

# STUDENT' PERCEPTIONS OF MOBILE BASED LEARNING SELF-EXERCISES USING ANDROID

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## Abstract

Self-Exercises is one of learning services available for higher distance education students in Universitas Terbuka Indonesia. Originally Self-Exercise was prepared in web-based forms, because of access problems alternatively using mobile-based forms or Android application. This study will discuss the students' perceptions of mobile-based learning acceptance. An online survey was conducted to a total of 1800 students of Communication Science Undergraduate Course Program who enrolled in first semester of the academic year 2017, and the number responding was 159. The results showed that most of respondents agreed that Android Self Exercises were useful for them, and ease of use rate was high, and they agreed to use them in the next semester,

Keywords: Self-exercises. Mobile based learning, Android application

## 1 INTRODUCTION

Along with the rapid development of technology, Universitas Terbuka (UT) as an educational institution has utilized the development of these technologies. Utilization of a technology as a means of learning services for long distance students, especially in UT, has long been done by UT and UT has developed many facilities for these. Some learning services found on the UT website have been prepared and accessible to students including digital libraries, online tutorials, self exercises (SE).

Self Exercises (SE) is one of the learning services provided by UT and displayed in UT website. SE can be downloaded in SCORM format from the UT website, while students can use the application in offline mode on a PC. But in fact, some students who reported having difficulties in working on SE with the SCORM application.

UT as distance education is aware of the separation of distance between students with the source of learning. For that reason, media as a means of communication is necessary. Based on research conducted by Bintarti A (2016b) more than 50% of students are younger under 30 years of age, and more than 80% of students use gadgets/ smartphone to communicate with their study groups, they have several community groups for learning through media social like WhatsApp, BBM, Facebook, Tweeter and more. It means that UT has a chance to use this condition to communicate with them through this media.

According to Yuliana, E (2009) student perception of online tutorial tasks got the high category. This can be expected to assist students in doing online tutorial tasks, because good and correct workmanship will help the students in increasing their final value. Assessment of online tutorial tasks is one of the tools of evaluating learning outcomes to assess students' mastery of course materials and the ability to apply their understanding to the relevant context. Other way to assess the students is using self-exercises.

Research conducted by Sigit (2013) was the use of SMS as Self-Exercise. The results show that students who are in big cities and have literate internet media refuse to use SMS, while students who live far from urban limited internet computer facilities feel helped by the existence of learning through this SMS.

Rahardjo D (2016), through his research, had been made a prototype of SE using Android Handphone. The results showed that students can accept the technology as a useful learning media because of the flexibility of the smartphone to carry. With the use of smartphones, students were able to access wherever and whenever they were.

Meanwhile, based on research conducted by Bintarti A (2016a) obtained information that the access of students to the features of learning services on the sub-features of Self-Exercises was still very low at 40%. Though self-exercises is a form of learning exercises are arranged in such a way that equivalent

to the final exam of the semester (UAS). The self-exercises is based on the evaluation grid of a course that contains the competency coverage of the modules one (1) to the last module (9) module for one course that has the weight of sks 3. Thus, the competence earned after a person does a set of self-exercises equivalent to a set working on the Semester Examination (UAS). If students regularly access the self-exercises and practice doing it, students will be accustomed to working on equivalent problems with UAS, so in turn if students take UAS will be able to work the problem and then can increase the value of the student.

The results of this study is expected to be useful for scientific development related to the use of smart phone media for communication media in learning because of its ease and flexibility. The method used in this research is using research type of quantitative approach. With the survey method to see the students' perceptions of the ease, usefulness and willingness to use self-exercises based mobile learning using android and then further using in-depth interviews to support quantitative data. Population and Sample

The population in this study are all students who have registered and active in the year 2017 2nd semester, online tutorial course SKOM4206 and SKOM4313 that is equal to 1800 respondents.

A sample of 159 is valid for processing.

