

## **DEVELOPMENT OF ICT LEARNING MEDIA BASED ON EXPERIENTIAL LEARNING APPROACH TO IMPROVE LEARNING OUTCOMES CLASS V PKN SD SWASTA PAB 23 PATUMBAK**

**Asrul<sup>1</sup>**

*State Islamic University of North Sumatra, Indonesia*

*asrul@uinsu.ac.id*

**Abdul Hasan Saragih<sup>2</sup>**

*State Islamic University of North Sumatra, Indonesia*

**Mukhtar<sup>3</sup>**

*State Islamic University of North Sumatra, Indonesia*

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### **Abstract**

*Basically this research is intended to see the level of feasibility and effectiveness of developing ICT learning media in the form of interactive power points on PKN material. This research was conducted at PAB 23 Patumbak Private Elementary School. The subjects of this study were all fourth grade students at PAB 23 Patumbak Private Elementary School. This research method is Borg & Gall development research. The results showed (1) Based on the results of the analysis of ICT learning media products from experts it was declared very effective and feasible to use with the criteria of validity of material experts 85.00%, design experts 91.23%, and linguists 87.34%; 2) ICT learning media based on experiential learning is categorized as practical because ICT learning media based on experiential learning results from student responses have increased; and 3) ICT learning media based on experiential learning is said to be effectively used in learning with the assumption that students' understanding is higher when using ICT learning media based on experiential learning in the PKN learning process.*

**Keywords:** *ICT Learning Media; Experiential Learning, PPKn Learning Outcomes*

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## **A. Introduction**

The use of technology in education, especially in the learning process, is an effort to create an effective, innovative and efficient learning process (Iswanto et al., 2018; Yusrizal et al., 2019). The teacher as the party that plays the most role in the continuity of the nation's successors by conducting learning through ICT (Information and Communication Technology) learning media (Yusrizal et al., 2017). In the current development of education, a teacher is required to apply computer-based media to the learning process which can stimulate the mindset and development of students. This is in line with the research journal Utari & Hidayatullah (2019) with the title "Benefits of ICT as Learning Media in SD Dharmajaya Palembang" and this research has proven that the results of interviews conducted with the class teachers at SD Dharmajaya Palembang, on average, the teachers really feel good benefits with the use of ICT as a learning medium. They feel very helpful in increasing students' knowledge, it can be seen that learning using ICT at SD Dharmaja feels very good and is put to good use by all school members to achieve learning goals.

The selection of ICT learning methods and media will determine the success of the teacher in the learning process in the classroom (Fatmawati & Yusrizal, 2021). The use of instructional media can influence students' motivation, communication and learning interactions to be more responsive and interactive in learning activities in the classroom so that they become individuals and citizens who are faithful, productive, creative, innovative and effective.

Based on the results of observations and interviews with the homeroom teacher of grade IV private SD PAB 23 Patumbak, it was found that most of the Civics learning patterns were still transmissive, the

teacher transferred and poured out concepts directly to students. In this view, students passively absorb the structure of knowledge provided by the teacher or contained in subject books, as a result it has an impact on low student learning outcomes, namely they have not reached the specified KKM.

Other findings are the factors that affect the low learning outcomes of SD PAB 23 Patumbak students must be private first, the learning environment used by the teacher does not vary, and the provision of material is explained in more detail in the black field. board and only with visual media. Second, students do not participate actively in the learning process. Third, teachers do not make optimal use of school IT facilities, such as the use of projectors.

In class learning, teachers rely more on textbooks purchased from publishers. With the teacher's package book it is considered that it will help in the learning process which sometimes takes a long time to explain the existing material. In addition, the use of teaching media does not change from year to year. These factors affect the low competence of students, especially in improving student learning outcomes (Fatmawati et al., 2021). For students who use textbooks, they always feel bored and sometimes also lack variety so that students are not active in the learning process.

Therefore, teachers are required to always innovate in carrying out the learning process. The use of learning media using technology should be an alternative for teachers to facilitate students in understanding the material and is expected to be able to change learning conditions. Learning media does not suit the needs of students. This is because the scope of the material in the media is made for the general public and does not pay special attention to the characteristics of the

needs of these schools, the examples and illustrations displayed in the media do not lead to the surrounding environment and are not in accordance with the curriculum implemented in schools.

