Research Article

Development of Interactive Learning Devices in Indonesian Language Skills Courses and Literature Appreciation in Students

Aliem Bahri*, **Tawany Rahamma and A. Muhammad Idhkan**

Department of Educational Science, Universitas Negeri Makassar, South Sulawesi, Indonesia

*Corresponding Author
Aliem Bahri

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Abstract: The problems of conventional learning research, limited textbooks, minimal Use of media, non-interactive learning and low student learning outcomes in Indonesian language skills and literary appreciation courses. The study aims to develop interactive learning tools for Indonesian language skills and literature appreciation courses for students and lecturers. The research method uses research and development through stages (Four-D), namely: Define, Design, Develop and Disseminate, using validation sheets, learning outcomes tests, response sheets and questionnaire sheets, then analyzed using analysis using validation analysis, practicality analysis, analysis practicality and effectiveness analysis. The results showed that interactive learning tools in Indonesian language skills and literary appreciation courses were declared valid (RPS, textbooks, learning media, LKM and learning outcomes), practical (learning implementation and lecturer responses), and effective (student responses and student learning outcomes). Interactive learning tools can be used by students and lecturers in learning.

Keywords: Device, Learning, Interactive.

INTRODUCTION

Education has a vital role in the development of a nation and state. The progress of a country can be seen from improvement in the field of education (Hapsari *et al.,* 2018), so universities need to increase innovation in quality and quantity in the era of the industrial revolution 4.0 to suit the times (Jayawardana & Gita, 2020), through a learning approach that student-centred learning (Onyema* *et al.,* 2019).

Effective learning in higher education is strongly influenced by (1) interactive learning tools (Kulikova *et al.,* 2017) (Bokhari *et al.,* 2011) (O'Byrne *et al.,* 2008) which are adapted to the level of thinking skills (Rachmadtullah, Nadiroh , *et al.,* 2018) (Dasilva & Suparno, 2019) even critical thinking (Ramadhani *et al.,* 2019) (Kustyarini *et al.,* 2020), according to the characteristics (Suarsana, 2018) (Prehanto *et al.,* 2021) students, (2) language skills (listening, speaking, reading and writing) (Prihatini & Sugiarti, 2020) in learning Indonesian in universities.

However, based on the results of initial observations and interviews with researchers at the University of Muhammadiyah Makassar, (1) the process of lecturing Indonesian language skills so far is still dominated by traditional learning patterns (teacher-centred learning), (2) lecturers only use textbooks as learning resources with very little discussions and not in accordance with the needs of students in learning Indonesian language skills, (3) the lack of Use of interactive media because only laptops and LCDs are used, so the media used are following the characteristics of the material for Indonesian language skills and literary appreciation, (4) the lecture process has not led to learning which is interactive and involves all components in active learning, (5) low student learning outcomes because 215 people (7 classes) who get a score > 80 (A grade) only 32.86% (69 people) are in a low category. In addition, based on the experience of researchers while teaching Indonesian language skills and literary appreciation, it is still not running optimally because students still have problems expressing ideas through writing or speaking ideas orally, as if they do not have an elegant vocabulary.

Based on these problems, it is essential to develop interactive learning tools that can overcome all of these problems because interactive learning is student-centred

learning (Osman *et al.,* 2012) (Krajčovič *et al.,* 2021) (Fuad & Deb, 2017), according to student needs (Rachmadtullah, Zulela, *et al.,* 2018), there are effective interactive media (Siregar *et al.,* 2020) (Krismadinata *et al.,* 2019) (Solikhatun & Widihastrini, 2017), improve learning outcomes (Krismadinata *et al., .,* 2019) (Tembang *et al.,* 2020) (Solikhatun & Widihastrini, 2017) (Rachmadtullah, Zulela, *et al.,* 2018) and improve Indonesian language skills (Rachmadtullah, Zulela, *et al.,* 2018).

