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The Increase of Students' Physics Learning Outcomes through Experiential Learning Model

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Abstract – *This study comprises planning, doing, observing, reflecting, and replanning. It is an example of classroom action research. The purpose of this study is to learn more about 1) how the experiential learning model is applied to physics instruction at MAN Pinrang and 2) how this model improves student learning outcomes in physics at MAN Pinrang. The study will take place at MAN Pinrang in the Paleteang District of Pinrang Regency during the 2019–2020 academic year. 40 kids from class X mipa MAN Pinrang served as the study's subjects. In the first cycle of this research, which was conducted across two cycles, 72.5% of students achieved scores above the Minimum Completion Criteria (KKM) with the maximum score being 90 and an average score of 74.1. This outcome indicated that In comparison to the test outcomes on the pretest, student learning outcomes in physics improved. Then, in cycle II, students' learning results in physics likewise improved once more, with the best score being 98 and the average being 84.05 while the minimum completion rate was 95%. These findings showed that the experiential learning methodology improved student learning outcomes in physics at MAN Pinrang. Due to the success indicators of this study, which improved in terms of student physics learning outcomes, the 80% completion rate of physics learning outcomes that was traditionally accomplished has been reached. Therefore, this experiential learning methodology should be used in the future to enhance student learning results in physics.*

Keywords: *Experiential Learning Model; Physics Learning Outcomes*

I. INTRODUCTION

Physics is a necessary basic science to develop thinking skills in order to solve problems in everyday life (Nurnaifah et al., 2022). The majority of physics instruction in schools involves listening to lectures, still traditional learning environments that don't address self-dimensions (Anita, 2014), so students are more fixated on textbooks (Yulindar & Maknun, 2017). In order for physics students to acquire, students' mental processes must be integrated into the learning process (Nurfadilah, 2019).

High final physics scores indicate learning success (Anggriani & Jumrah, 2022). Another essential thing in determining the student's learning outcomes is learning style (Rahman et al., 2016). According to Widayanti in (Nurnaifah & Razzaq, 2022) learning outcomes are influenced by any factors like study space and teacher's way of teaching. Only a great learning process may result in high-quality learning outcomes (Saregar et al., 2017).

The national acknowledgment of learning and the national qualifications system are related (Jatmiko et al., 2016). There are some external factors affecting the fine of training in Indonesia for example instructors and curriculums (Sutiani & Silitonga, 2017). The government is trying to make improvements and renewal of the education system by updating the curriculum which regulates learning methods (Sanjata et al., 2022).

The development of innovative teaching strategies is a responsibility for educators (Kadir & Permana, 2022). Learning through participation in and interaction with the immediate environment is known as experiential learning (Cotič et al., 2020).

Providing learning only by reading the meaning of learning can reach 20% hearing, from seeing 30%, hearing and seeing 50%, communicating reaches 70%, and learning by doing and communicating can reach 90% (Suherman, 2006). The use of mercury in experiments for experiential learning has the potential to enhance scientific reasoning abilities (Johari & Muslim, 2018). With teachers acting as facilitators, the experiential learning model places an emphasis on the learning experiences of the students (Rasmitadila et al., 2019)

Based on the results of observations at MAN Pinrang through interviews with physics teachers, the learning outcomes of students towards physics subject matter were low. It is known that during the physics learning process students very rarely do practicum. In addition, teachers rarely make variations in using learning models during the physics learning process. This situation will certainly affect student learning outcomes while attending physics lessons, the impact is that student learning outcomes are below the Minimun Completeness Criteria.

Previously, a similar study had been carried out by (Lestari et al., 2014) with the results obtained stated that learning using the experiential learning model has an influence on students' critical thinking skills. Then research conducted by (Anggara, 2012) states that the experiential learning model is very relevant to be applied to develop self-concept and conceptual understanding. In addition, research conducted by (Munif, 2012) states that the experiential learning model can be used as an alternative in choosing variations of learning strategies in the classroom to improve student learning outcomes.

