energy level. Teachers and students regularly plot their moods and use the Mood Meter to develop their RULER skills such as a sophisticated emotion vocabulary. The Meta-Moment builds self-regulation by teaching educators to “expand the space” between a trigger and one’s emotional response to improve reflective practices and respond effectively with research-based strategies to emotionally-charged situations. The Blueprint is comprised of a series of questions designed to develop empathy and perspective-taking skills, and to help adults and children resolve conflict healthily. Participants work with each other to identify healthy solutions for past conflicts or real-time situations. The Feeling words expand student’s vocabulary of emotions words and expanding their vocabulary can help them voice their thoughts and emotions. It is a crucial skill in helping them get the attention and affection they need. If armed with a rich vocabulary to describe their feelings, they will understand themselves better and effective communicate with other (Brackett et al., 2011). Therefore, this study intends to integrate the approach into teaching and learning as a general literacy along with the normal class lessons.
<table>
<thead>
<tr>
<th>Approaches</th>
<th>Strategy Sequence</th>
<th>Significance</th>
<th>RULER skills practice</th>
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<tbody>
<tr>
<td>The Classroom Charter</td>
<td>a). Introduction of Classroom charter.</td>
<td>Students enhance their understanding of emotions and identify behaviors that will ensure positive classroom interactions and describe what feelings “look like”.</td>
<td>a). Positive tone</td>
</tr>
<tr>
<td>Step I</td>
<td>b). Define classroom charter and emotion.</td>
<td></td>
<td>b). Manage emotions</td>
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<td></td>
<td>c). Asked students how they would like to feel during interaction with their teachers and students in the classroom e.g. Happy, Appreciated, Understood</td>
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<td>c). Relationship management</td>
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<td></td>
<td>d). What behaviors foster those feelings? What can you do each day to ensure that everyone experiences those feelings? And how to prevent and manage unwanted feelings/conflict?</td>
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<td>d). Attention focus</td>
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<td></td>
<td></td>
<td></td>
<td>e). Work routines</td>
</tr>
<tr>
<td>The Mood Meter</td>
<td>a). Introduction of Mood meter.</td>
<td>Students improve their understanding and remembrance of emotions, tolerance and words. connection between the feeling words and the personal experience will be enhance.</td>
<td>a). Emotional self-awareness.</td>
</tr>
<tr>
<td>Step II</td>
<td>b). Define Mood meter and it functions.</td>
<td></td>
<td>b). Identify and sharing feelings.</td>
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<td></td>
<td>c). Explain the two component of emotions it represents (Feelings and energy).</td>
<td></td>
<td>c). Familiar with the causes of feelings.</td>
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<td></td>
<td>d). The teacher explains some feelings e.g. (Bored - Relaxed - Brave - Excited - Angry - Cheerful - Proud - Angry - Worried – Patient).</td>
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<td>d). self-regulation</td>
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<td></td>
<td>e). The teacher considers how pleasant or unpleasant he feels and choose a number that represents his feelings.</td>
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<td>e). collaboration</td>
</tr>
</tbody>
</table>
f). Students place their names or feeling words that corresponds to their current feeling state on the mood meter.

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<tr>
<th>The Meta-Moment</th>
<th>The Blueprint</th>
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<tr>
<td>Step III</td>
<td>Step IV</td>
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<tr>
<td>a). Revisit the charter and mood meter and make some reflection.</td>
<td>Students enhance their understanding of triggers of emotions and strategies to adopt to be “best self” e.g. Pause and think before acting, Use positive self-talk etc.</td>
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<tr>
<td>c). Define Meta moment and it functions.</td>
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<tr>
<td>d). Explain the meta moment steps and model them: (something happens, sense, stop, see you best self, strategize and success).</td>
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The Blueprint

Step IV

a). Revisit the charter, mood meter and meta moment and make some reflection.


Students Learn to:
Consider a disagreement from another person's perspective.

Recognize, Label, Understand, Express and regulate emotions.
<table>
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<tr>
<th>Feeling Word: Introduction of Feeling Words Step V</th>
<th>a). Introduction and definition feeling words.</th>
<th>Students enhance their understanding and recall of words and how to use them to promote positive interaction.</th>
<th>Recognize emotions by remembering and describing an emotional experience and listening to peers and teachers describe theirs.</th>
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<td></td>
<td>b). Teacher poses questions that evoke anecdotal (personal) responses. e.g. in the word of Alienation, the following question is proposed to the class: “has anyone ever been left out of something?</td>
<td>Enhance students value of Self-control, politeness</td>
<td>Label emotional experiences using newly introduced vocabulary and its synonyms</td>
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<td></td>
<td>c). Connect feeling word to personal experience.</td>
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<td></td>
<td>d). word and definition written on board by teacher.</td>
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<td></td>
<td>e). word and definition copied into student’s exercise books.</td>
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</table>
METHODOLOGY

This study recommends that experimental method would be appropriate to test the proposed conceptual framework for empirical study in which data could be collected from the target respondents mostly those students from junior secondary school. This is because, these categories of youths experience many predictable stresses and dramatic life changes all of which profoundly influence, and in some instances, disrupt their psychosocial functioning (example maladaptive behaviours such dropping out of school, smoking, using drugs, drinking alcohol, having unprotected sex, getting involved with gangs and committing violence) and academic performance.

