

Research Article

Analyzing Practicum Reports Made Using Posters for an Animal Structure Course

Meti Maspupah*, Ismi Ayu Wulandari, Nurul Hidayah, and Listianisa Sopiani

Biology Education Study Program, Faculty of Tarbiyah and Teacher Training, UIN Sunan Gunung Djati Bandung, Indonesia

ORCID

Meti Maspupah: <https://orcid.org/0000-0002-3335-7204>

Ismi Ayu Wulandari: <https://orcid.org/0000-0002-7441-6792>

Abstract.

During the pandemic, teachers adopted assisted learning methods with apps like Canva to produce eye-catching, poster-like practical work reports. The purpose of this study was to analyze the poster practicum report for an animal structure course. In analyzing this lab report, the important points in the assessment were identity, assessment of hand-drawn elements, discussion, abnormalities in related tissues, questions and answers, and supporting bibliography. This study contains the analysis of practicum reports by tabulating the data, grouping them according to the assessment criteria, and describing the data. In the first practicum class, the average value of the poster practicum report was 80.3. In the second practicum class, the average was 83.09, and in the last class, it was 75.13. Based on the average value of this poster practicum report, it can be concluded that the laboratory report for the connective tissue of the animal structure sub-chapter reaches *good* and *very good* criteria based on the listed criteria.

Keywords: analyzing, practicum, reports, posters, animal structure, course

Corresponding Author: Meti Maspupah; email: metimaspupah@uinsgd.ac.id

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1. INTRODUCTION

The epidemic that hit the world some time ago caused restrictions on activities in various fields, one of which was in the field of education. Distance learning is the only option that every school unit has to make. Distance learning has its own character. On the one hand, distance learning allows the learning process to continue as it should even though it is constrained by communication that must be done face-to-face (virtually).

As for the advantages of online learning, according to [1] suggests that learning through networks has potential such as meaningful learning, easy access, and also improves learning outcomes. As everyone has experienced, distance learning gives the impression of interesting learning because there are many technologies that can be used to support the learning process. Learning in this network definitely involves technology, so students will learn independently. Disadvantages of distance learning like

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this include internet network connections that must be adequate, devices or tools that can access learning, as well as strategies for using technology which do not necessarily mean that all students have the same technological facilities.

The process of independent learning is also a characteristic of students who are pursuing higher education. With advances in technology, students can innovate in compiling assignments and practicum reports. Among them, such as in the third semester student practicum report on the animal structure course. The animal structure course is a course on biological content that will discuss the typical tissues and organs of each class of vertebrate animals (vertebrates).

The tendency to change the way students think to get more in-depth information, the format of the practicum report which is usually very handwritten and seems monotonous with the results, then converted into a poster form using the Canva application, PicArt or other applications that can help in creating and working with their own style -each. That way, students will not feel bored when compiling a practicum report because there will be very varied models and creativity that color it. So that the formulation of the problem in the research emerges, namely how are the results of the analysis of the poster-based practicum report for the third semester students of the connective tissue subject of the animal structure course?

According to [2], it is a combination of writing and pictures in one field that provides information about the main idea that is made attractively with decorative pictures and clear letters. The purpose of the poster is to encourage a response (response) from the audience which will be better used as a medium of discussion. Therefore, posters are considered to be able to help in the learning process and are used as an alternative form of preparing a practicum report.

As for research that is in line with this paper, among others, as stated by [3] that the innovation of practicum reports with poster media can increase students' interest in learning science. Not only that, there was an increase in students' understanding of Biology material, especially about the structure of the plant body. This means that a practicum report with a poster basis can allow students to be creative without limits and can construct a more meaningful understanding in different ways. This is also supported by previous research from [2] that the results of PBL learning through poster media on the behavior of the experimental class student group of SMP (SLUB) Saraswati 1 Denpasar have a significant effect ($p = 0.000 < 0.05$).

To strengthen this research in the preparation of a poster-based practicum report, [4] in her research stated that there was a significant difference between the learning outcomes of students who wrote poetry without using posters and writing poetry

using posters (63.07 to 71.77). The benefits of this poster itself can improve cognitive, psychomotor, and affective aspects, apart from learning media. From the results of previous studies it was found that the use of poster media as an alternative in learning turned out to have a good impact on students. Then it is known that the purpose of this research is to analyze the results of the lab report on the connective tissue chapter in the animal structure course.

2. RESEARCH METHOD

The analysis of the practicum report in the connective tissue chapter was carried out on students of UIN Sunan Gunung Djati Bandung, Faculty of Tarbiyah and Teacher Training, Biology Education Study Program odd semester (semester III) in 2021 which consisted of three practicum classes. The method used in this analysis is a scientific writing scheme based on the results of observations made by students during the connective tissue practicum in the Animal Structure course. Then the poster-based practicum report is analyzed according to the assessment rubric that has been prepared and will be converted into numerical data. First, students will observe connective tissue preparations that have been given from laboratory assistants. After observing the preparations that have been given, students are encouraged to carefully redraw the preparations.

