The Utilization of Portfolio in Linguistics and its Effect on The Attitudes and Understanding of Students at Universitas Negeri Malang

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INFO ARTIKEL	ABSTRAK
	Abstract: This study aims to present the use of Portfolios to develop independent learning and student understanding: forms, uses, and results. Portfolios can increase students' understanding of lectures and foster student responsibility in completing a particular job. Researchers used a qualitative approach through observation, questionnaires, and documentation. The results of this study indicate that learning with portfolios in the form of summaries and concept maps is then presented in three languages, namely Arabic, English, and Indonesian in ten minutes for each language. By using a portfolio, students are not only independent and understand in learning but also practice language skills. **Abstrak:** Penelitian ini bertujuan untuk menyajikan pemanfaatan Portofolio untuk mengembangkan pembelajaran mandiri dan pemahaman siswa: bentuk, kegunaan, dan hasil. Portofolio dapat meningkatkan pemahaman mahasiswa terhadap perkuliahan dan menumbuhkan tanggung jawab mahasiswa dalam menyelesaikan suatu pekerjaan tertentu. Peneliti menggunakan pendekatan kualitatif melalui observasi, angket, dan dokumentasi. Hasil penelitian ini menunjukkan bahwa pembelajaran dengan portofolio berupa ringkasan dan peta konsep kemudian disajikan dalam tiga Bahasa, yaitu bahasa Arab, bahasa Inggris, dan bahasa Indonesia dalam waktu sepuluh menit untuk setiap bahasa. Dengan menggunakan portofolio, siswa tidak hanya mandiri dan paham dalam belajar, tetapi juga melatih keterampilan berbahasa.
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Most education programs of teacher implement learning based on portfolio (Ayu et al., 2020; Mohammed & Alshenqeeti, 2020; الشلبي & عواد, 2020). The implementation of the portfolio is intended to encourage students involved in independent learning (Ivanova, 2017). Almost all practitioners agree that the learning process in higher education is not limited to providing subject matter and important concepts (Fadlilah, 2018; Lubis et al., 2016), but also must give a learning experience. The implementation of the portfolio is believed to embody the involvement of student in the learning process (Naiessy Ariskha, Sulistyarini Sulistyarini, 2019).

So far, the implementation of the portfolio is considered as product or result of student efforts to take the value (عمر, 2017). During lectures, students study the mandatory handbooks and make responses through journals and other reference sources. Students document their learning process in the form of a process portfolio containing material summaries and concept maps in three languages with different reference sources. The final grades of students in this study were taken from several aspects, namely attendance, class participation, presentations, daily portfolio checking and portfolio collection at the end of the lecture. Documentation of the learning process through portfolios at a certain level encourages the full involvement of students in lectures (Anugraheni Indri, 2017).

A number of studies have shown that portfolio can improve students' understanding of concepts in courses (Nurapriani et al., 2020). The implementation of the portfolio is able to foster student's responsibility in completing the tasks given, the collection of student assignments contained in the portfolio is evidence that can show that students have carried out learning activities (Nuraeni, 2019). In addition, the portfolio reveals the extent to which students' conceptual understanding of the subject matter and motivation (Efendi & Muslem, 2017). The portfolio results are collected as evidence of student activity (Nuraeni, 2019). However, a number of studies have shown that this portfolio of work or documentation is only a collection of evidence, and is not sufficient for the ultimate goal of modern teacher education courses in universities (Çimer, 2011; Gunneng & Ahlstrand,

2002; Morrison et al., 2018), particularly Arabic. The starting point for this research is to bring the format of evaluation and self-reflection– in this case the product portfolio – it is more in line with the goals of teacher education (Alfariss, 2019; Hartini, 2017). We need to develop the implementation of portfolio-based learning that emphasizes on self-reflection. On the basis of extensive literature study, we develop a "product portfolio" as a portfolio-based learning model of applied linguistics courses for Arabic teacher education.