Based on this backdrop, the author was motivated to explore the Experiential Learning Model's Implementation to Improve Physics Learning Goals at MAN Pinrang. The objectives of the research are to: 1) determine how the Experiential model is used to teach physics at MAN Pinrang; and 2) determine whether this model has an impact on the improvement of learners' physical student achievement at MAN Pinrang.

II. METHODS

This research employed a classroom action research, located at MAN Pinrang, Paleteang District, which took place in the odd semester. The research subjects were 40 students of class X MIPA 1 MAN Pinrang, consisting of 22 girls and 18 boys.

This study's implementation was done in two cycles, referred to as Cycle I and Cycle II. Cycles I and II were put into action four times each, with three meetings and one phase test.

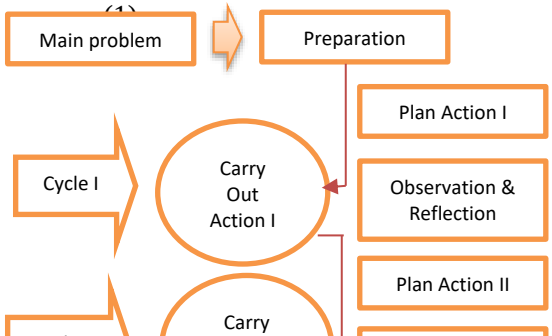

Figure 1. The action stage of each cycle

The instruments used in this research was test. In this study, the tests used were descriptive questions which were undertaken at the beginning of the meeting (pre-test) and at the end of each cycle, which later the results of this test would be processed to determine the level of success of students in the applied learning process. The test was given to students in order to obtain data on students' abilities regarding physics learning outcomes.

Data analysis technique

The collected data were analyzed using quantitative analysis techniques using descriptive statistics in each cycle. Observation sheets of student learning activities were analyzed using descriptive analysis techniques. The percentage of learning interactions between students was (Purwanto, 2009):

$$NP = \frac{R}{SM} x\ 100\ \% \quad (1)$$

Information:

NP = The percentage value sought

R = Average student activity

SM = Maximum score

Assessment criteria:

≥ 75 % = Very good (A)

55-75% = Good (B)

35-55% = Enough (C)

<35 = Low (D)

Data on student learning outcomes for each cycle are processed using tabulations of the average percentage and mastery of classical and individual learning.

1. Average Calculation

To calculate the average using the formula (Sudijono, 2009):

$$x = \frac{\sum x}{N}$$

(2)

Information:

x : average.

N : Number of students.

∑ x : Total number of students

2. Calculation of individual learning completeness

To calculate individual learning completeness using a descriptive analysis of the percentage with the calculation (Depdiknas, 2004):

$$= \frac{Total\ value\ obtainedh}{Total\ number} X\ 100\% \quad (3)$$

Criteria:

a. Since the level of achievement is < 85%, then the student has not finished studying
b. Since the level of achievement is ≥ 85%, the student has finished learning

3. Mastery Calculation of classical learning

To calculate the mastery of classical learning using a descriptive analysis of the percentage with the calculation (Depdiknas, 2004):

$$= \frac{Number\ of\ stud.who\ complete\ the\ study}{Total\ number} X\ 100\% \quad (4)$$

4. Data Verification

In this stage the researcher re-examines the data that has been reduced, scrutinized, edited, and data that has been organized. This is done to re-check the validity and validity of the data.

5. Conclusion Description

Drawing conclusions from the data that has been found and processed carefully and systematically, in drawing conclusions whether the Experiential Learning model is effective or ineffective, success indicators are used, namely if 85% of students have obtained a minimum score of 70. A student is said to have achieved individual learning mastery if the student has achieved individual learning requirements and scored > 70.

III. RESULTS AND DISCUSSION

Learning Outcomes of Cycle I

Regarding cycle I, a test of learning outcomes was carried out in the form of an

essay. The test is carried out after the presentation of Work and Energy using the Experiential Learning model.

The results of the learning tests from cycle I were analyzed by descriptive analysis using the IBM SPSS Statistics 21 program.

The average score of physics learning outcomes for class X MAN Pinrang students after using Experiential Learning is 74.15 out of an ideal score of 100, the highest score is 90 and the lowest score is 60 with a standard deviation of 8.417.