After observing the characteristics of each connective tissue preparation, each student is required to compile a report in accordance with the given format complete with writing rules (including including supporting reference citations in the report). Third, the poster-based practicum report in the connective tissue chapter will be analyzed according to the provided rubric to find out the results. The maximum value for this practicum report is 90, here are the details in Table 1.

TABLE 1: Details of the assessment aspects of individual practicum reports.

Aspect	Score	Total
Practicum report identity	5	5
Hand drawing preparation	5	40
Discussion	2.5	20
Abnormalities in the network	1.25	10
Module questions	10	10
Bibliography	5	5
Total		90

From the details above, each point will be re-analyzed, because a total of eight connective tissue preparations were observed. One of these tissue preparations can produce values that vary depending on the work of the student concerned. The rubric of the assessment scores that we observed were as follows in Table 2.

TABLE 2: Scoring rubric.

Aspect	Score	Information
Identity	5	The title, date, and practicum objectives (minimum 3 or more) are included in the report.
	4	The title, date, and purpose of the practicum (at least 2 objectives) are included in the report.
	3	Title, date and destination (list only one destination).
	2	Do not fill in any part of the title, date, and purpose.
	1	Fill only one component between title, date, or destination.
Preparation	5	Answer correctly, appropriate and clear pictures of preparations, along with clear locations and functions accompanied by quotations.
	4	Answered correctly, the picture of the preparation is appropriate but not clear, along with its location and function clearly accompanied by quotations.
	3	The answer is not correct, the pictures of the preparations are appropriate and clear, but their location and function are accompanied by quotations.
	2	The answer is wrong, the pictures of the preparations do not match, but their location and function are accompanied by quotations.
	1	The answer is wrong, the pictures of the preparations are not appropriate, the location and function are not accompanied by quotations.
Discussion	2.5	Detailed discussion of preparation by including good citations.
	1.5	Discussing the preparation in question is not detailed, but includes a good quote.
	1	Discussing preparation doesn't make good use of citations.
The disturbance in question	1.25	Explain tissue-related disorders using clear citations.
	1	Provide explanations of tissue-related disorders without clear citations.
Module Question	10	Answer questions correctly and clearly.
	7	Answering the question is not correct.
	5	Answer questions carelessly.
Bibliography	5	Include a minimum of 3 reference books and 2 journals from the last five years.
	4	Include at least 2 reference books and 1 journal for the last five years.
	3	Include at least 2 reference books and 1 journal but not the last five years.
	2	Include at least 2 reference books or journals.
	1	Include at least one reference book or journal.

3. RESULTS AND DISCUSSION

The results of the poster-based practicum reports from students are very varied and more interesting than the previous practicum reports which have a standard format. The following is an example of a laboratory report display based on the analyzed connective tissue chapter.

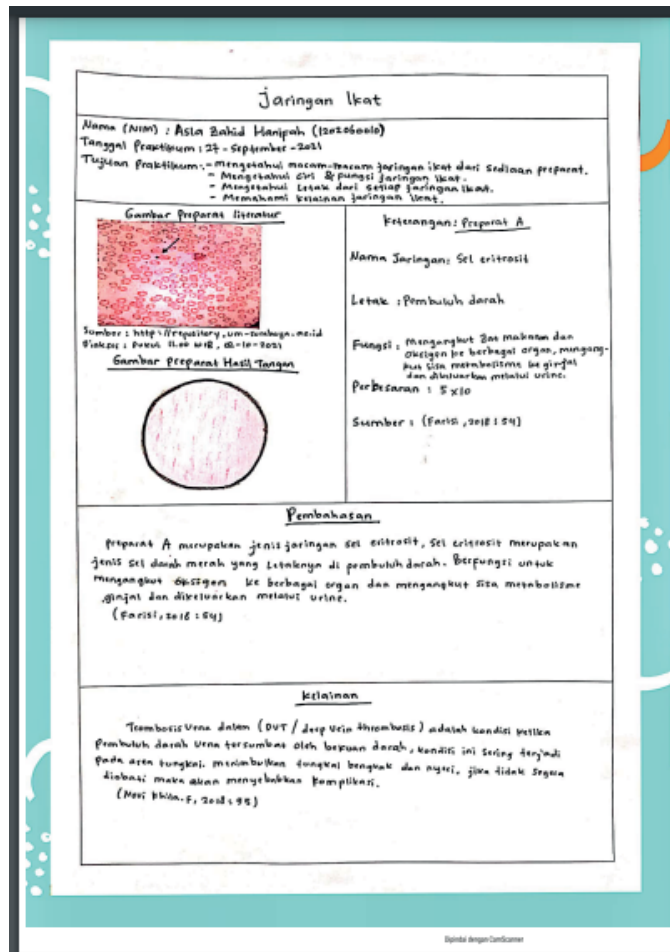


Figure 1: Example of a poster base.

