



**TRENDS IN SCIENCE
AND SCIENCE EDUCATION
2017** State University of Medan
November 14th - 15th
Grand Mercure Hotel, Jl. Sutomo, No. 1, Medan, Indonesia



Psychological Response from Student at Department of Biology FMIPA Universitas Negeri Padang on Animal Development Course

Lufri, Rahmadhani Fitri, Relsas Yogica¹

¹Universitas Negeri Padang

Corresponding author: relsasyogica.1103992@gmail.com

ABSTRACT

Education in college requires students to succeed in each course with a minimum score set by each college. The minimum value will be obtained by the students by following the lecture according to the schedule that has been set at the beginning of each semester. Students with high intelligence have the possibility of getting values above the minimum value, and vice versa. Each learning process that lasted for one semester, students have varied psychological responses to the unit of the course. The response will affect student learning outcomes. Psychological responses are also always affect the quality of the learning process. The purpose of this study is to determine the psychological response of students in the course of animal development in the Department of Biology FMIPA UNP. Benefits of the research is to provide information about how the response of students to a course so that it can be prepared planning, implementation and evaluation of learning activities more qualified. The research team has conducted research on the students of Department of Biology FMIPA UNP in 2017. Psychological response which is intended in this research is about the students perception, interest and attitude toward animal development course.

BACKGROUND

Education is an effort implemented by various parties at every level of age. Starting from primary education, secondary education, and higher education. Higher education is the level of education that prepares students to have the ability to be ready to face the world of work. The job environment requires not only graduates who have high intelligence but also a good personality. Knowledge and skills are significant aspects needed but a good and positive attitude will form a professional person¹. It takes effort to build both things in each student. The business is carried out by lecturers as one of the task of implementation of education in universities.

Lecturers are required to be able to prepare qualified students by conducting a series of learning process. The intended sequence is the preparation, implementation, and evaluation of the learning process. The series of learning process will be meaningful if the lecturers implement it well and supported by good student personal also, so it takes the ability of lecturers to recognize how the student's personality shape.

The ability of lecturers to recognize students in detail is very useful for preparing the appropriate learning process, implementing an effective learning process and evaluate correctly. The introduction process can be performed with the modalities and personality tests, one of which is the psychological response test. Psychological response is a form of individual response to something that comes from within themselves. Psychological responses can be determined by linking information that a person has acquired to an ongoing event². A



**TRENDS IN SCIENCE
AND SCIENCE EDUCATION
2017** State University of Medan
November 14th - 15th
Grand Mercure Hotel, Jl. Sutomo, No. 1, Medan, Indonesia



student's psychological response to a particular course will lead the student to an effort to achieve an appropriate outcome. The explanation hinted to the lecturer to know how the psychological response of students to certain courses so that it can be anticipated the possibility of the formation of students who are not ready to face the social life of society when they graduate later. Learning relevant to the daily life of students will help students choose their career paths later³. Benefits that will be received immediately when knowing the psychological response of students is that lecturers are able to choose and use the appropriate learning design for them.

One of the courses in the curriculum of education in the Department of Biology FMIPA Universitas Negeri Padang is "Animal Development". This course is intended for third semester students. The course is full of abstract material because it studies the development of embryos in several types of animals during the womb or embryo development in the egg, so the concept of animal development is widely poured in the form of images. Based on the observation of the research team, the students tend not to understand the picture that has been presented. This results in unsatisfactory learning outcomes, so the research team feels responsible for improving the condition. Mapping the psychological response is needed so that the proposed solution is not in vain. The psychological responses observed in this study were students' perceptions, student interests and student attitudes toward the course of "Animal Development". Student perceptions can be divided into 5 sections, namely perceptions of learning process, perceptions of teachers, perceptions of self-academic ability, perceptions of learning environment and social perception. In this study, perceptions observed were perceptions of learning and teacher⁴.

Perceptions, interests and attitudes are part of the psychological response. According to Prof. Dr. Nirwana, M.Pd., Dr. Alwen Bentri, M.Pd., and Dr. Ir. Daharnis, M.S.⁵ through direct discussion states that perceptions, interests and attitudes are psychological responses and not rational responses because the psychological response is subjective. Although these three aspects of psychological responses are in the psychological field, there are differences in the area of brain function. Perceptions include cognitive areas while interests and attitudes include effective territory.

