
SAIZU INTERNATIONAL CONFERENCE ON TRANSDISCIPLINARY RELIGIOUS STUDIES (SAIZU ICON-TREES)

ISSN 2964-5859, 2023, Pages 89-93

DOI: <https://doi.org/10.24090/icontrees.2023.295>

Proceeding of 3rd Internasional Conference on Implementing Religious Values on Transdisciplinary Studies for Human Civilization

Comparative Analysis of Animal Structure Practicum Results Based on Online and Offline Knocking Systems

Meti Maspupah^{1*}; Nurul Hidayah²

^{1,2}Biology Education Study Program, Faculty of Tarbiyah and Teacher Training, Sunan Gunung Djati State Islamic University Bandung, Indonesia

Corresponding author's email: metimaspupah@uinsgd.ac.id

Abstract: Animal structure lectures are a learning process that is integrated with practicum activities which are mandatory activities and must be carried out in one semester in tandem with the implementation of theoretical learning. This study aims to find out the comparison of student midterm exam scores using the online and offline ketok system. The method used is a comparative analysis of midterm exam scores in two different classes. The instrument used was data on student midterm exam scores in two animal structure practicum classes. The results showed that the average midterm exam score in the class with the online knock system was 52.9 with the highest score 80 and the lowest 30, while in the offline knock system class it was 47.3 with the highest score 80 and the lowest 25 out of a total sample of 22 students in each class. Based on the research results, it can be concluded that the different midterm exam methods in the animal structure practicum have a significant influence on the practicum exam results.

Keywords: *results of practicum; methods; animal structure practicum*

A. INTRODUCTION

Biology learning is a branch of natural science or science that studies all things about living things and their lives. Biology learning which consists of theory and practice makes this course have a fairly dense task load and learning process compared to other subjects. Therefore, with theoretical and practical learning, biology learning is integrated with hands-on experience activities in the form of practical

activities in the laboratory. Practical activities that are synonymous with learning biology are used as a method in the learning process which aims to prove and discover an existing concept or theory (Putri Agustina, 2019).

Practicum activities as a distinctive characteristic of biology learning make practicums have their own separate section that is separate from theory, such as the existence of a special room for learning in the



Copyright © 2023 The Author

This is an open access article Under the Creative Commons Attribution (CC BY) 4.0 International License

form of a lab, textbooks/practicum modules themselves, to the point where there is an evaluation of its own learning specifically for practicum activities. This is what makes practicum activities easier for students to understand and understand, when compared to theoretical learning (Lia Junita Harahap, 2022). Evaluation as a part of the education system needs to be carried out in order to measure the extent to which the learning process has been carried out, and how the impact has been given during learning activities, especially practicums. Evaluation in this practicum is in the form of tests, assessments or measurement of learning outcomes (I Putu Suardipa, 2020) during practicum activities.

Evaluation of practicum activities in biology learning is carried out in two forms of tests in the form of midterm and final semester exams coupled with a formative assessment at the end of each material in the form of a practicum module. This assessment test instrument has various forms of tests that are adapted to the conditions and material of the practicum itself. Evaluation of online and offline learning also has differences in terms of the media used. Evaluation media that can be used as an option in evaluating online learning or e-learning includes quiziz which is an attractive digital-based evaluation media (Susanti, 2021). Another evaluation media that can be used to measure digital-based learning tests is the Google form (Shalihah, 2020).

Practicum activities that take place online and offline have an impact on the assessment of learning evaluation. It also

occurs differently, namely evaluation in person in the laboratory, and evaluation remotely online through technological assistance. The practicum evaluation activity in the form of an offline midterm exam is carried out using a knock exam system. The online exam system is through the zoom meeting platform with an online tap system. Because of this, this research was conducted to find out the differences in the results of evaluations conducted offline and online in animal structural biology practicum.

