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ASSESSMENT OF PSYCHOLOGICAL TEST RESULTS OF FRESHMEN EDUCATION STUDENTS

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Abstract

Psychological testing in schools is a beneficial activity that helps a student achieve their goals and helps diagnosed social, cognitive, or behavioral problems. This study aimed to assess the psychological test results of education students in a Philippine state university. The study utilized secondary data from 443 education students at the university. Descriptive measures and multiple regression models were employed in evaluating the data and determining the influencing factor of psychological test results, respectively. Results revealed that the selected demographic variables as gender, degree program, type of high school, and overall grade point average have no significant association with the psychological test results of education students. Furthermore, this study has documented the robust and positive evidence that Mathematics and English grade point average contributed to the psychological test scores of the students. The results go to infer that students with a good background in Mathematics and English subjects in high school have a good foundation in analytical and logical thinking during college.

Keywords: Education students, multiple regression models, psychological testing

Introduction

Psychological assessments are systematic and objective measures evaluating an individual's sample behavior. Through evaluation, the personal growth of a student as well as professional growth can be facilitated (Casinillo & Guarte, 2018). According to Framingham (2011), most notably in schools, these tests are administered. The information concerning school ability or scholastic aptitude is helpful to teachers and administrators in several ways, like improving students' performance and eradicating the failure rate in any of their subjects in university (Casinillo, 2019). The instruction from teachers and administrators is most effective when it is at the appropriate level, pace, and style of the learner (Wesley, 1994). Thus, classification and grouping of learners, individualization, and guidance should give weight to school ability. It is necessary to appraise the factors that promote scholastic achievement through a psychological evaluation to help the learners pursue their academic and future career objectives.

A psychological test is one that helps the schools in assisting individuals who are planning a career in college (Bennett et al., 1956). There are several psychological standardized tests like the Wechsler Intelligence Scale for Children III, the Kaufman Assessment Battery for Children, Stanford-Binet (Fourth Edition), Behaviour Inventories, and Personality tests are among many available tests. It will depend on the institution or school on what they would like to assess among their students (Hearst Newspaper, 2020). As students enroll in a university, the Commission on Higher Education issued a CMO No. 1 Series of 2014 stating its priority courses for SY 2014 – 2018. Some of the priority courses are in Teacher Education major in English, Science, or Mathematics. Students, teachers, and administrators alike will have a basis if they are capable of taking the following major courses with the help of the psychological test results.

One state university in the Philippines uses the Otis-Lennon School Ability Test (OLSAT) and the Differential Aptitude-Numerical Ability Test (DA-NAT). In the DAT-NA test, it covers areas on Verbal Reasoning, Numerical Ability, Abstract reasoning, Perceptual Speed and Accuracy, Mechanical Reasoning, Space Relations, Spelling, and Language Use (Bennett et al., 1947). The OLSAT is not an IQ test; instead, it will only give an idea of how smart a student is (Crystal Lake Elementary District 47, 2002). It intends to indicate intrinsic ability. The test has 21 subtests, organized into five areas, and an equal number of verbal and non-verbal items in each area. The five areas are verbal comprehension, verbal reasoning, pictorial reasoning, figural reasoning, and quantitative reasoning. These tests support in assessing student's thinking skills and provide an understanding of a student's relative strengths and weakness in performing a variety of reasoning tasks. Intelligence and aptitude are cognitive variables that influence learning events. Intelligence is usually seen as the general complex problem-solving ability common to many skills, while aptitude refers to specific abilities, each involved in a particular domain or skills (Pearson, 2020). The skills help students to understand better the content they are studying, to be more analytical, to interpret relationships, to look after information, to form generalizations, and to apply them to new content. Also, the test offers a metric for evaluating individual improvement year-to-year, and teachers can find it helpful to infer individual educational needs. Therefore, the two exams, as mentioned earlier, are used in the direction of education and vocations (Salkind, 2007). School counselors, personnel officers, psychologists, and all persons concerned with assessing the intellectual characteristics and educational or vocational aptitudes of adolescents use these tests.

This research employed a multiple regression model to elucidate the relationship of the College of Education freshmen students' high school background to the psychological test results from school years 2010 - 2014. Accurately, to determine the relationship between scores in the Otis-Lennon School Ability Test (OLSAT) and the Differential Aptitude-Numerical Ability Test (DA-NAT) to the following: (a) gender, (b) degree program, (c) the type of school graduated (d) high school grades in Mathematics and English, (e) high school grade point average (GPA). This study has the aim of providing information from these exams and allows educators to design educational

programs that will enhance student's strengths while supporting their learning needs.

Method

This study utilized secondary data of freshmen students enrolled in Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd), College of Education, Visayas State University for the school years 2010 – 2014. Before the analysis, permission was obtained from the university's Vice President of Research and Extension to collect data needed in the analysis. The data for selected high school grades were from the University Registrar, and the psychological test results and other information from the University of Student Services Office. This study focused on the application of descriptive statistics and multiple regression models in assessing the psychological test results and their influencing factors. Multiple regressions are a reasonable method of analysis when a single metric dependent variable is considered to be connected to two or more metric independent variables (Hair et al., 1998). The basis of research design on the study from Casinillo and Aure (2018). Hence, in describing the data, descriptive measures were used, such as percentages, mean, standard deviation, minimum, and maximum. For multiple regression analysis, the ordinary least square was employed to determine the significant predictors of psychological test results. The high school grades of Mathematics, English, over-all grade point average (GPA), and the demographic profile such as gender, degree program, and type of school were considered as the independent variable or predictors in the model. Besides, specific diagnostic tests, such as multicollinearity test, homoscedasticity test, and residual normality test, have been performed to ensure accurate interpretation performance (Stock and Watson, 2007). All statistical treatments were processed utilizing the statistical software STATA v.14.

Findings and Discussion

Table 1 shows that the average score of education students in the DAT-NA exam is low ($\mu=16$, $\sigma=6.46$). It implies that students are weak in developing their Reasoning, Numerical Ability, Spelling, and Language Use during their high school years. For the OLSAT exam, it is a little higher compare to DAT-NA ($\mu=30.14$, $\sigma=9.67$). It goes to infer that students' abilities that are related to success in school, like basic knowledge, are better than logic and reasoning. The following abilities that were involved in the OLSAT exam were detecting similarities and differences, recalling words and numbers, defining words, following directions, classifying, and the likes. The students' exam scores are relatively low since they do not have the opportunity to study the following topics; all they had was their stock knowledge learned from high school.

Furthermore, the result of the exams does not affect their grades. Thus most of them did take the exam seriously. Only 15% of the education students are male, and 85% are female. According to Adigun and colleagues (2015), some vocations and professions regarded as male-dominated were the areas of sciences like engineering, mathematics, and crafts, agriculture, while others as female-dominated were catering, typing, nursing, and education. So, it is no wonder much

of the education students were female. About 54% of the students chose the BSED program, and 46% chose the BEED program. On average, there are only 9% of the students came from a private high school, and 91 percent came from public high school. Perhaps, most of these students came from rural places in the Visayas region in the Philippines, where most of the monthly income is economically low. Hence, there are only a few parents who can afford a private school for their son/daughter. The student's High school GPA in English ($\mu=86.94$, $\sigma=5.61$), Mathematics ($\mu=85.74$, $\sigma=4.08$), and over-all ($\mu=87.36$, $\sigma=4.33$) are relatively good since the Department of Teacher Education in Visayas State University requires a GPA of better or equal to 85%. Perhaps, in the study of Casinillo and Aure (2018), it is revealed that academic performance was not derived from demographic profile and economic resources but to their prior knowledge. Thus, to produce competent teachers, it is good to have education students with excellent high school GPA.

Table 1. Descriptive Statistics for Variables of Interest (n=443)

Variables	Mean	Std Dev.	Minimum	Maximum
DAT-NA Raw Score	16.00	6.4620	4	34
OLSAT Raw Score	30.14	9.6691	4	58
Male (Dummy: 1-male, 0-female)	0.15	0.3542	0	1
BSED (Dummy: 1-BSED, 0-BEED)	0.54	.4988	0	1
Private School (Dummy: 1-private, 0-public)	0.09	0.2869	0	1
High School English GPA	86.94	5.6134	80	99
High School Mathematics GPA	85.74	4.0791	76.25	98.75
High School Over-all GPA	87.36	4.3321	81.23	98.54

Multiple Regression Models

Table 2 highlights the two multiple regression models that explained the statistically significant factors of DAT-NA and OLSAT exam scores of freshmen education students. Some diagnostic tests were employed for the said models to know whether the necessary assumptions were valid for interpretation (O'Connell & Liu, 2011). First, a multicollinearity test performed in the model. Variance Inflation Factor (VIF) computed, which estimates how much the variance of a coefficient inflated because of the linear dependence of independent variables (Allison, 2012). As a rule of thumb, the mean VIF value should be lesser than 10 to ignore a multicollinearity problem in the model safely. Fortunately, the two models in Table 2 have no multicollinearity problem since the mean VIF is equal to 1.22. The Breusch-Pagan test indicated that the first model is not heteroskedastic ($\chi^2=0.97$, p -value<0.3246), which implies that variances are equal. Also, it found out that the residuals are normal by the Shapiro-Wilk W test ($W=0.995$, p -value=0.234), and by the Kernel density estimate, the graph shows that the residuals are almost normal. The model ($F_c=13.18$) is also significant since the p -value is less than 0.001, which implies that there are significant factors that influence the DAT-NA exam scores. By the Breusch-Pagan test, it found out

that the variances of Model 2 are heteroscedastic ($\chi^2=21.16, p\text{-value}<0.001$) (Table 2). Also, by the Shapiro-Wilk test, it is revealed that the residuals are not normal ($W=0.9905, p\text{-value}<0.006$). However, the graph of Kernel density shows that the residuals are close to normality. Hence, the said model was corrected and adjusted to account for the heteroscedasticity problem. Table 2 reveals that Model 2 is also significant ($F_c=12.77, p\text{-value}<0.001$), which means that there are significant predictors of OLSAT exam scores of education students.

Both Model 1 and 2 reveals that the high school GPA in Mathematics is a significant predictor in the two psychological exams (Table 2). Knowledge in mathematics can improve the students' ability to reason and think of logical solutions. The result is consistent with the study of Casinillo and Aure (2018) that deals with prerequisites knowledge in mathematics that can improve academic performance. Apparently, according to Casinillo and colleagues (2020), mathematics makes the life of every human being meaningful, and it is one of the tools used in solving logical and complicated problems. The study of Nanayakkara and Peiris (2017), concluded that the effect of mathematics is immensely beneficial to improve the overall academic performance and psychological knowledge of students. In higher education, mathematics plays a vital role by developing the analytical and logical thinking of students. Also, the two models revealed that English proficiency was a predictor for the two psychological exams (Table 2). It implies that if a student is proficient in English, then there is a positive impact on the scores of DAT-NA and OLSAT exam. A student competent in English and Grammar that they can easily understand the word problems and questions, which can positively improve their academic performance. It is in parallel with the study of Light et al., (1991) and Stoyloff (1997) that deals with the relationship between language proficiency and GPA. However, the overall GPA is not a significant predictor of the psychological test results of education students (Table 2). It implies that other subjects, aside from Mathematics and English, does not influence their critical thinking skills.

On the other hand, the gender of students in the model does not influence the scores of psychological exams (Table 2). It is due to the small number of male students as participants in the exam. This result is not parallel to the study of Naglieri and Rojahn (2001) that males and females reveal differ in terms of cognitive process and achievement. The degree program of students does not significantly affect their scores in psychological exams. It goes to infer that the variety of chosen courses in education does not contribute to their psychological and analytical thinking. Perhaps, these students are freshmen, which means that they do not have much experience yet in college. Furthermore, Table 2 shows that type of school is not a significant factor in their psychological exams. An opposite result to the study of Rong'uno (2017), states that private schools outshine public schools in academic performance.

Table 2. Multiple regression models for DAT-NA and OLSAT raw scores and its influencing factors.

Independent Variables	Model 1: DAT-NA	Std Error	Model 2: OLSAT	Std Error
Constant	-43.675* (<0.001)	7.1674	-52.08* (<0.001)	10.485
Male (Dummy: 1-male, 0-female)	1.1409 ^{ns} (0.209)	0.9062	0.9045 ^{ns} (0.459)	1.2191
BSED (Dummy: 1-BSED, 0-BEED)	0.3450 ^{ns} (0.541)	0.5637	1.4334 ^{ns} (0.105)	0.8821
Private School (Dummy: 1-private, 0-public)	0.6188 ^{ns} (0.555)	1.0476	2.0109 ^{ns} (0.182)	1.5049
High School English GPA	0.1762* (0.007)	0.0646	0.3021* (<0.001)	0.0857
High School Mathematics GPA	0.4424* (<0.001)	0.0936	0.5682* (<0.001)	0.1252
High School Over-all GPA	0.0688 ^{ns} (0.420)	0.0852	0.0704 ^{ns} (0.563)	0.1217
<i>F-computed</i>	13.18		12.77	
<i>p-value (for F-computed)</i>	<0.001		<0.001	
<i>Number of observation</i>	443		443	
<i>R-squared</i>	0.1650		0.1495	
<i>Adjusted R-squared</i>	-		0.1378	

Note: Model with no adjusted R^2 is correct from heteroscedasticity, and parentheses enclose p-value.

ns- not significant.

* - highly significant at 1% level.

Conclusion

Based on the study results, in OLSAT and DAT-NA psychological tests, the grades in Mathematics and English are consistent among the predictors in terms of the importance of the relationship to the ratings. It is concluded that Mathematics and English are helpful subjects in high school for the students' analytical and critical thinking as well as cognitive behavior. Also, multiple regression analysis revealed that the student's gender, type of schools, and high school grade point average had no effects on the psychological tests. Students' high school preparation for tertiary education has a significant impact on their academic performance. Moreover, students in private schools are from either middle-class or high-class families. Therefore, further research should be carried out along this line to determine the relationship between socio-economic status, school environment, and academic performance. Besides, school administrators and teachers regard psychological testing may be useful to identify particular issues and then help schools offer the best learning to student's environments to meet their needs. It can be a benchmark for future studies in utilizing psychological test results to formulate a more informed policy decision.

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AN EVALUATION OF ENGLISH PROGRAM: A DEEP ANALYSIS OF EFL LEARNERS' ATTITUDE TOWARDS ENGLISH PROGRAM

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Abstract

This study investigated EFL learners' attitude towards English program conducted by the language institute in an engineering college in Palembang. The program consisted of 36 regular meeting where participants learn English for their field and TOEFL test. This evaluation was conducted at the end of the program to advance the English program in the college to meet their learners' of English. As a part of evaluation, this study evaluated six aspects in program namely teaching materials, teaching methodology, course fee, course design, facilities and service provided in the program. The participants of this study were 87.9% learners who took English course in the institute. A questionnaire consisting 15 items was given to the participants at the end of the program. This study revealed that most participants had positive attitude towards the English program provided by the language institute. Clearly, they were satisfied with the English program in the college.

Keywords: attitude, EFL learners, evaluation

Introduction

All higher education institutions such as universities and colleges have the same opinion of how important English is for their collegians. This leads them to provide a particular curriculum for English language teaching in their institutions to accommodate the needs of their students. The existence of English in the country with multilingual education and system is considered as a primary foreign language which must be one of basic competence to be mastered by their citizens (Björklund, Björklund & Sjöholm, 2013, p. 16). As a result, English becomes a primary subject in each stage of education from primary to higher education. This is can be denied due to the fact that English language teaching industry keeps growing both in formal and informal education. The growth of English language schools as the supplementary has grown with a positive trend in most developing countries. Also, the rapid development of social media influences the way people think of English. In particular, Asian countries have believed that English provide three main functions for their people such as to accelerate national development, to learn about other cultures in the world and to communicate in the international level (Chang, 2011). Furthermore, higher education institutions in Indonesia are willingly to obligate their students to sharpen their collegians' English proficiency

by providing English subject in their curriculum (BSNP, 2010; Rokhyati, 2013). Another way to boost their outcomes' English proficiency is by requiring English proficiency certificate prior to their graduation such as TOEFL and TOEIC.