## **2 LITERATURE REVIEW**

### **2.1 Distance Higher Education**

The research problems to be studied in this article area (a) What is the perception of students towards the benefit of mobile based learning SE using android. (b). How is the student's perception of easiness in accessing Self-Exercises

The context of this research is Open University (UT) which is state universities that implement the largest distance education system in Indonesia. The distance learning system has the characteristic of the absence of a face-to-face lecture system between teaching staff and students. Because there is no face-to-face meeting between students and their teaching staff, one of the means to bridge the distance between the teaching staff and students is the use of various media in the learning process. According to Keegan (1986) there are six characteristics of distance learning systems, namely: (1) the separation of teachers and students; (2) The influence of an educational organization that distinguishes it from personal study; (3) Use of technical media; (4) Provision of two-way communication; (5) Possible meetings occasionally and (6) There is participation in the form of industrialization of education

Tutorial as a Learning Aid

### **2.2 Tutorials as Learning Services**

Students who study with a remote system are required to be able to be independent in solving all problems faced, also required to be able to learn independently, however, distance education providers are obliged to provide learning assistance services. Belawati in Adnan (2007) states that learning assistance services for long-distance students are all forms of assistance provided to students so that their study process runs smoothly from the time of registration, the learning process, during the exam and even after completing the exam. In the strict sense of learning assistance services are services provided by education providers to their students in learning teaching materials or during the learning process. Service in learning this teaching material is often called a tutorial.

Tutorial is one of the learning assistances provided for students. According to Hoself-exercises berg in Wardani (2000) explains that the tutorial has the following functions:

- Meet the needs of students to do academic interactions with tutors and with fellow students. Through this interaction they can solve various academic problems they face
- Helping or giving opportunities to students to develop thinking ability
- Helping students apply the knowledge and skills acquired through the tasks given by the tutor and then examined, commented on, and discussed by the tutor.
- Especially for face-to-face tutorials, students can meet the need to socialize, so that the loneliness / sense of isolation experienced as PTJJ students can be reduced.
- Increase student motivation to learn, especially if tutorial activities can foster healthy academic competition among students

- Triggering, spurring, and accustoming students to independent learning; therefore, the tutorial must be able to open the way for students to do activities. This can be done by creating conducive conditions, namely conditions, environment, and assessments that foster the desire to learn.

### 3 RESEARCH METHODS

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### 4 RESULTS AND DISCUSSIONS

Self- -exercises is a set of tests arranged in such a way that it can be used by students to practice as if facing the final exam of the semester (UAS). The competencies tested on the self-exercises are equivalent to the competencies at UAS time. self-exercises is accessible on the UT page at the following address.

#### 4.1.1 Demographical Characteristics

One important information obtained from the results of this study is the identification of demographic characteristics of respondents. This is important because UT is an institution of higher education, whose characteristic is not to limit the criteria of its students. Anyone interested in becoming a UT student as long as he has completed his high school education or as a degree can be a UT student. Based on the UT student admissions system without such selection, it is certain that there will be a diversity of students in terms of demographic aspects. The full demographic aspect identification results are presented in the following Table.

Table 4.1. List of number of respondents according to Regional Center Offices

NO	Regional Center Offices	Frequency
1	Palembang	33
2	Jakarta	25
3	Surakarta	22
4	Mataram	15
5	Tarakan	15
6	Bandung	8
7	Yogyakarta	6
8	Bogor	4
9	Medan	4
10	Pekanbaru	3
11	Semarang	3
12	Batam	2
13	Kendari	2
14	Pangkalpinang	2
15	Samarinda	2
16	Serang	2
16	Others	11
	Total	159

From the data contained in Table 4.1 can be obtained information that the majority of respondents are in the area of Palembang, Jakarta, Surakarta and Mataram and Tarakan To get an idea of the number of respondents and UPBJJ location of respondents in detail can be seen in figure 4.01



Figure 4.1 Respondent Distribution According to Regional Centre Offices



Figure 4.2 Respondent Distribution According to Students Address

From the data contained in Figure 4.2 can be obtained information that the respondents spread from Aceh to the district in Sulawesi. While the eastern Indonesia region as in Papua, Sulawesi tended to be small. This may provide information that the online tutorial service has not been maximally utilized by the respondents

Table 4.2 Range of Age \* Gender Crosstabulation

		Gender		Total
		Female	Male	
Range of Age	< 26	65	38	103
	26-30	11	10	21
	31-35	4	8	12
	>35	8	15	23
Total		88	71	159

Table 4.2 shows that most of respondents are at a young age under 25 years. From these data can provide information that, communication program is in demand by young people, where this condition is much different from the condition of UT 5 students or 10 years ago

#### 4.1.2 Internet Access

Furthermore, to find out how far the condition of respondents can access the internet can be seen in the Diagram 4.1 about internet access.

