



NEEDS ANALYSIS OF HOTS INTEGRATED PROBLEM BASED LEARNING AND SOCIAL INCLUSION INTERNET BASED LEARNING MODELS OF THINGS

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Abstract

The purpose of this research is to evaluate the development requirements for creating HOTS-based thematic elementary school teaching modules that are digitally connected. In North Sumatra Province, the study was carried out utilizing a survey method at 9 Elementary Schools. 18 teachers of thematic learning in the classroom served as the research participants. The subjects of the study were principals' and teachers' reactions to the emergence of problem-based learning (PBL) integrated classrooms and social inclusion, instructors' propensity to use theme models in the classroom, students' thinking, and students' character. Interviews, questionnaires, observations, and tests were used to obtain the data. Data were descriptively examined. The analysis' findings demonstrate that school administrators have not offered advice on creating thematic models, therefore they are supportive of development initiatives.

Keywords: *PBL learning model, social inclusion, internet of things*

A. Introduction

Education is the process of enhancing students' skills so that learning drives education. Learning is a mental process that results in a change in behavior that is greatly influenced by how one acquires experience. Learning involves questioning not only what pupils already know but also their performance in terms of both knowledge and skills (Sulistiani & Masrukan, 2016).

Character development should begin at a young age, especially in elementary schools, the most fundamental institution that can serve as a starting point for students' character development. Early character development tries to ensure that children have a solid memory of the character values they are to develop (Aulia et al., 2017).

In North Sumatra Province, a lot of the education still takes place in the traditional manner, particularly in the many elementary schools that are situated in outlying districts. There are few resources and infrastructure available. Additionally, contrary to what the 2013 Curriculum recommended, local culture and environment have not been used in learning activities. Although the thematic learning of the 2013 curriculum has long been adopted in primary schools, instructors lack the skills necessary to execute innovative learning, which is a problem that has to be fixed. Students that attend school mostly come from lower middle class homes (Rukiyati & Purwastuti, 2016).

The majority of education in the province of North Sumatra is Based on the results of the initial study, several fundamental issues with learning were identified in elementary schools in the province of North Sumatra, including the following: instruction in North Sumatra's elementary schools continues to be delivered using traditional textbooks,

lecturing is still a common method of instruction, and as a result, students lack interest in learning.

The numerous literatures that the researchers uncovered demonstrate that: Up to this point, teachers have used traditional learning methods more frequently than they have applied creative learning models, and the lessons are text-based in order to increase student memorization.

There are numerous factors, such as education, cultural shifts, changes in national values, the disregard of the younger generation for traditions, and others, that have an impact on social issues. However, there is currently no pattern of instruction that will teach students the value of self-control (Raudhatinur, 2019).

Students and teachers must alter their teaching and learning behaviors in order to apply learning models that have been modified from outside sources and implemented in schools. It is highly challenging to foster positive interactions between students and their friends, students and teachers, and student-teacher conflicts (Aisyah & Nur Dina, 2013).

The purpose of this theme learning paradigm is to help students understand gender values, respect others, and set limits in their interpersonal interactions. The learning results for pupils can then be improved by using thematic learning models to help students understand and value differences with others.

By conducting a needs analysis of the developed learning model, this research is the first step in the effort to develop problem-based learning (PBL) integrated with social inclusion based on the internet of things. This aims to obtain accurate information in the field about the extent to which this learning model is needed.

B. Method

The Dick & Carrey development model was employed as a grand design in this study, which followed Plomp's research and development (R & D) methodology.

The needs analysis (need assessment) portion of this study focuses more on the significance of creating a problem-based learning (PBL) integrated HOTS and social inclusion learning model based on the internet of things. The development of problem-based learning (PBL) integrated HOTS and social inclusion based on the internet of things, Learning Implementation Plans, Student Worksheets, assessment of learning processes and products, perceptions and expectations of the head schools and teachers towards efforts to develop problem-based learning (PBL) integrated HOTS and social inclusion based on the internet of things, are all examples of areas where needs analysis is carried out through data exploration.

The learning paradigm and its currently available resources utilized by instructors in North Sumatra Province are the subject of this study. Data was gathered using interview instructions for school principals, teacher surveys, recommendations for evaluating current learning models, tests of student reasoning, and HOTS questionnaires. Techniques for descriptive analysis were employed to examine the research data.

C. Finding and Discussion

According to the findings of interviews with school principals, it can be said that principals typically haven't offered any specific advice on how to create student-centered learning models. Because the principal is aware of the poor learning models, there is no coaching being done by the principal.

