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Analysis of student learning outcomes through the task learning approach toward cash pattern construction course

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Abstract: The academic success of students can be measured by their aptitude for classroom learning, the role of lecturer as motivator facilitator, and fulfils other responsibilities in the learning process of a specific unit of competency or subject. The teaching presentation of the fashion pattern construction course incorporated many instructional techniques, including lectures, interactive Q&A sessions, practical exercises, and assignments. Such learning should be cultivated to ascertain the cognitive abilities of pupils in comprehending and effectively applying information to attain favourable learning outcomes. One of the techniques that lecturers can utilize to improve student learning outcomes in the Fashion Pattern Construction course is by adopting the Task Learning approach, because this approach incorporates activities for the benefit of students that can raise their interest and interaction in the course, enhance their engagement and participation in the classroom. So, this study aimed at increasing students' learning outcomes through task learning approach. The employed approach is classroom action research, comprising four distinct stages: planning, activity, observation, and reflection. A total of 34 students, all of whom were D3 fashion design students, were the subjects of this study. The findings demonstrated the efficacy of the Task Learning methodology in enhancing student learning outcomes, as seen by the percentage increase in student learning outcomes observed between cycle 1 and cycle 2.

Keywords: Task learning; Learning outcome; Fashion pattern construction; Vocational education

1. Introduction

Education is a long-term investment that requires significant effort and financial resources to ensure student learning success. Education is a requirement for children's growth. As for what it means, education guides all the natural strengths that exist in children so that they, as humans and as members of society, can achieve the highest safety and happiness (Hermanto et al., 2022). Quality education is a dream that everyone wants to get (Greyling, 2009). Quality education has learning characteristics that are closely related to content standards, process standards, and graduate competency standards. These characteristics can be strengthened, one way or another, with a scientific approach.

In response to this, the world of education should provide space for the development of students' creativity and innovative attitudes so that creativity grows and develops optimally through the learning process they participate in so that students' learning outcomes can increase (Larraz-Rábanos, 2021). The increase in student learning outcomes examined in this research was among

students of the Fashion Design Study Program in the Fashion Pattern Construction Course in the Universitas Negeri Padang. One effort that can be made to improve learning outcomes is to evaluate the teaching and learning process (Kawuri et al., 2019). Teaching activities are the process of arranging the environment so that students learn, and each learning process will always be different depending on the objectives, subject matter, and characteristics of students as learning subjects (Weinstein, 2014)

The role of lecturers as motivation, companions, and other roles in achieving the desired learning goals in the competency units of the courses given determines student learning success (Hernández-López et al., 2016). Lecturers play a big role in instilling awareness in their students to continue learning, develop their knowledge, and become independent individuals who are able to develop skills (Alifiyarti et al., 2023; Somadayo & Kurniawan, 2023). To improve students' abilities and understanding of the material both theoretically and practically when studying fashion pattern construction, lecturers should prepare strategies or use learning media that students can understand at any time during lectures (Azman et al., 2022; Dunlosky et al., 2013; Ernawati, 2022). Learning media are information carriers that are specifically designed to fulfill objectives in teaching and learning situations (Folkourng & Sakti, 2022; Fortuna et al., 2023; Rini et al., 2023).

Based on observations of the implementation of the teaching and learning process for clothing pattern construction courses, it is known that lecturers apply several teaching methods, such as lectures, questions and answers, practice, and assignments. According to the author, this kind of learning needs to be developed. The learning process (educational process) is the entire learning process aimed at producing quality graduates (Ketut Widiartini, 2012). The learning process is an activity to educate students in a better direction. Improving the quality of learning is largely determined by various conditions, both internal and external, of the school itself (Darling-Hammond et al., 2020). As a learning process, it will run well if it is supported by a good study program and a conducive academic atmosphere (Xu et al., 2022). Regarding educational growth, it is measured by the expected change from non-skills to skills, from not doing to doing, and the ability to shape the nature of psychomotor growth (Borrego-Balsalobre et al., 2021). Thus, the curriculum must not run in one direction, but lecturers must provide opportunities for students to optimize their potential so that students become intelligent and skilled in their fields. The aim of this research is to examine and evaluate the students' learning outcomes of fashion design by implementing the task learning approach. The learning outcomes will be analyzed for each learning cycle.

2. Methods

The method used in writing this article is an experimental method in the form of classroom action research. The aim of this classroom action research is to solve problems, improve conditions, and increase student activity to achieve better learning outcomes (Boonchom et al., 2012; Kunlasomboon et al., 2015). This classroom action research originates from a research model carried out by certain fields of work where researchers directly carry out their work in the field of education. The subjects of this research were D3 Fashion Design students, consisting of 34 students from the class of 2022.