CONCLUSION

This research paper proposes a conceptual framework that could be used to examine the influence of social and emotional learning approach (RULER) on disadvantage youth psychosocial development in Nigeria. In theory, this study will improve the current body of knowledge by incorporating the proposed conceptual framework. In practical application, this conceptual paper would guide future researchers to carry out further empirical investigations on conceptual relationships that were illustrated on the framework. Therefore, it is strongly believed that this concept will assist the federal government in gaining an insight on the possible factors that could influence the psychosocial development of disadvantage youth in secondary school. By knowing this, proper ways and methods could be used to orient, train and motivate current and potential youths to have interest in the system.

REFERENCES


The ability to speak in Arabic language learning is one of four skills that must be possessed, four such skills are listening ability, speaking ability, reading ability and writing ability, speaking ability aspect is of special concern to Arabic linguists, therefore the ability to speak becomes an important aspect of Arabic learning. Many methods are formulated by the experts and in pour in the book - the method of learning and teaching arabic language in academic and non academic schools to train Arabic language students to be able to speak fluently using arabic language with good and true, it all shows how important aspects of speaking ability for Arabic linguists. Teaching Arabic speaking skills can be applied in the establishment of a conducive Arabic environment, encouraging students to learn Arabic language communication properly and correctly, learn the ability to communicate with Arabic language can be applied by forming Arabic environment, so that students are accustomed to using Arabic as a daily necessity. Studying Arabic speaking ability applied in Arabic environment is widely used by modern Islamic boarding school in Indonesia, this effort is done to form and educate the student to accustomed to communicate by using arabic language, by getting used to communicate with arabic language, expected student able to get used to communicate with arabic language. Facts prove, not all schools successfully apply the technique of Arab language environment formation to train students to learn communication with Arabic, because forming an Arabic language environment that aims to train Arabic language is not easy.

Keywords: environment, arabic, language

INTRODUCTION

Language is a means of communication with the other, and through this communication recognizes the need, the ability to use language is the basis of human success, and people have long seen that distinguish the human from the other creature, was only human that is able to use complex systems of The voices and meanings called for by the language of humanity, although language is an essential feature of the human race.

Arabic is the language of the Qu'an, (We sent down Arab villages that you may be wise) Qs yusuf / 2. Understanding the imposition of duty, understanding the Qur'an and Sunnah imposed can only be understood by understanding the Arabic language, it is a sacred language for the breeding of a million Muslims throughout the earth. Where the difference in religion and recitation of the Qur'an, the management of the Qur'an and the management of the work is necessary for each Muslim, all do not work only with the understanding and understanding of the Arabic language good. (Khault, 1997 hal : 15)

The linguistic environment in terms of language consists of two words the language and the environment. A language derived from the word "أوﺑ" means: the place, the place, the house and the environment. The language is derived from the word "وﻐﻠﯾ ﺎﻐﻟ" which means: Speak it if the language means speech. The linguistic environment is all the factors that influence the process of teaching the language and encouraging students to upgrade their language and encourage them to apply it in their daily conversation, either from physical factors and from intangible factors or moral factors. And the language environment according to Dulay. As Roekhan saw, he heard, saw, and everything related to the Arabic language that he wanted to acquire and teach man from everyday events. The quality of the linguistic environment at Dulay is one of the important factors in the success or acquisition of second language education. (roekhan, 1990 hal : 143)
A. Behavioral theory in learning the second language

Skinner believes that the acquisition of language takes place in the social medium in a provocative and responsive manner, which introduced the concept of performance behavior. He referred to verbal behavior as the behavior of the performance, and he defined it as an automatic behavior that can actually support in particular the conditional requirement. The bath is a love response, and this response can support, and thus you become a performance response or a method that is strangely strapped to your food such as a pigeon and a pigeon can use this response (sign) as hungry.

For example, the child's verbal behavior can be viewed by Schenker as similar, but in social support. In this case, the child learns that the appearance of some sounds that seem to be at least some socially acceptable sounds such as milk and water leads to an encouraging response. Or the appearance of love or getting the things that he referred to, and then strengthen these sounds or other words that are not rewarded in this picture, they are extinguished, and can be extended to this to go to the (Skinner) to include all linguistic phenomena, the child does not know the response that supports whether stabilization in th A direct father who leads to a reduction of tension, or a direct evidence of the final reward. (Sayeed, اللغة تدريسًا واسماء، hal : 30).