As a result, all school administrators said they hoped that research would be done to develop problem-based learning (PBL) integrated with HOTS and social inclusion based on the Internet of Things, and all school administrators said they would give teachers opportunities and support to participate in training programs where the problem-based learning (PBL) learning model is integrated with HOTS and social inclusion based on the Internet of Things. According to the examination of teacher response data, learning models used by teachers are less likely to boost students' self-confidence. The assignment model, the traditional lecture format, the question-and-answer model, the home assignment model, the instructor demonstration model, and the discussion model are these learning models.

While the thematic learning models have not been implemented as effectively as they could have been, a limited number of teachers have also utilized cooperative learning in addition to traditional approaches. Teachers don't use theme learning models in the classroom because they don't fully comprehend them. Teachers who express a strong desire for and expectation for efforts to create problem-based learning models that are integrated with HOS and social inclusion on the basis of the Internet of Things support these efforts and will prepare themselves to be involved in the process of creating and implementing learning model products (Siswoyo et al., n.d.).

Academic ability only accounts for 20% of achievement; the remaining 80% is determined by one's attitude. The nation's local culture contains positive attitudes like these that we can investigate and integrate in the learning process starting in elementary education, which demonstrates how vital character attitudes must be possessed by a person (Indaayu, 2017).

In order to change gender values for the millennial generation in North Sumatra Province, it is intended that stakeholders will work together to educate, socialize, and in other ways influence them.

The internet of things-based problem-based learning (PBL) learning approach is anticipated to boost students' high-level thinking abilities and make it simpler for teachers to design effective and efficient learning.

D. Conclusion

It can be inferred in the manner outlined below based on the findings of the research and discussion already mentioned. (1) Principals of schools agree that it is crucial to create a problem-based learning (PBL) model that is based on the internet of things and connected with hots and social inclusion. (2) The principal of the school has never given teachers specific instructions for creating a problem-based learning (PBL) integrated hots and social inclusion based on the internet of things learning model. (3) The creation of a problem-based learning (PBL) approach based on the internet of things learning paradigm that integrates hots and social inclusion has not yet been observed in educational practice. (4) The internet of things-based problem-based learning (PBL) integrated hots and social inclusion learning paradigm has not yet been fully adopted by teachers. Up until now, learning and learning assessment have been more process-focused than product-focused.

This study found that there have been no attempts made by educators to create a problem-based learning (PBL) integrated hots and social inclusion learning model based on the internet of things. Teachers have never implemented this technique in the classroom. In order to

employ the problem-based learning (PBL) learning model integrated with IoT and social inclusion based on the Internet of Things and in accordance with the daily context of students, the following recommendations are made in order to make learning in class more effective and efficient.

Bibliography

- [Aisyah, & Nur Dina. (2013). Penerapan Pendekatan Proses Untuk Meningkatkan Kemampuan Menulis Karangan Narasi Siswa Kelas IV SDN Mulyoarjo 02 Lawang. Universitas Negeri Malang, 0(0). <http://library.um.ac.id/ptk/index.php?mod=detail&id=58785>
- Aulia, R. N., Firdaus, M., Mardhiah, I., & Narulita, S. (2017). Pembentukan nilai karakter peduli lingkungan (Studi Kasus : Pondok Pesantren Darunnajah Cipining Bogor). 1(1), 421–430.
- Indaayu, P. (2017). Peran pendidikan karakter dalam kecerdasan emosional. 1(1), 2012–2015.
- Raudhatinur, M. (2019). Implementasi Budaya Sekolah Islami dalam Pembinaan Akhlak Siswa SMP Negeri 19 Percontohan Banda Aceh. *DAYAH: Journal of Islamic Education*, 2(1), 131. <https://doi.org/10.22373/jie.v2i1.2968>
- Rukiyati, R., & Purwastuti, L. A. (2016). Model Pendidikan Karakter Berbasis Kearifan Lokal Pada Sekolah Dasar Di Bantul Yogyakarta. *Jurnal Pendidikan Karakter*. <https://doi.org/10.21831/jpk.v0i1.10743>
- Siswoyo, A. A., Pendidikan, F. I., & Madura, U. T. (n.d.). Pengembangan Perangkat Pembelajaran Tematik Berbasis Quantum Learning Berdasarkan Pendekatan Saintifik Ana Yuniasti Retno W 2 , Pendahuluan Pembelajaran Tematik Salah Kurikulum Satu Model Dari Merupakan Pembelajaran Relevan Dengan Tingkat Kemampuan Peserta. 33–43.
- Sulistiani, E., & Masrukan. (2016). Pentingnya Berpikir Kritis dalam Pembelajaran Matematika untuk Menghadapi Tantangan MEA. *Seminar Nasional Matematika X Universitas Semarang*, 605–612.