Analysis and evaluation were obtained in this research through data collection, namely (1) observation techniques carried out in certain phases and stages of the cycle, such as: 1. plan (planning action), 2. action (carrying out action), 3. observation (observing changes that occur), and 4. reflection (reflecting on the observaotion sheet or subsequent planning observations so that

they are more perfect). (2) The student's final grade is the standard grade that the student receives after completing all courses using the task learning method. From the two data collection methods mentioned above, the resulting data was then analyzed descriptively, namely average scores and percentages. This is consistent with the qualitative analysis of participation scales and assessment techniques, where:

a. Participation 65-69 = weak, equivalent to 5-6%
b. Participation 70-74 = limited, equivalent to 6-7%
c. Participation 75-79 = medium/moderate, equivalent to 7-8%
d. Participation 80-84 = strong, equivalent to 8-9%
e. Participation 85-100 = extraordinary/exceptional, equivalent to 9-10%

The achievement of learning objectives when students have mastered the lecture material is processed and analyzed using descriptive techniques in the form of frequency distribution, average scores and percentages with the Eq. 1-2.

$$ = \frac{\Sigma }{ } \quad (1)$$

$$ = \frac{f}{ } \times 100\% \quad (2)$$

3. Results and discussion

This research was conducted in August 2022 by applying research stages and cycles. The main activities of this learning task include theory in the form of a guidebook or handout and practical activities. To explain clearly, the description of the implementation of cycles I and II is described in table 1:

Table 1. Learning activity

Cycle I

No	Activity	Work Steps
1	Plan	All tools and materials have been neatly arranged. Prepare (Teaching plan, lecture method, discussion method, question and answer method), Prepare learning media, such as model media and handouts.
2	Action	Initial Activities: Greetings, Praying, Apperception, Attending student attendance, conveying the goals and indicators to be achieved and explaining the tasks that students will carry out during learning. Core Activities: Core activities explain to students the basic concepts of clothing pattern construction, various construction patterns, tools and materials for making patterns and sewing, how to take measurements, how to make and cut materials according to patterns, and the steps for sewing. Final Activities: Summarizing the Material, Supervising Students, and Assessing Student Assignments
3	Observation	Lecturers deliver lecture material to students using learning aids, namely model media with a lecture method on competency in how to take measurements. By using model media and lecture methods, students are seen to be interested in delivering the material. However, there are still many students who experience difficulties in the process of taking measurements, sewing, and finishing clothes.

4	Reflection	Provide feedback on activities that have been carried out by providing evaluations or assessments of the results of student assignments or processes that are being implemented. After doing feedback and seeing the results of the students' work, it was seen that there were still many assignments that had not been completed, so the author carried out research again through a second observation, namely giving assignments in the second cycle as follows:

Cycle II

No	Activity	Work Steps
1	Plan	All tools and materials have been neatly arranged. Prepare (RPS, lecture method, discussion method, question and answer method), Prepare learning media, such as model media and handouts.
2	Action	Initial Activities: Greetings, Praying, Apperception, Attending student attendance, conveying the goals and indicators to be achieved and explaining the tasks that students will carry out during learning. Core Activities: Core activities explain to students the basic concepts of clothing pattern construction, various construction patterns, tools and materials for making patterns and sewing, how to take measurements, how to make and cut materials according to patterns, and the steps for sewing. Final Activities: Summarizing the Material, Supervising Students, and Assessing Student Assignments
3	Observation	Lecturers deliver lecture material while still using tools in the form of modeling media with a lecture method aimed at keeping students' attention focused. However, beforehand, the author asked questions related to the material that had been presented previously. The author also increases classroom management efforts and tries to increase student motivation. Apart from that, the author tries to increase student interest by showing examples of finished products made from basic patterns.
4	Reflection	Provide feedback on activities that have been carried out by providing evaluations or assessments of the results of student assignments or processes that are being implemented. Based on the results of an observational study that includes the provision of this theory, student learning outcomes in the fashion pattern construction course can be seen through task learning. Apart from that, the grades received by students are a tool that lecturers can use to find out and measure students' learning levels after completing many learning activities, and the purpose of giving grades is to provide special motivation for students to participate in the teaching and learning process. The learning outcomes achieved by students in cycles I and II are considered quite optimal through learning assignments in accordance with the main learning objectives. The increase in student learning outcomes can then be described as the standard value obtained after completing the entire series of lessons using the assignment learning method.