B. MATERIALS AND METHODS

This study used a qualitative method with descriptive analysis of the midterm exam results. The research data was taken from the summary of the results of the midterm practicum practicum for class 3A and 3C animal structures. The data population for this study were all Biology Education students at UIN Sunan Gunung Djati Bandung in semester 3 consisting of five practicum classes. The samples used were two practicum classes consisting of 22 class 3A students and 22 class 3C students.

This study aims to compare the results of animal structure practicum using different test systems, namely the online tap system using zoom meetings and the offline tap system in the laboratory.

C. RESULT AND DISCUSSION

This study used two different classes with the same number of samples, but used a different practicum evaluation system, namely class 3A using the offline knock system and class 3C using the online knock system. Based on the results of the third

semester students' midterm exams in two animal structure practicum classes, the following results were obtained:

Table 1. UTS Result Data for Animal Structure Practicum

Offline Knock System		Online Knock System	
No	Nilai	No	Nilai
1	55	1	40
2	70	2	55
3	30	3	75
4	52,5	4	30
5	50	5	75
6	37,5	6	60
7	42,5	7	40
8	62,5	8	30
9	50	9	80
10	62,5	10	70
11	52,5	11	30
12	25	12	35
13	25	13	30
14	47,5	14	50
15	50	15	55
16	40	16	45
17	45	17	50
18	55	18	70
19	40	19	60
20	57,5	20	75
21	50	21	40
22	42,5	22	70
Average	47,3	Average	52,9

Based on the data in Table 1. above, the results show that the average student midterm exam score in classes with the online knock exam system has an average score of 52.9 compared to classes using the offline knock exam system of 47.3 out of a total of 22 students in each class. This significant difference in practicum results is influenced by differences in the learning process or practicum activities carried out. Where, in classes that use the online knock exam system, most practicum activities are carried out online from home or online so that practicum activities become more flexible, not limited by time, and can carry out practicums while seeing more references.

Practicum activities carried out online, such as those carried out by class 3C, have a distinct impact on students in understanding the concepts of the material being practiced. This is in line with the statement (Nuriansyah, 2020) that online learning is able to increase students' understanding. Besides that, other factors that caused classes with the online knock system to get quite high scores included, the implementation of the exam was not closely monitored.

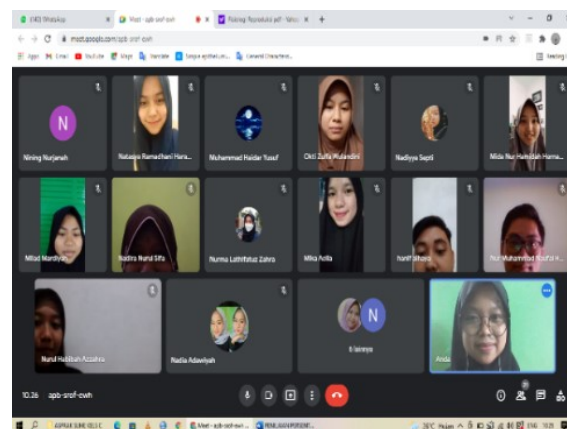


Figure 1. Online Knock System

The exam in class 3C which uses the online knock system via zoom meeting is carried out simultaneously in one zoom meet and the questions are displayed on the screen for 1 minute, after which the answers are sent directly via WhatsApp within the one minute time limit. This online knock system has an unfavorable impact on students where they have the opportunity to work together, look for answers on the internet, and other things that are out of control and monitoring which are one of the triggering factors for high student grades apart from online learning activities that can improve students' understanding of the

material becomes higher. Besides that, the implementation of the online knock system which is balanced with online learning is a major factor in improving student learning outcomes, because online learning provides students with an initial understanding before carrying out practicum activities, compared to offline classes where most students gain direct initial knowledge. from the lecturer during the practicum (Kartika Dewantari, 2021).