MATERIAL AND METHODS

Types of research: This research is descriptive research. Descriptive research aims to describe an object qualitatively and quantitatively. This research is descriptive quantitative.

Method of collecting data: Method to collect data of psychological response are two techniques that use questionnaire (perception and interest) and observation (attitude).



Research subject: The subject of this research is the students of Department of Biology FMIPA Universitas Negeri Padang who has completed the lecture of Animal Development.

Research Instrument: Data collection tool in this study is a closed questionnaire to be filled by the research subject and observation sheet filled by the observer.

RESULT AND DISCUSSION

Table 1. Psychological Response of Students on Animal Development Course

PERCEPTION					
Numb	Aspect	Students' Psychological Response (%)			
	<i>Perception</i>	Interested	Less Interested	Not Interested	Others
1	Materials in the course of Animal Development	66.7	20.5	7.7	5.1
	<i>Perception</i>	Difficult	Rather Difficult	Easy	Others
2	Characteristics of material in the course of Animal Development	20.5	76.9	0	2.6
3	Degree of difficulty about evaluation in the subject of Animal Development	48.7	51.3	0	0
	<i>Perception</i>	Need	Less Necessary	No Need	Others
4	Innovative learning methods	92.3	5.1	2.6	0
5	Teaching materials that contain more pictures	97.4	0	0	2.6
6	Innovative Student Worksheet	76.9	10.2	12.8	0
	<i>Perception</i>	Appropriate	Less Appropriate	No Appropriate	Others
7	Media used for learning materials	74.4	25.6	0	0
8	Evaluation applied to learning materials	76.9	23.1	0	0
INTEREST					
	<i>Interest</i>	Very Interest	Less Interest	Not Interested	Others
9	Studying the material in the course of Animal Development	59.0	33.3	2.6	5.1
10	Attending the course of Animal Development	51.3	35.9	10.2	2.6
11	Attending the lab activities in the course of Animal Development	74.4	12.8	10.2	2.6
ATTITUDE					
	<i>Attitude</i>	Diligent	Less Diligent	Not Diligent	Others
12	Studying the material in the course of Animal Development	12.8	79.5	0	7.7
	<i>Attitude</i>	Like	Do Not Like It Much	Dislike	Others
13	All material in the course of Animal Development	43.6	53.8	0	2.6
14	Learning methods that have been used by lecturers in the course of Animal Development	46.1	48.7	2.6	2.6
	<i>Attitude</i>	Serious	Less Serious	Not Serious	Others
15	Follow the course of Animal Development	30.8	64.1	0	5.1

Discussion: Based on Table 1. it is known that students are interested to study the material in the course of Animal Development but find it rather difficult to understand the material characteristics and answer the evaluation questions that have been given. Student

interest in the subject matter is influenced by the nature of the material newly studied by the students. A new thing will increase one's interest in it, but it can also give a positive perception⁶. Conversely, negative interests stem from materials that do not prioritize individual acceptance of students⁷. Positive interest attracts students to follow the learning during the classroom and practicum activities in the laboratory. Student difficulties while studying the subject matter and answering the evaluation questions because students do not understand correctly how a material visualization describes the true situation on the development of animal embryos. The ability to understand object visualization is needed in the course of Animal Development because of the abstract nature of the material. Student perceptions of the negative impact of learning outcomes should be inhibited from affecting students' intrinsic motivation⁸.

Students need innovative methods, teaching materials and innovative Student Worksheet for learning execution. During the classroom learning process, the lecturers apply discussion and presentation methods that tend to make passive students in the classroom. The process of learning in the subject of "Development of Animals" has been dominated by lectures so that it lacks stimulus to students to think critically and understand the material well, so that the students' interest toward the learning process becomes low. The solution to this problem is to apply a problem solving strategy⁹. As a result, students do not like the learning method used. Selection of appropriate learning methods will make different attitudes in students and optimize learning achievement¹⁰. Students' perceptions are strongly influenced by the lecturers' design of learning¹¹. The positive attitude of students in learning helps students to succeed and be able to choose their future¹². The student's positive attitude is shown with a happy attitude during the learning process, great attention and depth to the material, and have seriousness in learning¹³. Teaching materials and Student Worksheets are also required by students to assist students in learning. Previously, the students only used one or several types of teaching materials developed by the lecturer team in the animal development course. The teaching material is the first edition of the teaching material that should have been revised several times. Student activity will also increase with the use of Student Worksheet.

