

STUDENT INVOLVEMENT IN THE IMPLEMENTATION OF PRACTICUM IN DISTANCE EDUCATION FKIP UT

Siti Aisyah¹, Widiasih², Sandra Sukmaning Adji³, Andayani⁴, Suryo Prabowo⁵, Siti Hadianiti⁶, Zakirman⁷

1, 2, 3, 4, 5, 6, 7 Universitas Terbuka (INDONESIA)

Abstract

The COVID-19 pandemic has had a fairly broad impact, including in the field of education. Ut also felt considerable changes during the Covid-19 pandemic, especially in the implementation of practicum for UT FKIP students. The purpose of this study is to analyze student involvement in the implementation of practicum during the COVID-19 pandemic. This type of research is descriptive quantitative. This study involved 127 samples of FKIP UT students. The instrument used in research activities is a questionnaire to obtain information about student activities and involvement in the implementation of practicum during the Covid-19 pandemic. To see the influencing factors, a test based on the p-value is used. Testing groups students into several factors including: gender, age, last education, location/region, UPBJJ and others. One of the conclusions in this study was drawn from the p-value obtained for each category. To see the relationship between student characteristics and student engagement, a correlation test was used. After the analysis is carried out, it can be concluded that if you want to increase involvement and compile instruments and guidelines for the standard process of implementing practicum, you need to pay attention to several things, including: location / domicile, type of tutorial given, student GPA and work done. In designing and implementing practicum activities, differences in student involvement that arise due to these factors need to be considered. Based on the results of the analysis between student characteristics and student involvement in the practicum, it shows that engagement will be strong when considering the enriching educational experience.

Keywords: student engagement, distance learning, science, learning technology

1 INTRODUCTION

The Covid-19 pandemic changed the academic environment significantly with the technological advancements that have developed today. Online learning is one of the best answers to the problems faced by the world of education during the pandemic. Universitas Terbuka (UT) as a pioneer of distance education in Indonesia has used the e-learning approach as one of the learning methods. One of the activities that can support student learning is practicum.

Practicum activities are usually carried out in the laboratory, where the activities include research with an object, observation, and revealing facts directly so that they can align with concepts that have been learned from a source of knowledge such as books, the internet, and research journals. This laboratory activity can provide students with an understanding of what they are learning (Rahmawati et al., 2021).

Praktikum is an activity that aims to equip students to understand concepts and theories better. This activity is a form of teaching and learning activity that is intended to strengthen the mastery of applicable material. According to Romlah (2009), practical activities or practicums are often associated with science learning activities carried out by students in the laboratory, while

Rustaman (2010) added that practicum is a learning carried out in a laboratory where students are expected to be able to apply the knowledge they have gained in lectures. The implementation of laboratory / practicum activities is one of the elements and efforts that cannot be separated from learning (Djohar Maknun, 2015).

Since there have been restrictions on interaction activities recommended by the government due to the spread of the Covid-19 virus, it has an impact on one type of tutorial organized by the UT. As of the beginning of 2020, TTM (Face-to-Face Tutorial) activities which are usually carried out offline (Outside the Network) are now replaced with Tuweb (Web Tutorials) which are carried out online (In Network). This change also has an impact on tutorial activities for practical courses. Practicum activities that must be carried out online receive more attention, because in practicum activities not only the results of student work are the subject of assessment, but the process during which students carry out practicum activities is also an assessment in itself.

Practicum is a learning method that is proxended in science learning because it has many advantages when compared to other methods. These advantages include: being able to cultivate students' confidence in the truth or conclusions through experiments they do instead of just receiving explanations from teachers or from books; able to develop an attitude to conduct exploratory studies on science and technology; able to cultivate scientific attitudes of students such as being honest, cooperative, critical, open, and tolerant (Rahayu & Eliyarti, 2019).

Practicum is essentially held with the aim of honing students' cognitive, affective, and psychomotor abilities. In addition, practicum can foster interaction between students and the teaching materials used. According to Malati (2012), through independent, guided practicum activities, and the use of optimal practicum facilities as a whole in the practicum implementation system, it is hoped that students can achieve their learning goals well. In terms of organizing practices and practicums during this pandemic, UT has carried out online mentoring through webinars and tutons.

In fact, at UT, which has very heterogeneous student characteristics, the implementation of the practicum must be modified so that it can be carried out in accordance with scientific rules. In addition, during the COVID-19 pandemic, student engagement has dropped and affected the final results of the practicum assessment. There are several obstacles and obstacles found in the management of the implementation of this practicum, including human factors (managers,

instructors, and students), facilities and infrastructure factors (location/place, costs, materials, and tools), and management factors (Malati, 2012).

Learning by carrying out practicum activities is very effective in achieving and increasing knowledge simultaneously, including training so that theory can be applied to real problems (cognitive), training activity planning independently (affective), and training the use of certain instruments (Elyas, 2018).