In today's modern era of technology such as computer machines, internet, multimedia, projectors, telephones, speakers etc., can be used in learning as ICT learning media. By utilizing ICT media, a teacher can be more optimal in learning (Yusrizal & Fatmawati, 2021). A teacher must also be careful in using ICT learning media. Furthermore, referring to the survey of needs for one type of ICT learning media, namely interactive Powerpoint (Nurseto, 2019). Although in essence interactive Powerpoint is classified as one of the learning media that encourages active student participation, not many educators understand how to design and use it in learning. In general, educators more often design and use conventional learning media that only require the active participation of one party. With this media students can also be more active in the learning process because they can explore the material they are learning which keeps the material in mind and sticks which can help the success of learning later. (Pakpahan & Fitriani, 2020).

Utilization of ICT media in learning will also be more useful if combined in several ways. For example, by providing experience as a learning resource, it is commonly called the experiential learning approach. According to Cahyani (2010: 3) experiential learning is a teaching and learning process that activates learners to build knowledge and skills as well as values as well as attitudes through direct experience. Therefore, this approach will be meaningful when students participate in carrying out activities. After that, they looked critically at the activity. Then, they get an understanding and put it in oral or written form according to the learning objectives. In this case,

Experience-based learning (Experiential Learning) is a teaching and learning process that focuses or emphasizes student experiences, both intellectual, emotional, and physical-motor experiences. Sukmadinata (2012: 139) explains that human development is achieved through a series of experiences, sensory experiences such as: seeing, hearing, touching, smelling, tasting, etc. Thinking experiences, such as: remembering, responding, imagining, fantasizing, associating, etc. Social experiences, such as: relating, communicating, interacting, etc. Emotional experience: liking, appreciating, admiring, loving, etc. These experiences are either planned or unplanned, conscious or unconscious, systematic or unsystematic, natural or fabricated.

So that in the end the development of ICT learning media based on the experiential learning approach can improve students' Internship learning outcomes.

## **B. Method**

This type of research is Research and Development with the learning design of the Borg & Gall development model. Gall et al., (2015) put forward the steps of R & D as follows: (1) Research and information collecting; (2) Planning; (3) Develop preliminary form of product; (4) Preliminary field testing; (5) Main product revision; (6) Main field testing; (7) Operational product revision; (8) Operational field testing; (9) Final product revision; and (10) Dissemination and implementation.

This research was conducted at private elementary school PAB 23 Patumbak Deli Serdang district. The subjects in this study were all fourth grade students at private elementary school PAB 23 Patumbak. The data

collection instrument for this development is in the form of an ICT media validation sheet based on an experiential learning approach. In addition, a test of learning outcomes is also given to students. Before the test is used, the test is first tested for validity, reliability, level of difficulty, and differential power of the questions.

### **C. Finding and Discussion**

#### **1. Research result**

##### **a. Product Trial Result Data Description**

###### **1) Data from Learning Material Expert Validation Results**

The results of the assessment of learning material experts as a whole stated that the level of attainment of scores regarding eligibility of content and eligibility of presentation was 85.00 where the range was at the level of attainment of scores of 85-100 categorized as "Very Good". The results of the assessment of the developed material received several comments including: (a) overall the material has not been seen, (b) the material illustrations are displayed visually in the video, (c) there is no conclusion at the end of each material, (d) the involvement of students is still in form of practice questions, and the suggestion is to improve it according to the results of the discussion. The conclusion from the assessment, comments and suggestions by learning material experts is that ICT learning media based on experiential learning is feasible to be tested in the field with revisions.

###### **2) Data from Language Expert Validation Results**

The results of the assessment by language design experts covering aspects of the attractiveness of the physical appearance, the accuracy of the use of the design, the suitability of the format, the presentation with

the target characteristics, the clarity of the media instructions, the clarity of the material exposure, and the suitability of the evaluation with the material as a whole it can be concluded that the level of achievement score is 87.34 where the range is at the level of achieving a score of 85–100 categorized as "Very Good". The results of the assessment of the learning design in the development of experiential learning-based ICT learning media received several comments, including: (a) adapt the media to the approach used, (b) display, KI, Kd and learning objectives, (c) the learning design includes initial activities, core, and closing, (d) make a conclusion at the end of the material, and the suggestion is a multimedia revision in accordance with the comments.

### **3) Data from Learning Design Expert Validation Results**

The results of the assessment by learning design experts which cover aspects of media display design, media programming design, and media content design as a whole can be concluded that the level of achievement score from media design experts is 91.23 where the range is at the level of achievement score of 85-100 categorized as "Very Good" .