Data on students' perceptions, interests and attitudes toward the Animals Development courses that have been collected provide an overview of students' psychological responses after the learning process. This description leads the lecturer to find innovations in the course, in order to improve the quality of the learning process in the right direction. Further research to develop teaching materials, Student Worksheets, as well as innovative methods is needed to produce students who can apply the science of animal development that has been studied. Later on, based on Lufri's research on the contribution of perceptions, interests, and attitudes to learning outcomes, it is also known that these three things will affect the learning outcomes significantly¹⁴.



CONCLUSION

Researchers have obtained data about students' psychological responses consisting of their perceptions, interests and attitudes towards the lectures of Animal Development. The resulting data can be a reference to find solutions and improve the state of learning to be more qualified.

ACKNOWLEDGMENTS

This research cannot be separated from the role of many parties. The research team is grateful to all students of Department of Biology FMIPA Universitas Negeri Padang who have been willing to give answer to every question in research instrument. Then to the entire team of lecturer subjects of Development of Animals, as well as all lecturers in the Department of Biology FMIPA Universitas Negeri Padang.

REFERENCES

- [1] Laguador, Jack M., *Developing Students' Attitude Leading Towards a Life-changing Career* (Educational Research International, Philippines, 2013), pp. 28–33.
- [2] Brugger, Adrian., *et all, Psychological Responses to The Proximity of Climate Change* (Nature Climate Change, London, 2015), pp. 1–7.
- [3] Federici, Roger Andre and Skaalvik, Einar M., *Students' Perception of Instrumental Support and Effort in Mathematics: The Mediating Role of Subjective Task Values* (Social Psychological Education, Switzerland, 2014), pp. 527–540.
- [4] Enns, Sylvia Claassen., *et all, Medical Students' Perception of Their Educational Environment and Quality of Life: Is There a Positive Association?* (Academic Medicine, America, 2016), pp. 409–417.
- [5] Prof. Dr. Nirwana, M.Pd., Dr. Alwen Bentr, M.Pd., dan Dr. Daharnis, M.S. (private communication).
- [6] Jan, Syed Roohullah., *et all, Enhanced and Effective Learning Through Mobile Learning an Insight into Students Perception of Mobile Learning at University Level* (International Journal of Scientific Research in Science, Engineering and Technology, India, 2016), pp. 674–681.
- [8] Jack, Brady Michael., *et all, A Science for Citizenship Model: Assessing the Effects of Benefits, Risks and Trusts for Predicting Students' Interest in and Understanding of Science-related Content* (Research in Science Education-Springer, Australia, 2016), pp. -.
- [9] Lufri, *Problem Solving and Concept Map in Learning of Animal Development: Analysis of Student Perception on Materials and Methods* (Jurnal Kependidikan, Padang), pp. 143–153.
- [10] Vaessen, Bram E., *et all, Students' Perception of Frequent Assessment and Its Relation to Motivation and Grades in a Statistic Course: A Pilot Study* (Assessment and Evaluation in Higher Education, Netherlands, 2016), pp. 1–15.
- [11] Bhattacharya, Anunay., and Tabi, Marian B., *Attitude Towards Research Among Undergraduate Nursing Students*, Conference Poster Abstract (2016), pp. 20.
- [12] Wei, Huei-chuan., *et all, Can More Interactivity Improve Learning Achievement in an Online Course? Effects of College Students' Perception and Actual Use of a Course-management*



TRENDS IN SCIENCE
AND SCIENCE EDUCATION

2017 State University of Medan
November 14th - 15th

Grand Mercure Hotel, Jl. Sutomo, No. 1, Medan, Indonesia



System on Their Learning Achievement (Computers and Education, Amsterdam, 2015), pp. 10–21.

- [13] Lufri, *Problem Solving and Concept Map in The Animal Development Lecture: Analysis of Students Attitudes to Learning* (Jurnal Forum Pendidikan, Bengkulu), pp. 131–142.
- [14] Lufri, *Effective Thinking Thing About Critical, Perception, Interest and Attitude to Learning Result* (JurnalPendidikanTriadik, Bengkulu), pp. 167–179.