

# **Indonesian Journal of Computer Science**

ISSN 2549-7286 (online)

Jln. Khatib Sulaiman Dalam No. 1, Padang, Indonesia Website: ijcs.stmikindonesia.ac.id | E-mail: ijcs@stmikindonesia.ac.id

# Positive Impact of Entrepreneurship Mobile Media Implementation on Entrepreneurial Interest & Learning Outcomes

# Yuliawati Yunus<sup>1</sup>, Ganefri<sup>2</sup>, Asmar Yulastri<sup>3\*</sup>

yuliawati\_yunus@upiyptk.ac.id <sup>1</sup>Universitas Putra Indonesia Yptk Padang <sup>2,3</sup> Universitas Negeri Padang

#### **Article Information**

# Submitted: 27 Sep 2023 Reviewed: 6 Oct 2023 Accepted: 17 Oct 2023

### **Keywords**

Entrepreneurship, Entrepreneurial Interest, Learning Outcomes, Mobile Media

#### Abstract

Blended learning is very important today, and various platforms are used to achieve reasonable learning goals in education, ranging from low to high levels. Different learning platforms are implemented in e-learning systems, mobile applications, and other interactive media. The venue is only sometimes able to help students in learning thoroughly. So that there is a need for learning style adjustments to the learning process. This study uses an Android-based entrepreneurship learning media application to determine the results of entrepreneurial education and students' entrepreneurial interests. The type of research used was a quasi-experiment with a population of 406 students. Samples were taken using purposive sampling techniques. The instruments used in this study are objective tests and questionnaires of entrepreneurial interest. The analysis technique used was Anova with test F. The results revealed a positive influence between implementing entrepreneurial mobile media on increasing entrepreneurial interest and student learning outcomes.

# A. Introduction

Information and communication technology development has been high-speed lately, especially after the rampant implementation of blended learning in education. This gives birth to global demands that require education to continuously adapt to technological developments to improve the quality of education through the achievement of overall educational goals [1]. The use of blended learning is an effort to facilitate learning that combines various conventional and digital ways of delivery, learning models, and learning styles, introducing different choices of dialogue media between facilitators and people who make learning [2].

The development of mobile applications is one of the innovations in blended learning. Mobile applications in blended learning can be interpreted as using mobile and mobile devices or technologies such as mobile phones, PDAs (Personal Digital Assistants), tablets, and laptops used in learning and utilizing related software/applications in the learning process [3]. Currently, using this media is considered to be implemented into the learning process. Still, its use should be regarded as by the needs of teachers and students, suitability of the material, limited facilities, and infrastructure of devices such as mobile phones and networks. Therefore, it is necessary for a teacher's creativity in motivating students to remain enthusiastic about learning, even with online learning, to give birth to an interest in completing learning well [4].

Almost all subjects in schools can be implemented using this mobile media, one of which is entrepreneurship mobile media, which is expected to have an impact not only on students getting good learning results but also on gaining knowledge about entrepreneurship education to increase entrepreneurial interest for students. Students who are interested and have an interest in entrepreneurship will be happy with activities about entrepreneurship, which then arouses the desire to open business opportunities [5]. Correspondingly, [6] states that entrepreneurial interest results from pleasure in carrying out an activity that leads to a goal. Interest will also be something valuable and profitable.

In addition to the interest in entrepreneurship, one of the successes in realizing quality students will be shown in high learning outcomes. However, based on facts obtained through observations and interviews at SMK Negeri 9 Padang, the comments show that the learning results obtained by students are still below KKM, with a fixed value of KKM 75, especially entrepreneurship subjects. The average score obtained by grade X students majoring in hospitality administration on the daily test of the 2023/2024 school year can be seen in Table 1.

**Table 1.** Daily Test Scores of Entrepreneurship Subjects

No	Class	Average
1	X AP1	70.5
2	X AP2	70.0
3	X AP3	69.2
4	X AP4	69.0
5	X AP5	70.0
6	X AP6	68.5
Overall a	verage	69.53

Source: Class X Entrepreneurship Subject Teacher

Based on Table 1, the average score of students in class X is 68.5 to 70.5. This data shows that the average entrepreneurial score of students still has yet to reach KKM, and overall, the total learning results of grade X students are still below KKM. Based on the description above, the researcher intends to examine the effect of implementing entrepreneurial mobile media on entrepreneurial interest and learning outcomes of grade X students of SMK Negeri 9 Padang, seen from classes that are treated using mobile and courses that do not use mobile entrepreneurial media.