From the Diagram of internet access can be obtained information that more than three quarters of respondents can access the internet, can use the internet, have knowledge about the use of the Internet, the environment of respondents also supports, respondents have lab top ataup [un pc computer. In addition, in the area of internet network respondents also no experience of constraints.

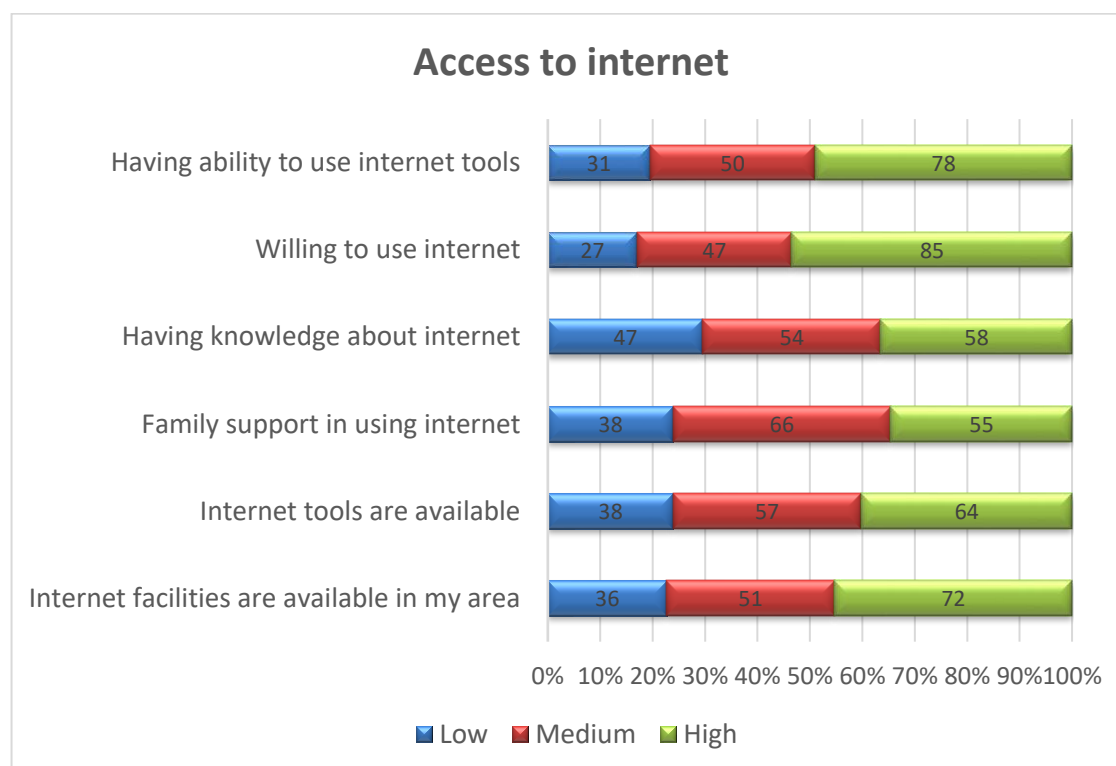


Diagram 4.1 Access to Internet

Furthermore, to know the extent to which student access to learning services provided UT can be seen in Diagram 4.2. From Diagram 2, more than 70% of respondents have access to some of the learning services provided by UT including access to learning systems, access to Self-exercises , access to tutorials online / tuton as well as online library access. self-exercises is already accessed by students but requires an online network to access the self-exercises . For this research socialize also how to access self-exercises with mobile learning using android.

### 4.1.3 Ease of Use, Usefulness, and Behavioural Intentions

One important information obtained from the results of this study is the identification of demographic characteristics