In case the scores of the students' physics learning outcomes are grouped into five categories, the frequency and percentage distributions are obtained as presented in table 1.

Table 1 Distribution of Frequency and Percentage of Physics Learning Outcomes Cycle I

Mastery Level	Category	Frequency (f)	Percentage (%)
85 – 100	Very high	5	12.5
65 – 84	High	29	72.5
55 – 64	Currently	6	15
35 – 54	Low	0	0
0 – 34	Very low	0	0
Total		**40**	**100**

Referring to table 1 it can be seen that the percentage of student learning outcomes after using Experiential Learning is 15% in the medium category, 72.5% is in the high category and 12.5% is in the very high category.

Additionally, it can be concluded that in general the results of students' physics learning after using Experiential Learning are categorized as high. This is shown from the results of the acquisition of scores in the high category of 72.5% of 40 students.

Since student learning outcomes after using Experiential Learning are analyzed, the percentage of student learning completeness can be seen in table 2 below.

Table 2 Description of Cycle I Mastery

Interval Class	Category	Frequency (f)	Percentage (%)
70 – 100	complete	29	72.5
< 70	Not Completed	11	27.5
Total		**40**	**100**

Based on table 2 shows the percentage of classical completeness in cycle I, namely 72.5% (29 out of 40) students are in the "complete" category and 27.5% (11 out of 40) students are in the "incomplete" category. From the results obtained, it can be concluded that in the first cycle the students' physics learning outcomes had not yet achieved classical mastery.

Learning Outcomes of Cycle

In cycle II, a test of learning outcomes was carried out in the form of an essay. The test was carried out after the presentation of

the material on the Law of Conservation of Energy using the Experiential Learning model.

The results of the learning tests from cycle II were analyzed by descriptive analysis using the IBM SPSS Statistics 21 program. The average score of physics learning outcomes for class X MAN Pinrang students after using Experiential Learning in cycle II is 84.05 from the ideal score that might be achieved 100, the highest score is 98 and the lowest score is 68 with a standard deviation of 7.706.

Providing the scores of the students' physics learning outcomes are grouped into five categories, the frequency and percentage distributions are obtained as presented in table 3.

Table 3. Distribution of Frequency and Percentage of Physics Learning Outcomes Cycle II

Mastery Level	Category	Frequency (f)	Percentage (%)
85 - 100	Very high	22	55
65 - 84	High	18	45
55 – 64	Currently	0	0
35 – 54	Low	0	0
0 - 34	Very low	0	0
TOTAL		**40**	**100**

Depicting on table 3 it can be seen that the percentage of student learning outcomes after using Experiential Learning in cycle II of 45% is in the high category and 55% is in the very high category.

Afterwards, it can be concluded that in general the learning outcomes of physics after using Experiential Learning in cycle II are categorized as very high. This is shown from the results of the acquisition of scores in the very high category of 55% of 40 students.

In case student learning outcomes after using Experiential Learning in cycle II are analyzed, the percentage of student learning completeness can be seen in table 6 below.

Table 4 Description of Individual Mastery Cycle II

Interval Class	Category	Frequency (f)	Percentage (%)
70 - 100	Complete	38	95
< 70	Incompleted	2	5
TOTAL		**40**	**100**

In accordance with table 4 shows the percentage of classical completeness in cycle II, namely 95% (38 out of 40) students are in the "complete" category and 5% (2 out of 40) students are in the "incomplete" category. From the results obtained, it can be concluded that in cycle II the students' physics learning outcomes have achieved classical learning mastery.

Looking at the increase toward student physics learning outcomes from cycle I to cycle II after using the Experiential Learning

model, it will be described in diagram 1 below.