## B. Research Method

This type of research is experimental research with quasi-experimental design methods. This method is a development of proper experimental design. Sugiyono in [7] states that quasi-experiments are almost identical to actual experiments. The difference in the use of subjects is that quasi-experiments are not carried out random assignments but use existing groups. This study divided the group into two, namely the experimental group and the control group. The research design used in this study is factorial (2x2) involving two independent variables (X1 and X2), each of which has two categories or two levels. The independent variable of learning implements entrepreneurial mobile media and conventional media. The interest-free variable consists of high and low interest.

The population in this study is class X students majoring in Hospitality Administration at SMK Negeri 9 Padang for the 2023/2024 academic year, consisting of 6 classes, namely X AP1 - X AP6, with a total population of 406 students. The sampling technique is carried out using purposive sampling techniques by finding types that have equivalent cognitive levels. Purposive sampling techniques are carried out by taking subjects not based on strata, random, or area but based on the existence of a specific purpose. Emphasized by [8], purposive sampling is a technique with particular considerations. Each subject taken from the population is chosen deliberately based on specific goals and concerns. The purpose and situation of sampling in this study is to compare so that researchers look for classes with similar cognitive levels. The sample in this study was taken in a style with the same or almost the exact ability, so there is no mean. By looking at the results of the students' pre-test, class X AP2 can be selected as an experimental class and X AP5 as a control class. There are two instruments used in collecting data in this study: the entrepreneurial interest questionnaire instrument, namely by following the ARCS Keller motivation questionnaire guidelines, and the objective test instrument (in the form of multiple choice).

# C. Result and Discussion

The discussion of research data includes data on entrepreneurial interest and data on student learning outcomes in entrepreneurship subjects in Class X, majoring in Hospitality Administration at SMK Negeri 9 Padang. Experimental Class is a class that conducts the learning process with entrepreneurial mobile media treatment. The designation of experimental Class is carried out on Class X AP2, as for the control class where this Class is not treated using mobile media or only conventional media.

Mobile media used previously have been tested for feasibility, practicality, and effectiveness. This entrepreneurial mobile media has been tested for validity with a very valid category [9]. Then, the results of the test on the level of practicality and effectiveness of this media after being tested are in the very practical category and are suitable for use in the entrepreneurial learning process at the secondary school level [10]. The following display of entrepreneurial mobile media that will be implemented in the experimental Class can be seen in Figure 1.



Figure 1. Mobile Media Display Entrepreneurship

Data on students' entrepreneurial interest in entrepreneurship subjects consisted of two groups, namely data on entrepreneurial interest in the experimental group and the control group, each of which consisted of high entrepreneurial interest and low entrepreneurial interest taken from questionnaire data distributed to students. The description of the research data of the overall entrepreneurial interest variable in the experimental class revealed information about the highest score = 119, the lowest score = 93, the mean = 107.4, the standard deviation = 6.8, the mode = 114, and the median = 108. The information poured into the distribution of the frequency of entrepreneurial interest in entrepreneurship subjects in the experimental class can be seen in Table 2.

**Table 2.** Frequency Distribution of entrepreneurial interest of Experimental class students (X AP2)

· · · · · · · · · · · · · · · · · · ·				
Interval Class	Frequency (fo)	Percentage (%Fo)	Cumulative Frequency (Fk)	Percentage (%Fk)
93-98	5	15	5	15
99-104	4	12	9	27
105-110	12	35	21	62
111-119	13	38	34	100

Based on Table 2, it can be seen that the highest frequency is in the interval 111-119 as many as 13 people with a percentage of 38%, and the lowest frequency is in the interval 99-104 as many as 4 people with a percentage of 12%. This indicates that the interest in entrepreneurship after implementing entrepreneurial mobile media shows that most students already have a high interest in entrepreneurship [11] and [12]. Furthermore, the description of the research data

of the overall entrepreneurial interest variable in the control class revealed information about the highest score = 108, the lowest score = 90, mean = 98.4, standard deviation = 4.23, mode = 95, and median = 98. The distribution of the frequency of entrepreneurial interest in entrepreneurship subjects in the control class can be seen in Table 3.