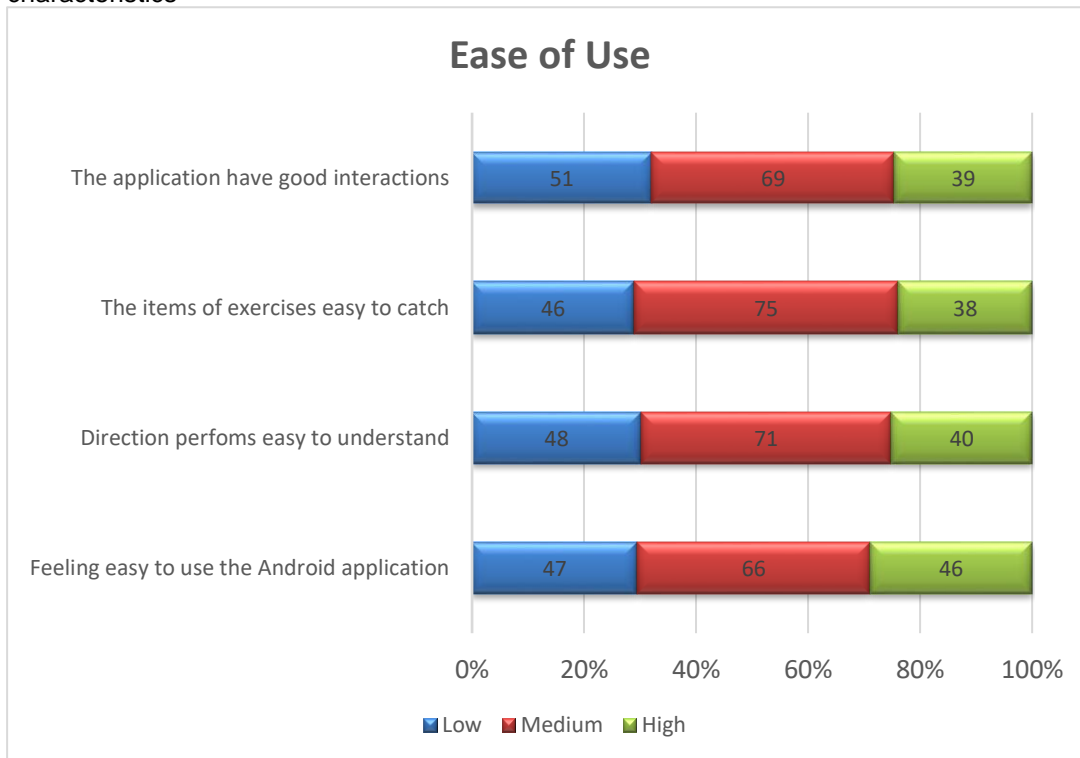


Diagram 4.2 Ease of Use of ANDROID Course Material Self Exercises

From Diagram 4. can be obtained information that respondents feel easy in accessing SELF-EXERCISES that can be down through the play store where respondents do not need to be on line every will open or learn self-exercises , it is still 2 MK that can be down load that is Public Opinion course SKOM4321 and SKOM4316 Communication Innovation course. To find out how far the ease of SELF-EXERCISES application through android described in table 4. that is equal to 86% of respondents stated SELF-EXERCISES application there interaction, as 71% of respondents said self-exercises application skill practice questions easily understood, as 69% of respondents said self-exercises application displays easy-to-understand instructions, and 70% of respondents stated that the SELF-EXERCISES application is easy to use for access to self-exercises .

Furthermore, to know how far the usefulness of self-exercises Application with android can be seen in Diagram 5 below. From the diagram can be obtained information that amounting to more than 70% of respondents stated that the application of self-exercises through andoid can measure the development of material understanding, can improve the effectiveness of learning, can increase the motivation to learn because it can directly know how many questions on the correct self-exercises and the number of questions wrong, can practice self-exercises anywhere and students can adjust the learning time of practice with self-exercises through the android. As many as 69% and 67% of respondents stated that self-exercises through android can provide feedback can also improve understanding of the course material.

