

MANAGEMENT OF LINUS HARDCORE STUDENTS ' ACHIEVEMENT IN ELEMENTARY SCHOOL NUMERACY PROGRAM

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Abstract - This study was conducted to understand the factors affecting the implementation of LINUS Numeracy program for hardcore students in three schools in the Kinta Utara District, Ipoh, Perak. This study used a purpose sampling method in selecting teachers as participants. Interviews, observations and review of documents were used to gather information. The data was analysed using content analysis and constant comparative method. The findings showed that the hardcore students have attendance problem, lack of focus during the learning process, health and learning problems, not giving response when questions are asked by the teacher, have no interest in learning and also have family problems. All of these problems will implicate the performance of LINUS in the school, state and the ministry particularly if they are not controlled earlier. Various parties need to play their roles in ensuring the performance of LINUS results is at a commendable level.

Keywords: *LINUS, Numeracy, Students' Achievement, LINUS hardcore*

I. INTRODUCTION

LINUS is an acronym for the word literacy and numeracy. The screening of students according to academic achievement (Literacy and numeracy) was initiated by the Ministry of Education (MOE) in 2010. The main objective of this program is to ensure that all students at level one (Year 1, Year 2 and Year 3) are able to master the skills of reading, writing and counting (3M). MOE intends to ensure that students master normal literacy and numeracy skills by 2021. Curriculum Development Division (CDD) is a special organization entrusted to be accountable in spearheading MOE's main objectives in addressing literacy and numeracy problems among primary school students. In LINUS Programme Operational Book 2.0 (KPM, 2015), the computer program has content that has been neatly arranged and selected to give students a good guidance in developing mathematical basic skills especially as the program calculates and thus creates a conducive atmosphere during learning.

MOE suggested the strategy in an integrated manner so that literacy and numeracy problems can be addressed and improved before these problems become difficult to be controlled. Students who fail in 3M skills will risk falling behind making it difficult for them to further their studies in the future (Kerajaan Malaysia, 2010; Zinitulniza, 2011).

II. PROBLEM STATEMENT

The success of Malaysian education has lagged behind countries such as Singapore, Hong Kong and Korea. Of concern, the success rate gap between students in Malaysia continues to be widespread, for example, 20% of Malaysia students failed to achieve the minimum level in the TIMSS mathematics and science in 2007, as compared to only 5-7% in 2003 (Kerajaan Malaysia, 2010). There are over 80 thousand school children who failed to master the skills to read and write (Hasnalee & Zulkifley, 2011). MOE has made steps to improve the implementation of LINUS (Utusan Malaysia, 2006). The yearly report in Government Transformation Programme (GTP) saw the initiative national key result areas (NKRA) enable enhancement of student achievement recorded which various commendable success including urban and rural areas (Kerajaan Malaysia, 2010).

At the primary school level, the initiative also saw the NKRA numeracy programme to students in Year 2 achieving a rate of 98.6% while student numeracy Year 1 is 95.4% rate (Utusan Melayu, 2012). From the percentage rate Year 1 numeracy, students have a lower percentage rate compared to the percentage rate of Year 2 students.

Students who are having problems in reading, writing and counting need help in the teaching and learning process in order to be able to master the skills (Tuzana, 2014). Teacher need various approaches to help students to deal with the problem.

The study conducted by the MOE and the Government Transformation Programme (GTP) found that a number of factors involved in student attrition, one of them being the great number of students in each class receiving learning (Kerajaan Malaysia, 2010). In 2008, almost 32 thousand students dropped out at various stages of school. This situation is worrying; therefore, the government focused on students mastering skills in literacy and numeracy and want to prevent further student attrition.

III. RESEARCH OBJECTIVE

The objectives of this research are;

1. To know the characteristics of hard core students for LINUS.
2. To understand the factors that influence the community (teachers and parents) who

- cooperate in the management of program Numeracy for LINUS.
- To know the suitable types of programme implementation for hard core LINUS students.

IV. METHODOLOGY

This research implemented qualitative research methodology. This research involved six teachers with different responsibilities in their schools. Interviews were mainly used to collect data. Purpose sampling is used in this research. There are four criteria for the selection of the sample as listed below;

- Mathematics teacher who instructs LINUS at least over a year.
- Willingness of teachers to be interviewed.
- Hard core students for LINUS are from Year 1 and year 2 only.
- Parents who have children who are involved in LINUS Numeracy only.

V. FINDINGS

Table 1 show the findings from the teachers interviewed regarding the characteristics and factors influencing hard core LINUS students. Names of participants used in this articles are pseudonyms.

A. The characteristics of hard core students for LINUS.

The participants identified the characteristics of hard core students for LINUS through observation and interviews from LINUS teachers. Table 1 showed the statements from participants.