The results of the media design expert's assessment of the design of instructional media in the development of experiential learning-based ICT learning media suggest that all data from the results of the media expert's review is used as a basis for revising in order to improve the content of learning media before being tested on students as users of development products. The conclusion from the assessment, comments and suggestions by learning design experts that experiential learning-based ICT learning media is feasible to be tested in the field with revisions, and the results of the media design expert's assessment of instructional media design in the development of experiential learning-

based ICT learning media suggestions by learning design experts that the media ICT learning is feasible to be tested in the field with revisions.

#### **4) Individual Trial**

The results of the individual trials conducted in class IVa of private SD PAB 23 Patumbak consisted of 6 students consisting of 2 students with high achievements, 2 students with moderate achievements, and 2 students with low achievements.

Based on the results of individual trials, it was found that the results of individual trial assessments and responses to the development of experiential learning-based ICT learning media as a whole were 83.67%. Based on the criteria for evaluating interactive learning media, it is stated in the "Very Good" category.

#### **5) Small Group Trial**

Small group trials were also conducted in class IVa of private SD PAB 23 Patumbak which consisted of 9 students, consisting of 3 students with high achievements, 3 students with moderate achievements, and 3 students with low achievements.

Based on the results of individual trials, it was found that the results of the assessment and responses of small group trials to the development of experiential learning-based ICT learning media obtained an overall score of 87.42%. Thus the response to the dominant small group trial gave a very good response to the quality of experiential learning-based ICT learning media. Based on the individual learning mastery results data obtained based on student abilities, it can be seen that out of 9 children there are 3 students who are "Not Completed" and there are 6 students who are "Completed". Based on the gain score, the

result was 0.52, so the gain score on the small-scale test, namely 9 people, was classified as moderate.

## 6) Data Analysis of the Effectiveness of ICT Learning Media

The questionnaire given during the learning process with interactive learning media has been completed. The results of filling out the questionnaire with the number of student responses were 30 students after using ICT learning media based on experiential learning developed in class is calculated using the formula:

$$PRS = \frac{\sum A}{\sum B}$$

$$PRS = \frac{2198}{3000} \times 100\%$$

$$PRS = 73.2\%$$

The average of all aspects of the assessment questionnaire items is 73.2% which is in good qualitative criteria. So, it can be concluded that: 1) interactive learning media developed according to what is needed by students and what is expected by researchers, 2) ICT learning media based on experiential learning which is declared effective in the learning process, especially in learning.

## 2. Discussion

To determine the feasibility of ICT learning media based on experiential learning validity test was carried out by material experts, design experts, and media experts. Where each expert gives an assessment of each discussion contained in the sheet, the validation of learning media is in the form of a quantitative descriptive assessment questionnaire which is expressed in the score distributor and the rating scale category.

The validity carried out at the validity testing stage is theoretical validity, namely validity with experts and competent people in their fields based on theoretical and logical considerations. There are 3 parts of ICT learning media based on experiential learning that will be validated are material, language, and media. The developed interactive learning media needs to be validated to obtain eligibility so that it is suitable for use in learning. In the validation stage, the researcher conducted an assessment using discussion language by showing the initial design of ICT learning media on the sub-theme of gratitude for diversity, to learning language experts, material experts and learning media experts. In addition, the researcher also provided a validation sheet to the validator to obtain theoretical validation results. The experts gave an assessment according to the validator sheet provided by the researcher.

Based on the validation of the material expert, it is known that the validation score is 84.09% with valid criteria but there is still improvement from the material expert. Material experts suggest fixing simple words so that students can understand them. After revising the percentage to a validity of 92.11% with very valid criteria. After discussing with material experts, ICT learning media based on experiential learning based on the validator's input and suggestions.

Based on the validation of learning design experts based on the aspects of content, presentation, language display and content, it received an assessment of 78.57% in the good category. The validator suggests that the colors in the media used are more varied, and the size of the writing is slightly enlarged so that all students can see clearly. After revision, it is suitable for students to use.

Furthermore, the feasibility test of the media was tested on individual students to obtain a percentage of 83.67% and in a small-scale trial of 9 people, a percentage of 87.42% was obtained with a very good category and very suitable for use. In line with Rosdiana (2016) said that the use of ICT learning media based on experiential learning very feasible to use in PKN learning in

elementary school.