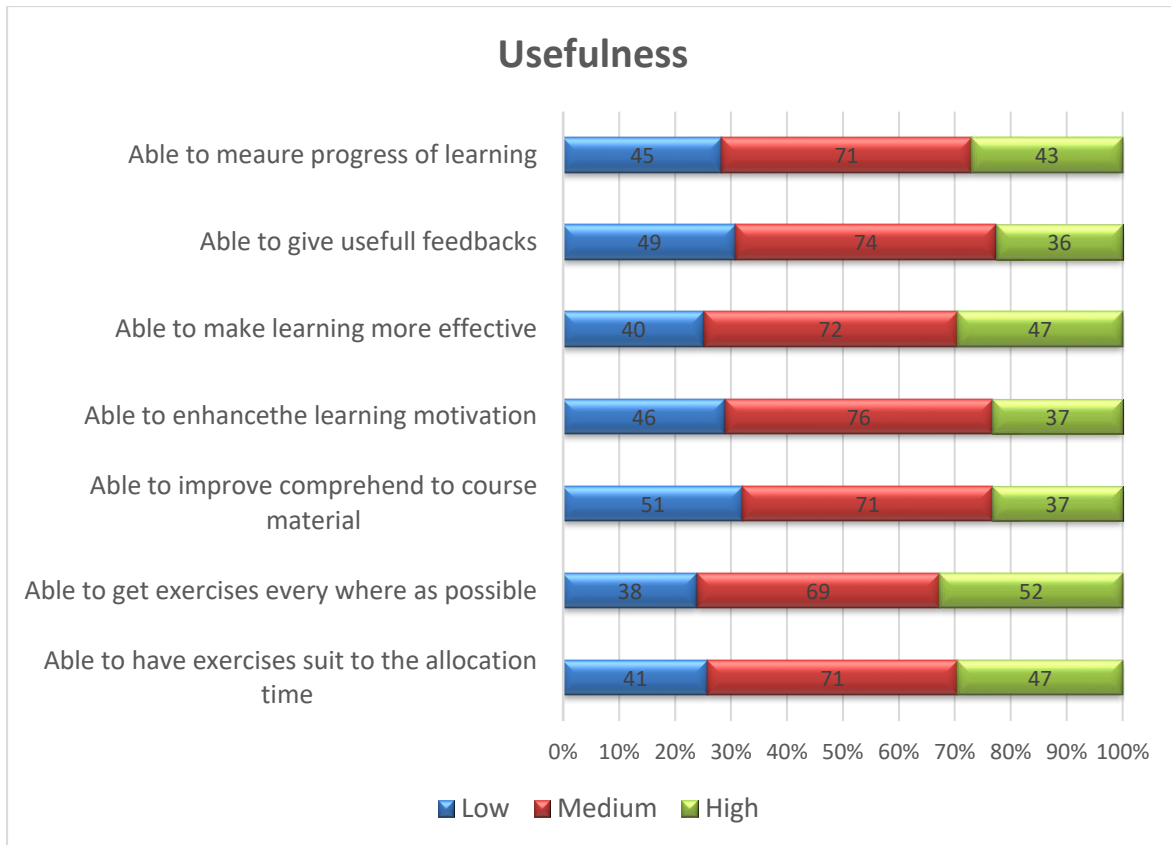


Diagram 4.3 Usefulness of ANDROID Course Material Self Exercises

From Diagram 6 it can be seen that more than 74% of respondents stated their intention to continue using self-exercises applications via android, the intention will be to use self-exercises application through android to achieve optimal course, the intention will use self-exercises application through android to measure competence, intention will use application via android and will convey it to other students, will convey to other students that this self-exercises application is suitable and convenient to use it, and respondents will be amazed using this self-exercises application for other courses that have not been taken or registered.