To further increase student involvement in the implementation of practicum, it is necessary to conduct an in-depth analysis of the factors that affect student involvement in the implementation of practicum activities. In addition, it is necessary to further study the relationship between student characteristics and student involvement in the implementation of practicum activities.

The formulation of the problem that will be answered in this study is:

Q1: What are the factors that influence student involvement in practicum implementation?

Q2: What is the correlation between student characteristics and student involvement in practicum activities?

2 METHODOLOGY

This type of research is descriptive quantitative. This study involved 127 samples of FKIP UT students. The instrument used in research activities is a questionnaire to obtain information about student activities and involvement in the implementation of practicum during the Covid-19 pandemic. To see the influencing factors, a test based on the p-value is used. Testing groups students into several factors including: gender, age, last education, location/region, UPBJJ and others. One of the conclusions in this study was drawn from the p-value obtained for each category. To see the relationship between student characteristics and student engagement, a correlation test was used.

3 FINDINGS AND DISCUSSION

3.1 Characteristics of Respondents in Practicum Practice Courses

This study involved 127 respondents of FKIP students consisting of 68% women and aged between 21-56 years with an average age of around 34 years, and had an average income of around Rp. 1,918,566.93. Respondents are currently students in semesters 1-51 with an average semester of around semesters 7 and 8. Figure 1 shows that the most respondents came from the provinces

of Central Java and East Java (15.7%), then West Java (14.2), West Kalimantan (7.1), and Banten (6.3%).

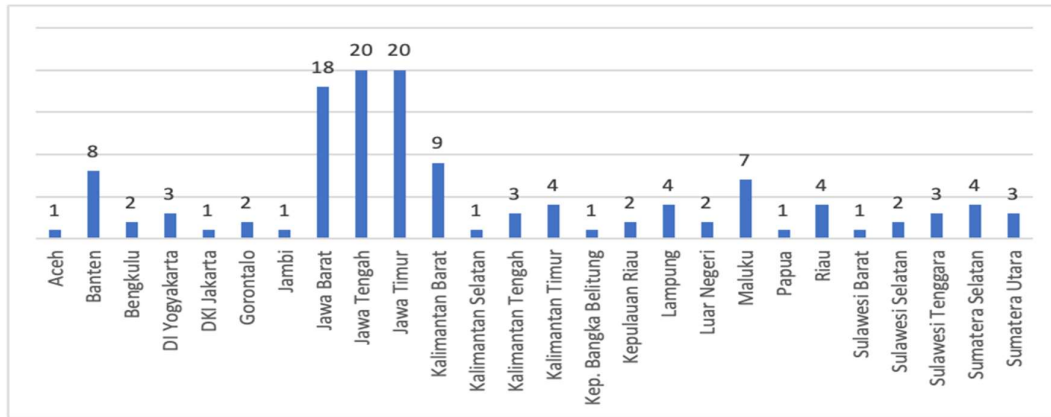


Figure 1. Provincial Distribution of Respondents to Practicum Course Students

3.2 Student Involvement in Practicum Subjects

Student engagement as straightforward and easy-to-understand engagement in the sense that the more students learn a subject, the more they know it, and the more students practice and get feedback from faculty and other staff about writing and how they solve problems collaboratively, the deeper they understand what they are learning". This understanding emphasizes how the results of student involvement in the learning process (such as participating in discussions and or collaborating in solving a given problem), as well as contributing to their learning and maintaining their further involvement in course activities. The activities in the sense of engagement above are a picture of student involvement in online learning which is the focus of this research.

Table 1 shows that there are some differences in student involvement in MK. Practicum, namely in the UPBJJ category, tutorial type, GPA, employment status, and domicile of the respondent's area of residence. This means that those who are enrolled in UPBJJ in Java, actively participate in online tutorials as well as web tutorials, achieve a GPA of the same / more than 3.34, and have a job status as full-time workers, and live in predominantly rural areas and border villages and cities have a better student engagement rate than vice versa.