English proficiency Index or EPI (Education First, 2019) has placed Indonesia in the 61st rank which is categorized as low proficiency and far behind its neighbours, Singapore (Rank 5), Philippines (Rank 20) and Malaysia (Rank 26). Therefore, it is not hyperbole to say that English language learning is very much necessary for Indonesian. With the rapid development of English requirement in many sectors such as economy, science, law, technology, etc., the foreign language awareness especially English has also increased among collegians. Many past studies have proven that day by day more people tend to think English is very essential for their future stability. Unfortunately, General Directorate of Learning and Student Affairs (2019), Research, Technology and Higher Education Ministry did not mention explicitly in the preparation of higher education curriculum in the era of 4.0 about how much the proportion of English must be taught in colleges or universities. Surprisingly, all universities and colleges do not bother with it and keep English as one of compulsory subject in their institutions. However, since they must adjust the limit of credit and the outcomes need, the credit of English subject is normally between 2 up to 5 credits only (Rokhyati, 2013). Therefore, many universities and colleges establish language institution or unit to accommodate their students' need of English. A language institution or unit in colleges usually provides several services such as language courses, translation, language workshop, etc.

Polytechnic of Akamigas Palembang established a language institution in 2016 and the language institution has accommodated the students' need of foreign language especially English ever since. It provides several programs such as English courses, English proficiency test, English exam preparation and translation both for its students and public. These programs are aimed to increase students' English proficiency so that after studying at the college, the industry are willing to accept them as their employees.

The language institute provides English learning program in Polytechnic of Akamigas Palembang as the students in most study programs only learn English for two semesters. This is considered not enough for students' need as in the first year of the study students have international program that is studying in overseas for several weeks. Therefore, in the first semester students are required to take an English course program prior to the departure. Moreover, the students are also required to have an English proficiency certificate, TOEFL ITP, before they graduate from the college. The detail of the English program in the college will be explained further later in this research.

In order to evaluate and develop the English language program in the institution, an evaluation is necessary to be conducted. This evaluation aimed to gain real data and further details about how the students experience learning English in the institution. The result of the evaluation will be a reference for improving the language institute performance each year and explore the students' needs annually. Viet (2017) states that having a proof of learners' attitude towards language learning assist a language institution and teachers or lecturers to advance the language learning program in an institution.

Thus, this research aims to explore the EFL learners' attitude towards learning English in an English language program provided by a language institution in a private college. This research would extend the findings to the very detail information as a part of annual evaluation in order to develop its language program.

The objectives of this study were to investigate the students' attitude towards teaching materials, teaching and learning method, course design, facilities, service and course fee in the English language program at the language institute of Akamigas Polytechnic of Palembang.

This research focuses on the attitudes of learners towards English language program. It is considered as an evaluation of the English language program itself. In English language teaching research, learning attitude and evaluation have been interesting issues to be explored. Therefore, there are numerous researches or studies related to those topics.

Ahmed (2015) completed a study related to EFL students' attitude towards English language learning at a university in Malaysia. Its objectives was to investigate the EFL learners' attitude towards English language learning program, the causes influencing the effect of the program for the EFL learners and English learning perspective among non-English major learners. The study involved 238 EFL learners in the university. It gathered the data through questionnaire analysis which consisted of 19 items. From the study, it was obtained that the EFL learners had positive attitude towards English language learning. Even the EFL learners were found seeking extra English classes outside their college. It means that they are surely aware how important English was and understand the objectives of English language learning.

Daggol (2017) also investigated EFL learners' attitude towards English language learning. The participants were 35 collegians which were investigated through a questionnaire and their autobiography reports. The study revealed that the learners had positive attitude towards learning English. Furthermore, the learners were found to have awareness of how important English is for their future job opportunities. This led a fact that the learners have high level of intrinsic motivation.

Abu-Snoubar (2017) studied the attitudes of EFL learners towards learning English in Al-Baqa Applied University involving 176 participants in the university. In addition, the study also studied the effect of gender on students' attitudes. The instrument used was Attitude and Motivation Test Battery (AMTB) questionnaire. it was found that the students had positive attitudes towards learning English. Furthermore, female participants were found having more positive attitudes rather than male participants. The study was a quantitative study whose results of analysis were obtained from data calculation using questionnaire analysis and T-Test.

Zulfikar, Dahliana & Sari (2019) conducted a qualitative study to investigate the students' belief, attitude, feeling and behavior in English learning. The six participants were selected purposively and interviewed in the study. The study found that the participants had positive attitude towards learning English. They were highly aware of English learning and willingly to learn English seriously. However, the results were not surprising as the participants were studying English

as their major in the university. It was normal to have English major learners had great awareness and attitudes of learning English.

Abidin, Pour-Mohamadi & Alzwari (2012) studied the EFL learners' attitudes towards learning English in Libya. 180 students i.e. 94 males and 86 females participated in the study. The study explored the attitude of EFL learners in learning English in terms of behavioral, cognitive and emotional aspects. It utilized Attitude and Motivation Test Battery (AMTB) questionnaire. The study found that the EFL learners had negative attitude towards learning English. This caused learners unaware of how important English is.

Mohamadi (2013) evaluate the success of general English course program at Tabriz University in Iran. It was a qualitative and quantitative study He tried to see if the students' needs, materials provided and the teaching methodology of the program in the university are relevant to each other. In his study, he utilized questionnaire as the instrument of research. There were three questionnaires; the first questionnaire consisted of 5 parts to find out the learners' needs; the second one was to evaluate the textbook effectiveness and the last one was to evaluate the lecturers' methodology. The study revealed that the learners' needs, material and teaching methodology were not in the same track. In other words, those three important components did not match each other. He then concluded that program was not established based on the ELT principles.

Another study exploring program evaluation was conducted by Yavuz and Topkaya (2013). The study involved 18 teacher educators from five state universities in Turkey. Its objective was to find out how teacher educators evaluate the new change in their English Language Teacher Education Program. It administered a questionnaire consisting of 6 questions. The study found that the participants did not involve in the program preparation and development.

Agustina and Mukhtaruddin (2019) evaluated an English program called Integrated English Learning (IEL) in a college. The study applied CIPP initiated by Stufflebeam. The study evaluated the program in terms of context, input, process and product (CIPP) through interview. The study revealed that the participants had no problem with the level applied in the program. Related to materials, teachers are given module from the language centre and involve games, blogs and other interesting activities in the classroom. However, the study also found that the participants concerned with the quality of their teachers which were different. Therefore, they agreed that they need teachers who were able to build strong communication with the students so they feel encouraged to learn.

Those studies explored the EFL attitudes towards English learning in various institutions and using different methodology. The attitude studies mostly investigated the learners' attitude towards learning English in their universities or school not in a special course program. While the studies related to program evaluation focused on the evaluation itself rather than the learners' attitude. Therefore, this study tried to fill the gap by investigating EFL learners' attitude towards English language learning program in a private university. This study will also become a reference to evaluate the English course program in the university.

Method

This study was a descriptive quantitative conducted in a private college in Palembang. This study investigated the attitudes of the participants towards

several aspect of English language program in the college. The aspects were teaching material, educators' methodology, course fee, course design, course facilities and student service in the language program provided by the language institute in the college. The results of this study were presented in form of descriptive analysis obtained from the questionnaire.

The instrument used in this research was a questionnaire consisting of fifteen statements. Item No 1, 2, 3 and 15 were related to teaching material in the program. Item No 4, 5, 6, 7 and 8 were related to educators' methodology. Item No 9 was related to the course fee. Item No 10 was related to the course design. Item No 11, 12 and 13 were related to the course facilities. Item No 14 was related to the student service. The questionnaire was given at the last meeting of the course when the participants had already finished all the course lessons and tests.

The data was obtained from the questionnaire given to the participants after the language program was completed. The data from the questionnaire was analyzed by counting the percentage of each answer. Then data analysis was described in the findings of the study.

Findings and Discussion

Findings

This research investigated the attitude of learners' towards learning English in the language institute of Polytechnic of Akamigas. The course program was English for Specific Purpose Program in which learners learn English for oil and gas industry and English for engineering. The course program consisting of 36 meetings (two hours/ meeting) lasted for approximately 4 months (three times per week). However, since the learners would have a proficiency test for a selection of Summer School Program in the college, 6 out of 36 meeting were allocated for TOEFL Preparation class. So, 30 meetings were spent for English for specific purpose and 6 meeting were spent for TOEFL Preparation. With this course design, 100% first year students of Polytechnic of Akamigas Palembang joined the course even though the course program in the language institute was not obligatory for them. This number of learners increased from the previous year where only around 90% students took course in the language institute. The course started in October 2019 - January 2020 for 30 meetings and had a break approximately 1.5 months due to semester break. Then, the next 6 meeting were done in the beginning of March 2020.

After the program finished, the students were given a questionnaire in the last meeting of their course. There were 223 students in the course program divided into 7 classes. However, on the day of filling questionnaire there were 196 students present in their last meeting. Therefore, the number of participants of this study was 196. It means that 87.9% of course learners joined as the participants of the study. The detail number of each class can be seen in this following table:

Table 1. Number of Participants

No	Class	No of Students	No of Questionnaire Participants
1	English for Oil and Gas A	34	33
2	English for Oil and Gas B	33	28

3	English for Oil and Gas C	32	25
4	English for Oil and Gas D	32	28
5	English for Oil and Gas E	31	29
6	English for Engineering A	31	28
7	English for Engineering B	30	25
Total		223	196

With 87.9% of participants, the findings of this research were still representative for evaluating learners' attitude towards English learning in the language institute. The questionnaire of this research investigated the participants' attitude towards several aspects of the English program in the language institute namely teaching materials, teaching and learning method, service, course fee, course design and facilities. Therefore, the findings in each aspect based on the percentage of each scale were explained in order to give detail description.

Learners' Attitude towards Teaching Materials of the Language Program

The number of respondents was 196. In this part of the questionnaire, there were four questions related to teaching materials used in the programs. Here is the detail information:

Table 2. Percentage and Number of Respondents about Teaching Material

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The textbook used was interesting and easy-to-understand.	47.96% (94)	42.86% (84)	9.18% (18)	0.00% (0)	0.00% (0)
2. The textbook used is relevant to your field of study.	50.51% (99)	40.31% (79)	6.63% (13)	1.53% (3)	1.02% (2)
3. The price of the textbook is too expensive.	4.08% (8)	6.63% (13)	47.96% (94)	21.94% (43)	19.39% (38)
4. Learning English in the program gives you maximum benefits.	55.10% (108)	35.71% (70)	8.16% (16)	1.02% (2)	0.00% (0)

In the Item No 1 of the questionnaire, a very positive response was obtained as it can be seen from the table that 47.96% (94 out of 196) respondents strongly agreed that the materials they got in the program was interesting and easy-to-understand. Out of the rest, 42.86% (84 out of 196) respondents agreed, 9.18% chose neutral and no one disagreed. This means that around 90% of respondents had a very positive response related for Item 1.

For Item 2, more than half of the respondents which were 99 respondents (50.51%) strongly agreed that the textbook they used in the program was relevant to their field of the study i.e. oil and gas industry and engineering. The rest was 40.31% (79 respondents) agreed, 6.63% (13 respondents) was neutral, 1.53% (3 respondents) disagreed and 1.02% (2 respondents) strongly disagreed. It can be

said that more than 90% out of the total respondents have positive response on the relevance of the course materials with their respective fields of the study.

Item 3 asked the respondents if the textbook they used was affordable. The results were 4.08% (8 respondents) strongly agreed, 6.63% (13 respondents) agreed, 47.94 % was neutral, 21.94% disagreed and 19.39% (38 respondents) strongly disagreed. So, the number of respondents who were in 'disagree' party was 41.33% (81 respondents) thought that the textbook they used was still affordable for them.

For Number 4, 55.10% (108) respondents strongly agreed that learning English in the program gave them maximum benefits. Then, 35.71% (70) respondents agreed, 8.16% (16) respondents was neutral, 1.02% (2) respondents disagreed and no one strongly disagreed. So, around 40% respondents agreed with this statement.

Based on the explanation of the data analysis, it can be concluded that most participants had positive attitude towards teaching materials provided by the program. Many of them even had a very positive response by choosing 'strongly agree' in most numbers.

Learners' Attitude towards Teaching and Learning Method of the Language Program

In this aspect, the questionnaire asked how the students' attitudes towards the methodology used in the process of teaching and learning in the class. There were 5 items or questions in the questionnaire in this part. Here is the detail of the analysis results:

Table 3. Percentage and Number of Respondents about Teaching Methodology

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The lecturer was able to give the materials clearly with an easy-to-understand language.	58.67% (115)	32.65% (64)	6.12% (12)	1.53% (3)	1.02% (2)
2. The lecturer's teaching methodology was monotonous and boring.	4.08% (8)	4.08% (8)	29.08% (57)	43.88% (86)	18.88% (37)
3. The lecturer was patient and willing to give lesson repetition for students who did not understand about the materials.	62.24% (122)	30.10% (59)	6.63% (13)	1.02% (2)	0.00% (0)
4. The lecturer was able to create an active and interactive atmosphere in teaching.	48.98% (96)	41.33% (81)	9.69% (19)	0.00% (0)	0.00% (0)
5. The performance of the lecturer was neat and polite.	71.43% (140)	27.55% (54)	1.02% (2)	0.00% (0)	0.00% (0)

Item 1 of this aspect investigated if the lecturers were able to give materials clearly using an easy-to-understand language. More than half of the respondents i.e. 58.67% (115 respondents) gave 'strongly agree' response on the questionnaire and 32.65% (64 respondents) agreed with the statement. In the neutral position, there were 12 respondents. And the rest, in the column disagree and strongly disagree were 1.53% (3) and 1.02% (2) respectively. This data analysis indicated that most respondents had positive attitude towards the way lecturers delivering the course materials in the class.

Next item investigated if the lecturer's teaching methodology was monotonous and boring or not. The result was also interesting as the only 8.16% or 16 out of 196 respondents i.e. 4.08% (strongly agree) and 4.08% (agree) had similar opinion that their lecturers' teaching methodology was monotonous and boring. On the other hand, 43.88% (86 respondents) disagreed and 18.88% strongly disagreed (37 respondents) that the lecturer's teaching methodology was monotonous and boring. In the neutral position, there were only 57 respondents. Thus, it can be inferred that the lecturer's teaching methodology was not monotonous and boring according to the students' opinion. In other words, the students had positive attitudes towards the lecturers' method in teaching.

Then, the third item of this aspect asked if the lecturers were patient and willing to give lesson repetition for students who did not understand about the materials. Just like in the first item, more than half of the respondents (62.24%) i.e. 122 out of 196 respondents strongly agreed and 59 respondents (30.10%) agreed that their lecturers were patient and willing to give lesson repetition for students who did not understand about the materials. Then, 13 respondents (6.63%) were neutral on this statement. And the rest was that only 2 respondents (1.02%) disagreed and no respondent strongly agreed with this statement.

In terms of the lecturers able to create an active and interactive atmosphere in teaching, no respondent had negative response. It can be seen from the data that in the 'disagree' and 'strongly disagree' columns the percentages were all 0%. On the contrary, 96 out of 196 respondents (48.98%) chose 'strongly disagree' and 81 out of 196 respondents agreed upon this statement. And only 19 out of 196 respondents (9.69%) chose to be neutral. Thus, it can be inferred that most of the respondents had positive attitudes towards the learning atmosphere in their classes.

Finally, the last item of this aspect asked if the performance of their lecturers was neat and polite. 71.43% i.e. 140 respondents strongly agreed and 27.55% (54) respondents agreed upon the statement. In other words, 194 out of 196 respondents had positive attitudes towards the lecturers' performance. The rest was 2 respondents (1.02%) choosing to be neutral. And no respondents chose disagree and strongly disagree options.

According to the data interpretation above, it can be concluded that most respondents had positive attitudes towards the way of their lecturers in delivering materials, creating learning atmosphere and performance. This indicated that teaching methodology of their lecturers were well-accepted and considered as a positive point.

Learners' Attitude towards Course fee of the Language Program

As the language program required learners to pay some amount of fee, this questionnaire also investigated whether or not the number of meetings i.e. 36 meetings was in accordance with the course fee. Here is the detail of the analysis results:

Table 4. Percentage and Number of Respondents about Course Fee

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The number of course meeting was in accordance with the course fee	41.84% (82)	43.37% (85)	13.27% (26)	1.53% (3)	0% (0)

Based on the respondents' responses, it was revealed that almost half of the respondent (41.84%) which means 82 out of 196 strongly agreed with the statement. Then, 43.37% or 85 out of 196 agreed that the course fee they paid was suitable with the number of meetings they got in the course. While the rest was 13.27% or 26 respondents chose neutral and only 1.53% or 3 respondents disagreed.