Based on the results of the study showed the feasibility of ICT learning media based on experiential learning the media aspect is 4.00, the material aspect is 3.23, and the language aspect is 4.11. In the limited trial the results of the student questionnaire showed a feasibility of 4.34 and the teacher's questionnaire of 4.70. While the results of the student questionnaire in the wide trial showed a feasibility of 4.44. Based on the results of a series of due diligence processes, ICT learning mediabased on experiential learning developed is suitable for use in the sub-theme of gratitude for diversity. This is in line with research from Handayani (2018) which states that media feasibility is influenced by the results of student and expert response questionnaires. If student response results increase and the average results of experts are in the high category, media development is appropriate for use in learning.

Based on the assessment given by the validator and also the assessment given by students towards ICT learning media based on experiential learningdeveloped as well as suggestions and input given by experts, then ICT learning mediabased on experiential learning developed is said to be valid and feasible to use in learning.

#### **D. Conclusion**

Based on the discussion that has been described previously, several conclusions can be drawn including the following:

1. Based on the results of the analysis of ICT learning media productsbased on experiential learningfrom the experts stated that it was very effective and feasible to use with the criteria of validity of material experts 85.00%, design experts 91.23%, and linguists 87.34%.
2. ICT learning mediabased on experiential learning categorized as practical because the results of student responses have increased.

3. ICT learning media based on experiential learning is said to be effectively used in learning with the assumption that students' understanding is higher when using ICT learning media based on experiential learning.

### **Bibliography**

- Fatmawati, F., & Yusrizal, Y. (2021). Analysis of the Utilization of Nature as a Learning Media in the Covid-19 Pandemic Era. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(4), 8150–8154.
- Fatmawati, F., Yusrizal, Y., & Hasibuan, A. M. (2021). Pengembangan Media Pembelajaran Berbasis Aplikasi Android untuk Meningkatkan Hasil Belajar IPS Siswa. *ESJ (Elementary School Journal)*, 11(2), 134–143.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2015). *Educational Research: An Introduction 8th Edition*. Pearson Education Inc.
- Iswanto, E., Suharmono, R., & Hidayat, S. (2018). Pengaruh Penggunaan Media Pembelajaran Berbasis Powerpoint Dan Buku Teks Terhadap Hasil Belajar Ilmu Pengetahuan Alam (Ipa) Materi Tata Surya Siswa Kelas Vi Semester Ganjil Tahun Pelajaran. *Jurnal of Education Technology and Innovation (JETI)*, 1(2), 7–20.
- Nurseto, T. (2019). Membuat Media Pembelajaran yang Menarik. *Jurnal Ekonomi Dan Pendidikan*. <https://doi.org/10.21831/jep.v8i1.706>
- Pakpahan, R., & Fitriani, Y. (2020). Analisa Pemanfaatan Teknologi Informasi Dalam Pembelajaran Jarak Jauh Di Tengah Pandemi Virus Corona Covid-19. *JISAMAR (Journal of Information System, Applied, Management, Accounting and Research)*, 4(2), 30–36.
- Rosdiana. (2016). Penggunaan Media Pembelajaran ICT dan Pengaruhnya Terhadap Tingkat Kelulusan Ujian Nasional Siswa Pada Sekolah Menengah Di Kota Palopo (Studi Kasus Di 5 Sekolah Menengah Di Kota Palopo). *Al-Khwarizmi*, 4(1), 73–88.
- Utari, Ade Afni. Syafwatul Putri. 2019. Manfaat Ict Sebagai Media Pembelajaran Di Sd Dharmajaya Palembang. *Jurnal Universitas PGRI Palembang*. 52(57).
- Yusrizal, Y., & Fatmawati, F. (2021). Pelatihan Penggunaan Media Daring

sebagai Alternatif Pembelajaran Era Pandemi. *Jurnal Pengabdian Masyarakat Indonesia*, 1(6), 297–301.

Yusrizal, Y., Hajar, I., & Tanjung, S. (2019). Analysis of Elementary School Teachers' Ability in Using ICT Media and Its Impact on the Interest to Learn of Students in Banda Aceh. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, 2(3), 45–57.

Yusrizal, Y., Safiah, I., & Nurhaidah, N. (2017). Kompetensi Guru Dalam Memanfaatkan Media Pembelajaran Berbasis Teknologi Informasi Dan Komunikasi (Tik) Di Sd Negeri 16 Banda Aceh. *Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 2(2), 126–134.