Figure 2. Offline Knock Exam System

The full learning and exam system in class 3A is carried out offline, so UTS activities are also carried out offline as shown in Figure 2. where it can be seen that each student occupies certain points that are quite far apart to answer the questions that have been provided. UTS results with the offline knock system obtained an average of 47.3 lower than classes with the online system. The lower practicum UTS results were influenced by the readiness factor of the students themselves who were more tense and did not enjoy carrying out exams, coupled with laboratory conditions supervised by four practicum assistants and

one subject lecturer, so that the room situation felt more tense.

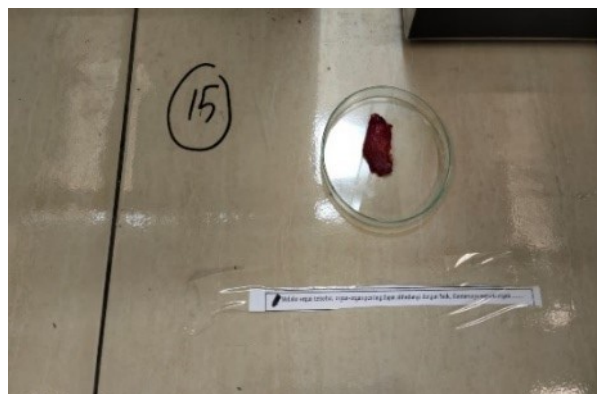


Figure 3. Offline Knock System UTS
Question Example

The animal structure practicum midterm exam questions in classes with online and offline knock systems have differences in the form of the questions. Where, in Figure 3. is an example of an offline knock system question where the questions are in the form of short entries that have a connection between each question, a type of chain question. This is the main factor in the number of incorrect answers so that the average UTS results for offline students are lower. The form of chain questions used in offline classes is a challenge for students, because when the first question/key is wrong, then the next question is also wrong. It is different from the questions when the system is tapped online which has the opportunity to be screen shot by students so that, when questions have not been answered, they can look back at previous questions that were successfully screened by students.

D. CONCLUSION

Based on the research that has been done, it can be concluded that there is a significant difference in the UTS scores for the animal structure practicum between classes with the online knock exam system and the offline knock exam system, which are influenced by practicum activities, exam conditions, and the form of practicum questions.

REFERENCES

- I Putu Suardipa, K. H. (2020). Peran Desain Evaluasi Pembelajaran Untuk Meningkatkan Kualitas Pembelajaran. *Widyacarya*, Volume 4, No. 2, 88.
- Kartika Dewantari, M. d. (2021). Pengaruh Model Pembelajaran Daring dan Luring Serta Kemampuan Awal Terhadap Hasil Belajar Siswa Pada Materi Pelajaran TIK SMP. *Jurnal Ilmiah Penelitian dan Pembelajaran Informatika*, Volume 06, Nomor 02, 224.
- Lia Junita Harahap, R. A. (2022). Analisis Pelaksanaan Praktikum dan Kelengkapan Sarana Prasarana Laboratorium Biologi di SMA Negeri Kota Padangsidempuan. *Bioedunis Journal* , Vol. 1, No. 1, 10.
- Nuriansyah. (2020). Efektifitas Penggunaan Media Online Dalam Meningkatkan Hasil Belajar Saat Awal Pandemi Covid-19. *Jurnal Pendidikan Ekonomi Indonesia*, Volume. 1, No. 2, 89.
- Putri Agustina, A. S. (2019). Evaluasi Pelaksanaan Praktikum Biologi di SMA Negeri di Klaten pada ditinjau dari Kualitas Laboratorium, Pengelolaan, dan Pelaksanaan Praktikum. *Jurnal Pembelajaran Biologi*, Volume 8, Nomor 2, 106.
- Shalihah, T. N. (2020). Pengembangan Evaluasi Pembelajaran Berbasis Google Form. *Jurnal Pendidikan Islam*, Vol. 13, No. 1, 56.
- Susanti, N. L. (2021). Implementasi Penggunaan Quizizz dalam Evaluasi Pembelajaran Online English For Food and Beverage Service. *Jurnal Pedagogi dan Pembelajaran*, Volume 4, Nomor 3, 486.