According to the data analysis, 167 respondents shared the same opinion about the course fee suitability. It is clearly described that more than half of respondents had positive attitude towards the course fee of the English program in the college.

Learners' Attitude towards Course Design of the Language Program

In this part, the questionnaire was designed to explore the learners' attitude towards course design of the program. There was only one item in this part. Here is the detail of the analysis results:

Table 5. Percentage and Number of Respondents about Course Design

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The distribution of materials (30 meetings of ESP, 6 meetings of TOEFL preparation) was sufficient.	38.78% (76)	47.45% (93)	11.22% (22)	2.55% (5)	0% (0)

The questionnaire found that 38.78% (76 out of 196) strongly agreed with the statement and 47.45% (93 out of 196) agreed with the statement. Then, 11.22% (22 out of 196) respondents chose neutral and 2.55% (5 out of 196) disagreed. Therefore, it was concluded that most learners agreed that the distribution of material in the course was sufficient to accommodate their needs.

Learners' Attitude towards Facilities of the Language Program

In this section of the questionnaire, the respondents were asked to give their opinion about the facilities they got during the program. Here is the detail of the analysis results:

Table 6. Percentage and Number of Respondents about Facilities

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The classroom was comfortable and conducive.	33.67% (66)	40.31% (79)	21.43% (42)	4.08% (8)	0.51% (1)
2. Facilities such as air conditioning, speaker, projector, etc. were in good condition.	43.88% (86)	36.22% (71)	17.86% (35)	1.53% (3)	0.51% (1)
3. There needs to be an increase in facilities, such as air conditioning or number of speakers.	54.08% (106)	29.08% (57)	13.27% (26)	2.55% (5)	1.02% (2)

Responding to Item 1 stating that the classroom used for learning was comfortable and conducive, 33.67% or 66 respondents chose strongly agree, 40.31% or 79 respondents chose agree, 21.43% or 42 respondents chose neutral, 4.08% or 8 respondents chose disagree and 0.51% or only one respondents chose strongly disagree. In other words, there were 14 respondents (73.98%) had positive attitude in this item.

Item 2 in this part asked if the respondents agreed that the learning facilities such air conditioning, projector, etc. were in good condition. The results were 86 respondents (43.88%) chose 'strongly agree', 71 respondents (36.22%) chose 'agree', 35 respondents (17.86%) chose 'neutral', 3 respondents (1.53%) chose 'disagree' and only one respondent (0.51%) chose 'strongly disagree'.

Item 3 in this part asked if the respondents agreed that there needs to be an increase in facilities, such as air conditioning or number of speakers. The results were 106 respondents (54.08%) chose 'strongly agree', 57 respondents (29.08%) chose 'agree', 26 respondents (13.27%) chose 'neutral', 3 respondents (2.55%) chose 'disagree' and 2 respondents (1.02%) chose 'strongly disagree'.

Based on the data, most respondents indicated positive attitude towards the learning facilities they got during their learning period in the program. It can be seen from the data that more than half of the respondents chose 'strongly agree' on these items. However, they also suggested an enhancement of the facilities they used in the program.

Learners' Attitude towards Course Service of the Language Program

In this last part of the questionnaire, the respondents were asked if the course service given was in accordance with what was offered before. Here is the detail:

Table 7. Percentage and Number of Respondents about Facilities

Questionnaire Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The course service given was in accordance with what was offered.	32.14% (68)	54.59% (107)	12.24% (24)	1.02% (2)	0% (0)

Based on the analysis, the results were 68 respondents (32.14%) chose 'strongly agree', 107 respondents (54.59%) chose 'agree', 24 respondents

(12.24%) chose 'neutral', 2 respondents (1.02%) chose 'disagree' and 0 respondents (0%) chose 'strongly disagree'. The results indicated that the respondents were satisfied with service given during their course.

Discussion

This study investigated the EFL learners' attitude towards the language programs. According to Hosseini and Pourmandnia (2013), there is a strong correlation between learners' attitude and the success of language learning program. Therefore, Learners' attitude was investigated in this study. There were six points of evaluation were concerned in this study. This research tried to evaluate the teaching materials, teaching methodology, course design, fee, facilities and service which the learners obtained during their course in the language institute. This main purpose of this evaluation was to improve the program itself. An evaluation helps institutions, course designer and educators to create a language program with relevant process and outputs in order to fulfill the demands of providing qualified language program (Tufail & Embi, 2016).

The result of this study revealed that learners felt satisfied with the teaching materials given in the course program where the program offered two kinds of materials i.e. English for specific purpose and TOEFL preparation. Nikoopour and Farsani (2011) suggest that learning materials should be adjusted to the learners' needs. Therefore, the textbook they used also met their needs where they were majoring petroleum, chemical and coal mining engineering. Then after finishing their ESP course, they also learned TOEFL to help them in their TOEFL test. Learners can learn successfully when the materials they gained in their classes meet their needs. This is very reasonable as learners learn effectively by having what they need. Integrated, newest and authentic materials are definitely a key to a successful English learning (Abidin, Pour-Mohamadi & Alzwari, 2012; Ahmed, 2017). However, teachers need to be facilitated in terms of developing and adapting materials using their knowledge and practical skills (Işık, 2018). Even though the students already have their own textbook from international publisher which is, of course, already developed through a set of research by considering the students' needs, teachers are still expected to be able to manage and design materials according to their students' needs and proficiency.

The second concern of this evaluation was teaching methods used in the classes. Most respondents were satisfied with the performance of their lecturers while teaching. They agreed that their lecturers were professional, neat, and able to deliver materials with easy-to-understand explanation during their course program. Moreover, the lecturers were able to create an interactive atmosphere in their classes as well. Another positive point was that the lecturers were patient and willing to help students who have problems in learning English. There is a strong proof that teachers' methods in teaching affect learners' success in learning (Ökmen & Kılıç, 2016). Brown (1994) suggests that teacher should be able to understand how learners learn a language and help learners achieve their goal during the process by providing active and extensive approach. Also, Wilga Rivers (cited in Brown, 1994) mention that an interactive class can help learners to broad their language skills through authentic learning materials, groupwork, task and direct practice in real situation by communicating with their classmates in the classroom. EFL educators are also expected to encourage their learners to

learn by applying the right methods and tasks in learning (Abidin, Pour-Mohamadi & Alzwari, 2012). Learners tend to have better performance when teachers teach them using interactive method rather than traditional method (Ökmen & Kılıç, 2016). Therefore, teachers are also expected to apply modern teaching methods to keep up with students' style in learning and teacher-centered learning also should be avoided (Coskun & Daloglu, 2010). Communicative learning method can be in form of having groupwork and discussion with pairs in learning where learners could interact to each other and practice their skill in real life situation (McDonough, Shaw & Masuhara, 2013).

Related to course design, learners were also satisfied the way the course was designed where they had 36 meetings in total which were divided into two terms. 30 meetings were conducted in the first half of the period where learners learn English for their respective field and 6 meeting were conducted in the second term where learners learned TOEFL preparation. It is necessary for institution to provide appropriate course design and content to fulfill learners' needs and make them interested to learn (Abidin, Pour-Mohamadi & Alzwari, 2012; Agustina, 2014). The specific course materials or English for specific purposes meet the learners' needs of professional and interdisciplinary skills (Li, 2018).

In term of course fee, most learners agreed that the fee they paid was in accordance with what they obtained in the program. They did not think that the course fee was expensive. Therefore, it was concluded that the learners had positive attitude towards the course fee of the program.

Then, this study also revealed that the facilities given to the learners in the program were considered good overall. This could be seen from the learners' rating in the questionnaire. They agreed that the facilities they had in their classes meet their expectation. However, they still considered that facility enhancement was necessary. Institution and educators should be able to provide a comfortable learning environment where all facilities can be used well as learners' focus in learning depend a supportive and comfortable learning environment (Abidin, Pour-Mohamadi & Alzwari, 2012; Brown, 1994). There was a strong relationship between classroom facilities and learners' academic achievement (Akomolafe & Adesua, 2016; Wali, Abulfathi & Mustapha, 2019). Moreover, the findings of the studies suggest that institution should be able to provide high quality facilities to motivate learners to study and increase the academic standard of the institution. A clean, tidy and quite class is definitely better than a messy class as comfortable learning environment can encourage learners and teachers Wali, Abulfathi & Mustapha, 2019). Also, learners tend to have better performance when the facilities in their classroom are good as they assist learners in learning, create comfortable condition which can increase learners' attendance and participation in class (Ekundayo, 2012: Wali, Abulfathi & Mustapha, 2019).

The last point concerned in this evaluation was the service provided in the program. The result of this study revealed that the service provided in the course met the learners' expectation as well. It can be seen from the positive results in the data analysis where the learners agreed that the service they obtained during their course was just like what was offered.

Conclusion

This study aimed to evaluate English course program provided by the language institute in order to accommodate the learners' need of mastering English for their field. This study evaluated the teaching materials, methods used by the lecturers, course fee, course design, facilities and service provided by the language institute. Given a questionnaire at the end of the program, learners were asked to mark every item in the questionnaire.

This study revealed that more than half of the learners had positive attitude towards the materials used in their course, teaching methodology, course design, fee, facilities and service provided by the institute. Moreover, it was found that the proportion of the materials and number of meetings meet the learners' needs. Also, they were satisfied with the way the course design where they learned not only English for their field but also TOEFL preparation. This was satisfactory as the test was very necessary for them when they graduated from the college.

This study focused on evaluating its program based on students' perception. Therefore, in the future it is recommended to explore how this English program make different in their academic achievement.

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SELF-REGULATED LEARNING IN BUTET MANURUNG'S THE JUNGLE SCHOOL

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Abstract

Education is an essential aspect of a community development. In Indonesia, various educational changes have been done in order to cater students with the necessary skills to face the vast dynamics of the world. Despite those changes integrated into the curriculum, Indonesia still has an issue to provide suitable learning processes for students who live in some remote areas during pandemic. Butet Manurung's *the Jungle School* portrays some efforts for helping "Orang Rimba", the nomadic tribes who live in rainforests at Bukit Dua Belas to experience proper education. Focusing on some learning processes in the work, a document analysis was combined with a theory of education. Then, the researchers found that self-regulated learning concepts were applied. This self-regulated learning took form in three aspects that were done by jungle children and this could be one of the keys to face some learning problems in some remote areas during pandemic.

Keywords: self-regulated learning, the jungle children

Introduction

There are some creative ways to face some difficulties in the world of education during this pandemic era (Handayani & Gafur, 2020; Khan, et al., 2020; Olusola-Fadumiye, et al., 2020; Sahlberg, 2020). Changing the governmental policy to cope the problem of inequalities for attaining good education was proposed by Sahlberg (2020). Handayani & Gafur (2020) underlined professionalism for facing the challenges. In relation to the world of technology, Olusola-Fadumiye, et al. (2020) had the use of social media in educational system while Khan, et al. (2020) shared futuristic cloud based educational model.

Previous studies strengthen the point that the use of technology cannot be avoided when humans are limited to meet physically. But, there is a fundamental problem in relation to some isolated areas where there is not any internet connection to support its education. Researchers (Boyarkina, 2021; Hidajad, et al., 2020; Jones, 2020; Mulatsih, 2018; Nasution & Thamsin, 2020; Sharma, 2021; Tam, 2020) argued some possible ways to face some problems in education by having some literary works. They underline the need of having some literary

works to enrich the world of education. Knowing a lot of benefits of the use of literary works in the world of education from previous articles, this article also proposes an alternate way to face the educational problem in remote areas taken from a literary work entitled *The Jungle School* (Sokola Rimba) which is written by Butet Manurung.

Butet Manurung is well-known because she is so passionate to help jungle people get education in some isolated areas in Indonesia. She wrote her real experience of helping jungle people in a book entitled *Sokola Rimba* which was translated into English under a title *the Jungle School* after its publication in Bahasa Indonesia in 2007. In her book, she shared some good practices when teaching jungle children with suitable materials without leaving local wisdom. This local wisdom which was considered as an important matter for prospective teachers was also stated by Pamenang (2021). In this case, Butet as a teacher in the jungle was able to be a role model.

Manurung's work has successfully triggered some studies (Anggi, 2020; Anggraini, 2019; Buda & Payuyasa, 2020; Lestari & Shoim, 2015; Khasanah, 2018; Mardianto & Aslami, 2020; Payuyasa & Primayana, 2020; Saragih, 2015). Anggi (2020) mentioned some values for building character in the educational field such as religiosity, persistency, creativity, which also supported knowledge, awareness, intelligence, local wisdom. Khasanah (2018) also added the value of responsibility taken from this work. In education, Payuyasa & Primayana (2020) discussed 10 out of the 18 character values proposed by the curriculum center: social awareness, hard work, environmental awareness, creativity, curiosity, responsibility, tolerance, love for peace, religiousness, and solidarity. Discussing about local wisdom, Anggraini (2019) underlined the importance of preserving local wisdom for saving natural resources in the jungle. It was represented with the fact that the *Orang Rimba* rely on honey produced from the *Sialang* trees inherited from one generation to the next. This study concluded that the communities highly regarded the values of their local wisdom.

Some research discussions which specified on education in this work included freedom, anticipatory learnings and educational values. Buda & Payuyasa (2020) brought the concept of freedom of learning which was drawn from Manurung's work. There were three learning activities found as representatives of freedom of learning (a concept which was introduced by Indonesian Minister education: Nadiem Makarim), namely humanitarian, rural areas projects, and school teaching. In the discussion on humanitarian projects, the reason why Butet wanted to stay and teach the *Rimba* kids was because she truly cared about their welfare which she believed would be much improved with the presence of education. Sacrifices were made by her in order to bring education to the jungle. The researcher stated how this could be a reference for future humanitarian projects. This study also discussed how in the movie, Butet provided a place for the *Orang Rimba* to study as an attempt to help the *Orang Rimba* protect their habitat from outsiders taking over the jungle. This scene was considered to be an example of a project in a rural area aimed to develop the community so that they can have a better life in different aspects. The last activity outside of campus that was reflected in this movie, is the whole purpose of *Sokola Rimba* itself, which is to bring education for people who need it, but unfortunately lack resources, especially the availability of teachers, just like the

newly pioneered SM3T program for undergraduates to teach in rural areas. This research concluded that remote rural areas need to be supplied with proper education for improving their well-being, hence, a teaching program that stretches to these areas needs to be established.

In addition to that, Lestari & Shoim (2015) brought into the light the anticipatory learning as an attempt for the *Orang Rimba* to face the dynamics of the world surrounding them. In this book, it is described how their habitat is being endangered with the presence of the *Orang Dunia Terang*. A passage was used to prove that the *Orang Rimba* too, was beginning to see education not as a threat, but as a tool to help them at work. This study emphasized that anticipatory learning is needed in order to support *Orang Rimba* in protecting their environment, rights, and lives. Another research conducted by Mardianto and Aslami (2020) focused on the similar aspects as the study previously done by Saragih, et al. (2015). The researchers discussed the educational values including the values of religion, knowledge, creativity, independence, and responsibility in the educational context.

Previous studies have proven that Manurung's *the Jungle School* is worth to discuss. But, different from them which focus more on the values applied in the world of education, this article discusses more on the self-regulated learning done by jungle children. While previous studies put Manurung as a great teacher who teaches great values, this article has jungle children on a stage. They perform a self-regulated learning concept which is beneficial for us since it is relatable with our today's situation for facing problems of education in some remote areas during pandemic. From her work especially the self-regulated learning concept, readers will get some insights that jungle children have the spirit to learn.

Method

This research implemented a document analysis in which the novel of *The Jungle School* became the main source of data. The processes of this research included 1) reading sessions, 2) gathering the data, 3) analysing the data, 4) validating the data, and 5) writing the findings. The data analysis was done in two steps. They were classifying the data into some groups and adding the context of the data. This data analysis was supported by theory of self-regulated learning. Self-regulated learning underlined metacognitively, motivationally, and behaviourally active learners (Zimmerman, 2001). Active learners are able to set their own goals, try their best to achieve the goals, and look for information so that they can master it consciously. Those actions are classified into metacognition. Mamon, et al. (2020) also underline the importance of metacognitive awareness for learning process. This self-regulated learning means that learners have their own initiative in the learning process which may include self-observation, self-evaluation, and self-improvement.