Furthermore, by implementing research stages and cycles, there is good interaction between groups during the learning process, and to determine the increase in critical thinking in both the experimental group and the control class, it is necessary to carry out a t-test, namely the gain score test.

Table 2. Group statistics

	Grup	N	Mean	Std.Deviation	Std.Error Mean
gain	Experiment	34	4.1778	1.18294	.30030
	Control	34	-.8778	.75433	.19200

The results of the gain score test showed that the experimental group using the task learning approach of M = 4.178 had a higher change than the control group of M = -0.878. Then apply the t-test that we use, which is the independent sample t-test, because there are two groups being compared.

Table 3. Indenpendent samples test

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std.Error Difference	Lower	Upper
gain	Equal variances assumed	.315	.579	13.844	28	.000	4.93333	.35635	4.2033	5.66328
	Equal variances not assumed			13.844	23.801	.000	4.93333	.35635	4.1975	5.66912

The results of the analysis show that the data is homogeneous (F = 0.315; p > 0.05). This means there is no variance between the experimental and control groups. In other words, the variation in data in the two groups is the same. Equal Variances Assumed column. It can be seen that there is a difference at the 1 percent level (t = 13.844; p<0.01). This means that the experimental group had significant changes compared to the control group. So, the treatment we gave to the experimental group was successful.

The grades obtained from the analysis and evaluation of student learning are carried out using a task learning approach, which involves sharing predetermined assignments with each other. The results of the assessment and evaluation are presented in Table 1, grouped according to the predetermined grade classification system. The frequency of assessment can be shown in the figure 1.

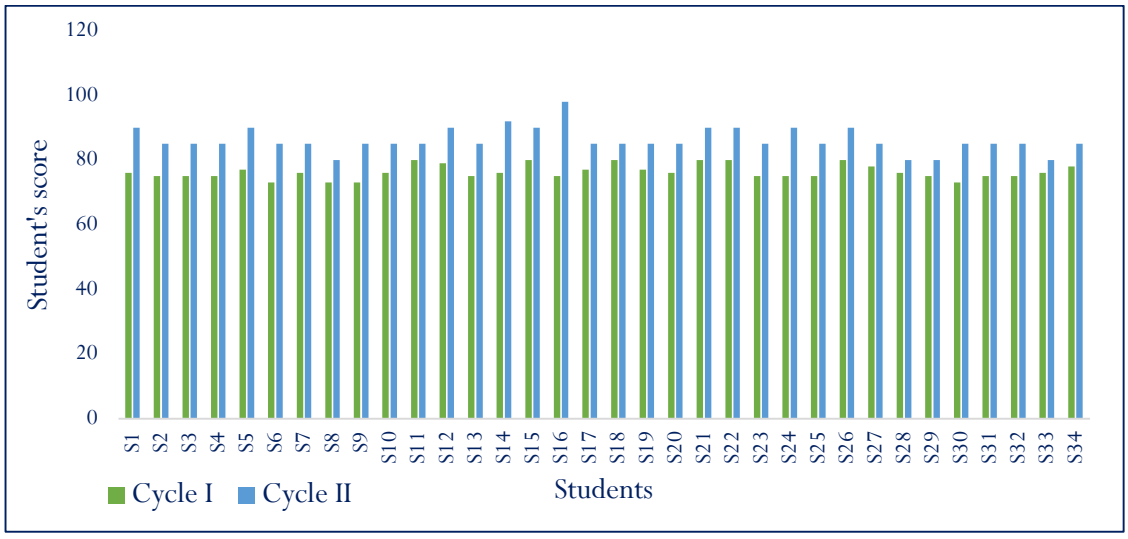

Figure 1. Distribution graph of student learning outcomes

Basically, everything is actionable and results-oriented. Achieving good learning outcomes from learning itself cannot be separated from the role of educators or lecturers as motivators, companions, mediators, informers, and other roles in implementing learning and educational activities in the classroom (Saihu & Umar, 2021). To successfully achieve learning objectives and student learning outcomes, lecturers must understand and formulate competency objectives, achievements, self-assessment of study time, study location, learning rhythm, learning methods, and learning outcomes (Puspitasari, 2019). Results from actions taken are created both individually and in groups in certain areas. Many activities are usually used as a means to achieve results; it all depends on each person's enjoyment (Marhawati et al., 2019). Basically, learning is an action or effort that a person makes to change behavior, understanding, and knowledge and is able to communicate it in a very different way.