Table 1. Comparison of Student Involvement in Practicum Subjects

Category	Sub-Categories	Number of Students (N=405)		Student Engagement		p-value
		N	%	Mean	SD	
Gender	Woman	86	68	131,53	18,68	0,170
	Man	41	32	135,63	13,97	
Age	< 30 years old	44	35	135,34	18,03	0,252
	≥ 30 years old	83	65	131,54	16,94	
Final Education	High school graduates are equal	60	47	131,93	18,61	0,575
	Non-High School Graduates as equals	67	53	133,69	16,24	
Courses	Exact	98	77	133,54	16,74	0,457
	Non Exact	29	23	130,55	19,40	
Year of Class	< Third year	39	31	134,97	14,47	0,318
	≥ Fourth year	88	69	131,92	18,48	
UPBJJ	Outside Java Island	57	45	129,07	18,03	0.028*
	Java	70	55	135,94	16,26	
Device Type	Mobile & Tablet	62	49	130,97	19,27	0,235
	Laptop/PC	65	51	134,66	15,23	
Internet Access	Difficult and Very Difficult	16	13	126,19	19,04	0,146
	Easy and Very Easy	111	87	133,82	16,97	
Tutorial Type	Face-to-Face Practicum in the Laboratory / Online Tutorials / Web Tutorials	66	52	129,11	17,07	0.011*
	Face-to-Face Practicum in the Laboratory / Online Tutorials & Web Tutorials	61	48	136,92	16,86	
Number of Practicums	< 2 practicum	70	55	134,64	15,93	0,208
	≥ 2 practicum	57	45	130,67	18,87	
Grade Point Average	< 3.34	97	76	130,69	18,28	0.002**
	≥ 3.34	30	24	139,87	11,64	
Types of Work	Non Teachers	9	7	124,78	13,99	0,108
	Teacher	118	93	133,47	17,48	
Working Period	< 6 years	84	66	134,17	18,59	0,201
	≥ 6 years	43	34	130,30	14,50	
Employment Status	Works Part Time & Freelance	50	39	128,62	19,88	0.037*
	Works Full Time	77	61	135,61	14,99	
Income	< 1,000,000	44	35	133,23	19,83	0,871
	≥ 1,000,000	83	65	132,66	16,01	
	Alone & Family	123	97	132,95	17,13	0,838

Category	Sub-Categories	Number of Students (N=405)		Student Engagement		p-value
		N	%	Mean	SD	
Sources of Tuition Fees	Scholarships & Third Parties	4	3	130,00	26,36	0.028*
	Rural & Border Dominant	95	75	134,58	18,19	
Regional Domicile	Urban & Overseas Dominant	32	25	127,75	13,56	0,128
	Duration of Study Before the Pandemic	< 3 Hours a Day	47	37	130,02	
Duration of Learning During the Pandemic	>= 3 Hours a Day	80	63	134,53	18,96	0,211
	< 3 Hours a Day	46	36	130,35	16,39	
	>= 3 Hours a Day	81	64	134,28	17,81	

Description: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

3.3 The Relationship between Student Engagement and Respondent Characteristics

In addition to acting descriptively on each dimension of student involvement in this study, it also tried to find out what variables are related to student involvement based on the characteristics of respondents. The table of relationships in each course is presented in Table 5.

Table 2. The Relationship between Student Involvement and Characteristics of Practicum Course Respondents

Student Engagement	Correlation Coefficient
UPBJJ	0,198*
Tutorial Type	0,226*
Grade Point Average	0,244**
Level of Academic Challenge	0,907**
Active/collaborative learning	0,879**
Student-faculty interaction	0,791**
Enriching educational experience	0,877**

In Table 2 below, it can be seen that the characteristics of respondents related to student involvement in the Practicum course include: upbjj location, tutorial type, and cumulative achievement index. Meanwhile, the subdemenace of respondents' student involvement that is most strongly related to this course is the *level of academic challenge*. This means that to increase student involvement in this Practicum course, it is necessary to raise the level of academic challenges, especially related to the encouragement to give the best effort in each practicum,

guidance on the implementation of practicum in class that encourages the emergence of ideas / ideas, or methods in the learning process, the experience of compiling and writing practicum reports more clearly, practicum experiences that make more critical thinking and analytical, as well as helping to reveal ideas more clearly.

In addition, the tasks in the implementation and reporting of the learning practicum should relate to the application of theories or concepts to practical problems and new situations, as well as help organize ideas, information or experiences into interpretation. Another thing is that the practicum task encourages students to complete on time and is able to analyze problems (quantitative) better after participating in the practicum implementation, as well as making it easier for students to learn all the modules in the assigned practicum guide / BMP. Practicum activities carried out in universities will restore the role of lecturers as supervisors or facilitators and students as implementers who must actively work experimenting in accordance with their goals of finding the expected scientific results (Rahayu & Eliyarti, 2019).

Practicum should be able to encourage the creation of joint success in study groups with a cooperative spirit (Ita, 2021). Practicum is a science literacy learning activity that is very important for students to have as a provision to face the challenges of the development of the 21st century (Abidin et al., 2020). In the stages of the learning process, many aspects can affect the quality of a learning process. One of the aspects that affect this is the quality of the implementation of practicum activities. The findings obtained in research related to student involvement in practicum activities become a reference in the development of standards and procedures for implementing practicum activities for FKIP UT students.