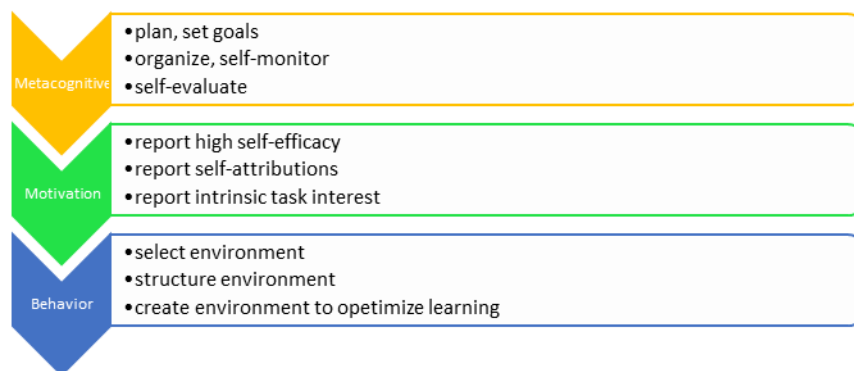


Figure 1. Metacognitive, motivation and behavior of self-regulated learning

To sum up, there are three main features of self-regulated learning, namely:

“their use of self-regulated learning strategies, their responsiveness to self-oriented feedback about learning effectiveness, and their interdependent motivational processes” (Zimmerman, 1990, p. 6).

Based on this theory of self-regulated learning, the data were classified in some groups and the analysis results were explained in a qualitative way.

Findings and Discussion

This section was divided into three parts, namely: metacognitive, motivational and behavioral aspects. This classification was based on theory of self-regulated learning which was elaborated by Zimmerman. After reading Manurung’s work, we found many quotations which were relatable to self-regulated learning concept. This representative of self-regulated learning started when a jungle child asked to give him a school.

I notice that when I am writing, they are whispering among themselves. Suddenly, one of the children, Batu, approaches me and says, “*Ibu beri kami Sokola!*” (Ibu, give us a school!) These words sound so beautiful (p. 84).

A jungle child asked Manurung to give jungle children a school. He showed his willingness to get proper education.

Metacognitive aspects

As written in the previous section, these metacognitive aspects consist of planning, setting goals, organizing, conducting self-monitoring, and self-evaluating (Zimmerman, 1990). The jungle children show their metacognitive aspects. The first is about setting the goals. Many utterances reflect their goals to be able to read or write. They know their goals and try to achieve them.

The most annoying thing for me is the constant, repetitive questioning when we are in the middle of working or when I compliment them on a correct answer, “*Jadi ini ibu, berapa lama lagi akeh tokang membaca?*” (Now then, *Ibu*, how much longer before I can read? (p. 86).

A jungle child's question "how much longer before I can read?" shows his goal that he really wants to be able to read. He sets his goal for reading. Even, jungle children try to reach higher level once they master certain level as portrayed in this quotation:

When the children master simple addition using numbers up to ten, they demand to move on to higher numbers. Then they ask what happens if there are more than two items to add together. Wah, this means I have to teach them a system for summing things up (p. 97).

The spirit to learn more, achieve more and master more is demonstrated by some jungle children. Not only reading and writing, they also ask Butet to teach them how to tell time since they know that they have different concept of time from people outside the jungle.

They also ask to be taught how to tell time. I cannot fathom why the concept of time is so important to them. They bring me calendars from the market, some printed on the cover of notebooks, some with sexy women representing each month. They want to know what October means, or 1999 or 2000 or even Thursday. They know that Monday is market day, but Tuesday, Thursday, and Saturday are days they have never heard of. I learn later that days and dates are important for them because they need to coordinate time with the outside world when they have a meeting or other administrative matter (p. 118).

From those quotations, we know that the jungle children demonstrate their oral form of setting their goals. This action of setting the goals is a representative of the spirit for learning performed by the jungle children.

Other actions that represent metacognitive concepts of self-regulated learning take place through their curiosity. Some children also organize their curiosity and become self-observer as seen in this quotation.

Miti is very observant, curiously watching my every movement and taking notice of every item I have, from my automatic pencil and my fragrant candy-like eraser, to my Walkman cassette player (p. 91).

Their curiosity also arouses when they ask many questions to Manurung.

They constantly ask questions about this and that. Some overwhelm me and yet highlight all the things they need to know (p. 95).

They ask a lot of questions, trying this word and that (p. 96).

That is the reason why Manurung develops her teaching method taken from jungle children's questions as reflected from this quotation "my methods begin to take shape slowly based on the students' questions" (p. 94). The spirit of learning for achieving more is reflected when they organize their learning time as seen in Manurung's statement below.

They rarely respond yes when I ask them if they are tired of learning. They even request more work and compete among themselves to finish it, without ever trying to copy their friends' work. Often, they learn from those who have already acquired the skill and happy to oblige. They also focus on comprehension rather than grades. What a pleasant and progressive bunch (p. 127).

Besides, a jungle child named Ros also applies self-evaluation when she understands that she does not master the ability well.

It's funny, two months later; it will be Roas asking Gentar and his friends to teach her how to read with the words with "ng". Apparently, at her school, words with ng are only taught when students reach third grade (p. 96).

Amazingly, the jungle children perform their metacognitive concepts of self-regulated learning when they set their goals, organize their learning time, and evaluate themselves. As a result of their effort together with Manurung's, they are able to read, write and understand the concept of time. Gentar is an example of jungle children who is successful applying this self-regulated learning. He is able to read and help others learn to read. Manurung describes a moment when "Gentar leads the reading and they all laugh together" (p. 109).

In this pandemic especially in some remote areas, the presence of a teacher can be so difficult to make. But, once learners are aware of their need of learning can trigger their willingness to learn not only from a teacher. We think that arousing learners' ability to have their own metacognitive concepts is more beneficial than giving a set of assignments.

Motivational aspects

Based on Zimmerman's theory, a learner who has self-regulated learning reports high self-efficacy, self-attributions, intrinsic tasks interest. The most dominant motivational aspect appears in Manurung's work is the expression of intrinsic interest as seen in these quotations below.

He whispers to me that he wants to learn writing (p. 85).

In the afternoon, when it is time to return to my room, five children come with me and ask me to teach them to read the alphabet right away because they only mastered part of the alphabet the previous month (p. 90).

It is clear that the jungle children have intrinsic interests to be able to read and write which have also been stated in previous sub section. The jungle children also perform their own decision to continue their study although their parents do not allow them even ask them to leave the jungle if they insist on studying.

When I return to the back of the house, I see that the three *bepak* are still outside reprimanding Gentar. Eventually a decision is made. "If Gentar does not agree to the engagement, if he insists on studying, then Gentar has to leave the jungle." (p. 92).

The jungle children do not want to give in their education. They have a strong motivation to still continue their study which also proves their self-efficacy or attributions as reflected in this quotation.

Gentar decides to run away. Later this afternoon, he collects his possessions and moves in with Linca and the others at Bedinding Besi. If Linca is kicked out too, they resolve to run away together rather than give up reading and writing.” (p. 93).

The jungle children even want to run away together so that they can continue their learning process in the jungle school.

Moreover, Manurung’s statement that “everyone is impatient to master their different areas, each in their own way” (p. 94) strengthens the children’s self-efficacy and willingness to learn. Their motivation to read and write is high. They spend their time to learn until two o’clock in the morning.

On the day before I leave, we study until two o’clock in the morning. Even then, the children are not happy to stop. I continue until I fall asleep. They write me messages expressing their pleasure and their wish to continue learning. They ask, “When are you visiting us next?” (p. 112).

Their strong motivation is reflected in their actions when they wish to continue learning and their happiness when studying.

Linca and Gentar’s groups are happier and more cheerful when studying. They seem addicted to their education, always impatient for it to start (p. 127).

The question after we read those quotations will be relatable to our own motivation. We learn because we want to achieve our understanding upon the materials or we just merely pass the requirements for achieving a grade or degree. From Manurung’s work, we can learn that during this pandemic it is essential to also cultivate learners’ motivation.

Behavioral aspects

These behavioral aspects include the ability to select, structure and create environment to optimize learning (Zimmerman, 1990). The first is selecting the environment. The jungle children are able to choose the place that they want to study. It is shown in this quotation:

“We would like you to be our teacher if you come to the jungle,” one student explains (p. 84).
They prefer writing here, instead of their camp, for fear of being discovered by their parents (p. 85).

Besides, the jungle children also structure the environment to learn and set some rules. It can be seen from this:

If they studied with me, they could come and go as they pleased because I didn't hand out punishment (p. 91).

Surprisingly they do not want to be in the same study group as Batu and his friends (p. 91).

Gentar wants to study behind the house in the hut where the family stores their firewood and bicycle. And so, we sit on top of the pile of wood, while Miti sits on the bicycle writing in his notebook (p. 91).

They perform their own decision to select, structure and create their learning environment based on their own wish and they have a strong commitment to learn. No wonder that the result of self-regulated learning, that is performed by them. They achieve their goals.

Like all *pantun*, this one carries a lesson. Gentar wants to convey his advice on how to choose a friend. The cloths represent two people and Gentar advises his reader to think carefully when choosing a friend; pick the one who keeps his word and ignore the one who breaks his promises (p. 115).

Gentar is able to write and create a *pantun* which has some moral lessons about friendship. For some jungle children, the goals that are achieved are more than the ability of reading, writing or calculating. They even want to defend their own rights for protecting the jungle as a place where they live and survive. They come up with an idea to form a battalion who will protect the jungle from theft.

I remember one idea proposed by the Rimba children. In 2002, the children came to Dodi and me and said that they wanted to form a battalion of rainforest wardens. They thought that, with this organization, they could prevent theft from the rainforest. They wanted to protect the jungle. We discussed this project energetically. *Ya*, they would be perfect wardens as they would be "disguised" as ordinary Orang Rimba. The thieves would not suspect anything as the Orang Rimba were considered ignorant. They would not know that now Orang Rimba could take notes.

The Rimba could write down the thieves' names and other details such as where, how many people are involved, what kind of wood is being stolen and where it is being sold. The children asked for some material support such as a camera, a GPS and a satellite phone (p. 176).

From this Manurung's biographical work, self-regulated learning concept can achieve more than what learners expect. The three aspects of metacognition, motivation and repeated good behavior can create learners' independency which is needed in this pandemic.

Conclusion

The Jungle School is potential to give learners some insights to be independent learners who apply self-regulated learning. This concept is beneficial especially in this pandemic situation where students cannot fully rely on their teachers. Students' ability to set their own goal, assess their progress of learning,

do their best to achieve their goal including creating good environment for learning is needed. This will help learners to cope with some problems due to the fact that they have their own consciousness to learn. This consciousness is also reflected in Manurung's work entitled *The Jungle School*. They are metacognitive, motivation and behaviour aspects found in jungle children's utterances which are told by Butet Manurung. A great learning process cannot only have a great teacher; it also requires a great learner too.

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RECOGNIZING PERSONALITY USING HIPPOCRATES' PERSONALITY TEST AS THE MATERIAL OF COMMUNICATION LEARNING FOR TAX EXTENSION OFFICER'S FUNCTIONALITY

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Abstract

This research aims to find out how to recognize personality using Hippocrates' Personality Test as the material of communication learning for Tax Extension Officer's Functionality. It is interesting to be studied because the main duty of Tax Extension Officer's Functionality is to communicate with many people with different personalities. This study was a qualitative research with quasi-experiment approach, in which data was obtained through participatory observation and document obtained using questionnaire, and the data obtained was analyzed using inductive logic and the result was presented descriptively. The finding of research shows that recognizing personality, using Hippocrates' Personality Test, based on F. Littauer's book entitled Personality Plus as the material of communication learning, can be used to recognize the participants' personality; in addition participants also can identify personality versus communication. The learning has some weaknesses related to the questionnaire that should be completed in quiet and relaxed condition in order to match the actual personality, because the questionnaire completed in hurry and in tired condition will give less valid response. The strength is related to the ability of recognizing personality and to solve communication problem easily. For the learning to be better the participants are recommended to do so in the morning when the brain is still fresh and they still have sufficient time.

Keywords: communication, personality plus, tax extension officer's functionality

Introduction

Tax Directorate General is in charge of saving tax revenue, and giving education about taxing to the public, so that the functionality of Tax Extension Officer is required. The Republic of Indonesia Minister of State Apparatus and Bureaucratic Reform's Regulation Number 49 of 2020 about the Functionality of Tax Extension Officer states that the objective of the assignment of Tax Extension Office's Functional post is to develop career and to improve the professionalism

of Civil Servants who have coverage, duty, responsibility, and authority to do education or extension task in taxing field, and to improve the organizational performance. The servants occupying Tax Extension Officer Functional post should meet the standard competency according to the position level including technical competency, managerial competency, and social-cultural competency acquired through functional training in Extension field. Tax Extension Officer Functional Training course includes: 1) Management of Taxing Extension Activity implementation, 2) Taxing Service Administration, 3) Taxing Extension Method and Technique, 4) Communication Ability, and 5) Introduction to Contact Center Management.

Communication Ability course contains materials introducing types of personality, using Hippocrates' Personality Test: 1) Sanguine, Popular: Extrovert-Speaker-Optimistic with personality characters: Appealing personality, Appealing personality, Talkative-storyteller, Life of the party, Good sense of humor, Memory for color, Physically holds on to listener, Emotional and demonstrative, Enthusiastic and expressive, Cheerful and bubbling over, Curious, Good on stage, Wide-eyed and innocent, Lives in the present, Changeable disposition, Sincere at heart, and Always a child; 2) Choleric, strong: Extrovert – Actor- Optimistic with personality characters: Born leader, Dynamic and active, Compulsive need for change, Must correct wrongs, Strong willed and decisive, Unemotional, Not easily discouraged, Independent and self-sufficient, Exudes confidence, and Can run anything; 3) phlegmatic, peaceful: Introvert – Observer - Pessimistic with personality character: Low-key personality, Easygoing and relaxed, Calm-cool-collected, Patient well balanced, Consistent life, Quiet but witty, Sympathetic and kind, Keeps emotions hidden, Happily reconciled to life, and All-purpose person; and 4) melancholic, perfect: Introvert – Thinking – Pessimistic with personality character: Deep and thoughtful, Analytical, Serious and purposeful, Genius prone, Talented and creative, Artistic or musical, Philosophical and poetic, Appreciative of beauty, Sensitive to others, Self-sacrificing, Conscientious, and Idealistic. The relationship and integration of respective personality is represented in Figure 1.

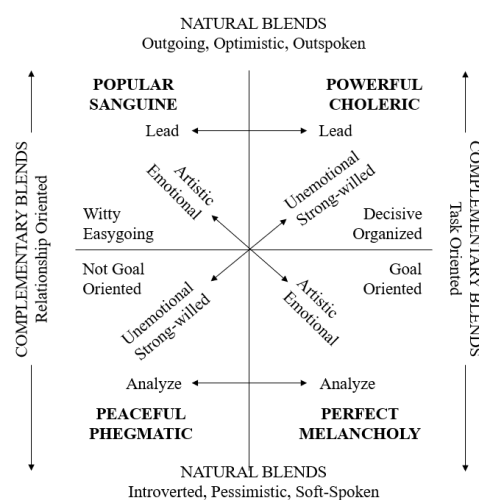


Figure 1 Chart and Integration of Personality

Every personality is unique; no one has appropriate mix of strength and weakness. There are two combinations: firstly, natural combination is a combination of popular sanguine and strong choleric constituting a natural combination of interactive, optimistic, and much opened ones. This personality combination potentially results in a leader, but has weakness as to bringing out pretension to be in power, impulsiveness, impatience, and censoriousness. The natural combination of perfect melancholic and peaceful phlegmatic personalities results in more serious one, paying attention to situation, but not wanting to be prominent. The one with this combination of personalities will present material skillfully and joyfully, but he/she will make decision difficultly. Secondly, complementary combination is that between strong choleric and perfect melancholic personalities; another complementary combination is that of popular sanguine and peaceful phlegmatic personalities (Littauer, 2004). Closely observed, the positions of both natural and complementary combinations are always in adjacent to each other, rather than in opposite or diagonal. Thus, the personality can be utilized by Tax Extension Functional Officer in conducting extension task, recognizing the speaker's (self) personality and the listener's personality. Through recognizing, the speaker will find out how to find natural or complementary combination to make the communication running harmoniously. In addition, most importantly it will be combined with opposite or diagonal personality.