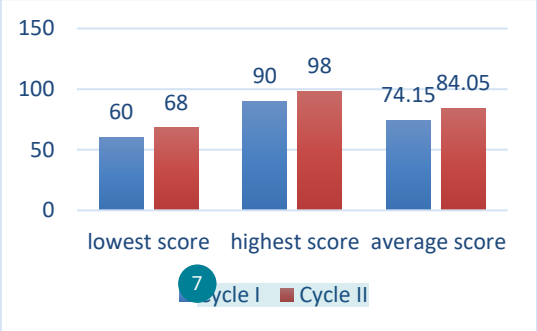

Figure 2. Diagram Comparison of Learning Outcomes from Cycle I and Cycle II

Pointing out Figure 2, it shows that the lowest score obtained by students has increased from cycle I to cycle II, namely 60 to 68 and the highest score obtained by students has increased from cycle I to cycle II, namely from 90 to 98. Furthermore, the average score has increased from cycle I to cycle II, namely 74.15 to 84.05.

The completeness of students' physics learning outcomes in cycles I and II after using Experiential Learning will be described in figure 3.

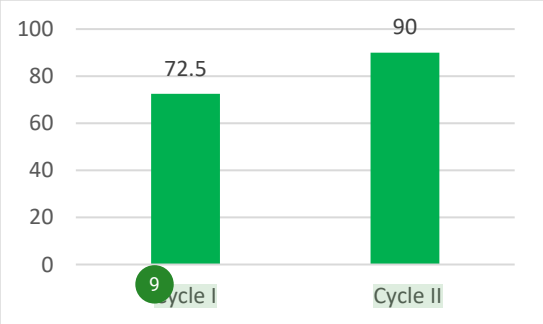

Figure 3. Percentage of Completeness of Physics Learning Outcomes in Cycle I and Cycle II

Looking at diagram 2, the completeness of physics learning outcomes has increased from cycle I to cycle II, from 72.5% to 95%. It can be concluded that students' physics learning outcomes have increased from cycle I to cycle II after using the Experiential Learning model.

Discussion

This research was conducted with the aim of improving student learning outcomes. The means used to improve student learning outcomes is the Experiential Learning model. These assignments are examined (graded) and commented on by the teacher and then returned to the students for correction. The results of these improvements are checked and assessed by the teacher and then put in each student's folder.

Overall Experiential Learning has been able to improve student learning outcomes in each cycle. In addition, this learning model has been able to activate teachers and students in learning and has been able to change the teacher's teaching patterns that have been used so far.

The learning pattern which has always been oriented towards achieving the target of completing the material so that it pays little attention to the competence of students has resulted in students being less able to express opinions, ideas and questions both to the teacher and to fellow friends. Students are used to listening to teacher or friend

explanations, as well as memorizing formulas.

The inactivity of some of these students was caused by the management of the teacher's learning. Overall, the teacher's ability to manage learning through Experiential Learning for students is quite good, but the indicators directing students to have good discussions with teachers and friends still need to be improved.

However, the achievement of student learning outcomes obtained from the first cycle test was high. Of the 40 students as research subjects, there were 29 students who achieved the completeness criteria and 11 students who had not been able to achieve the learning completeness criteria. Based on the results of student achievement in cycle I, researchers and teacher partners discussed to find solutions to the unachieved targets set in this study in the first cycle. The results of the discussion suggest continuing learning activities through Experiential Learning with an emphasis on aspects that have not been achieved, namely the teacher needs to increase efforts to motivate students in asking questions or opinions and their thoughts by conducting special assessments from the teacher, maximizing efforts to encourage students to improve content. student worksheet if the results are not correct. From the results of this discussion, the second cycle of learning activities was carried out.

The second cycle was carried out at the fourth to the sixth meeting including the administration of cycle II tests. In this cycle learning activities are getting better. This is in accordance with the results of observations on student activity in learning indicating that there was an increase in activities carried out by students from cycle I to cycle II of. Thus it can be said that Experiential Learning can increase student activity during learning takes place.

Student activity during the learning process took place resulted in good student learning outcomes. Overall, 40 students of class X MAN Pinrang who were used as research subjects were able to achieve the completeness criteria. Because the indicators of the success of this study were the increase in student physics learning outcomes and the completeness of 80% complete classical physics learning outcomes had been achieved, the researcher who doubled as a teacher decided to stop or not continue the learning activities to the next cycle.