TABLE 1: STATEMENT OF PARTICIPANTS RELATED TO CHARACTERISTICS OF HARD CORE STUDENTS FOR LINUS.

Participants	Statements
Puan Fadzlina	Attendance problems, no response
Puan Jamiah	Learning problems, didn't give any answer when questioning, family problems, weak of self-management.
Puan Basharina	Attendance problems, health problems.
Encik Samsul	Didn't focus in class during learning process, learning problems.
Puan Suryani	Dislike attends to school, Other friends don't like them
Puan Salwani	Didn't matured compare to others, Born in the beginning of the year.

As in table 1, most of participant stated that hard core students in LINUS have attendance and learning problems. Puan Basharina remarked that the LINUS students doesn't like go to school because their friends didn't like them. This opinion is agreed by Puan Suryani. Learning problems is the main problem as mentioned by Puan Jamiah and Encik Samsul. Students cannot overcome their learning problems and all of them must attend special class for students who are facing learning problems. Puan Jamiah mentioned that in class, she has to repeat her teaching over and over again to make sure students understand the topic or can construct sentences

that they have learnt. Encik Samsul said that one of LINUS students did not focus on the learning process and sometimes they disturb their friends. When the teacher asks questions, they didn't respond at all and kept silent. Puan Fadzlina and Puan Jamiah also agreed to this. Puan Salwani provided information related to the development of psychology and cognitive development. These hardcore students have low maturity levels as compared to other peers. They also have weak self-management due to their low maturity levels.

B. The factors that influence cooperation of the community (teachers and parents) in the management of Numeracy program for LINUS.

The findings are presented in table 2.

TABLE 2: STATEMENT OF PARTICIPANTS RELATED TO THE FACTORS THAT INFLUENCE TO COOPERATE IN NUMERACY PROGRAM.

Participants	Statements
Puan Fadzlina	Feeling sympathy to students
Puan Jamiah	Responsibility
Puan Basharina	Self-Challenge
Encik Samsul	Responsibility
Puan Suryani	Caring
Puan Salwani	To help students

The findings showed that most of parents and teachers involved in the responsibility to teach hardcore students are still motivated in educating students who faced the problem in numeracy. Puan Fadzlina felt sympathy for the students because most of their parents did not take care of them, but instead they were looked after by their grandfather or grandmother. Puan Salwani agreed with this situation and she tries to help students to ensure that they are involved in the learning process. Puan Suryani mentioned that teachers who are concerned about such issues may save their students from dropping out of the learning process and eventually schooling. In other words, caring for students for their future is the responsibility for the teachers. Students need a diverse approach. For instance, producing learning aids that interest students are something that needs to be emphasized because it's not an easy thing to do. It requires sacrifice and challenge for educators as mentioned by Puan Basharina.

C. Type of program implementation suitable for hardcore students for LINUS.

The findings are presented in table 3.

TABLE 3: STATEMENT OF PARTICIPANTS RELATED TO THE TYPE OF PROGRAM IMPLEMENTATION SUITABLE FOR STUDENTS LINUS HARDCORE.

Participants	Statements
Puan Fadzlina	Extra class
Puan Jamiah	LINUS Camp
Puan Basharina	Out Reach Program
Encik Samsul	Economic Token
Puan Suryani	Mentor- mentee
Puan Salwani	Mentor - mentee

The program activities implemented for hardcore students include extra classes, LINUS camp, Out Reach Program, Economic Token and Mentor-Mentee.

1. Extra Class

This program was conducted in accordance with the set class schedule. It was carried out early in the morning in special classes called Remedial classes that have good facilities such as an air conditioning room and learning aids to ensure student's comfort during learning the process. Teachers will give pencils or books to students as a present to motivate them for their good attendance. The parent's role to send their children early to school is very important for the punctual attendance of students.

2. LINUS Camp

This LINUS camp program has two phases. The first phase is the making of teaching aids attended by teachers only. This collaboration involves not only LINUS teachers, but also other teachers in the school. The second phase of the program is the phase for students. Teachers will be divided into groups and placed according to the stations based on skills to be assessed. Students will be in groups and will move from one station to another station until they have gone to all the stations. At every station, the teacher will help students with a particular skill. This program helps students prepare before the actual screening of their skills.

3. Out Reach Program

The aim of this program is to identify students who are having problems hardcore problems. The program is suitable for finding similar symptoms with previous LINUS students or looking for new symptoms to ensure that the numeracy deterioration can be addressed. The program is also supported by a special education teacher to detect potential students from becoming disciples of hardcore LINUS. The teachers are experienced in identifying these students through a number of methods such as writing and speaking verbally.