The behavioral theory saw that the process of learning the language was to receive the stimuli, to produce a response, and that the reinforcement of certain responses leads to a repetition until the linguistic habits are composed to the extent of the Tiber Skinner and his supporters, until the queen is composed of Ibn Khaldun.

The natural language environment, where texts, examples and evidences are taught in natural situations, is linked to the meaning of the texts, or through the representation of roles, or to the way things are already taught in the environment in which the learner exists, as in the direct way of teaching languages to non-speakers. The individual learns the second language as he learns the first language, that is, by directly connecting names and names, and using the actual language in life is the basis of learning. (Madzkur, قانون اللغة العربية، hal : 58).

B. Language environment

The environment in terms of the theological meaning of the word يَمْرَأ meaning: drop it or set the place, and the house and the environment (Louis ma’luf, hal : 52). The environment is a word that we have heard a lot in our daily lives. It has become a familiar word in use, without knowing and understanding in detail the real meaning of that word, and the researcher wanted to come up with some words that can understand the meaning of the environment in this research.

Human beings have lived since the creation of God, the environment and man based on it and the reasons of intellectual, material, moral, social, spiritual and human power, giving God biological characteristics distinct from the rest of creatures, living by continuing the level of energy potential of their environment. ( Sobirin, 1984 hal : 7).

The environment is commonly used and it is meaning is related to the logic of the relationship between it and it is user. The mother is the first human environment, home, environment, school environment, neighborhood environment, globe environment, the whole universe environment, we can look at the environment through the various human environment activity, cultural environment and health environment, There is also the social environment, the spiritual environment and the political environment.

When we say the environment, in fact we mean all the components of the medium that interact with the human being influential and affected in a way that has comfortable living physiologically and psychologically, man has an important role in the process of interaction between human and the material or intangible (moral), and human always environment The length of his life on the land of God, as the researcher in the first that the relationship of human close relationship to the environment began before the birth or when the human is still in the mother's abdomen.

The language environment is important in the practice of students on the efficiency of speech in Arabic and English language and expression is dangerous in the minds of students to write, and it
calls for the use of the Arabic language in the treatment and daily conversation as they use the mother tongue. (Louis ma’luf, 52).

Sausure Said as quoted by (Fuad Efendi) and in the theory of language is said to be the doctrine of structuralism, and some theories of the language of this doctrine, including: the origin in the language of speech, language proficiency acquires, Every language has a special system that is not equal in another language system. We need the methods of the compiler in the search for the language. Each language has a system that is fully constructed to express what is dangerous in the speaker’s mind. Each language develops and flourishes according to the growth of time. In that language (speaker).

C. Theory of the linguistic environment

Bashiri said that the formation of the linguistic environment needs strategies, which are as follows: First, the establishment of the student dormitory in one center, to facilitate supervisors teachers in their supervision and guidance and the establishment of language programs outside the study time to focus the proficiency of students in the skill of language; Such as cafeteria and study offices.

Third, holding meetings in Arabic and English where students speak and discuss the social and political among them in the light of the vocabulary and vocabulary and memorized and studied terms and so to train the student outside the classroom to listen, talk and oral expression of their followers in Arabic.

Fourthly, the course should be held in Arabic and English outside the course. The study should be conducted in order to provide the students with a wealth of language more than the resources available in the classroom. Students should be given the opportunity to speak in the language studied after the group's prayer. (Efendi, 2012 hal : 18)

The preparation of a large number of books in the studied language so that the needs of learners according to their levels of the upper and teachers encourage their students and invited them to read and the allocation of special times outside the time of study to read books and read the magazines to read journals in the language studied, the magazines published student publications where the writing of students on typography and expressions of the ideas In their minds after choosing the best and the best of them linguistically and intellectually.

Fifth, to familiarize the students with listening to the original speaker in the studied language and to participate in the language program under the guidance of the supervisors and the teachers Language, Tenth, to put the subjects of the Islamic study in the studied language according to the levels of the students.

D. Implementation of the linguistic environment to improve the skill of speech for the first semester at islamic boarding school gontor.

The Department of Language Supervision has formed the linguistic environment. Some of the strategy established by the Department of Language Supervision is to make the institute president professors at the Institute. Good example in the pronunciation of Arabic, play the songs and media news in Arabic, the establishment of language activities, the foundations of the Institute of the Department of Language Supervision. (The result of the interview no : 01/W/PMDG I/VIII/1437)

The Department of Language Supervision established the assistants of the sixth and fourth graduate in the composition of the linguistic environment and the maintenance of language systems. The assistants assisted the Department of Language Supervision in organizing the language programs and the performance of alerting and warning the violators in the pronunciation of the unofficial language. (The result of the interview no : 02/W/PMDG I/VIII/1437).