This is in accordance with research conducted by (Munif, 2012) stating that the experiential learning model can be used as an alternative in selecting variations of learning strategies in class to improve student learning outcomes. Also a similar study by (Lestari et al., 2014) with the results obtained stated that learning using the experiential learning model had an effect on students' critical thinking abilities.

IV. CONCLUSION AND SUGGESTION

Conclusion

To be concluded, the student physics learning outcomes in cycle I were as many as 72.5% of students who exceeded the Minimum Completeness Criteria score with the highest score being 90 and the average score of 74.1, these results indicate that learning outcomes Physics students improved compared to the test results on the pretest. Then, students' physics learning outcomes also increased again in cycle II, with the highest score being 98 and the average score of 84.05 while the minimum completeness percentage was 95%. These results indicate that the Experiential Learning Learning Model is effective for improving Student Physics Learning Outcomes at MAN Pinrang. Because the indicator of the success of this research is the increase in students' physics learning outcomes and the completeness of 80% complete classical physics learning outcomes has been achieved.

Suggestion

It is highly recomended to improve student learning outcomes in which teachers are expected to apply the Experiential Learning learning method according to the material considered suitable for using this learning model.

This is regarding other researchers who intend to carry out research related to using the Experiential Learning learning method, the results of this study can be used as comparison material.

REFERENCES

Anggara, I. K. A. (2012). The Effect of Experiential Learning Model Upon Self Concept and Physics Concept Understanding Student of X Class of SMA Negeri 4 Singaraja. *Jurnal Pendidikan Dan Pembelajaran IPA Indonesia*, *2*(1), 1–15. https://ejournal-pasca.undiksha.ac.id/index.php/jurnal_ipa/article/view/405

Anggriani, S. J. (2022). Pengaruh Motivasi dan Kedisiplinan terhadap Hasil Belajar Fisika. *Al Irsyad Journal of Physics Education*, *1*(1), 42–57. http://ejurnal.stkipddipinrang.ac.id/index.php/wjpe/article/view/10

Anita, N. A. R. (2014). Upaya Meningkatkan Hasil Belajar Fisika Melalui Model Mind Mapping Pada Siswa Kelas X Mas Kapita. *Jurusan Pendidikan Fisika*, *2*(1), 39–46. https://journal.unismuh.ac.id/index.php/jpf/article/view/219

Cotič, N., Plazar, J., Starčič, A. I., & Zuljan, D. (2020). The effect of outdoor lessons in natural sciences on students' knowledge, through tablets and experiential learning. *Journal of Baltic Science Education*, *19*(5), 747–763. https://doi.org/10.33225/jbse/20.19.747

Depdiknas. 2004. *Rambu-rambu Penetapan Ketuntasan Belajar Minimum dan Analisis Hasil Pencapaian Standar*. Jakarta.

Fathurrohman, M. (2015). *Innovative Learning Models.* Yogyakarta : Ar-Ruzz Media.

Jatmiko, B., Widodo, W., Martini, Budiyanto, M., Wicaksono, I., & Pandiangan, P. (2016). Effectiveness of the INQF-based learning on a general physics for improving student's learning outcomes. *Journal of Baltic Science Education*, *15*(4), 441–451. https://doi.org/10.33225/jbse/16.15.441

Johari, A. H., & Muslim. (2018). Application of experiential learning model using simple physical kit to increase attitude toward physics student senior high school in fluid. *Journal of Physics: Conference Series*, *1013*(1). https://doi.org/10.1088/1742-6596/1013/1/012032

Kadir, F., & Permana, I. (2022). Efforts in Increasing Physics Learning Outcomes: Comparing Two Different Methods. *Jurnal Pendidikan Fisika*, *10*(2), 154–164. https://doi.org/10.26618/jpf.v10i2.7661

Lestari, N. W. R, Sadia, I. W., & Suma, K. (2014). Pengaruh Model Ekperiential Learning Terhadap Keterampilan Berpikir Kritis Dan Motivasi Berprestasi Siswa. *Jurnal Pendidikan Dan Pembelajaran IPA Indonesia*, *4*(1). https://ejournal-pasca.undiksha.ac.id/index.php/jurnal_ipa/article/view/1302/