4. Economic Token

This program is very popular among students. This is because students will be rewarded based on their skills and ability to complete the assignment given by the teacher or be able to use the learned skills. Rewards are given to encourage their motivation to strive to reach their desired reward. The token is in the form of a star.

The student who successfully answers the teacher's question or use the learned skills will be given the token. Collected tokens can be converted into various rewards.

5. Mentor- mentee

This program involves collaboration with teachers. A pupil will be adopted as a child to a teacher. Teachers will provide encouragement or guidance to their adopted students as a step to help them and at the same time learn more about the problems faced by the child.

VI. DISCUSSION

This study is a qualitative study in which the findings are collected through interviews, observations and document analysis (Students' academic performance result, report, and homework). The selection of research participants is based on the criteria set by the researchers such as having experience in teaching Mathematics and have a specific position involving LINUS program namely remedial teacher, LINUS coordinator, special education teacher and head of Mathematical subject committee. The data of this study was analyzed using content analysis and also constant comparative method. Both of these methods help researchers analyze the data and make comparisons of the results from each participant. In this study, the researchers discovered several new findings of the LINUS hardcore students.

The findings showed that several characteristics of LINUS hardcore students, among them being attendance problems, lack of focus during the learning process, health and learning problems, no response and maintaining silence when being questioned by teachers, not interested and have family problems. Most participants regarded the issue of absenteeism in school as the main cause of the student's failure in numeracy. This finding is consistent with the results of interviews conducted by Nazariyah (Nazariyah, 2014) that the problem of being present in school is one of the factors hampering the mastery of the LINUS hardcore students towards literacy or numeracy.

There are several factors that influence people to cooperate in LINUS numeracy program management. Among these factors, teachers have high credibility for these students. Challenges are considered as part of a responsibility and must be overcome (Wong, 2014). Teacher's responsibility is not only to deliver knowledge and skills, but teachers need to provide teaching aids that will enable students to receive the skills delivered by teachers (Arbiah, Khairuddin, Musirin, Haafiz & Hairi, 2018). Among the challenges faced by a few teachers is to identify potential students who have problems with their numerical skills mastery. Therefore, a teacher should always be sensitive and have awareness towards the students involved. The principle stated by Abdul Jalil in the *masalah pendidikan* (Abdul Jali, Normarini, Ghazali & Saedah, 2011) that a good teacher is a teacher who can make a significant difference to someone

regardless of the level and the individual receiving learnings is in line with the findings of this study.

This study also found that teachers themselves want to challenge themselves in ensuring that the strategies used in teaching can be followed by LINUS hardcore students in particular. This finding is also consistent with the view by Abdul Jalil (Abdul Jalil, Normarini, Ghazali & Saedah, 2011) where teachers should make it their main high business to ensure that the goals of the program planned in the school can be achieved.

This study also indicated that some of the programs in the school such as extra class, LINUS Camp, Out Reach Program, Token Economic and Mentor-Mentee Program help the students. Most programs help students in terms of motivation and increase their numeracy skills. This finding is in line with the study conducted by Chew (Chew, 2015) in which students improved their performance with the LINUS program being implemented.

The programs that is preferred by most schools include the Mentor-mentee Program has a great impact on the students. This program makes the teacher a mentor or in other words promoting the teacher as a good role model. This finding is in line with the findings of the study conducted by Nazariyah (Nazariyah, 2014) where the program provided space and opportunity for teachers and students to interact on a one-to-one interaction.

Another program that attracts teachers is the Economic Token Program. The program is also highly favored by LINUS hardcore students because students will try to collect tokens to get the rewards (e.g. toy, pen and others) that have been shown by the teacher. Through an interview with one of the participants in the study that handled this program, not only the attendance problem can be overcome, but the motivation of the student can be seen increasing as well. This is because the teacher has shown the rewards to the students and they can work towards collecting their token and exchanged it with a reward of their choice. This program is unique because the reward is something normal for anyone, but the technique shows reward in advance that allow students to choose the reward they are interesting is a new strategy for research and is in line with the behavioral theory expounded by Albert Bandura (Bandura, 1977) in which learning starts when the students act with stimulus (McLeod, 2016).

VII. CONCLUSION

The study of the management of student achievement in the LINUS HARDCORE Numeracy Program has been implemented in accordance with the resolution that has been designed. The findings of the study have helped the researcher to do further research improvements through the achievement of the objectives and questions of the study being answered. Through the findings of the study, the researcher has provided some of the research recommendations that can be used as a source of research for other researchers. It is hoped that all parties,

especially the schools can successfully implement programs that have been designed carefully as well as the cooperation of the community, especially in ensuring that children do not drop out of the learning process. The teacher's role is very important in the success of any program in the school, and the success of a program will not succeed if it does not have the support from all of parties.

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