The analysis of influencing factors of learning styles, teacher’s perceptions and the availability of learning resources in elementary schools in Padang, West Sumatra

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Abstract. One of the elements to create an optimum teaching and learning process is the support of the availability of adequate learning resources. The number of schools has provided some learning resources namely audio, visual, and audio-visual. However, those properties have not thoroughly answered the needs of students’ learning styles yet. Generally, the applicable learning resources are dominated by uncomplicated printed media such as textbooks and pictures. The teachers also have not shown the ultimate performances in utilising the learning resources at schools. The research aims to investigate the influence of audio, visual, and kinesthetic learning styles, teachers’ perceptions, and the availability of learning resources in elementary schools in Padang, West Sumatera. It is quantitative research which involves 400 teachers of elementary schools in Padang as the population and takes 41 teachers of them as proportional random sampling. The data is collected by applying the questionnaire to the selected sample. Furthermore, the data were analysed using the Pearson’s Product-Moment Correlation to examine the validity level, the Alpha Cronbach to reliability testing purpose and Multiple Linear Regression Analysis to perceive the correlation among the variables in this study. From the analysis, it is found that there was an influence between the students’ learning styles and the utilisation of learning resources toward the students’ learning achievements. The results showed that path coefficient for learning style that is 0.399 at significant stage 0.003 and teacher perception equal to 0.201 at significant stage 0.002. Therefore, this study suggested that the teachers should notice to the students’ learning styles and the selection of learning methods employed in the learning and teaching activities so that the learning process can be performed maximally. The schools are supposed to improve the other learning tools so that increasing the learning achievement of students.

1. Introduction

Education is a process conducted in a planned manner by creating an atmosphere of learning that allows the learning process can take place optimally. The learning process involves not only the interaction between educators and learners, but it is also important to maximize the role of learning resources in assisting the absorption of information for learners.

In the national education system law has clearly been said that the process of education is to create an atmosphere of learning and learning process to carry out teaching and learning activities for learners. Realising the atmosphere of learning would have to consider the existence of a learning resource centre or learning resources. According to the definition of the Center for Information and Communication Technology (Pustekom, 2008) the Learning Resource Center is a unit within an
institution (especially educational units/universities/companies) that play a role in encouraging the effectiveness and optimization of the learning process through the implementation of various functions including service functions (such as media services, training, learning consultation, etc.), the function of procurement/development (production) of instructional media, research and development functions, and other functions relevant for improving the effectiveness and efficiency of learning. In line with this, the existence of a learning resource centre has the goal of improving the effectiveness and efficiency of teaching and learning activities through the development of instructional systems. Implementation is done by providing various choices of learning resources to help teaching and learning activities in the classroom and to find new methods that best suit the needs to achieve the objectives of the teaching program or curriculum that has been applied.

In connection with this, the procurement of a learning resource centre is a very important tool to support the implementation of the curriculum in the field. Ideally, an education centre in this case such as a school should have a learning resource centre designed in such a way as to optimise the student learning process. According to the definition of the Association for Educational Communication and Technology (AECT) states that there are six types of learning resources namely people, messages, materials, tools, techniques, environment. This concept shows that the source of learning is something that surrounds the environment in the learner. In response to this, of course, teachers must be creative in providing a source of learning resources in school.

Field observations show that some schools already have learning resource centres such as libraries, media, and other supporting facilities. The dominant learning resource centres already owned by schools are so far new libraries that are mostly not supported by the latest learning materials (updates). Not all schools even own the library.

2. Methods
This type of research is quantitative. The research population is all teachers who teach in a primary school in Padang city as many as 500 people and the sample is taken proportional random sampling counted 51 people. Data collection techniques used questionnaires. Data analysis using Product Moment Pearson correlation analysis for validity test, Alpha Cronbach for reliability test and multiple linear regression analysis to know the relation of variables in research.

3. Findings and Discussion
Based on the questionnaire, it is found that the factors that influence the availability of learning resources in the school that is the learning style of students and teachers' perceptions as shown in Table 1.

| No | Influencing Variables          | Path Coefficient | t Value | Sig   |
|----|--------------------------------|------------------|---------|-------|
| 1  | Learning Styles                | 0.399            | 3.075   | 0.003 |
| 2  | Teacher’s Perceptions          | 0.201            | 2.992   | 0.002 |

Moderator Variable: The Availability of Learning Sources

From the Table 1 can be done a partial test of each variable as follows:

1. The influence of learning styles on the availability of learning resources. Path coefficient = 0.399 with t value of 3.075 with significance level 0.003 <0.005. It means the path coefficient shows that the learning style has a positive and significant effect on the availability of learning resources. It shows that the learning style of the students in example visual, audio and kinesthetic into consideration in determining the types of available learning resources.

Learning styles, in this case, relate to the use of teacher-chosen learning strategies, learning styles that are owned by students. Based on research conducted student learning style consists of three parts namely visual, auditory and audiovisual. Learning style is a way that students have to optimise
learning. The results showed that the learning style did not affect the availability of learning resources in the school.

2. Effect of Teacher Perception with Availability of Learning Resources. The path coefficient 0.201 with $t$ value 2.992 with significance level 0.002 <0.005. It means that the path coefficient shows that teachers' perceptions affect the availability of learning resources in schools.

Perceptions of teachers is a way of view or attitudes of teachers to the learning that will be done. In this case, the perception indicator is the creativity of teachers in utilising the learning resources, incorporating the elements of the game in learning, setting learning goals with students, analysing different students' abilities, helping learners develop different interests and talents, assisting learners in finding their basic needs for actualisation self.

3. Finding the Student's learning style. What teachers do is to diagnose students based on their learning styles, using process skills in learning, using professionals in designing learning, individual achievement, and determining the effectiveness of learning resources, providing different learning environments and providing a complex learning environment.

4. Giving attention to child development. Teachers' perceptions in this regard are viewed from individual learning by the teacher, taking into account the stages of child development, formulating learning objectives with learners, maximizing learning resources for the absorption of information in children, applying the independent learning process to children, participating in determining the learning resources available at school, teachers help students use a number of learning resources available at school.

Partial test results show that teachers' perceptions of the availability of learning resources in schools have a significant effect. The test results are shown in the following data:

4. Conclusion

Based on the above description can be concluded Coefficient path = 0.399 with a value of $t$ arithmetic 3.075 with a significance level of 0.003 <0.005. It means the path coefficient shows that the learning style has a positive and significant effect on the availability of learning resources. Path coefficient 0.201 with $t$ value 2.992 with significance level 0.002 <0.005. It means that the path coefficient shows that teachers' perceptions affect the availability of learning resources in schools. In relation to the above, for the development of learning resources in schools, an analysis of learning styles and teacher perceptions on the availability of learning resources in schools is required.

References

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