Munif, I. R. & Mosik. (2012). Penerapan Metode Experiential Learning Pada Pembelajaran Ipa Untuk Meningkatkan Hasil Belajar Siswa Sekolah Dasar. *Jurnal Pendidikan Fisika Indonesia*, *5*(2), 1–1. https://journal.unnes.ac.id/nju/index.php/JPFI/article/view/1014/924

Nurfadilah. (2019). Jurnal Pendidikan Fisika Universitas Muhammadiyah Makassar The Effect of Experiential Learning Viewed From Gender Differences Perspective toward Physics Learning Outcome Pengaruh Pembelajaran Berdasarkan Pengalaman ditinjau dari. *Jurnal Pendidikan Fisika*, *7*(3), 221–234. https://journal.unismuh.ac.id/index.php/jpf/article/view/2081

Nurnaifah, I. I; Razzaq, A. (2022). Pengaruh Pemanfaatan Media Microsoft Powerpoint Terhadap Hasil Belajar Fisika. *Al-Irsyad Journal of Physics Education*, *1*(1), 29–41. http://ejurnal.stkipddipinrang.ac.id/index.php/wjpe/article/view/9

Nurnaifah, I. I., Sakti, I., & Megawati. (2022). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Fisika pada Materi Gerak Lurus di Kelas X SMAN 2 Pinrang. *Jurnal Pendidikan Fisika Dan Terapannya*, *5*(1), 39–46. https://ejournals.umma.ac.id/index.php/karts/article/view/1318/900

Purwanto. (2009). *Evaluation of Learning Outcomes*. Yogyakarta: Pustaka Pelajar.

Rahman, A., Ahmar, A. S., & Rusli. (2016). The influence of cooperative learning models on learning outcomes based on students' learning styles. *World Transactions on Engineering and Technology Education*, *14*(3), 425–430. https://doi.org/10.26858/wtetev14i3y2016p6425430

Rasmitadila, Widyasari, Humaira, M. A, & Rachmadtullah, R. (2019). Using experiential learning model (ELM) to slow learner students in the science lesson. *Journal of Physics: Conference Series*, *1175*(1), 1–6. https://doi.org/10.1088/1742-6596/1175/1/012214

Sanjata, A., Sardi, A., & (2022). Peningkatan Hasil Belajar Melalui Model Pembelajaran Tutor Sebaya Setting Kooperatif. *Al-Irsyad: Journal of Education Science*, *1*(2). http://ejurnal.stkipddipinrang.ac.id/index.php/jse/article/view/30%0Ahttps://ejurnal.stkipddipinrang.ac.id/index.php/jse/article/download/30/20

Sardi, A., Atmowardoyo, H., & Weda, S. The Distinct Types of Diction Used by the EFL Teachers in the Classroom Interaction.

Sardi, A., JN, M. F., Walid, A., & Ahmad, A. K. (2022). An Analysis Of Difficulties In Online English Learning Experienced By The Efl Teacher. Inspiring: English Education Journal, 5(2), 144-154.

Saregar, A., Diani, R., & Kholid, R. (2017). Efektivitas Penerapan Model Pembelajaran ATI (Aptitude Treatment Interaction) Dan Model Pembelajaran TAI (Team Assisted Individualy): Dampak Terhadap Hasil Belajar Fisika Siswa. *Jurnal Pendidikan Fisika Dan Keilmuan (JPFK)*, *3*(1), 28. https://doi.org/10.25273/jpfk.v3i1.909

Sudijono, A. (2009). *Pengantar Statistik Pendidikan*. Jakarta: Rajawali pers

Sutiani, A., & Silitonga, M. Y. (2017). The effect of learning models and emotional intelligence toward students learning outcomes on reaction rate. *AIP Conference Proceedings*, *1868*(August 2017). https://doi.org/10.1063/1.4995110

Yulindar, A., & Maknun, J. (2017). Penggunaan Instrumen Tes Fisika Berbasis Open-Ended. *Jurnal Wahana Pendidikan Fisika*, *2*(1), 80–85. https://ejournal.upi.edu/index.php/WapFi/article/view/4909/3464

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