Various types of research related to the development of interactive learning have been investigated by various researchers, such as the development of video-based PowerPoint interactive learning (Anwar *et al.,* 2020), the development of interactive education packages (Del Corso *et al.,* 2003), interactive anatomy (Allen *et al.,* 2015), development of interactive learning of local wisdom (Abadi *et al.,* 2018), development of interactive e-learning models (Siagian *et al.,* 2017), development of interactive mobile learning media (Dasilva & Suparno, 2019), development of interactive learning media articulate storyline (*Et al.,* 2021) (Husna *et al.,* 2022) (Hadza *et al.,* 2020) (Sukmarini *et al.,* 2021) (Afrida *et al.,* 2021) (Nissa *et al.,* 2021), development of flipbook interactive teaching materials (Solikhatun & Widihastrini, 2017), development of interactive multimedia learning media (Miaz *et al.,* 2019), development of Civics interactive learning media (Iasha *et al.,* 2018), development of materials interactive learning (Hernández-Castellano *et al.,* 2017), development of interactive multimedia courseware (Indah Septiani *et al.,* 2020), development of cross-platform learning services (Fallahkhair *et al.,* 2007), development of interactive Magic cards (Muhith *et al., ,* 2020), development of interactive learning media Google applications (Feri Hidayatullah Firmansyah *et al.,* 2020), interactive learning tools (Kondratenko *et al.,* 2018), motion graphic interactive multimedia development (Wiana, 2015). However, there is no research that focuses on developing learning tools for semester learning plans, textbooks, media, student worksheets, and evaluations, especially in Indonesian

language skills and literary appreciation courses, so this research has novelty and is very important to research. Moving on to the phenomenon, researchers want to contribute to producing an interactive learning tool that can be a reference for learning at the same time, especially in Indonesian language skills courses and a better appreciation of literature, so that the quality of learning can be further improved.

RESEARCH METHODS

This research is categorized as research and development (Research and Development). The subject of this research is an interactive learning tool in Indonesian language skills and Literary Appreciation courses. The test subjects in the development stage were students of the Elementary School Teacher Education study program who took the Indonesian language skills course and Literature Appreciation in the third semester, while in the disseminate stage were Lecturers of the Indonesian language course in the Elementary School Teacher Education study program. The research procedure uses four stages (Four-D): Define, Design, Develop and Disseminate. The research instrument used validation sheets, learning outcomes tests, response sheets and questionnaire sheets: data collection techniques using cognitive tests, questionnaires and questionnaires. The data were then analyzed using validation analysis, practicality analysis, and effectiveness analysis.

RESEARCH RESULT

Interactive Learning Device Design Prototype

Interactive learning tools include semester learning plans, textbooks, media, student worksheets, and evaluations on language skills and literary appreciation courses within the scope of lecturers at the Muhammadiyah University of Makassar in order to provide convenience to lecturers and students in the learning process, either directly or indirectly. (Offline) or in the network (online).
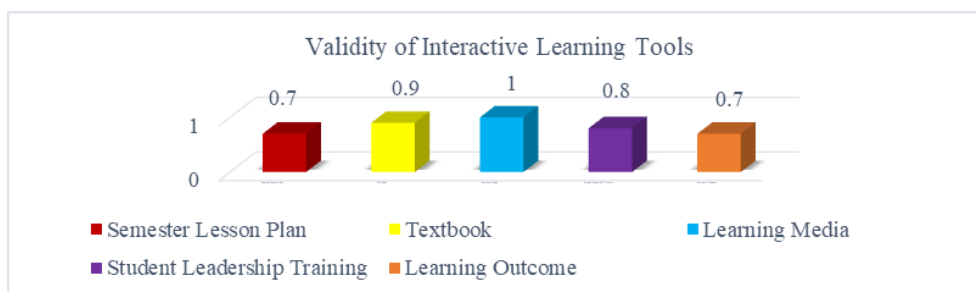

Fig 1. Test Results of the Validity of Interactive Learning Devices

Based on Figure 1, the validity of the semester learning plans and learning outcomes tests are in the medium category, while textbooks, learning media, and student worksheets are in the high category so that

prototype interactive learning device designs can be used in the learning process, either directly (offline) or in the network (online).