Some previous studies found that Hippocrates divided personality into four categories by the name of fluids affecting human temperament: yellow bile (choleric), black bile (melancholic), mucous (phlegmatic), and blood (sanguine) (Firmanda & Fitriati, 2018). Each type of choleric, phlegmatic, sanguine, and melancholic personalities has good self adaptation quality (Damayanti et al., 2017). Popular sanguine, perfect melancholic, strong choleric, and peaceful phlegmatic personalities existing in lecturers do not affect significantly the students' learning motivation (Setioningtyas & Widyatmika, 2017). Students' personality affects the characteristics of answer (response) in mental rotation question. The sanguine students always attempt to answer any question confidently. The choleric ones have fast but less careful working system. The melancholic ones always write the answer systematically, neatly, and in structured manner. The phlegmatic ones provide unique and easier way (Hibatullah et al., 2019). Phlegmatic students tend to understand problem difficultly. Melancholic ones can meet planning and monitoring indicators, but solve problem less quietly, thereby cannot do evaluation process (Suprayogi, 2020).

The teamwork collaborative learning model affects significantly the students with choleric, optimistic, melancholic, and apathetic personalities. Optimistic, sensitive, and melancholic students have higher science process skill than the apathetic students do (Anggi et al., 2018). Personality type affects the mathematic problem solving ability. Students with sanguine, choleric, and phlegmatic personality subjects have met all stages of action, process, object, and scheme (APOS). Meanwhile, students with melancholic personality do not meet all indicators of APOS stages (Anam et al., 2018).

Choleric, melancholic, optimistic, and apathetic personality types, in fact, have significantly different effects on creativity and planning skill. In the planning process, choleric and apathetic ones create health attitude to work environment,

helping improve teachers' moral and efficiency (Gupta et al., 2020). Sanguine personality is the most dominant type compared with choleric, melancholic, and phlegmatic ones. Emotional intelligence in sanguine and phlegmatic types is higher than that in choleric and melancholic types (Thadea et al., 2018). The mathematic learning discussion method with Quantum Learning approach is more effective than the conventional one. Students with sanguine and phlegmatic personalities evidently have similar mathematic learning achievement (Septianawati et al., 2014).

Choleric students can meet all indicators at Wallas' creative thinking stage; it can be seen from the results of algebraic test given and of interview conducted (Shofiah et al., 2019). Melancholic personality type has some dominant characteristics as a typical reaction to environment situation and condition, including analytic, respectful, sensitive, pessimistic, wise, insecure, touchy, attentive, shy, willing to sacrifice, idealistic, introvert, and suspicious (Ramadhan, 2020).

Creative thinking in solving block material tends to pass through Wallas model's creative thinking stages including preparation, incubation, illumination, and verification. However, there are some differences between students with sanguine, choleric, melancholic, and phlegmatic personalities in passing through Wallas model's creative thinking stages (Susanti, 2018). Sanguine subject is the one taking problem solving strategy irregularly, while melancholic one is the person solving problem regularly. Choleric subject solves problem in practical and fast way, while phlegmatic subject is the one solving problem in organized way (Wahyudi, 2018). In solving problem, sanguine subject uses mathematic symbol and has more than one way, while choleric subject goes directly to the basic question and has more than one way, melancholic subject details it in written form and has one way only, phlegmatic one can deliver the procedure completely and clearly, and has more than one way (Hafsyah et al., 2020). The nurse profession students' caring behavior is on good caring behavior, majority of which belongs to sanguine personality. Therefore, caring behavior is not different based on personality type (Pitoy & Pratasik, 2020). This research wants to analyze the application of Hippocrates' four personalities as the material of communication learning for Tax Extension Officer's Functionality, because in communication there are two or more persons with uncertainly same personality; recognizing others' personality is expected to make the communication easier.

Method

This study was an educational research using quasi-experimental method in the group studied only (Creswell, 2012). Primary data contains words, actions, and documents collected through questionnaire and observation (Moleong, 2015). Author is a research instrument, particularly in conducting observation as he serves as instructor (Sugiyono, 2015). Data of document was collected using google form in two stages: before attending the learning, the participants were told to complete the questionnaire related to personality profile consisting of twenty items of our strengths and twenty items of our weaknesses, each item of which consisted of four answer choices, the participants were told to choose the most suitable personality (Littauer, 2004). The result was distributed and made the material of discussion in the learning process. Having the learning been

completed, the participants were told to complete the questionnaire of feedback with opened questions: what are the weaknesses, what are the strengths, and what are recommendations given to the use of Hippocrates' personality profile as the material of communication learning for the functionality of tax extension officer to be better (Arikunto, 2017). The data collected was analyzed in logic-inductive way, the process of thinking using logic to understand pattern and predisposition in data in three stages: coding, describing basic characteristics, and interpreting data (Mertler, 2011). The result of research was presented descriptively. The author was conducted on the Long Distance Training for the Functionality of 3rd-Generation Tax Extension Officers in 2021 conducted in Financial Education and Training Center of Makassar, with 25 participants: 14 (fourteen) males and 11 (eleven) females. The participants are 25-30 years old (1 participant), 31-35 years (8 participants), 36-40 year (6 participants), 41-45 years (8 participants), and 46-50 years (2 participants).

Findings and Discussion

Personality character of the participants of Long Distance Training for the Functionality of Tax Extension Officer, using Hippocrates' Personality Test, is presented in *Table 1*.

Table 1. Personality character of the participants of Long Distance Training for the Functionality of Tax Extension Officer using Hippocrates' Personality Test.

No	Participants	Choleric	Sanguine	Phlegmatic	Melancholic	Total
1	Participant 1	18%	28%	25%	30%	100%
2	Participant 2	25%	30%	33%	13%	100%
3	Participant 3	30%	23%	28%	20%	100%
4	Participant 4	28%	30%	25%	18%	100%
5	Participant 5	35%	28%	15%	23%	100%
6	Participant 6	43%	18%	20%	20%	100%
7	Participant 7	33%	20%	33%	15%	100%
8	Participant 8	28%	15%	33%	25%	100%
9	Participant 9	38%	15%	25%	23%	100%
10	Participant 10	33%	20%	30%	18%	100%
11	Participant 11	40%	10%	33%	18%	100%
12	Participant 12	28%	25%	28%	20%	100%
13	Participant 13	35%	25%	28%	13%	100%
14	Participant 14	25%	28%	30%	18%	100%
15	Participant 15	20%	20%	20%	40%	100%
16	Participant 16	28%	13%	35%	25%	100%
17	Participant 17	28%	13%	40%	20%	100%
18	Participant 18	20%	8%	35%	38%	100%
19	Participant 19	30%	18%	38%	15%	100%
20	Participant 20	40%	23%	18%	20%	100%
21	Participant 21	28%	28%	30%	15%	100%
22	Participant 22	50%	13%	20%	18%	100%
23	Participant 23	28%	23%	28%	23%	100%
23	Participant 24	33%	25%	25%	18%	100%
25	Participant 25	23%	18%	35%	25%	100%

From Table 1, it can be seen that the personalities most dominant in the Long Distance Training for the Functionality of Tax Extension Officer are, respectively: strong choleric found in 13 (thirteen) participants (45%), peaceful phlegmatic in 11 (eleven) participants (38%), perfect melancholic in 4 (four) participants (14%) and popular sanguine in 1 (one) participant (3%). There are four participants with two dominant personality types and all of which are choleric-phlegmatic. Considering this, the participants are recommended to learn popular-sanguine and peaceful-phlegmatic personalities because those personalities are needed by the functionality of Tax Extension Officer; although those are not natural personality characters, the popular-sanguine personality character should be recognized consciously, including enlivening situation, cheerful and having sense of humor, and so should be the peaceful phlegmatic character such as humility, interactivity, and patience. Recognizing another personality character should not change each of natural personalities in all life aspects, making the taxpayers comfortable during tax extension activity is enough.

The weaknesses of recognizing personalities using Hippocrates' Personality Test as the material of communication learning for the Functionality of Tax Extension Officer are presented in Table 2.

Table 2. The weaknesses of recognizing personalities using Hippocrates' Personality Test as the material of communication learning for the Functionality of Tax Extension Officer

No	Response	Proportion	
1	The questionnaire should be completed in quiet and relaxed condition in order to be compatible to our personality.	9	36%
2	Selecting the option available to our personality hesitantly	6	24%
3	The result is uncertainly compatible to our actual personality condition	4	16%
4	No weakness is available	2	8%
5	Whether or not the response is written honestly is unknown	2	8%
6	Not detecting external factor affecting an individual's personality character	1	4%
7	Only four character options are provided	1	4%
Total		25	100%

From Table 2, it can be seen that nine (36%) participants argue that personality, using Hippocrates' Personality Test, as the material of communication learning for the Functionality of Tax Extension Officer, because the questionnaire should be completed in quiet and relaxed condition, according to actual personality and the questionnaire completed in hurry and in tired condition will give less valid response. Six (6) participants (24%) select the four answer options hesitantly, it is likely because nearly all answer options are inside themselves; in this case the participants were told to choose the most dominant one. These two factors affect four participants (16%) feeling that Hippocrates' personality profile is uncertainly compatible to the actual personality. The argument is uncertainly right because actually personality will be seen by others rather than by the self, moreover those thinking critically, detail and cantankerous. Two (8%) participants argue that there is no weakness, meaning that this method has been good. Two

(8%) participants argue that Hippocrates' Personality Character model cannot find out whether or not the answer is chosen honestly; it is actually given up to the participants themselves, whether or not they choose the answer honestly. A participant (4%) argues that Hippocrates' personality character model does not detect external factors affecting an individual's personality character. This argument is justifiable, but Hippocrates' personality character model measure internal personality only. One (4%) participant says that Hippocrates' personality character model has limitation as it provides four personality character options only and this argument is justifiable. However, the learning in this research uses Hippocrates' personality character model dividing human character into four only. To measure more than four personality characters, other scholars' opinion is required.

The strengths of recognizing personality using Hippocrates' Personality Test, as the material of communication learning for the Functionality of Tax Extension Officer, are presented in Table 3.

Table 3 The strengths of recognizing personality using Hippocrates' Personality Test as the material of communication learning for the Functionality of Tax Extension Officer

No	Response	Proportion	
1	Can recognize our personality and how to solve problem, if any.	19	76%
2	How to identify our personality easily	4	16%
3	The outcome is close to the actual personality	1	4%
4	Is a new knowledge unthought-of before	1	4%
Total		25	100%

Table 3 shows that nineteen (76%) participants argue that recognizing personality using Hippocrates' personality model can identify the participants' personality and how to solve problem if any; this argument is confirmed by four (16%) participants stating that Hippocrates' personality model is an easy way to recognize our personality. A (4%) participant says that the outcome (result) is close to the participants' actual personality and some others say that it is new and unthought-of before. Considering the strengths presented in Table 2 and the weaknesses presented in **Error! Reference source not found.**, it can be seen that the weaknesses of recognizing personality using Hippocrates' personality model as the method of recognizing personality for the Functionality of Tax Extension Officer is compensated by its strengths. The weakness still needing attention is that Hippocrates' personality recognizing test should be done in the morning when the brain is still fresh.

To improve the utilization of Hippocrates' personality recognizing model as the material of communication material for the Functionality of Tax Extension Officer in the future, the participants were told to give some recommendation, the results of which are presented in Table 4 Recommendations given to improve the utilization of Hippocrates' personality test as the material of communication material for the Functionality of Tax Extension Officer

Table 4 Recommendations given to improve the utilization of Hippocrates' personality test as the material of communication material for the Functionality of Tax Extension Officer

No	Response	Proportion	
1	The answer options should be more varied	9	36%
2	It has been good, no recommendation is given	5	20%
3	It should be done in the morning when the brain is still fresh	5	20%
4	It can be a reference in both next training and extension practice	2	8%
5	The participants should choose answer according to their personality	1	4%
6	Pocket book should be prepared for tax extension officer	1	4%
7	It is conducted periodically	1	4%
8	Written feedback is given	1	4%
Total		25	100%

From Table 4, it can be seen that nine (36%) participants recommend the variation of answer option to be increased. The recommendation cannot be followed up because the Hippocrates' personality test used divides human character into four only. Five (20%) participants say that the test should be done in the morning; this opinion should be taken into account because it is better to do the test when the brain is still fresh and the time is sufficient. Five (20%) participants say that the method existing has been good; this opinion is confirmed by two (8%) participants saying that this method can be used in the next training. There are four arguments, each of which is expressed by one participant (4%), stating that the participants should choose the answer in accordance with their personality, pocket book should be prepared for Tax Extension Officer, and written feedback should be given. The recommendation that the participants should choose answer in accordance with their actual personality will be emphasized on the instruction of questionnaire completion, the pocket book production is unnecessary, original book should be used, and written feedback has been given to each of participants in concomitant with the notification of result of Hippocrates' personality test and made as the material of discussion during learning process.

Conclusion

Recognizing personality using Hippocrates' personality model with questionnaire existing in F. Littauer's book entitled Personality Plus as the material of communication learning for the Functionality of Tax Extension Officer can be done to identify the participants' personality; in addition the participants also can identify personality versus communication. This learning has weakness because the questionnaire should be completed in quiet and relaxed condition in order to match the actual personality, because the questionnaire completed in hurry and in tired condition will give less valid response. The strength is related to the ability of recognizing personality and to solve communication problem easily. For the learning to be better the participants are recommended to do so in the morning when the brain is still fresh and they still have sufficient time.

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SELECTION OF VOCATIONAL EDUCATION OF SPECIAL NEEDS` STUDENTS WITH LEARNING DISABILITIES IN MALAYSIA: STUDENTS, PARENTS, AND TEACHERS` PESRPECTIVES

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Abstract

This study aims to identify the tendency of students with special needs learning disabilities in choosing the field of their vocational education. This study also highlights the perceptions of parents and teachers towards the vocational field chosen by the students. A survey method was used in this study which involved 351 special needs` students with learning disabilities, 336 parents, and 248 teachers in the State of Selangor, Malaysia. The findings of the study indicate that there were several constructs namely, realistic, investigative, artistic, social, entrepreneurial, and conventional which determine students with special needs learning disabilities choosing the field of vocational education. Meanwhile, several factors that influence parents' perceptions of their child's choice of vocational education field have been discussed in this study. This study illuminates the phenomena and tendency of difficulties faced by students with special needs learning difficulties in choosing their field of vocational education. In this regards, parents and teachers have an important role in providing support to students with special needs in their learning and vocational choices.

Keywords: selection, special education students, vocational education

Introduction

The current career education program for the Special Needs` Students with Learning Disabilities (SNS LD) is not based on a proper system. The existing career education programs do not have a well-established theory and appropriate activities to help SNS LD make their field of education choices. Worryingly, statistics released by the Special Education Division (2015) showed that there are still SNS LD who dropped out of Special Vocational Education Secondary School (SMPKV) Shah Alam and SMPKV Indahpura before they successfully graduated with a Malaysian Vocational Diploma (DVM). Meanwhile, SMPKV Kuantan, SMPKV Merbok do not have complete data on SNS LD dropouts.

Quenner (2015) suggested that the failure of existing career education programs is due to lack of emphasis on career planning skills while the students were in the secondary school. In fact, his study related to SNS LD career education from 1991 to 2011 found that these phenomena had led to decline of the number of SNS LD who enroll in vocational education for further education. Newman, Madaus and Javitz (2016) also argued that the lack of career planning activities has made SNS LD difficult to identify their own interests, abilities and shortcomings. As a result, they are unable to make realistic choices about the tendencies of the field of vocational education that are in line with themselves.

Wehman, Inge, Brooke, and Paul (2007) have conducted a study related to the acceptance of SNS LD on career education programs using Information and Communication Technology. They found that as many as 50% of SNS LD do not use online career education programs. This finding is in line with the study of Raghavendra, Newman, Grace, and Wood (2013) who found that SNS LD are rarely use online services to explore their learning information due to their own low potential or capability. It is because, as suggested by Ferri and Giannoumis (2014), the current career education program software is not inclusive for SNS LD. As a result, a lot of SNS LD face difficulties in determining the direction of their education.