In the context of this research, the implementation of the portfolio is intended to encourage students to reflect on their knowledge and skills and to get them to document their competency development. In contrast to the portfolio used to evaluate student competencies, the portfolio in this study focuses on student self-learning (Chairunisa, 2018; Lubis et al., 2016). In our learning based on portfolio, students start by selecting a personal learning point based on a strength/weakness analysis conducted with their portfolio supervisor, or in this case forms a small group to look for problems. Then, they develop a lesson plan starting with problem determination. They reflect on their learning activities and the extent to which they have mastered the competencies expected as pre-service Arabic teachers at the end. Students are encouraged to use multimedia to compile a portfolio, which is expected to contain items in a large capacity that will serve to describe the development of their competence. Students are not forced to submit an electronic portfolio, but this is certainly encouraged. The learning portfolio evaluation focuses on the student's capacity for independent study. The main research question of this research is How to use portfolio in improving self-study skills?

Self-Study

Self-study is a learning process in which each individual can take the initiative, with or without the help of others, in determining their learning activities, for example formulating learning objectives, learning resources, diagnosing learning needs, and controlling their own learning process (Sundayana, 2018). Self-study can assist students become skillful at solving problems in the right and fast time period (Syahputra, 2017). With self-study, a student can become a smart learner (Inah, Ghazali, & Santoso, 2017; Fadlilah, 2018) and gain a meaningful learning experience (Martharina et al., 2016). Individuals are said to be independent if they have characteristics including self-confidence, being able to work alone, mastering skills and skills that are in accordance with their work, respecting time, responsibility (Sari & Rozi, 2017), having a competitive desire to advance, and being able to make decisions (Mulyaningsih, 2014; Syafrina, 2017).

Self-study can provide several advantages. Apart from being able to form independent and responsible students (Fadlilah, 2018), students can explore more capacities within themselves (Dewi, 2010). Another advantage, students get learning satisfaction through completed tasks, gain experience and skills in completing their tasks, and achieve the ultimate goal of education, namely students can become teachers for themselves (Fadlilah, 2018). As the result, students are more active and flexible in determining what they want in achieving learning. According to Song & Hill (Song & Hill, 2007), self-study has three stages, namely planning, monitoring, and evaluating. This stage begins with students planning activities for learning, planning the desired learning components, and determining the learning targets to be achieved then observing their learning.

Portfolio

Portfolio can be interpreted as a collection of documents in the form of organized and systematic tasks created by students in the learning process Portfolio that serves as a documentation of abilities that have been achieved by students at each level of activities designed (Chairunisa, 2018; Puji, 2011; Rohani & Kesumawati, 2018; Sundayana, 2018). Learning based on portfolio places students as learning subjects and teachers as facilitators (Patni et al., 2018). This learning practice can be an educational program that encourages competence, responsibility and student participation, learns to assess and influence public policies, and dares to participate in activities (Rohani & Kesumawati, 2018).

The advantages of learning with portfolios are that students can demonstrate a process, there is an agreement between lecturers and students about the assessment criteria and tasks to be done, and provides great motivation for students (Ali Sadikin, Mia Aina, 2016), encouraging the application of learning to real life situations (Rohani & Kesumawati, 2018), and effective, where students have succeeded in producing a product in the form of writing or other works (Eka Sulistia Dewi, 2013).
The learning steps with portfolio (Arifin, 2011) are as follows :

1. Identifying problems
Form small groups to look for problems
2. Choosing a problem to study in class
Determine the type of problem to be examined in class.
3. Collecting information related to the problem under study
Through library facilities, newspapers, publishing offices, electronic information networks and so on.
4. Creating a portfolio
Students work on assignments according to the provisions as portfolio material.
5. Presenting a portfolio (showcase)

Each group presents the results of their work
6.   Doing reflection
Conclusion from Teacher and Joint Discussion (Rohani & Kesumawati, 2018).

Comprehension

Many developed countries have realized the need to pay attention to the comprehension of students and make it one of their main priorities in education reform. Education is expected not only to focus on knowing and receiving knowledge, but also on its use in real life (عمر, 2017).