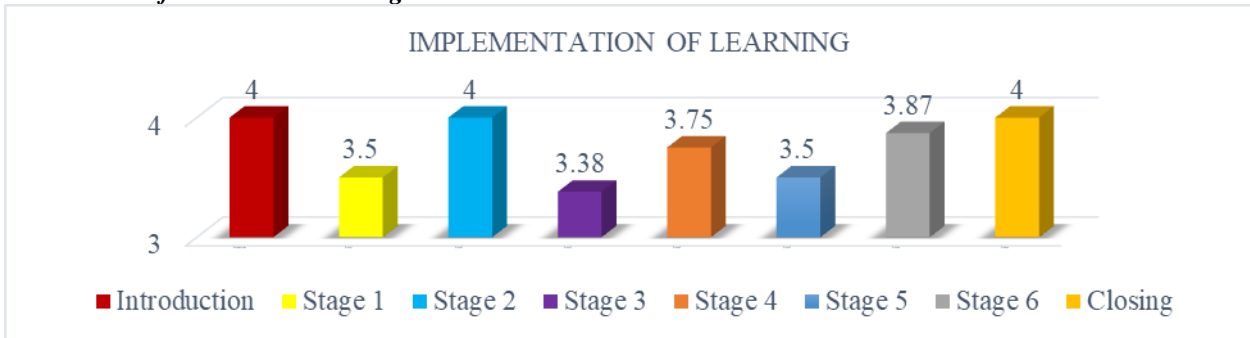***Practical Trial of Interactive Learning Devices***

Fig. 2 Learning Implementation

Based on Figure 2. The implementation of learning shows the application of interactive learning tools on the indicators of observing, asking, collecting data, managing data and communicating are in the much-implemented category.
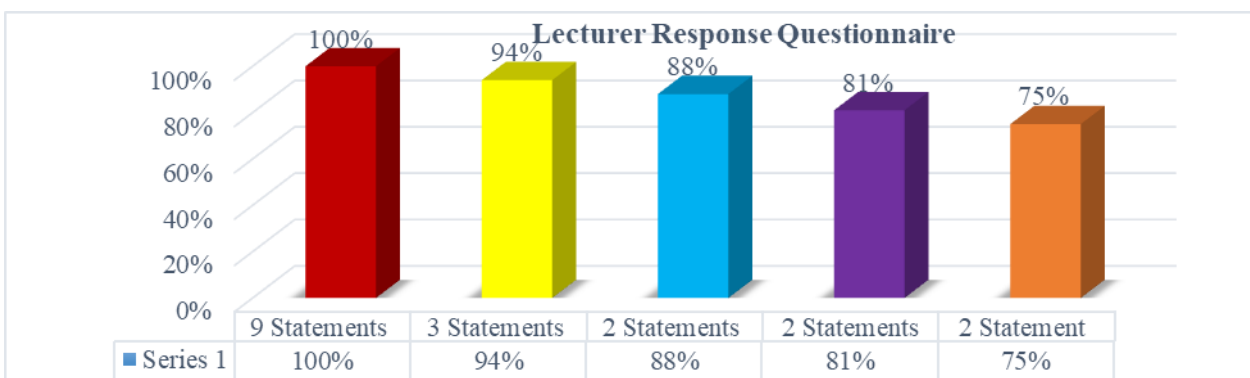

Fig 3. Lecturer Response Questionnaire

Based on the picture, the lecturer strongly agrees with the learning tools developed in the language skills and literary appreciation courses used in the learning process, either directly (offline) or online (online).