It is quite alarming because the lack of self-determination skills in career education programs has caused SNS LD to experience crisis and discrimination in their lives (Field, Sarver and Shaw's, 2013). In this regard, Tilson and Simonsen (2013) found that self-determination skills were not included in the SNS LD career education program because it focused more on job placement activities after the students graduated from high school (Bram, 2016). Due to the shortcomings of this program, the SNS LD do not have the opportunity to make decisions or choices of their vocational education field. The situations are even worse because the teachers are unclear about the activities of self-determination skills that should be placed upon the career education program for SNS LD (Kleinert, Harrison, Mills, Dueppen, and Traylor, 2014). As a result, these skills have been neglected. Therefore, it is unsurprising that many of SNS LD are less motivated because they do not know how to make decisions about themselves and have to rely on their parents.

To tackle the problems that we have discussed previously, it is important to develop a comprehensive career education program for SNS LD in secondary schools. This step is one of the initial strategies to give a better and a more prosperous life to SNS LD in the future (Bram & Putra, 2019). Thus, the SNS LD career education program known as e-Jejak was developed. e-Jejak was developed to help the SNS LD plan and make choices about their vocational education field. Making the right choice is very important for the SNS LD because an incorrect selection of vocational fields might cause the SNS LD to drop out from their school, to earn low salaries due to lack of education, or to become unemployment.

In addition, the main components that lead to the selection of vocational fields for students (Bram & Avillanova, 2019) with special needs were identified through a survey of parents and teachers of SNS LD. Perceptual agreement between parents and teachers in designing the education modules for SNS LD is important because they are those who have the in-depth knowledge of the needs and abilities of SNS LD. By doing so, we would also like to address the grasp the

problems identified earlier by Martin, Morehart, Lauzon, and Daviso (2013) who found that among the causes of failure of existing career education modules was due to lack of emphasis on parental perceptions (Bram & Pasaribu, 2020) compared to teachers of SNS LD. To sum up, this study aims to identify the tendency of SNS LD in choosing the field of their vocational education, the perceptions of their parents and teachers regarding the vocational field chosen by the students.

In this research, we followed Gottfredson and Johnstun (2011) suggestion of a theory-ridden approach to career assistance. In their research, the emphasize the importance of John Holland's work in career assistance, particularly his theory of Self-Directed Search (Holland, 1970) which was developed from his seminal work of typology of vocational personalities (1959). Furthermore, Holland developed his theory of vocational personalities and work environment (1997) in which he categorized six work personalities, namely realistic, investigative, artistic, social, enterprising and conventional. This theory provides a framework for our research and helps to classify the SNS LD tendencies in making choice of their vocational field. This theory has been used by previous researchers (see e.g. Yunus, Hassan, Kamaruddin, 2018, Ariff, Bakar, and Zamzuri, 2020, Peter, Gitonga, and Kubai, 2021) and has shown a strong contribution in analyzing vocational interest among physically handicapped and normal individuals (Wasif and Ghazal, 2018). By using Holland's theory and following previous researchers, this research aims to provide a better explanation to the phenomena under investigation.

Method

This research is a cross-sectional survey which aims to investigate the perspectives of SNS LD, parents and teachers toward the choices of vocational filed by the students. A cross-sectional design was chosen due to its strength in providing a snapshot of the current condition of the population (Mills and Gay, 2019). A simple random sampling method was used in determining the participants in this study. With a total of population is 3.915, we followed the method suggested by Krejcie and Morgan (1970). As a result, 351 students, 346 parents, and 248 teachers in Selangor, Malaysia were selected to participate in this study. The data were obtained by using tests and questionnaire. By using questionnaire, researchers could collect a large amount of data in a relatively short time. Thus, it is an effective way in conducting survey research (Gay and Airasian, 2009).

Findings and Discussion

Students' Preference of Vocational Education

This section identifies the tendencies of choices made by SNS LD regarding their vocational education field. These tendencies are studied and analyzed based on psychological measurement tools based on six constructs, namely Realistic, Investigative, Artistic, Social, Entrepreneurial and Conventional (Holland, 1997). The findings are shown in Table 1.

Table 1. Tendency of SNS LD in Selecting Vocational Education

No.	Construct	Frequency	Percent
1.	Realistic	50	14.2
2.	Investigative	102	29.0
3.	Artistic	56	15.9
4.	Sosial	52	14.8
5.	Entreprenuer	45	12.8
6.	Convensional	46	13.1

n= 351

Based on Table 1, the majority of SNS LD chose the Investigative construct for their educational field inclinations, which was 102 people (29.0%). Artistic construct is the second highest construct chosen, which is 56 people (15.9%) and followed by Social construct, which is 52 people (14.8%) while Realistic construct is the fourth construct chosen by study participants, which is 50 people (14.2%) and the fifth is the Conventional construct, which is 46 people (13.1%). The construct that was less chosen by the study participants was the Entrepreneurship construct, which was 45 people (12.8%).

The findings in Table 1 are interesting because the highest percentage of the SNS LD choice was investigative. According to Holland's theory (1997), individuals with investigative type tend to have a curiosity and questions everything around them. People in this type are actually love to learn new things but in the same time "they may be perceived by others as intellectual and asocial" (Turner, 2015, p. 6).

The second construct that tend to be chose by SNS LD is artistic. People in this type love to use their imagination. They tend to be creative, innovative, artistic and intuitive (Wasif and Ghazal, 2018). Individuals in this type love to live independently (Turner, 2015). This finding is not surprising as special needs' students tend to enjoy artistic environment in which they could express their skills and abilities as suggested by Sá, Almeida, and Moreira (2014) in their research.

Social construct was the third type that tend to be chosen in this study. Individuals in this type love to work with other people, particularly in helping others (Turner, 2015). However, it should be note that even though these students might have adequate social skills and be able to work with other people (Carman and Capparo, 2012), but there's also risk of bullying from other people around them, including in school setting as suggested by Luciano and Savage (2007).

The next constructs that were chosen by SNS LD are realistic, conventional and entrepreneur. Individuals with realistic types are likely suitable to work in the field that needs mechanical or physical abilities (Turner, 2015). Meanwhile, the conventional types are individuals who suitable to work following other people instruction (Gottfredson and Johnstun, 2009). The least construct chosen by SNS LD is the entrepreneur. It is not surprising because entrepreneur shall be able to influence and lead others for the sake of economic gain that is not really the path that special needs' individuals would like to purse (Wasif and Ghazal, 2018).

As the students involved in this research have learning difficulties problem, the aforementioned findings raise a question whether these students made a realistic choice of their vocational education field. It is possible that they made unrealistic field selection of education. Thus, the perceptions of parents and

teachers on the causes of SNS LD problems in choosing the field of vocational education are studied.

Perceptions of Parents and Teachers on the Causes of Students' Problems in Choosing Vocational Education

Next, a survey was conducted on 336 parents and 248 teachers of SNS LD using Williams (2013) questionnaire. The results of the analysis are shown in Table 2.

Table 2. Causes of vocational education field selection problems for students with special needs learning disabilities

Problem	SP	Mean	Interpretation
Students are less motivated	0.73	4.00	high
Pupils have a hard time making decisions	0.39	4.18	high
Pupils have misconceptions about the field of education	1.16	3.63	high
Pupils have no skills in the process of choosing a field of education	0.70	4.20	high
Pupils have low self -understanding	0.43	4.79	very high
Pupils lack information about alternative areas of education	0.51	4.68	very high
Pupils do not know the source for obtaining information	0.64	4.15	high
Pupils do not know how to use information accurately	0.82	4.10	high
Pupils stereotype a field of education	0.91	4.15	high
Pupils are unable to use information consistently due to conflicting opinions of family and friends	0.75	4.62	very high
<i>Total Mean</i>	0.71	4.25	

n= 584

Based on Table 2, there are three problems that are at a very high level, namely SNS LD have low self-understanding ($M = 4.79$, $SP = 0.43$), lack of information about alternative education ($M = 4.68$, $SP = 0.51$) and unable to use information consistently due to conflicting opinions of family and friends ($M = 4.62$, $SP = 0.75$) compared to 7 other problems, i.e. no skills in the education field selection process (Mean = 4.20, $SP = 0.70$), difficult to decision making (Mean = 4.18, $SP = 0.39$), did not know the source to obtain information (Mean = 4.15, $SP = 0.64$), stereotypes of a particular field of education (Mean = 4.15, $SP = 0.91$), did not know how to use information accurately (Mean = 4.10, $SP = 0.82$), lacked motivation (Mean = 4.00, $SP = 0.73$) and had misconceptions about the field of education (Mean = 3.63, $SP = 1.16$). Overall, the problem of choosing the field of vocational education among SNS LD is at a very high level (Mean = 4.25, $SP = 0.71$).

SNS LD are very likely to have low cognitive abilities and motivation in learning (Handrianto, Salleh, & Chedi, 2020; Sideridis, 2003). Hence, most of

these students are unable to understand themselves nor use the information that they acquired (Bram, Prabandari, & Pasaribu, 2020). As a result, these students might not be able to make a rational decision when they chose their vocational fields (Handrianto & Rahman, 2018). For example, the data on Table 1 indicate that most of the students chose investigative construct which requires a lot of intellectual abilities. It is contradictive with the fact that these students are actually facing difficulties in learning due to the lack of academic abilities (Pullen, Lane, Ashworth, & Lovelace, 2017). The findings in this research confirmed that there are problems in the selection of the vocational educational field by SNS LD.

Conclusion

This study indicates that SNS LD in Malaysia faced difficulties in choosing their vocational education field. It is possible that they do not choose those field based on their own abilities and capabilities. These problems were steamed from their learning difficulties that made them unable to make a rational decision, such as low self-understanding, lack of information about alternative education, and inability to use information consistently due to conflicting opinions of family and friends. Therefore, the role of teachers and parents is very important in helping students to make their vocational choices by identifying the root cause of the problem and finding solutions that can be offered to students so that they can succeed in the future.

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THE IMPLEMENTATION OF GAMIFICATION CONCECPT INSIDE ONLINE CLASSROOM ACTIVITIES TO PROMOTE STUDENTS' ENGAGEMENT

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Abstract

Online learning has made massive development nowadays. Due to the spread of Covid-19, the government made a policy to prohibit physical meetings in schools. However, this new policy caused a problem of engagement in online learning. During the lesson, students are giving slow and minimum responses to the teacher's instruction. This happens in most of the school that operates online learning. Therefore, a solution to improve engagement in online classroom is needed. The implementation of the gamification concept is one of the great alternatives. The implementation of this concept has reaped positive results from various fields, including education. With the right application, this method can be a powerful tool to teach in online learning.

Keywords: covid-19, engagement, gamification, online classroom, quarantine

Introduction

Interaction between teacher and students is important inside teaching and learning activities. It could determine whether the learning objectives in each meeting in the classroom can be achieved or not (Eisenring & Margana, 2019). The interaction between teachers and students can bring actual impacts to the way students engage in the classroom. According to a research done in a K-6 and K-9 classroom by Harvard school of education college students, only by changing the teacher's way of interaction with communicating just like parents, can increase students' participation rates by 15%, increase the odds that students completed their homework by 40%, and decrease instances in which teachers had to redirect students' attention to the task at hand by 25% (Melorose, Perroy, & Careas, 2015). With this data, it can be seen that the interaction between teachers and students is quite impactful.

However, there are lots of challenges that appeared in online learning since all classrooms' activities must be done online through virtual platforms. Because of the pandemic condition, the proliferation of online learning has become mandatory for schools to continue teaching-learning activities through online learning so it can help to cut the chain of pandemic (Haerudin et al., 2020). This

situation has made teachers have more difficulties in interacting with their students because the physics of the students are only shown virtually through an online meeting. Teachers cannot directly monitor students' presence just like in a real classroom. This issue is getting worse when teachers cannot make the class engaging and tend to be boring which will make the students not giving full attention to the materials.

The implementation of gamification proved to be effective in increasing students' engagement in online classroom. According to Yu-kai Chou (2016), everything that we do are driven by 8 core drives within the octalysis framework. This framework has been applied in various industries and professions. Education is not exceptional. Learning by playing is highly effective for children since children like to play and they relax through playing which then will cause them to also like learning (Zosh et al., 2017). That is why applying this concept inside the online classroom can give lots of breakthroughs in education.

Through playing while learning, students can learn various attitudes and positive characters such as competitive, sportive, cooperative, creative, and can respect their classmates (Zosh et al., 2017). These characters may not be provided by the school with casual methods. This method will also give impact to school atmosphere and improve the quality of learning. The writer hopes that with this research paper, teachers can have more options to make their online classroom more engaging. The sub focuses of this paper will be the problem of engagement in online learning, gamification concept, and gamification concept in online classroom.

The Problem of Engagement In Online Learning

Engagement is important in teaching and learning activities. In terms of education, engagement is defined as the students' willingness to actively participate in the learning process, as well as demonstrating sustained involvement and positive emotional tone toward learning experiences (Miller et al., 2011). Students can learn better in a learning environment full of engagement. There are three types of engagement, which are cognitive, behavioral, and emotional engagement (Ishak & Amjah, 2015). In this paper, the type of engagement that will be discussed is emotional and behavioral engagement. According to Jones (2009), there are 5 signs of students' engagement which consist of positive body language, consistent focus, verbal participation, confidence, and excitement. These are the characteristics that the teacher needs to keep in mind while checking students' engagement.

Engagement plays an important part in making a classroom effective. According to Eyesenck (2018), effective teaching and learning process will have to promote active learning, collaborative learning, responsibility in learning, and promoting learning about learning. Furthermore, Rossetti and Fox (Rossetti & Fox, 2009) stated the factors that indicate successful teaching is the promotion of learning, teachers as learners, teacher's presence, and enthusiasm. The similarities between Eyesenck's and Rossetti's findings are active learning, collaborative learning, teacher's presence, and enthusiasm which are correlated closely to classroom engagement.

The condition of the pandemic has changed the education process. According to Watnaya (2020), the impact of Covid-19 has proliferated online learning. This

policy is also stated by other countries that fight Covid-19. With this adjustment, online learning plays a vital role in teaching and learning activities during the quarantine. Online classrooms have a lot of differences compared to the traditional classroom. According to Nguyen (2015), online learning is a form of learning that take can be done virtually through online media.

Online learning viewed as less in quality than the traditional classroom. According to Ahn (2017), student enrollment in online classroom is not as effective as in the traditional classroom. The same findings also found by Hart et al., (2019) that stated online classroom is not effective for K-12 students in America. Besides, a survey that had been done by Syalwa (2020) shows that Indonesia's students dislike online learning and view it not as good as traditional learning. Furthermore, research done in Telkom University in Indonesia implicates that 90% of 35 students prefer traditional classrooms rather than the online classroom (Watnaya et al., 2020). The fact that students prefer traditional classrooms instead of the online classroom should be analyzed thoroughly.

One of the stereotype paradigms towards online learning is it is viewed as less engaging than traditional learning. This skepticism was also mentioned by Allen et al., (in Riggs, Linder, & State, 2016) that instructors or teachers engage the students more actively in a face-to-face environment. Quoting the statement from Rossetti and Fox, it can be mainly because students are lacking of enthusiasm (Rossetti & Fox, 2009). This can happen due to the inequity adjustment between online and traditional classrooms.

With that in mind, Euginia Mora-Flores (in USC Rossier School of Education, 2020) also points out that there should be a moderation within an online classroom. The differences between online classrooms and traditional classrooms are severe. For example, in the school settings, the teacher can give a two-hour session non-stop in the classroom. Meanwhile at home, the same duration of teaching was applied, and hope the students can follow it just like when they do it in school. Euginia said that the presence of peers and engagement are important as it can help students to reflect and explore (USC Rossier School of Education, 2020). At home, students can be demanded to enroll in an online class for 2 hours, but without the presence of peers, students will easily get exhausted. There are some moderation that has been made by modified the duration in minimum. However, it should be sustained with quality learning. This situation raises an important topic in online learning, which is engagement.