**Table 3.** Frequency Distribution of entrepreneurial interest of control class students (X AP5)

Interval Class	Frequency (fo)	Percentage (%Fo)	Cumulative Frequency (Fk)	Percentage (%Fk)
90-95	11	32	11	32
96-101	15	44	26	76
102-108	8	24	34	100

Based on Table 3, it can be seen that the highest frequency is in the interval 96-101, with as many as 15 people with a percentage of 44%, and the lowest frequency is in the interval 102-108, with as many as 8 people with a percentage of 24%. This indicates that the interest in entrepreneurship without implementing entrepreneurial mobile media treatment shows that most students are already interested in entrepreneurship. However, still the majority are in the low-medium category.

The next data was obtained from data on learning outcomes from the results of objective tests of students in entrepreneurship subjects consisting of two groups of experimental class learning outcomes data and control class learning outcomes data, showing learning outcomes data with high entrepreneurial interest with low entrepreneurial outcomes. The description of Student Learning Outcomes Data in the Entrepreneurship Subjects of the Experimental Group offers the value of student learning outcomes with a maximum score of 95 and a minimum score of 68, while the average is 82.25, the median = 84, mode = 90, and standard deviation = 7.57. This means that the average number of students in the experimental class has reached the completion set by the school is 75. Of the 34 students in the experimental class, 30 students have obtained scores above KKM, while 4 more students are still below KKM. This means implementing entrepreneurial mobile media can improve overall student learning outcomes. The frequency distribution of learning outcomes of experimental class entrepreneurship subjects can be seen in Table 4.

**Tabel 4.** Frequency Distribution of Learning Outcomes of Experimental Class Students (X AP2)

	- · · · · · · · · · · · · · · · · · · ·			
Interval Class	Frequency (fo)	Percentage (%Fo)	Cumulative Frequency (Fk)	Percentage (%Fk)
68-73	4	12	4	12
74-79	10	29	14	41
80-85	6	18	20	59
86-91	10	29	30	88
94-95	4	12	34	100

Based on Table 4, most students have scores in interval classes 74 - 79 and ranges 86-91, with as many as 10 people with a percentage of 29%, while students

who have the lowest scores are in interval classes 94 - 95 as many as 4 people with a percentage of 12%. This shows that the majority of learning outcomes are in the range above KKM, so it can be concluded that learning by implementing entrepreneurial mobile media in entrepreneurship subjects can improve student learning outcomes [13] and [14]. Furthermore, after knowing the data on student learning outcomes in the experimental class, the study continued by calculating student learning outcomes in the control class. In the description of student learning outcomes data in the control class entrepreneurship subjects, it is known that the value of student learning outcomes in the control group entrepreneurship subjects with a maximum weight of 85, a minimum score of 60 while the average is 71.26, median = 70; mode = 70 and standard deviation = 6.21. This means that the average number of students in the control class has not reached the completion set by the school is 75. Of the 34 students in the control class, 14 students have obtained scores above KKM, while 20 more students are still below KKM. This means that the application of conventional media has not improved overall student learning outcomes. The frequency distribution of learning outcomes in control class entrepreneurship subjects can be seen in Table 5.

**Tabel 5.** Frequency Distribution of Learning Outcomes of control class students (X

Kelas Interval	Frekuensi (fo)	Persentase (%Fo)	Frekuensi Kumulatif (Fk)	Persentase (%Fk)
60-65	9	26	9	26
66-71	11	32	20	59
72-77	9	26	29	85
78-85	5	15	34	100

Based on Table 5, most students have scores in interval classes 66 – 71 as many as 11 people with a percentage of 32%, while students with the least scores are in interval classes 78 – 85 with as many as 5 people with a percentage of 15%. This shows that the majority of learning outcomes are below KKM, so it can be concluded that learning without implementing entrepreneurial mobile media or using conventional media in entrepreneurship subjects has not been able to improve student learning outcomes completely.

# D. Conclusion

Based on the results of research and discussions that have been described earlier, it can be concluded that 1) the learning outcomes of student entrepreneurship subjects by implementing entrepreneurial mobile media are higher than conventional media, 2) the entrepreneurial interest of students who use entrepreneurial mobile media is higher than conventional media, 3) there is an interaction between the implementation of entrepreneurial mobile media and entrepreneurial interest in student learning outcomes. The results of the research conclusions developed above prove that entrepreneurial mobile media can improve student learning outcomes. For this reason, researchers put forward suggestions for teachers of entrepreneurship subjects to be able to use entrepreneurial mobile media as an alternative to improving student learning outcomes because it can create an active and fun learning atmosphere and avoid

student saturation in teaching and learning activities at this time, besides that teachers should also be able to provide knowledge to encourage entrepreneurial interest in students to increase.