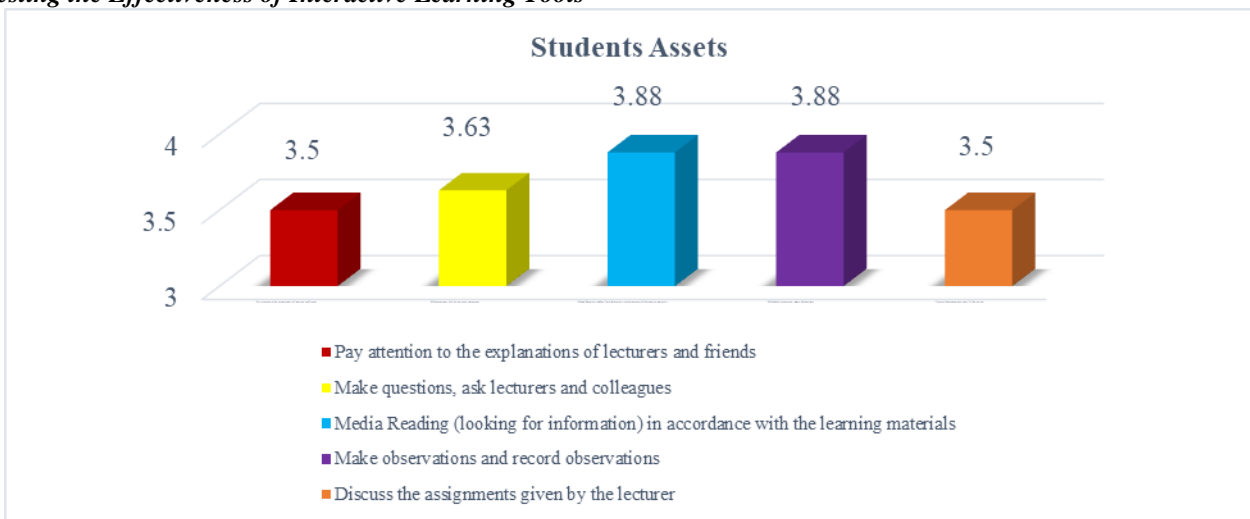***Testing the Effectiveness of Interactive Learning Tools***

Fig 4. Student Activities

Based on the picture, student activities are in the very active category in the learning process using interactive learning tools in Indonesian language skills courses in all activity indicators observed.
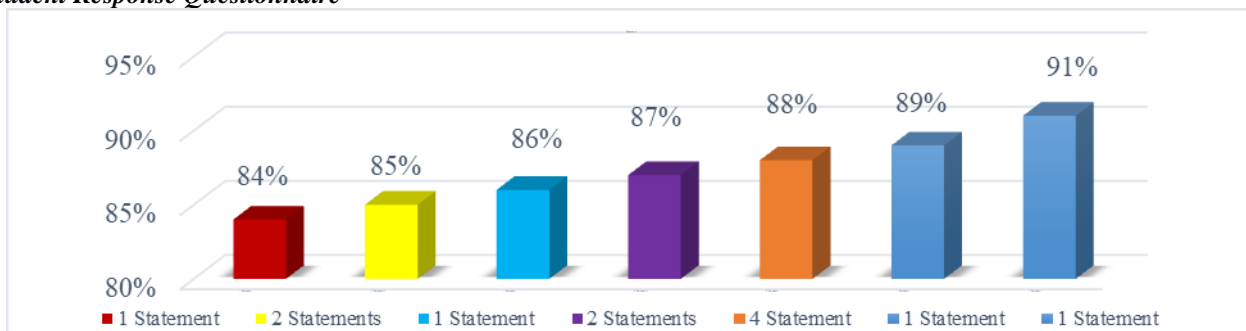
Student Response Questionnaire

Fig 5. Interactive Learning Tools

Based on the picture of interactive learning tools, students get an excellent response from each statement indicator given because interactive learning tools are effectively used by students in the learning process.
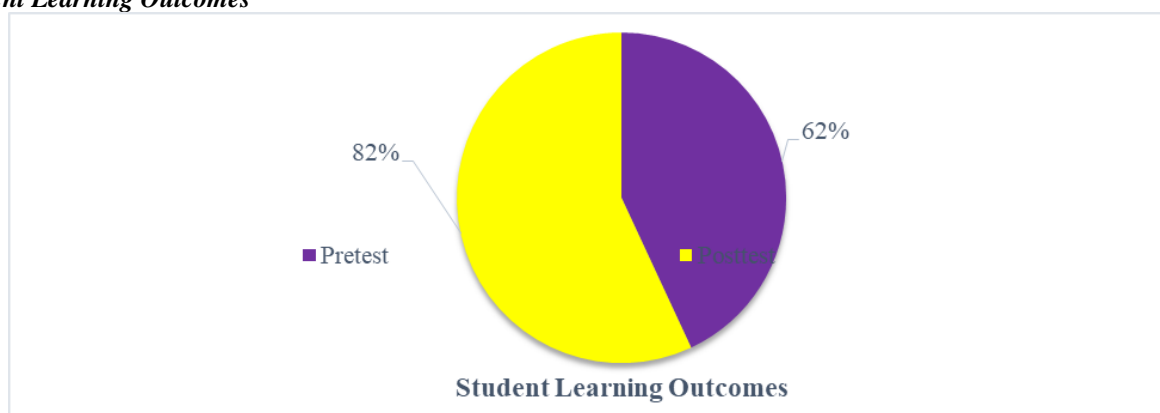
Student Learning Outcomes