The Gamification Concept

Game is related closely to the verb play. Game is a system in which players engage in an artificial (man-made) conflict and are defined by rules (Salen & Zimmerman, 2003). Another definition is a game is a physical or mental contest played according to specific rules, with the goal of amusing or rewarding the participant (Noemí & Máximo, 2014). A system inside a game sustained with various elements (such as rules, players, goals, role, decision making, and any other elements) that connected organically to possess an overall function (Tanimoto, 2015). Meanwhile playing is free movements within a more rigid structure (Salen & Zimmerman, 2003). The terms for 'rigid structure' are rules that limit the players within the game itself.

There is a vital difference between playing and working. According to Chou (Chou, 2016) the factor that filled the gap, is the fun factor. The simplest example of fun factor in playing a game is, people can satisfy themselves with doing things they cannot do in the reality, or which can be inferred as zero risks/consequences in the real world (Adams, Little, & Ryan, 2017; Boyle, Connolly, & Hainey, 2017; Chou, 2016). In short, people can do anything they want through games, especially through video games which offer greater experience. A video game is played with a computer or any other device that can visualize video-formed games (such as console, smartphone, or computer game) (Noemí & Máximo, 2014). Each type of game is made within a path. Yu-kai Chou (2016) found that there is a framework that sustained the engagement factors of the game called octalysis. Based on octalysis theory, each game (whether it is action, adventure, role-playing, and other types) has key elements or core drives to make their game successful (Chou, 2016). These key elements are represented within the octalysis framework, which has 8 different types of core drives within it. The core drives are Epic meaning and calling, development and accomplishment, empowerment for creativity and feedback, ownership and possession, social influence and relatedness, scarcity and impatience, unpredictability and curiosity, the last is loss and avoidance (Chou, 2016). These core drives are the things that drive the players to engage and play the game with high levels of relatedness towards the game. The more related the game towards the players' feeling, the more highly also the game will be successful and played by the players over time (Adams et al., 2017; Boyle et al., 2017; Chou, 2016; Noemí & Máximo, 2014; Tanimoto, 2015; Wu, Li, & Rao, 2008). Game developers that can cultivate these core drives in their games, proven to have a successful game.

OCTALYSIS

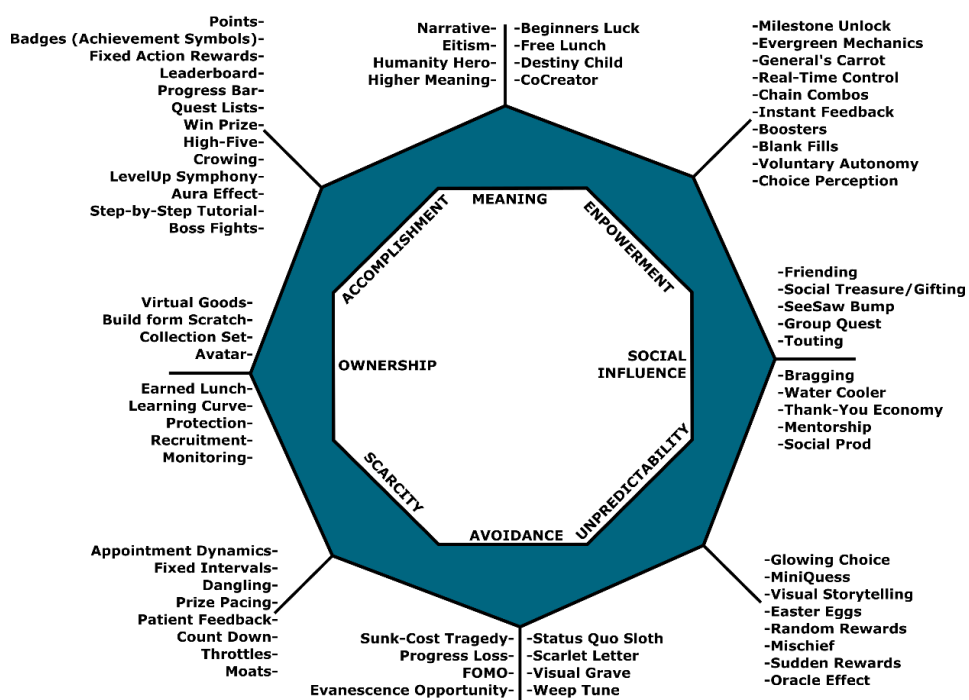


Figure 1. Octalysis Fremawork (Chou, 2016)

Gamification in Online Classroom

One of the problems of online classroom is there is only a little engagement between students and teachers. Thus, school along with teachers have to find a way to create activities that can bring engagement and enthusiasm in learning. With the help of the gamification concept, this problem can be fixed. There are three main reasons why this is the right solution.

The first reason is learning by playing games is better than plain studying. According to Koster Raph (2004), playing can enhance learning with more impacts than people could imagine. Schatz and Loschiavo (in Kirkland & O’Riordan, 2008) added that playing can lighten the mood and facilitates greater creativity and boost morale interest. Sometimes, the teacher distinguishes these two aspects between playing and learning, into two contradictory aspects.

The second reason is, people will feel challenged instead of feeling pressured when they playing a game. Even though some games are more complex than learning the school’s subject, players are not feel pressured when facing a difficult situation. In an online game called Mobile Legends: Bang Bang, for example, the players have to memorize thousands of items, map rotation, player’s role, apply good positioning and plan a complex strategy so they can defeat their enemy. The objective of the game is to destroy the core base owned by the enemy. Each team will consist of 5 members with their unique roles. With all of these complexities, there are still lots of players of this game that came up from various age, gender, and background which most of them are students (Iskandar, Hidayat, & Ganda, n.d.; Yogatama, Kharisma, & Fanani, 2019). The level of the cognitive domain in online game, Mobile Legends has already reached the level of synthesis, which occupied the second position in the pyramid of Bloom’s taxonomy (B., Mesia, & Krathwohl, 1964). It is really in contrast with subjects like Biology, which most of the time only have to remember things. In Bloom’s taxonomy, remember occupied the lowest position (B. et al., 1964). But the players (which mostly are students) can keep up with it and some of them even reach the highest rank in the game.

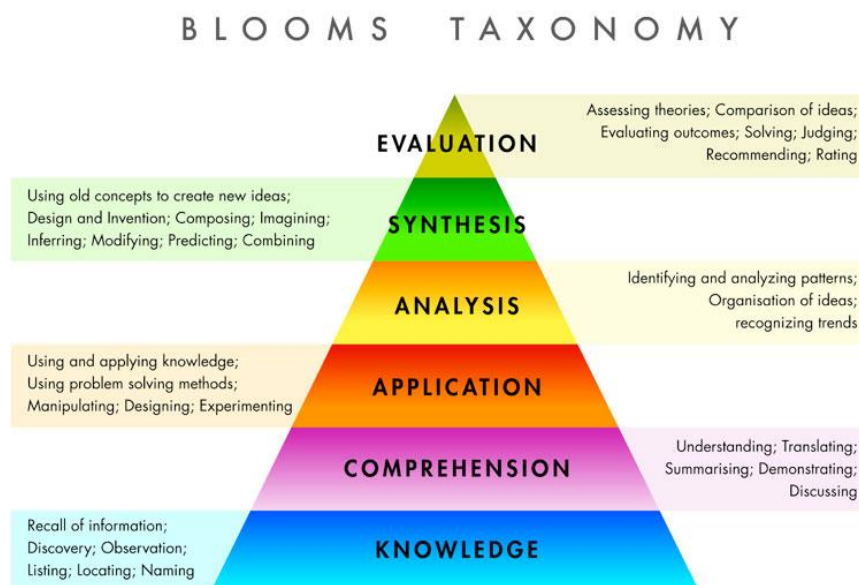


Figure 2. Bloom's Taxonomy (B., Mesia, & Krathwohl, 1964)

The third reason is, gamification has been proven over various researches in a different field to promote engagement, including education. Game is a powerful tool for learning, which is why it should be applied in the classroom. Some researches result in the improvement of students' engagement in learning (Kirkland & O'Riordan, 2008; Özhan & Kocadere, 2020). Furthermore, there are also positive results from various types of fields such as engineering and military as has been noted before (Markopoulos et al., 2015; R. Smith, 2010). The gamification concept inside it, make weather engineering students or training soldiers practice better. Game can even solve a puzzle that confused scientists for a decade within only ten days, which a proof that there are gamers who smart enough to tackle scientist's level of problem (A. Boyle, 2011). With those reasons above, it is a wise decision to apply the gamification concept in the online classroom.

Findings and Discussion

The researcher has applied gamification concept in an English language classroom. In July until September, the researcher had an opportunity to teach in SK Erenos in Tangerang. At the beginning, the researcher tried to teach with casual direct method. The researcher explain the concept plain, without any specific method, while sometimes asking questions to check student's understanding. However, the participation in the class is not engaging. Students are not respond enthusiastically towards the materials.

The researcher tried to evaluate and reflect towards this problem. Then came up with a suggestion to elaborate gamification concept in class activities. The researcher made a lesson plan to elaborate simple past tense materials in a gamified classroom activity. After the game was played, the researcher received positive feedback regarding the game. It results into a more engaging environment in the learning activities.



Figure 3. Simple Past Game

The researcher managed to make these outlines to simplify the gamification process in classroom's activities. These outlines were made after collaborating gamification concepts from Sugar (1998), Giessen (2015), Iida (2018), Deterding et al., (2011) and Chou (2016):

Decide learning goals as the game goals

Teacher can make their learning goal into game goal first. For example, the learning goal is the students are able to introduce themselves to others. This should be also the game goal.

Decide how to play the game

This can be done easily with implement octalysis core drives inside activities. For example, students who can introduce themselves correctly, will get a badge. This is an example of accomplishment core drive. Another example is, after students finished introduce themselves, the students can choose their friend freely. This is an example of unpredictability core drive.

Add more variations, but keep it simple

More variation of core drives, will opens up new possibilities and amusement for the students. However, each game should be kept simple and playable. If this conditions are not met, then the students cannot enjoy the game fully. For example, teacher should not ask the students to bring any difficult items to the class. This will result classroom's disappointment.

Teacher should aims for the purpose of the game

After the game was ended, teacher needs to check their students' understanding. This step is require to clarify the game's purpose.

Have fun

The game has to generate the feeling of fun for either the teachers or the students. This is important, since gamification concept is all about fun factor. If the students are feel pressured than challenged, then it is wise to evaluate the game.

Conclusion

Online classroom is a challenge to the educational world. It opens up problems different from the traditional classroom. One of the core problems experienced by teachers in online classroom is the lack of engagement by the students. Without any solution, this problem can generate a more negative impact. One of the profound solutions is to promote the gamification concept inside online classroom's activities. This concept has been proven to promote students' engagement in online learning. The problem of engagement also occurred in a school where the researcher did his field practicum. After some suggestions, the researcher tried to elaborate a serious game inside classrooms' activities and receive an improvement in students' engagement, after designing the game with the octalysis framework.

The writer give a suggestion for other researchers to study about other engaging methods to improve engagement in online learning. Or also, can widen

the findings about the impact of gamification for students' achievement inside online classroom. Besides that, school may provide professional development for their teachers to share about this knowledge.

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**TRAINING EVALUATION OF ELEMENTARY SCHOOL TEACHERS
OF 3T REGIONS OF MAHAKAM ULU REGENCY
BY USING KIRKPATRICK**

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Abstract

This study aims to determine the success of training for elementary school teachers in Mahakam Ulu Regency, North Kalimantan in 2016 and 2017. The evaluation method used is the evaluation method proposed by Kirkpatrick. In this study, two of the four levels were investigated. The study method used is the Kirkpatrick evaluation model level one and two. At level one, participants conduct evaluations related to satisfaction and level two participants evaluate learning. At level one, participants are asked to fill in satisfaction instruments. The results of the satisfaction instrument entry were analyzed using weighting on each of the satisfaction dimensions. At level two, participants are asked to work on the pre-test and post-test instruments. Data were analyzed using the Wilcoxon Test. The results showed that the level of participant satisfaction for first level was 83.848% for 2015 and 83.178% for 2016. Both scores showed positive reactions to the training. For second level, learning, the average increase in knowledge was 10.984 for 2015 and 9.4 for 2016. The increase in the mean score was significantly based on the Wilcoxon test.

Keywords: evaluation, Kirkpatrick, satisfaction, training

Introduction

Human resource development requires to be conducted continuously. One of the goals of human resource development is to make teachers to have competences and to contribute to the state development. Law Number 5 of 2014 on State Civil Apparatus (ASN) article 3 states that ASN is a profession based on the principle of competence in accordance with the field of duty. One of the ways conducted to develop human resource is training. Training is conducted by many institutions to develop employees' knowledge, skill and competence. In addition, training aims to increase enthusiasm and services oriented to the interest of community, nation, state and homeland.

Education plays a crucial role to develop the nation. Moreover, teachers contribute to prepare students to participate in the development. Teachers teach and guide students by providing knowledge and skills in accordance with the

development of science and technology. Therefore, teachers should get involved in the development of both science and technology.

Trainings conducted aim to sharpen and recall knowledge that has been previously learned. Nurjanah (2018) states that training is a process of transferring knowledge through education and coaching success. It is like soccer players. Even though they can kick, pass, and dribble, practicing with the team is a must. They keep practicing to kick, pas, and dribble. In addition, Aminah (2015) states that the success of training program is determined by the formulation of training process consisting of identification of training requirements, training plans, development, implementation, and evaluation. Those process aims to ensure the training program is in line with organizations or institutions' necessity.

On the other hand, teachers should quickly adapt to the advancement in information technology. Technological development leads to wide interaction and at the same time, disrupts various areas of human life (Pahlevi, 2019). Technological development massively changes the world. Transportation, economic, telecommunication, cultural, as well as educational sectors also experience significant changes. Teachers should prepare students to enter the modern world that is increasingly giving rise to uncertainty.

Teachers in Department of Education of Mahakam Ulu Regency of North Kalimantan conducted education and training (*diklat*) in Sanata Dharma University of Yogyakarta. This training is conducted for elementary school teachers in Mahakam Regency. Training materials cover four competencies namely pedagogic, personality, professional and social competencies (*Undang-Undang Guru dan Dosen*, 2005).

Trainings aim to broaden teachers' knowledge, duties and roles in increasing their ability to master five fields of study in Elementary School, 2013 Curriculum, learning instrument arrangement and increase teachers' spiritual and social attitudes. The success of a training needs to be measured in terms of the level of success by determining success indicators. Besides, training implementation needs to be evaluated so that relevant parties can improve weaknesses in training, decide further training, and consider the benefit for organizations (Kirkpatrick & Kirkpatrick, 2006).

This study aims to evaluate the implementation of education and trainings for elementary school teachers in Mahakam Ulu Regency of North Kalimantan in 2016b and 2017. Evaluation model used is Kirkpatrick's Evaluation Model. This study only examined level 1 and level 2 out of four levels of Kirkpatrick's Evaluation Model. Due to study limitation, the evaluation of level 3 and level 4 cannot be conducted because it can be conducted in teachers' place of origin.

Program evaluation is used to obtain accurate and objective information on program implementation (Ramadhon, 2019). Program evaluation is conducted to identify the achievement of implemented programs. Relevant parties can make decisions to improve program implementation, determine further programs, replicate the program, and determine the impact of the program for institutions and society.

Stufflebeam (1971) define evaluation as a process of describing, obtaining, and providing information that is useful to assess alternative decisions. Therefore, there are three things to consider. First, assessing process is known as systematical and continuous activities. Second, evaluation process covers three steps that are

making questions that must be answered, obtaining relevant information, and providing information in decision making. Third, evaluation is known as a process to serve decision making.

There are many training participants fail to apply knowledge and skills obtained during the training. One of the causes is the absence of assistance to participants after they finished the training. For example, after the training, teachers do not implement their learning outcomes. There are several possible causes. First, teachers still implement their old habits. Second, their school environment does not support the implementation of new knowledge. Third, teachers still have difficulties in implementing knowledge and skills they have obtained. Fourth, facilities and infrastructures are not adequate for the implementation of knowledge and skills. Fifth, participants attend trainings for the sake of formality, to meet the conditions required.

Therefore, the evaluation of education and training becomes a crucial part in the program itself (Topna, 2012). Moreover, Topna (2012) states that training evaluation ensure participants' ability to implement the training in their working environment. The successful participants implementing the training are expected to give good impact for their organization.