# E. References

- [1] K. M. Nisa, "Glokalisasi: Membangun Pendidikan Global Berbasis Kearifan Lokal Pada Pondok Modern," *An-Nuha J. Kaji. Islam. Pendidik. ...*, 2018, [Online]. Available: https://ejournal.staimadiun.ac.id/index.php/annuha/article/download/263/103
- [2] Y. Maya, "Penggunaan Blended Learning Pada Pembelajaran Era Industri 4.0," *Bahastra J. Pendidik. Bhs. dan Sastra Indones.*, vol. 4, no. 2, pp. 31–38, 2020, doi: 10.30743/bahastra.v4i2.2416.
- [3] S. Samsinar, "Mobile Learning dalam Pembelajaran," *Al-Gurfah J. Prim. Educ.*, vol. 1, no. 1, pp. 41–57, 2020, [Online]. Available: https://jurnal.iainbone.ac.id/index.php/algurfah/article/view/372
- [4] A. Baser and F. Rizal, "Dampak Positif Penggunaan Google Classroom terhadap Motivasi Belajar dan Hasil Belajar Siswa pada Mata Pelajaran TIK di Masa Pandemi Covid-19," *J. Penelit. dan Pengemb. ...*, vol. 5, no. 1, pp. 154–162, 2021, [Online]. Available: https://ejournal.undiksha.ac.id/index.php/JJL/article/view/31629
- [5] M. Zakir and H. A. Musril, "Perancangan Media Pembelajaran Produk Kreatif Dan Kewirausahaan Berbasis Android Di Smk Elektronika Indonesia Bukittinggi," *J. Edukasi Elektro*, vol. 4, no. 2, pp. 153–157, 2020, doi: 10.21831/jee.v4i2.35371.
- [6] A. F. Yuliarto, "the Effect of Entrepreneurship Learning and Entrepreneurship Practice for Student Interest in Entrepreneurship Grade Xi Accounting Smk Negeri 1 Klaten Academic Year 2016/2017," vol. 7, no. 1, pp. 1–14, 2018.
- [7] A. F. Lestari, "Meningkatkan Kemampuan Pemahaman Matematis Siswa Melalui Model Problem Based Learning (PBL)," *BIORMATIKA J. Ilm. FKIP Univ. Subang*, vol. 3, no. 1, pp. 1–8, 2017.
- [8] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif dan R&D.* Bandung: Alfabeta, 2016.
- [9] Y. Yunus and M. Fransisca, "Four-D Models Method Validation Analysis of an Android-Based Learning Media," *J. Phys. Conf. Ser. IOP Publ.*, vol. 1779, no. 1, p. 012018, 2021.
- [10] Y. Yunus, M. Fransisca, and R. P. Saputri, "Pengujian Efektifitas dan Praktikalitas Media Android pada Sekolah Vokasi dengan Menggunakan Model Pengembangan 4-D," *JITaCS J. Inf. Technol. Comput. Sci.*, pp. 20–29, 2021.
- [11] L. Yohanna, "Peranan Media Pembelajaran Kewirausahaan Berbasis Aplikasi Android Terhadap Pembentukan Karakter Berwirausaha Dan Intensi Berwirausaha," *Holist. J. Manag. Res.*, vol. 2, no. 2, 2019.
- [12] T. Pandangwati, "Pengembangan Mobile Learning Mata Pelajaran Prakarya Dan Kewirausahaan Berbasis Problem Based Learning," *Semin. Nas. Teknol. Pembelajaran dan ...*, pp. 158–161, 2017, [Online]. Available:

- http://pasca.um.ac.id/conferences/index.php/sntepnpdas/article/view/85
- [13] S. R. Arlen, I. A. D. Astuti, F. Fatahillah, and P. Purwanti, "Pengaruh Media Pembelajaran Fisika Menggunakan Aplikasi Appypie Terhadap Hasil Belajar Fisika Siswa di SMK," *Schrodinger J. Ilm. Mhs. Pendidik. Fis.*, vol. 1, no. 1, pp. 44–49, 2020, doi: 10.30998/sch.v1i1.3073.
- [14] A. A. Ardiansyah and N. Nana, "Peran Mobile Learning sebagai Inovasi dalam Meningkatkan Hasil Belajar Siswa pada Pembelajaran di Sekolah," *Indones. J. Educ. Res. Rev.*, vol. 3, no. 1, p. 47, 2020, doi: 10.23887/ijerr.v3i1.24245.