Fig 6. Students' Learning Outcomes

Based on the picture, the pretest reached 62% in the excellent category, while the posttest reached 82% in the outstanding category, so it can be concluded that with the application of interactive learning tools in Indonesian language skills and literary appreciation courses on 27 students of the elementary school teacher education program, Faculty of Teacher Training and Science. Muhammadiyah Makassar University education is effectively used in the learning process.

DISCUSSION

Interactive learning tools in Indonesian language skills and literary appreciation courses were declared valid (RPS = 0.7/medium, textbooks = 0.9/high, learning media = 1.0/high, student worksheets = 0.8/high, Evaluation = 0.7/medium), because the developed interactive learning tools can provide convenience for lecturers and students in the learning process. The validity of interactive learning tools can also be seen in terms of content and construction (Alim *et al.,* 2020), already in the outstanding category (Krismadinata *et al.,* 2019) or if they are suitable for Use (Rachmadtullah, Zulela, *et al.,* 2018). Interactive learning tools in Indonesian language skills and literary appreciation courses are practical. This can be seen based on the results of the observation sheet on the implementation of learning with the average value at each stage of the indicator, namely 4.0, 3.50, 4.0, 3.38, 3.75, 3.50, 3.87 and 4, 0, and the results of the lecturer's response questionnaire or practical in terms of implementation, convenience and time required (Alim *et al.,* 2020) and practical if it is easy to use (Krismadinata *et al.,* 2019). Interactive learning tools in Indonesian language skills and literary appreciation courses were effective. This can be seen based on student activities, student response questionnaires and student evaluations (Study Outcome Tests) or effective in terms of the potential impact on reasoning abilities (Alim *et al.,* 2020), results of classical completeness levels (Krismadinata *et al.,* 2019) and improve learning outcomes (Rachmadtullah, Nadiroh, *et al.,* 2018) so that the validity of interactive learning tools can be seen in the aspects of the validity of the RPS, textbooks, learning media, LKM and learning outcomes. The practicality of interactive learning tools can be seen from the implementation of learning and lecturer responses. In contrast, the effectiveness of developed interactive learning tools can be seen in aspects of student responses and student learning outcomes.

The development of interactive learning (Kulikova *et al.,* 2017) (Kondratenko *et al.,* 2018) can be developed not only to include semester learning plans, textbooks, media, student worksheets, and evaluations,