According to the Big Indonesian Dictionary, to understand implies that to understand correctly (KBBI). Comprehension is a person's ability to understand something from various aspects. A student can be said to understand if the individual can provide a description of the things being studied using his/her own words (Patni et al., 2018; Utami et al., 2016). Even according to Utami, comprehension is not only able to explain something in individual's own language but also apply it (النفيسة, 2019). Thus, comprehension is very important in all sciences and knowledge, because it is the basis for developing students' thinking (عواد & الشلبي, 2020).

Bloom's taxonomy (1984) is a "convenient, quick, efficient, testable, measurable and accountable" multi-tiered model of knowledge production and thinking. Bloom's taxonomy classifies six levels of thinking: "(a) knowledge, (b) comprehension, and (c) application represent lower-order thinking skills; (d) analysis, (e) synthesis, and (f) evaluation signify higher-order thinking or critical thinking skills" (Khalil, 2020). Verb and question examples that represent intellectual activity on each level are listed below. First, Knowledge: arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, and reproduce state. Second, Comprehension: classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, and translate. Third, Application: apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write. Fourth, Analysis: analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, and test. Fifth, Synthesis: arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, and write. Sixth, Evaluation: appraise, argue, assess, attach, choose, compare, defend estimate, judge, predict, rate, core, select, support, value, evaluate (Abduh, 2015).

METHOD

This study used a descriptive research and qualitative approach. through observation, questionnaires, and documentation. This observation is used to observe directly and indirectly about learning using portfolios, the questionnaire was submitted to students to find out their responses to the use of portfolios and the documentation technique is used to collect data from archives and documents that are related to research. The data analysis process in this research is that the researcher analyzes the data by classifying the data and interpreting the contents of the data. After obtaining the data, the next step is to manage the data through several stages, namely: data reduction, data presentation, and conclusions.

RESULT AND DISCUSSION
Self-Study through Portfolio in the Context of Applied Linguistics

The benefit of portfolio in second language research has been proven and well documented, especially in terms of increasing motivation and improving linguistic skills (Lam, 2013), however the evidence that portfolio can encourage students to be actively involved and responsible in managing learning or briefly can learn independently after exposure to portfolio-based learning is still very limited (Hamp-Lyons, 2006). Undoubtedly, the implementation of portfolio has facilitated linguistic learning and increased the potential for formative assessment of learning (Lam & Lee, 2009). There is a high level of confidence from practitioners that aspects of the portfolio will improve students' linguistic abilities.

Regardless of the advantages of portfolio, research that supports the use of portfolio as a learning tool and productive assessment in promoting independent learning is still very limited, therefore the development of a conceptual model that describes the interaction between portfolio and self-learning attitudes in the context of learning Arabic applied linguistics is necessary. So far, researchers have also focused more on investigating how portfolio that emphasize self-directed learning affect students' attitudes and perceptions of their competencies in the context of their learning (Aydin, 2010), rather than how it directly impacts on competency development. Despite these issues, Hamp-Lyons and Condon (Hamp-Lyons, 2000) and Lam (Lam, 2013) demonstrate for the development of a theoretical framework on portfolio-based learning that can validate claims by previous researchers, and explain how independent learning can be enhanced in classroom portfolio-based learning, and how it impacts on the quality of teaching, learning, and improvement of linguistic competence and comprehension.

In the context of this research, learning based on portfolio emphasizes on self-reflection. A number of studies have shown that reflection is appropriate tool for general reflection (Chi et al., 1994; Van Den Boom et al., 2004) and has an effect on students' competence development and students' comprehension of self-study (Van Den Boom et al., 2004). Reflection is a new concept

for students in this study, and it is known that most students do not do spontaneous reflection in their learning process (Van Den Boom et al., 2004). Therefore, in this study, writing reflection is used to develop students in their learning, because reflection is an important part of the portfolio process (Çimer, 2011; Foote & Vermette, 2001), so it is not only a collection of evidence.

Núñez Pardo & Téllez Téllez (Núñez Pardo & Téllez Téllez, 2015) define that self-reflection as self-criticism when understanding a phenomenon and how to describe it through experimentation and reflection on actions that rebuild and examine the actions and events experienced. The main reason should be a reflective component to a portfolio is that experience does not always lead to learning; Intentional reflections on experiences is very important.