Based on Table 2, it can be seen in general that the value can vary depending on the work on the student practicum report. Through the process, the average value of the three practicum classes is presented in Table 3.

TABLE 3: Average Score of the third class practicum report.

Class	Average Score Report
A	80.34
B	83.09
C	75.13

Obtained from each preparation can vary depending on the method of preparing this practicum report. The variation of each character in writing a practicum report can occur from individual factors, ease of accessing the internet, comparisons between male and female sexes, and other internal factors. This can have an impact on the students' practicum report scores.

From the three practicum classes, it is known that the average class A class practicum is 80.34; while class B is 83.09; and finally class C from 75.13.

The average student score is obtained from the accumulation of all student scores for each class after an assessment is made on each indicator which is the final result of a student's score. The final score is taken based on the scoring rubric that has been determined from the start. Where, how to take scores using this rubric is done by giving a score for each indicator in a poster-based practicum report, and including the type of analytic rubric [5].

The existence of an assessment rubric helps lecturers and assistants in assessing each indicator contained in a poster-based practicum report, where in one indicator there are still several dimensions of content that become the benchmark for assessment. The assessment rubric helps lecturers and practicum assistants easily provide feedback on the results of practicum reports, and becomes a trigger for students to evaluate their performance results in carrying out practicum reports. This poster media is a representation of the results of the exploration of connective tissue material. This is in accordance with the statement of [6] in a practicum regarding nursing which is intended for discussion with the help of poster media as a result of the representation of his practicum report.

The existence of this poster-based practicum report provides feedback for students during the observation process to become much more confident in their writing skills. In addition, by increasing their confidence by being free in determining the concept and theme of the poster they will make as creative as possible. Like [7] which states that by training students to focus, it is necessary to create learning that can produce a work or product (eg posters, essays, videos, and others). So that students will realize that everything they write has referred to the assessment rubric, therefore it will produce a practicum report that is expected to match the criteria from the rubric in Table 2. Through writing the practicum report, students can focus on the criteria that have been determined [8].

The average error made by students in working on a poster-based practicum report is found in the second indicator regarding preparation. In determining the type of connective tissue in the preparations that have been provided, many students are

wrong in determining the code for the preparation with the type of connective tissue. This is because students do not understand the connective tissue material. The second factor that causes many errors in determining the type of preparation is because the preparation is not so clear. This was also expressed by [9]. Seeing tissue preparations cannot be done with the naked eye, but needs to be assisted by the use of a microscope.

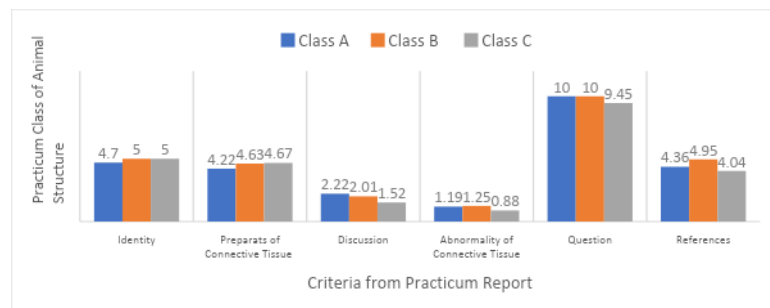


Figure 2: Graphics of third practicum class.

The scoring results for each indicator from class A, B, and C have the same value on the identity indicator with a maximum score of 5. The identity criteria for class A are not maximized because there are still some students who have not been careful in filling out the identity of the practicum such as title, time, and practical goals. On the criteria for connective tissue disorders, class C has a lower value than other classes. This is probably due to the difficulty in translating the relevant network which has an impact on the difficulty of finding abnormalities that may occur. Through [10] stated that difficulties in the classroom need to be analyzed and this process skill is not obtained directly during the practicum process because it needs to be trained, especially in analyzing preparations.

The observation of connective tissue preparations was also followed by the whole group. Each group is given the opportunity to find the network in question by means of discussion among its members. In accordance with [11] statement making a fun practicum is a practicum that provides concrete, conceptualized, and memorable learning experiences. Based on the three practicum classes, class B obtained superior results with the highest average score both overall and on each indicator. especially in the preparation of indicators that have a maximum score of 40 points and a question indicator. While class C has the smallest average final result among other classes on each assessment indicator, especially on indicators of abnormalities.

4. CONCLUSION

The analysis of the connective tissue chapter animal structure practicum report based on the poster and referring to the analytical rubric in the assessment of each assessment indicator is very helpful in providing an assessment of each student practicum report. Assessment indicators accompanied by assessments are very important feedback for lecturers, practicum assistants and also students as material for evaluating practicum activities.

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