as an interactive education package (Del Corso *et al., .,* 2003), or as an interactive learning management system (Almarashdeh *et al.,* 2013), but can also include (i) interactive learning tools (Kroumov & Inoue, 2001) (O'Byrne *et al.,* 2008) (Cavanaugh *et al.,* 2008) al., 2008) such as technologies (Bokhari *et al.,* 2011), H5P via Moodle LMS (Wehling *et al.,* 2021), CyberPLAYce (Soleimani *et al.,* 2019) interactive (Mann *et al.,* 2002) and anatomy (Allen *et al.,* 2015). (ii) interactive learning applications such as multimedia applications (Pleuß & Hußmann, 2007), XQM applications (bagi *et al.,* 2021), (iii) interactive learning books such as digital books (Firdaus & Ismayati, 2020), three-dimensional virtual world (3D) (Dickey, 2005) electronic module (Moriates *et al.,* 2019) (Ylando *et al.,* 2019), interactive flipbook (Solikhatun & Widihastrini, 2017), materials (Hernández-Castellano *et al.,* 2017) (Hernández-Castellano *et al.,* 2017) and learning resources (Mikroyannidis *et al.,* 2017), (iv) interactive learning environments (Sahronih *et al.,* 2020) (Ugalde *et al.,* 2021) such as ICT (Espino-Díaz *et al.,* , 2020), (v) interactive learning media (Suarsana, 2018) (Rachmadtullah, Nadiroh, *et al.,* 2018) (Ramadhani *et al.,* 2019) (Putri *et al.,* 2021) (Sahronih *et al.,* 2019) such as CD (Tembang *et al.,* 2020), Android-based animation (Saputra *et al.,* 2021), courseware (E-Craft) (Osman *et al.,* 2012), EPUB 3-based Hybrid e-TextBook (Ghaem Sigarchian *et al.,* al., 2018), Kvisoft Flipbook Mak er (Fahmi *et al.,* 2019), macromedia flash (Siregar *et al.,* 2020), Mobile Response System (MRS) (Fuad & Deb, 2017). moodle (Bahsh & Daoud, 2016), android (Adi *et al.,* 2021), articulate storyline (*Et al.,* 2021) (Husna *et al.,* 2022) (Hadza *et al.,* 2020) (Sukmarini *et al.,* 2021) (Afrida *et al.,* 2021) (Nissa *et al.,* 2021), 3D animated stories (Oktavianingtyas *et al.,* 2018), e-grammar platform (Refat *et al.,* 2019), video-based power point (Anwar *et al.,* 2020), Web media (Humar *et al.,* 2005), Magic cards (Muhith *et al.,* 2020), mobile learning (Dasilva & Suparno, 2019), google applications (Feri Hidayatullah Firmansyah *et al.,* 2020), mobile (K. E. Chang *et al.,* 2016), object (Papastergiou & Mastrogiannis, 2021) (Akpinar & imşek, 2005), Technology (Hennessy *et al.,* 2015), Nearpod software (Sanmugam *et al.,* 2019) , (vi) interactive learning multimedia (Lutfi *et al.,* 2021), (Krismadinata *et al.,* 2019) (Miaz *et al.,* 2019) (Widyaningsih *et al.,* 2020) (Akbarini *et al.,* 2018) (F. H. Firmansyah *et al.,* 2021) (Hidayah *et al.,* 2021) such as the lectora application (Mudinillah, 2019) (Widiastuti *et al.,* 2015), computer (Rachmadtullah, Zulela, *et al.,* 2018), courseware (Indah Septiani *et al.,* 2020), motion graphics (Wiana, 2015), (vii) interactive learning methods such as branching path simulation (BPS) (Masha'al & Rababa , 2020), Augmented Reality (Wannapiroon *et al.,* 2021) (Yoon & Kang, 2021), (R. C. Chang & Yu, 2017), (viii) interactive learning (Al-Natour *et al.,* 2021) such as Interactive Learning Materials Triangle (iLMT) (Kaplar *et al.,* 2022), Online Discussion Forum / CSC forum (Onyema* *et al.,* 2019), local wisdom (Abadi *et al.,* 2018), e-learning (Siagian

et al., 2017), (ix) interactive learning platforms such as VisMis (Zhu *et al.,* 2018), intelligent (Pornpongtechavanich & Wannapiroon, 2021), cross-platform (Fallahkhair *et al.,* 2007), (x) interactive learning assessments such as automated assessment management systems (Krusche & Seitz, 2018). However, none of these studies has comprehensively developed all elements of learning tools, especially in semester learning plans and student worksheets; no researchers have developed these two elements.

CONCLUSION

Interactive learning tools in Indonesian language skills and literary appreciation courses are declared valid, practical and effective so that lecturers and students in the learning process can use learning tools. The validity of interactive learning tools can be seen in the validity of the lesson plans, textbooks, learning media, LKM and learning outcomes. The practicality of interactive learning tools can be seen from the implementation of learning and lecturer responses. In contrast, the effectiveness of interactive learning tools developed can be seen in aspects of student responses and student learning outcomes.

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