The implementation of portfolio on self-study

Each student is assigned to prepare a portfolio that documents evidence of their learning and understanding of the topics that studied in an applied linguistics course. At the first meeting, the lecturer needs to give clear and detailed instructions regarding the contents of the portfolio, especially about the explanation of the self-reflection writing task. The portfolio in this research context is flexible in terms of content and nature, but students are given a minimum number of assignments that must be included to guide them and reduce any ambivalence that students may experience. Therefore, a framework is provided to guide students throughout the process, while enabling them to feel free enough to pursue an independent direction (Darling, 2001).

At each meeting, each student is required to present their summary for 10 minutes using Arabic, Indonesian and English with different references between students. At the end of the portfolio process, students are expected to write a summary of a reflection paper, responding to what they have learned during the applied linguistics course and from the entire learning experience with a portfolio. This reflection paper is designed to provide summative data on the use of student portfolios in their own words. In addition, the end-of-semester test is also given to provide quick feedback to students about their learning throughout the semester. The test is self-assessed at the end of the lesson, and answer/reinforcement is given by the lecturer.

Portfolio is collected at the end of the eighth week, right before the midterm exams, and returned to students with written feedback from the lecturer about the contents of the portfolio and the progress that students have made in terms of cognitive, linguistic, and affective. Then the portfolio is collected again at the end of the semester, and each portfolio is analyzed for content and returned with written feedback from the lecturer.

The Implementation of Portfolio on Student's Comprehension

Portfolios are emphasized on mastering the concepts of students so that portfolios can be a means of learning for students (Utami et al., 2016). According to Gunnar, portfolios help students construct an understanding of concepts and processes and also make students discover things by investigating them on their own (Abdulkadir & Feral, 2014). Besides being useful for seeing the development of student understanding, portfolios help students to do self-reflection and be more responsible in assignments (Patni et al., 2018).

Portfolio assignments given by lecturers to students in the form of summaries and concept maps that presented in three languages for ten minutes in each language are the form of students' comprehension. By writing a summary, students must look for appropriate material from various references then read it, understand it, compare it and then give conclusions. Further, students make a concept map that requires an in-depth analysis of the previous conclusions. Students are also required to apply a concept in learning. At the end of the presentation, students give each other criticism and suggestions.

First, Knowing, is the ability to mention or explain again. Students explain the material by defining, stating, and identifying. Second, Understanding, is the ability to understand something and restate it in your own words. Students describe and summarize the material. Third, Implementing, namely the ability to use concepts. Students prove and demonstrate in learning. Fourth, Analyzing, is the ability to separate concepts into several components to gain a broader understanding. Students compare and relate to previous knowledge. Fifth, Synthesizing is the ability to compose components to produce new concepts. Students combine and compile opinions and material from several sources. Sixth, Evaluating is the ability to assess something based on certain references. Students criticize, correct and complement each other.

CONCLUSION

Utilization of Portfolio is develope a self-study and comprehension's students. The process for producing portfolio involves activities, there are reflection and self-assessment as well as feed back. The development and implementation of portfolio based product includes cognitive, psychomotor and affective aspects. The results support Bloom's taxonomy, based on summaries and concept maps is then presented in three languages, namely Arabic, English, and Indonesian in ten minutes for each language enable them combine information to be easier, remembered, understood , analyzed and evaluated.

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REFERENCES

Abduh, M. Y. M. (2015). Evaluating Examination-Papers of EFL Students at Hodeidah University-Yemen. *Abhast*, *2*(3), 1–14.

Abdulkadir, G., & Feral, O.-B. (2014). Impact of Portfolio Assessment on Physics Students' Outcmes: Examination of Learning and Attitude. *Eurasia Journal of Mathematics, Science, & Technology Education*, *10*(6), 667–680.

Agustin, D. M., Warjiman, W., & Santoso, B. R. (2016). Perbedaan Self Directed Learning Mahasiswa dengan menggunakan Metode Pembelajaran Lecture dan Problem Based Learning. *Jurnal Keperawatan Suaka Insan (JKSI)*, *1*(2), 1-8.