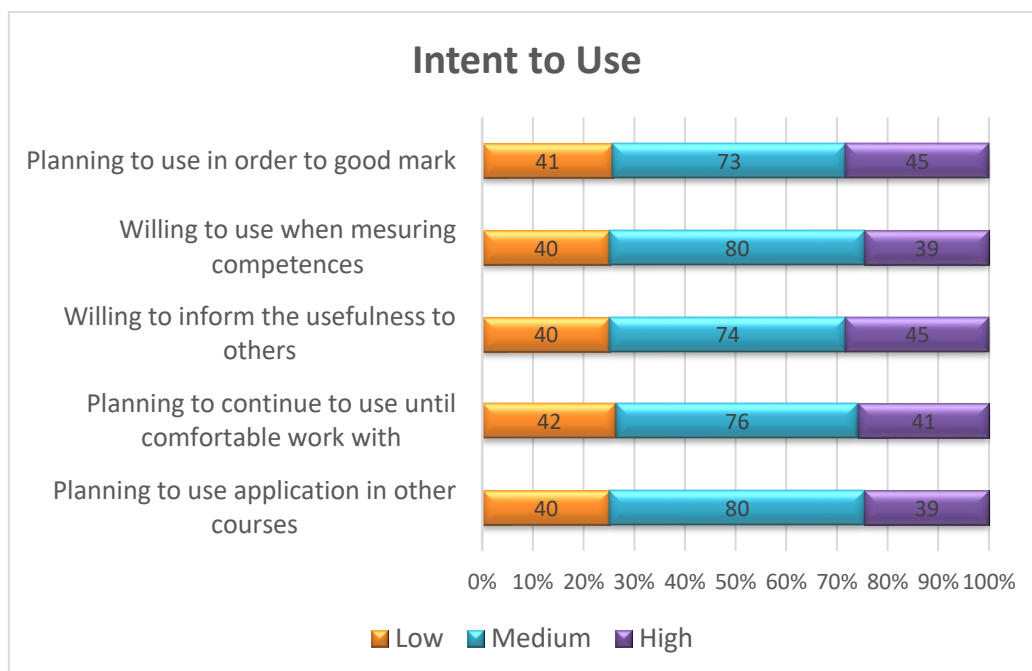


Diagram 4.4 Intent to use of ANDROID Course Material Self Exercises



Furthermore, to know the extent to which self-exercises application barriers through this android in detail can be seen in Diagram 7. Diagram is informed that the majority of respondents are not so experiencing obstacles or obstacles both on aspects of communication tools in this case smart phones android, difficulties in installing self-exercises applications, difficulties to download self-exercises applications, also difficulty in terms of the cost of pulse because now widely available free wifi where respondents learn, also difficulties in ownership of the tool, where a self-exercises most of respondents have communication tools / hp android. Thus there are not many obstacles experienced by students in using Self-exercises applications using the android.

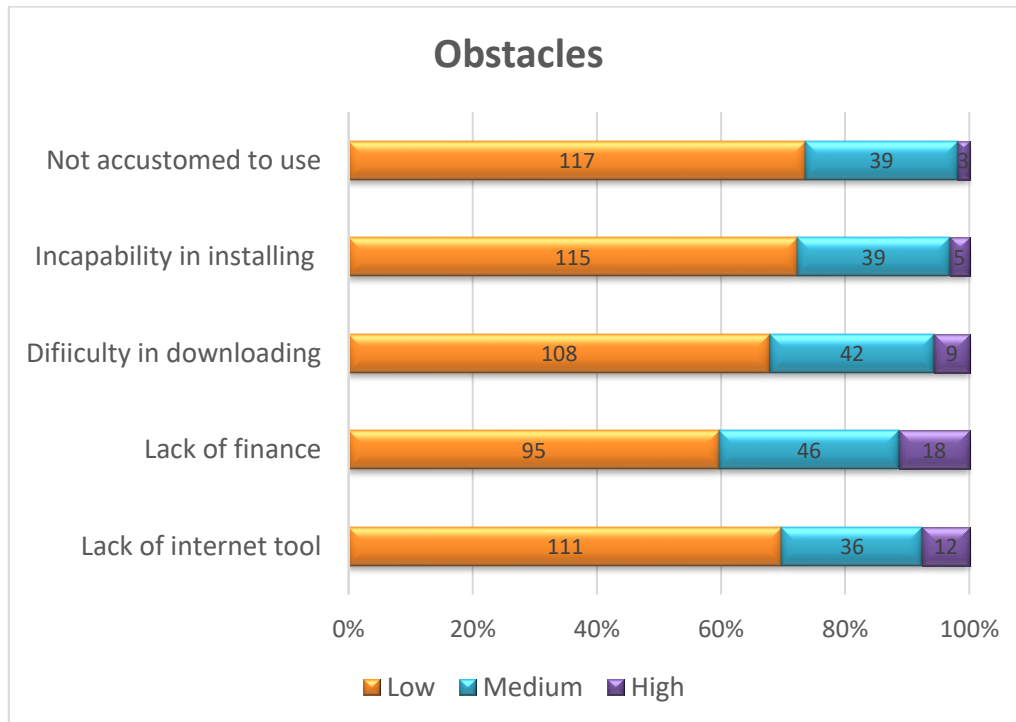


Diagram 4.5 Obstacle of using ANDROID Course Material Self Exercises

## 5 CONCLUSION

Student perceptions of the ease of self-exercises based on mobile learning using android S-1 program of Communication Studies is 86% of respondents stated self-exercises application there interaction, as 71% of respondents said self-exercises application skillfully skilled exercise questions, 69% the self-exercises application displays easy-to-understand instructions, and 70% of respondents state that the self-exercises app is easy to use for access to self-exercises .

Student perceptions on the benefits of self-exercises based on mobile learning using android on S-1 Communication Studies program amounted to more than 70% of respondents stated that the application of self-exercises through android can measure the development of material understanding, can improve the effectiveness of learning, can increase the motivation to learn because direct can know how many problems on the right self-exercises and the number of problems that are wrong, can practice self-exercises anywhere and students can adjust the learning time of practice with self-exercises through the android. While of 69% and 67% of respondents stated that self-exercises through android can provide feedback can also improve understanding of the course material.

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