Program Evaluation Models

There are many evaluation models widely used to evaluate programs. Some of them are Tyler's Objectives Model, Scriven's Goal-free model, Stake's Responsive Model, Stufflebeam's CIPP Model, Discrepancy Evaluation Model (Anh, 2018), Kirkpatrick model (Kirkpatrick & Kirkpatrick, 2006).

The development of evaluation model began in 1949 (Muryadi, 2017; Anh, 2018). This development was started by Tyler from 1930 to 1945. This model is pioneered by Tyler known as Tyler's Objectives Model. The characteristics of Tyler's model is that the model evaluates the level or degree of instructional goals or objectives being achieved. The model involves careful formulation in accordance with educational goals (students, society), learning materials, learning psychology, and educational philosophy. If the goals are not achieved, instructional programs may fail. Tyler's Objectives Model can only be used to evaluate clearly defined goals.

In 1959, Kirkpatrick proposed program evaluation model known as Kirkpatrick's Model. This model became known in 1994 when Kirkpatrick published a book titled "Evaluating Training Program". The model consists of four levels namely reaction, learning, behavior, and result. This model will be discussed further.

In 1960s, Daniel Stufflebeam proposed an evaluation model known as Context, Input, Process, and Product. This model is created to increase and achieve accountability of school programs in United States (Anh, 2018). CIPP model by Stufflebeam is defined as a comprehensive framework to guide the evaluation of programs, projects, personnel, products and systems (Stufflebeam, 2003). Evaluation process using CIPP used to monitor and assess the activity of a program implementation. This model is based on learning by doing and good moral (objective).

Discrepancy Evaluation Model was proposed by Provus in 1969 (Provus, 1969; Buttram & Covert, 1969). Discrepancy Evaluation Model produces

information for program assessment and improvement. Provus defines evaluation as a comparison between actual performance and desired standard. In the discrepancy model (gap), there are five stages namely program design, installation, process, product, and cost-benefit analysis.

Robert E. Stake proposed a system to evaluate education in 1972 (Anh, 2018). This model is known as Stake's Responsive Model. The evaluation is responsive if it is oriented to program activities instead of program goals. This model emphasizes the stakeholder's main interests obtained from conversations with the stakeholder continually during the evaluation.

Goal-free evaluation model by Michael Scriven was introduced in 1972 (Anh, 2018). This model is driven by educational investment happened at that time. The evaluation happened at that time was influenced by project goals. Therefore, Scriven proposed goal-free model. Goal is defined as statements of wide program goals in which the outcome is expected. The characteristics of this model are outcome-focused, intentional, unanticipated, assessor-free, and unrelated to the rhetoric of instructional makers.

Kirkpatrick's Evaluation Model

There are four levels of training evaluation model proposed by Kirkpatrick, namely reaction, learning, behaviour, and result pelatihan (Kirkpatrick & Kirkpatrick, 2009). The first stage is reaction. This stage measures participants' reaction to the training. This similar to measure participants' satisfaction to the training conducted. The training is considered successful if participants feel interested and motivated to participate in the training.

The interest in and motivation for the training are measured from training materials including modules provided, instructors, training venues, accomodations, food, and services for participants. If participants give positive responses to the service provided, the training is considered successful. In contrast, if participants give negative responses to the service provided, the training is considered unsuccessful. The training at the first level is useful to provide input for training organizers (Kirkpatrick & Kirkpatrick, 2006).

The second stage of Kirkpatrick's evaluation is learning. Learning can be defined as change in knowledge, attitudes, and skills of training participants (Kirkpatrick & Kirkpatrick, 2006). In the second stage, the successful training can be measured by using pre-test and post-test. If there is an increase in the score of the post-test, the education and training can be considered successful.

In the third stage, behavior is defined as change in participants's behavior. In the first and the second stage, participants is possible to be successful, however, if there is no change in behavior, it can be said that the education and training have failed. This behavior change means participants have a desire ti change, know what and how to do, work in the right situation, and give reward over behavior change.

The fourth stage is result. Result can be defined as final outcomes as a result of participants get involved in education and training. The final outcomes can be in the form of students' score, improvement of school discipline, increases in enthusiasm and motivation of students and teachers, and so on. Final coutcomes of a training sometimes cannot be seen instantly, however, the final outcomes can be seen several years after students graduate from the school.

The advantages of the evaluation by Kirkpatrick are easier to be implemented, does not only include final tests, and is more comprehensive due to softskill and hardskill measurement (Kholik, 2020). In addition, the evaluation is simple and can be implemented in various training situations (Nuraini, 2017). Furthermore, Kholik (2020) states that disadvantages of the evaluation by Kirkpatrick are the inputs are not considered in the training, the outcomes are difficult to measure because the evaluation is out of training implementation (Kholik, 2020). Those disadvantages can be anticipated with a commitment between relevant parties to achieve the success of education and training.

Method

This study was quantitative study. The data was obtained during the training of teachers of Mahakam Ulu Regency in Yogyakarta in 2016 and 2017. The data includes training satisfaction and pre-test and post-test scores. The data of satisfaction was obtained by using instruments of satisfaction, while the data of pre-test and post-test scores were obtained by using instruments developed by Intitute for Study and Community Services of Sanata Dharma University. The study method used was evaluation method proposed by Kirkpatrick. This study used two levels of Kirkpatrick's evaluation method, namely reaction level and learning level. The first level is reaction. Training participants' reaction measures participants' satisfaction to the training conducted. The data of participants' satisfaction was obtained by developing satisfaction instruments using likert scale. Dimensions developed in satisfaction instruments were training materials, mood, instructors, facilities include modules, training venues, accomodations, and food. Measurement of the degree of training participants' satisfaction was conducted by using the following aspects:

The second level is learning. The success level of learning was measure before and after the training was conducted. The success level was examined by using Wilcoxon test to find out the level of significance.

Finding and Discussion

Findings

The training of elementary school teachers of Mahakam Ulu Regency of North Kalimantan was held in *Batik Hotel*, at *jalan Dr. Sutomo*, Yogyakarta. The training was conducted from July 27, 2015 to September 27, 2015 and from August 21, 2016 to October 17, 2016.

The first level is reaction. The average results of the satisfaction instrument compared to the satisfaction criteria are as follows:

Table 1. Satisfaction Criteria

Range	Interpretation
< 50%	Participants show bad reactions to the training
50.1% - 60%	Participants show better reactions to the training
60.1% - 80%	Participants show positive reactions because they realize that they receive useful input during the training
80,1% - 100%	Participants show highly positive reactions that is impressive, useful, and highly applicable

The instrument result distributed to training participants is showed in Table 2 below.

Table 2. Training Participants' Satisfaction

No	Indicator	Score Average 2015	Score Average 2016	Description
1.	Training materials	81.67	80.42	Participant's positive reaction to the training is high, memorable, useful, and very applicable
2.	Training participants' mood	89.38	91.25	Participant's positive reaction to the training is high, memorable, useful, and very applicable
3.	Instructor	87.00	84.64	Participant's positive reaction to the training is high, memorable, useful, and very applicable
4.	Training Venue	86.81	82.08	Participant's positive reaction to the training is high, memorable, useful, and very applicable
5.	Training Schedule	74.38	77.5	Participants show positive reaction because they realize that they get useful input during the training
Average		83.848	83.178	Participant's positive reaction to the training is high, memorable, useful, and very applicable

The second stage is learning. In this stage, teachers are given pre-test and post-test. Questions given are related to training materials provided including Natural Science, Social Science, Mathematics, Indonesian, Cultural Arts. The result of pre-test and post-test is shown in Table 3 below.

Table 3. Learning Outcomes

Participants	2015		2016	
	Pre-test	Post-test	Pre-test	Post-test
1.	48	58.33	37.00	50.33
2.	30	50.00	39.00	50.33
3.	37	36.67	33.00	40.33
4.	35	46.67	42.00	47.67
5.	58	65.00	41.00	48.33
6.	65	73.33	44.00	44.33
7.	43	53.33	31.00	39.67
8.	32	56.67	31.00	37.67
9.	32	58.33	39.00	49.00
10.	32	41.67	30.00	33.67
11.	30	43.33	38.00	44.33
12.	32	35.00	37.00	45.67
13.	43	48.33	37.00	49.00
14.	45	61.67	30.00	39.00
15.	32	48.33	45.00	61.67
16.	50	56.67	30.00	43.00
17.	28	51.67	36.00	55.67

18.	35	45.00	32.00	48.33
19.	40	40.00	41.00	43.00
20.	50	46.67	43.00	53.00
Average	39.85	50.8335	36.8	46.2
Std. Dev	10.205	9.740	5.001	6.580

In order to determine types of the test used, normality test and homogeneity test are necessary. The normality test used is Kolmogorov-Smirnov test. Meanwhile, the homogeneity test used is one-way ANOVA. The normality test result is showed in Table 4 while the homogeneity test result is showed in Table 5.

According to the normality test result in Table 4, Asymp.Sig (2-tailed) value is 0.865 for the year of 2015 and 0.998 for the year of 2016. Since to both values are greater than $\alpha = 0.05$, data distribution follows normal distribution. In Table 5, the significance value for the year of 2015 is 0.001 and the year of 2016 is 0.000. Since both values are smaller than 0.05, the data is not homogeneous. Since parametric test requirements are not met, non-parametric test, Wilcoxon Test is used to determine significance of the differences before and after the training for the year of 2015 and 2016.

Table 4. One-Sample Kolmogorov-Smirnov Test

		Year of 2016	Year of 2015
N		40	40
Normal Parameters ^{a,b}	Mean	41.5000	45.3418
	Std. Deviation	7.47907	11.30856
	Absolute	.062	.095
Most Extreme Differences	Positive	.056	.095
	Negative	-.062	-.067
Kolmogorov-Smirnov Z		.393	.599
Asymp. Sig. (2-tailed)		.998	.865

a. Test distribution is Normal.

b. Calculated from data.

Table 5. ANOVA Homogeneity Test

		Sum of Squares	df	Mean Square	F	Sig.
2015	Between Groups	1206.373	1	1206.373	12.124	.001
	Within Groups	3781.089	38	99.502		
	Total	4987.462	39			
2016	Between Groups	883.600	1	883.600	25.870	.000
	Within Groups	1297.925	38	34.156		
	Total	2181.525	39			

The result of pre-test and post-test of each year are examined for the significance level using Wilcoxon Test. The result of Wilcoxon test is showed in Table 6.

Table 6. Statistics^a Test

	Post-test2015 - Pre-test2015	Post-test2016 - Pre- test2016
Z	-3.662 ^b	-3.921 ^b
Asymp. Sig. (2-tailed)	.000	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Based on Table 6 above, Asymp. Sig (2-tailed) value is 0.000 for the year of 2015 and 0.000 for the year of 2016. Since both values are smaller than $\alpha = 0.05$, the hypothesis stating the difference before and after the training is accepted (H_a is accepted).

Discussion

Reaction

In the first level, reaction, training participants' average score is above 80 for the year of 2015 and 2016. The score shows highly positive reaction. In addition, they are impressed with the training they joined, because it is useful for those who have duty and responsibility as teachers. Furthermore, the training is highly applicable for participants. Based on the average score of participants' satisfaction, the education and training of teachers of Mahakam Ulu Regency is considered successful.

If each indicator is observed, the lowest score is training schedule. This indicator has the average score of 74.38 for the year of 2015 and 77.5 for the year of 2016. If it is compared to the indicator of satisfaction criteria, training schedule is categorized in positive reaction because participants realize that they have useful input during the training.

Based on the training schedule, participants started the training at 07:30 – 21:00 on Monday – Saturday. On Sunday, they conducted cultural study and faith building activities at 06:00 – 16:00. In this case, participants have busy schedule because they had almost no free time during two months.

Meanwhile, other indicators can reach above 80. Improvements for the education and training are always done by organizers. For example, difference in the food taste. The taste of food in Yogyakarta tends to be sweet, while in Mahakam Ulu Regency tends to be common (not salty and not sweet). When participants gave suggestions, organizers immediately serve appropriate food.

The same goes for instructors. Participants were asked to directly give suggestion to instructors and organizers if in explaining the materials instructors speak too fast, too slow, unclear and so on. Instructors always tried to give explanation based on the context owned by participants. They naturally explained it by using language that was easily understood by participants.

Principles of openness and honesty instilled during the training provide positive impacts to the training atmosphere. A sense of belonging was built between participants, organizers, instructors and hotel staff. They care for, remind,

and help each other. On the other hand, since the training took a long time, organizers tried to make participants feel comfort. This is one of the success keys in the training.

Learning

The evaluation in the second stage is used for the learning occurred. Measurement was conducted by using pre-test and post-test that provide a difference. The average score of pre-test for the year of 2015 is 39.5. The higher score of pre-test is 6.5 while the lowest score of post-test 28. The average score of post-test is 50.8335 with the highest score of 73.33 and the lowest score is 35.00.

The test score for the year of 2016 also increased although not as many as the increase in the score for the year of 2015. The average score of pre-test for the year of 2016 is 36.8 with the highest score of 45.00 and the lowest score of 30.00. The average score of post-test for the year of 2016 is 46.2 with the highest score of 61.67 and the lowest score 33.67.

In the second stage, the education and training participants' knowledge increases. The average score of pre-test and post-test shows good increasement for the year of 2015 and 2016. Materials examined are Natural Science, Social Science, Mathematics, Civics, Indonesian Language, Science.

Based on the date above, the understanding of teachers' knowledge for the year of 2015 is relatively uneven compared to the year of 2016. This is shown by the score obtained in the pre-test and post-test before and after the training. Besides, teachers' knowledge can be observed from standard deviation of each pre-test and post-test for the year of 2015 and 2016. Based on Table 3, standard deviation for the year of 2016 is smaller than 2015.

According to Wilcoxon test, there is a difference in teachers' knowledge before after attending the training. The difference is the increase in teachers' knowledge. In 2015, the increase in average score of knowledge is 10.9833 and in 2016 the increase in average score of knowledge is 9.4. Therefore, the education and training of Mahakam Ulu Regency is considered successful.

The difference between the average score of for the year of 2015 and the year of 2016 requires to be studied. There are several causes due to the difference in knowledge level. The differences include training instructor, the monitoring of teachers' knowledge understanding, teachers' knowledge and skills before the training are different, each teacher's learning style is different. Several instructors of the education and training in 2015 are different from the education and training in 2016. First, each instructor has different teaching style, different teaching method, different ability to adapt, different teaching approach.

Second, the education and training in 2015, the the monitoring of teachers' knowledge understanding was conducted every week on Saturday. Organizers provided test related to materials given. In 2016, the monitoring of teachers' knowledge understanding was not as intensives as the previous training. Therefore, teachers did not used their time to review the material given.

Third, teachers who attended the education and training in 2015 have different initial knowledge compared to teachers who attended the training in 2016. This is shown in the average score and standard deviation of pre-test and post-test in Table 3. Teachers' skills are influenced by knowledge they acquire (Nirmala, Nurparidah, & Nopiantin, 2015). Teachers should recall their

knowledge and skills continuously so that their knowledge and skills can be internalized properly.

Brain performances can be improved in various ways (Ahmad, 2021). One of the ways is learning new thing. Knowledge can be acquired from various sources such as internet, books, journals, newspapers, and so on. Having new knowledge means that individuals who have it like to read, learn new things, search for something new.

Fourth, each teacher's learning style is different. Widharyanato (2017) states that learning styles are related to individual and a process of acquiring knowledge. In the education and training, instructors should be aware and learn each teacher's learning style. Material explanation should be adapted to each teacher's learning style (Khongpit, Sintanakul, & Nompnonkrang, 2018). The appropriate adjustment teaching style and learning style between instructors and participants will create better learning outcomes.

Conclusion

The education and trainings of elementary school teachers of Mahakam Ulu Regency in 2015 and 2016 are considered successful if the evaluation is conducted by using Kirkpatrick's Evaluation Model. In the first stage, the average positive participant's reaction to the training is high, memorable, useful, and very applicable. Training organizers should pay attention to training schedule arrangement so that participants still have a chance to enjoy their free time. In the second stage, elementary school teachers of Mahakam Ulu Regency can improve their knowledge. The average score of teachers' knowledge about elementary school materials improves after they have significant training. This can be seen in the test result showing $p.value < 0.05$.

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