Alfariss, S. A. F. (2019). تقنيات هندسة طلاب لدى الرياضيات مادة في الإلكتروني المحتوى جودة تقيم معايير وفق الإلكتروني الانجاز ملف محتوى تصميم. الحاسبات. *Global Proceedings Repository*, 1412–1448.

Anugraheni, I. (2017). Penggunaan Portofolio dalam Perkuliahan Penilaian Pembelajaran. *Jurnal Pendidikan Dasar Perkhasa: Jurnal Penelitian Pendidikan Dasar*, *3*(1), 246-258.

Arifin, Z. (2011). *Evaluasi Pembelajaran : Prinsip, Teknik, Prosedur*. Bandung: Rosdakarya.

Aydin, S. (2010). EFL writers' perceptions of portfolio keeping. *Assessing Writing*, *15*(3), 194–203. https://doi.org/10.1016/j.asw.2010.08.001

Ayu, G., Sukraningsih, G., & Sueni, N. M. (2020). Description of Authentic Assessment in English Learning to the Rural Junior High School. *Wacana Saraswati*, *20*(1), 1–10.

Chairunisa, E. D. (2018). Penilaian Portofolio Dalam Meningkatkan Kemampuan Self Assessment Mahasiswa. *Kalpataru*, *4*(1), 83–88.

Chi, M. T. H., De Leeuw, N., Chiu, M. H., & Lavancher, C. (1994). Eliciting self-explanations improves understanding. *Cognitive Science*, *18*(3), 439–477. https://doi.org/10.1016/0364-0213(94)90016-7

Çimer, S. O. (2011). The effect of portfolios on students' learning: Student teachers' views. *European Journal of Teacher Education*, *34*(2), 161–176. https://doi.org/10.1080/02619768.2011.552183

Darling, L. F. (2001). Portfolio as practice: The narratives of emerging teachers. *Teaching and Teacher Education*, *17*(1), 107–121. https://doi.org/10.1016/S0742-051X(00)00041-X

Dewi, N. L. P. E. S. (2010). Evaluasi diri berbasis kombinasi traditional paper-based dan electronic portfolio untuk meningkatkan kemampuan menulis mahasiswa. *PRASI*, *6*(11), 42–49. https://doi.org/10.23887/prasi.v6i11.6817

Efendi, Z., & Muslem, B. U. A. (2017). Implementation of portfolio assessment in teaching English writing. *English Education Journal (Program Pascasarjana Universitas Negeri Semarang)*, *8*(2), 187–198.

Eka Sulistia Dewi, P. (2013). Meningkatkan Kemampuan Menulis Mahasiswa dengan Pengintegrasian Powers Dalam Asessmen Portofolio Elektronik. *JPI (Jurnal Pendidikan Indonesia)*, *2*(2), 244–254. https://doi.org/10.23887/jpi-undiksha.v2i2.2169

Fadlilah, W. (2018). Self-Directed Learning of Islamic Kindergarten Students in Improving Multiple Children's Intelligences. *Fenomena : Jurnal Penelitian*, *10*(1), 41–54. https://doi.org/10.21093/fj.v10i1.1045.

Foote, C. J., & Vermette, P. J. (2001). Teaching Portfolio 101: Implementing the Teaching Portfolio in Introductory Courses. *Journal of Instructional Psychology*, *28*(1), 31–37.

Gunneng, H., & Ahlstrand, E. (2002). *Quality indicators in final theses in higher education: a comparative pilot study*. Linköpings universitet.

Hamp-Lyons, L. (2000). *Assessing the Portfolio: Principles for Practice, Theory and Research*. Hampton Press.

Hamp-Lyons, L. (2006). *Feedback in portfolio-based writing courses* (F. Hyland & K. Hyland (eds.)). Cambridge University Press.

Hartini, S. (2017). Pengaruh Model Pembelajaran Quantum Teaching pada Bentuk Penilaian Portofolio Berbasis Kelas dan Jenis Sekolah terhadap Kemampuan Pemecahan Masalah Matematika Siswa. *Mathline: Jurnal Matematika dan Pendidikan Matematika*, *2*(2), 119-132.