In the implementation of the learning process in the classroom, the implementation of practicum activities has a very crucial role to support the quality of results and the learning process because practicum activities will be more effective to improve students' expertise in observation and improve psychomotor skills / aspects as well as a means of practicing in using or utilizing tools and materials in the laboratory. In addition, practicum activities can develop student curiosity, will foster activeness, cooperation, accuracy, tolerance, and foster scientific honesty in students (Wahyudiati, 2016).

Practicum plays a very important role in lectures, this is because practicum activities will open up opportunities for students to apply and develop the process skills learned and can also develop the attitude of a researcher in supporting the process of understanding the material in students (Rahmawati et al., 2021).

4 CONCLUSION

Practicum activities are an important part of the lecture process at FKIP UT. Practicum activities can ideally increase student engagement and increase student understanding and knowledge. After the analysis is carried out, it can be concluded that if you want to increase involvement and compile instruments and guidelines for the standard process of implementing practicum, you need to pay attention to several things, including: location / domicile, type of tutorial given, student GPA and work done. In designing and implementing practicum activities, differences in student involvement that arise due to these factors need to be considered. Based on the results of the analysis between student characteristics and student involvement in the practicum, it shows that engagement will be strong when considering the enriching educational experience. The findings obtained in research related to student involvement in practicum activities become a reference in the development of standards and procedures for implementing practicum activities for FKIP UT students.

REFERENCES

- Abidin, Z., Hudaya, A., & Anjani, D. (2020). Efektivitas Pembelajaran Jarak Jauh Pada Masa Pandemi Covid-19. *Research and Development Journal of Education*, 1(1), 131. <https://doi.org/10.30998/rdje.v1i1.7659>
- Cisco. 2001. e-Learning: Combines Communication, Education, Information, and Training. <http://ww.cisco.com/warp/public/10/wwtraining/elearning>.
- Djohar Maknun. (2015). Evaluasi Keterampilan Laboratorium Mahasiswa Menggunakan Asesmen Kegiatan Laboratorium Berbasis Kompetensi Pada Pelaksanaan Praktek Pengalaman Lapangan (Ppl). *Jurnal Tarbiyah*, 22(1), 21–47.
- Elyas, A. H. (2018). Penggunaan model pembelajaran e-learning dalam meningkatkan kualitas pembelajaran. *Jurnal Warta*, 56(04), 1–11. <http://jurnal.dharmawangsa.ac.id/index.php/juwarta/article/view/4>
- Hollis, L. P. 2018. Ghost-students and the new wave of online cheating for community college students. *New Directions for Community Colleges*.
- Ita, I. (2021). Profil Kerjasama Mahasiswa dalam Kegiatan Praktikum. *J. Pedagogi Hayati*, 5(2).
- Kamarga, Hanny. 2002. Learning History through e-learning; Alternatives to accessing historical resources. Jakarta: Inti Media.
- Malati I., and Pepi Roslina. 2013. Student Perceptions of Practicum Implementation in Remote Open Higher Education. *Journal of Open and Distance Education*.
- Malati, I., and Pepi Roslina. 2012. Evaluation of Practice/Practicum Implementation in Distance Open Higher Education (Case: Agribusiness Study Program FMIPA UT). *Journal of Open and Distance Education*.

- Rahayu, C., & Eliyarti, E. (2019). Deskripsi Efektivitas Kegiatan Praktikum Dalam Perkuliahan Kimia Dasar Mahasiswa Teknik. *Edu Sains Jurnal Pendidikan Sains & Matematika*, 7(2), 51–60. <https://doi.org/10.23971/eds.v7i2.1476>
- Rahmawati, D. N., Zahro, L., & Hidayatullah, A. F. (2021). Pembelajaran Praktikum pada Mahasiswa Prodi Biologi dan Pendidikan Biologi Universitas Islam Negri Walisongo Semarang di Masa Pandemi Covid-19. *Indonesian Journal of Science Learning (IJSL)*, 2(2), 109–116. <https://doi.org/10.15642/ijsl.v2i2.1238>
- Romlah, O. 2009. The Role of Practicum in Developing Process and Laboratory Work Skills.
- Rustaman, N. 2010. The Role of Practicum in Science Learning.
- Subiantoro, A. W. 2010. The Importance of Practicum in Science Learning. Paper presented at the PPM Activity "Training on Environmental-Based Science Practicum Development" for MGMP IPA teachers at SMP Yogyakarta City.
- Wahyudiati, D. (2016). Analisis Efektivitas Kegiatan Praktikum Sebagai Upaya Peningkatan Hasil Belajar Mahasiswa. *Jurnal Tatsqif*, 14(2), 143–168. <https://doi.org/10.20414/jtq.v14i2.27>
- Widuroyekti, B., Sutini, Asmono, A. 2010. Evaluation of the Implementation of Professional Ability Strengthening (Pkp) in the S-1 Department of Basic Education (Pendas) UT