The Department of Language Supervision has tried to form a linguistic environment. Some of the attempts of the Language Supervision Department to create a linguistic environment to improve the efficiency of speech for the first semester are the activities of language. We need to know the concept of language activities.

Linguistic activity is a variety of colors of practice applied to the skills of the Arabic language by students in the classroom or outside in normal situations that require hearing, speech, reading or writing,
Language learning programs are programs that students must pass through to provide them with the language skills that help them in their studies. This activity is meant for a variety of language exercises by the students and they use language as a successful guide in natural, Listening, reading and writing. The objectives of the linguistic activity are:

1. To enable students to make practical use of the fields of functional and creative expression, and to achieve dialogue, discussions and debates in meetings and seminars.
2. To strengthen the students' education, to raise them up as a moral and social education, and to prepare them for the dynamic, which requires leadership, leadership and respect for the group’s opinion.
3. In order to implement the behavioral theory, students were forced to speak the language studied in their daily lives to the extent of their proficiency. The linguistic practice and the deliberate pronunciation of the language in question were usually good and the language proficiency or skill was adopted (The result of the interview no : 03/W/PMDG I/VIII/1437).

E. Language activity

The activities of gontor for the training of speech proficiency in arabic are conducted by the supervisor of the Language Supervision Department. The language activities are:

1. Teaching vocabulary

It is not a question of vocabulary teaching that a student learners to pronounce only letters that have their own meaning, or to learn how to derive them or simply describe them in a correct linguistic synthesis. The criterion of proficiency in vocabulary instruction is that the student is capable of all other things This is all the more important: his ability to use the right word in the right place. How can a student memorize the vocabulary and can not use it in writing or writing.

This course is designed to provide students with new vocabulary and speak in their days so that their vocabulary increases day by day and they can speak the good official language. This program is held in the morning after reading the Holy Quran. The course is taken from the Department of Language Supervision. It is necessary before the vocabulary teacher to instruct the mastermind students to repeat the past vocabulary, and students must be interested and focus their ideas in this program to entrench the vocabulary in their ideas. (The result of the observation at the Vocabulary Learning Program on Saturday, April 11, 2016.)

2. Morning conversation

The discussion can be briefly defined as follows: It is an automatic free discussion that takes place between two individuals on a particular subject. In this definition, the following ruling points stop: free, automatic discussion, two individuals, a topic, the conversation is held in a way of dialogue between two or more people speaking a free subject in the studied language and teacher Language The program notes the conversation and accompanies it.

The Language Supervision Department held this program on a weekly basis on Tuesday and Friday morning. The objective of this activity is to instill the love of the Arabic language among the students and in particular to improve the level of their conversation in Arabic. ( a result of the observation at the chat program, on Friday, April 15, 2016.

It is also the activity of this activity is to achieve the purpose of this activity is to develop the skill of listening and the skill of speech as a process of listening to the speaker and show interest in what he says, and no doubt that the activities of language have a strong relationship with the skill of speech as a conversation helps to promote the skill of speech and these activities show the practice of students in speech in arabic well.
3. Public speaking

The speech program was one of the language program held by the Department of Language Supervision to train the efficiency of speech, students speak to his colleagues and a note with a specific title and a specific time Ten minutes, they spoke and spoke the content of their speech in the best language and informed the words, the main goal of which is to practice the skill of speech.

The Institute of gontor held three lectures a week, Sunday night at 8:00 am and 5:00 am at 9:00 am and 5:00 pm at 8:00 am, supervised by the General Supervision Department and observing the observers from the sixth year according to the lecture rooms. Students. (The result of the interview no : 03/W/PMDG I/VIII/1437).

4. Language festival

Of the linguistic activities aimed at raising the efficiency of the students' words. What is held at gontor Institute is the activity of the Language Festival, the Language Festival Program conducted by the Language Supervision Department in raising the efficiency of the language and the efficiency of speech. A game that is held by the Department of Language Supervision to raise the efficiency of speech is a game of theatrical representation, text reading, singing the collective and pulic speaking and verbal expression. (The result of the interview no : 03/W/PMDG I/VIII/1437).

METHODOLOGY

Observation research qualitative

RESULTS

a. Language activities were conducted with the aim of improving the language proficiency required.
B. The formation of the linguistic environment is carried out only with the active cooperation of all components of the Institute materially or morally.
C. The linguistic activities played an important role in the formation of the linguistic environment to raise the efficiency of speech for the first semester at the Institute of the Islamic gontor.
D. The language activities will help the students of the first semester at the Institute of Islamic gontor in the success of the training and practice of Arabic and English proficiency.
E. Language systems are aligned to improve speech efficiency.

The linguistic environment was not good enough to improve speech efficiency.

REFERENCES