Inah, E. N., Ghazali, M., & Santoso, E. (2017). Hubungan Belajar Mandiri dengan Prestasi Belajar PAI di MTsN 1 Konawe Selatan. *Al-Ta'dib*, *10*(2), 19–36. https://doi.org/10.31332/atdb.v10i2.622

Ivanova, O. I. (2017). the Use of E-Portfolio to Develop English Language Learners' Autonomy and Independence. *Information Technologies and Learning Tools*, *60*(4), 155–166. https://doi.org/10.33407/itlt.v60i4.1677

Lam, R. (2013). Two Portfolio Systems: EFL Students' Perceptions of Writing Ability, Text Improvement, and Feedback. *Assessing Writing*, *18*(2), 132–153. https://doi.org/10.1016/j.asw.2012.10.003

Lam, R., & Lee, I. (2009). Balancing the Dual Functions of Portfolio Assessment. *ELT Journal*, *64*(1), 54–64. https://doi.org/10.1093/elt/ccp024

Lubis, S., Hasruddin, H., & Mahmud, M. (2016). Efektivitas Penggunaan Portofolio pada Perkuliahan Mikrobiologi terhadap Kemandirian dan Hasil Belajar Mahasiswa. *Jurnal Pendidikan Biologi*, *6*(1), 564–569. https://doi.org/10.24114/jpb.v6i1.4323

Mohammed, O., & Alshenqeeti, H. (2020). Using an Artificial Intelligence Application for Developing Primary School Pupils' Oral Language Skills. *Journal of Education*, *76*(69), 37–58. https://doi.org/10.12816/EDUSOHAG

Morrison, C., Masters, J., & Quentin-Baxter, M. (2018). Implementation of Portfolios within Australian Initial Teacher Education: Who's Leading the Charge? *Australian Journal of Teacher Education*, *43*(7), 98–109. https://doi.org/10.14221/ajte.2018v43n7.6

Mulyaningsih, I. E. (2014). Pengaruh Interaksi Sosial Keluarga, Motivasi Belajar, dan Kemandirian Belajar terhadap Prestasi Belajar. *Jurnal Pendidikan Dan Kebudayaan*, *20*(4), 441. https://doi.org/10.24832/jpnk.v20i4.156

Naiessy Ariskha, Sulistyarini Sulistyarini, R. R. (2019). Model Pembelajaran Berbasis Portofolio untuk Mengembangkan Nilai-Nilai Musyawarah di Kelas XI Multimedia B SMKN 06. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, *6*(8), 1–17. https://doi.org/10.1017/CBO9781107415324.004

Núñez Pardo, A., & Téllez Téllez, M. F. (2015). Reflection on Teachers' Personal and Professional Growth Through a Materials Development Seminar. *How*, *22*(2), 54–74. https://doi.org/10.19183/how.22.2.151

Nuraeni, Z. (2019). Implementasi Penilaian Berbasis Portofolio untuk Meningkatkan Aktivitas dan Hasil Belajar Mahasiswa Semester 1 Pendidikan Matematika STKIP Muhammadiyah Kuningan. *Jurnal Gantang*, *4*(1), 79–85. https://doi.org/10.31629/jg.v4i1.797

Nurapriani, R., Ruswandi, A., & Ruswandu, R. (2020). Model Perkuliahan Berbasis Fortopolio dalam Mengembangkan Pemahaman Mahasiswa dalam Pengembangan Media Pembelajaran PAUD. *Jurnal Pendidikan Anak*, *6*(1), 154–173. https://doi.org/http://dx.doi.org/10.24235/awlady.v6i1.5366

Patni, L. D. P., Parwati, N. N., & Suharta, I. G. P. (2018). Peningkatan Pemahaman Konsep Matematika Siswa melalui Penerapan Model Pembelajaran Air disertai Penilaian Portofolio. *Jurnal Pendidikan dan Pembelajaran Matematika Indonesia*, *7*(1), 22–32. https://doi.org/10.23887/jppm.v7i1.2810

Puji, A. (2011). Penggunaan Portofolio pada Matakuliah English Language Teaching Across Curriculum (ELTAC) untuk Mendorong Keterlibatan Mahasiswa dalam Perkuliahan. *Lembaran Ilmu Kependidikan*, *40*(1), 67–74.

Rohani, R. & Kesumawati, T. I. (2018). Pengaruh Pembelajaran Berbasis Portofolio dan Kemampuan Awal terhadap Hasil Belajar Mahasiswa. *Al-Athfal: Jurnal Pendidikan Anak*, *4*(2), 187–198. https://doi.org/http://dx.doi.org/10.14421/al-athfal.2018.42-06

Sadikin, A., Aina, M., & Hakim, N. (2016). Penerapan Asesmen Berbasis Portofolio dan Jurnal Belajar untuk Meningkatkan Kemampuan Metakognitif dan Motivasi Belajar Mahasiswa pada Matakuliah Perencanaan Pengajaran Biologi. *Biodik*, *2*(2), 50-61.

Sari, A. K., & Rozi, M. F. (2017). Pengaruh Motivasi, Sarana Prasarana, Efikasi Diri, dan Penyesuaian Diri terhadap Kemandirian Belajar. *Economic Education Analysis Journal*, *6*(3), 923–935.

Song, L., & Hill, J. R. (2007). A Conceptual Model for Understanding Self-Directed Learning in Online Environments. *Journal of Interactive Online Learning*, *6*(1), 27–42.

Sundayana, R. (2018). Kaitan antara Gaya Belajar, Kemandirian Belajar, dan Kemampuan Pemecahan Masalah Siswa SMP dalam Pelajaran Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, *5*(2), 75–84. https://doi.org/10.31980/mosharafa.v5i2.262

Syafrina, A. (2017). Analisis Kemandirian Siswa Dalam Proses Pembelajaran di Kelas III SD Negeri 1 Banda Aceh. *Jurnal Pesona Dasar*, *1*(5), 70–81.

Syahputra, D. (2017). Pengaruh Kemandirian Belajar dan Bimbingan Belajar terhadap Kemampuan Memahami Jurnal Penyesuaian pada Siswa SMA Melati Perbaungan. *AT-TAWASSUTH: Jurnal Ekonomi Islam*, *2*(2), 368–388.

Utami, K. M., Siahaan, P., & Purwanto, P. (2016). Analisis Kemampuan Pemahaman Konsep Siswa melalui Penerapan Asesmen Portofolio pada Pembelajaran Fisika. *Seminar Nasional Fisika (SNF2016)*, *V*, SNF2016-OER-35-SNF2016-OER-40. https://doi.org/10.21009/0305010406

Van Den Boom, G., Paas, F., Van Merriënboer, J. J. G., & Van Gog, T. (2004). Reflection Prompts and Tutor Feedback in a Web-Based Learning Environment: Effects on Students' Self-Regulated Learning Competence. *Computers in Human Behavior*, *20*(4), 551–567. https://doi.org/10.1016/j.chb.2003.10.001

النفيسة, ص. ب. ا. (2019). مستوى فهم طلاب الصف الأول المتوسط للظواهر الحياتية المرتبطة بمفاهيم تغيرات حالة المادة. 󠀀󠀀󠀀 󠀀󠀀󠀀󠀀󠀀 : 󠀀󠀀󠀀󠀀 󠀀󠀀󠀀�� 󠀀󠀀󠀀� , *22*(3), 19–63.

عمر, ع. م. إ. (2017). الثانوي الأول الصف طلاب لدى العميق الفهم تنمية فى المتدرجة الأنشطة باستخدام الفيزياء تدريس فعالية. 󠀀󠀀󠀀󠀀� 󠀀󠀀�� 󠀀󠀀���� , *1*(221), 110–159.

عواد, ف. م. أ., & الشلبي, إ. ع. (2020). أثر استراتيجية البورتفوليو في بناء المفاهيم العلمية السليمة وتعديل المفاهيم البديلة لدى طالبات الصف الثالث الأساسي. 󠀀󠀀�ّ 󠀀󠀀���� 󠀀����� 󠀀����� , *30*(1435), 97–141.