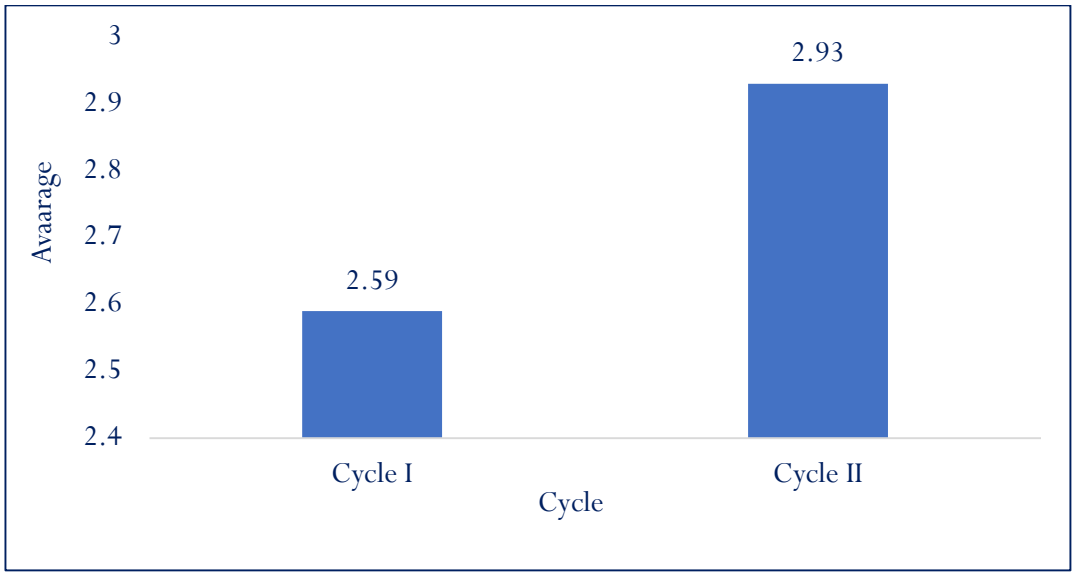

Figure 2. Distribution Graph of Student Learning Outcomes

To achieve the desired learning objectives in a particular competency unit or subject, lecturers absolutely use a special method, which is better known as a learning strategy. The application or use of this learning strategy can be done with the help of several learning style models, which have been implemented and developed by experts and educational experts, namely 1) Concept Achievement Model, 2) Research Training Model, 3) Laboratories Training Model, 4) Social Research Model, 5) Self-Control Model, and 6) Simulation Model. These six types have components formed from: (1) syntax, which is the stage of carrying out activities; (2) social system, which is the situation or spirit and ethics that apply; (3) reaction principle, which is a pattern or process describing how students should investigate and treat students, including how students respond towards them; and (4) support systems, which are the facilities, materials, and equipment needed for implementing the model." Task learning is a learning process where lecturers use or combine several different learning methods to convey a topic. This method can take the form of lectures, assignments, pictures, questions and answers, group discussions, or others that are tailored to students' learning needs.

It is hoped that the use of certain learning approaches can achieve the desired learning objectives. Put forward the definition of task learning as follows contextual teaching and learning is a comprehensive system that consists of interconnected parts. When these parts are intertwined, an effect is created that goes beyond the results of the individual parts used together. Based on the description above, task-based learning means using or combining certain learning models in the

teaching and learning process to achieve the desired learning objectives.

To achieve the above objectives, the system includes eight components that lecturers must know when implementing task learning in the teaching and learning process in the classroom, namely: (1) making meaningful relationships; (2) doing meaningful work; (3) learning independently; (4) collaborating; (5) thinking critically and creatively; (6) helping individuals grow and develop; (7) achieving high standards; and (8) using authentic assessment (Salwa, 2019). If the eight components of task-based learning above can be implemented, then lecturers can implement task-based learning in the teaching and learning process in such a way that learning objectives are achieved optimally, and it is possible that lecturers can apply task-based learning to students' skills and expertise in theory and practice. continues to grow.

One way that lecturers can use to improve student learning outcomes in the Fashion Pattern Construction course is to use the task learning approach. In this case, task learning is a combination of several learning models carried out in a structured manner, using different media to convey lecture material (Hutapea & Purba, 2017). The scope of research on the use of task learning assumes that the author is only limited to manual administration, assignments, and tests (Utari et al., 2020). In terms of task learning, it is a learning method that can guide students to increase their understanding and knowledge of lecture material, especially for the Fashion Pattern Construction course, because this method guides students to understand lecture material as a whole in a theoretical and practical way.

The scope of this Task Learning research requires the author to limit the methods used in learning the Clothing Pattern Construction course, namely specializing in the production of materials to equip students with drawing media, manuals and tests, followed by related guidance, to learn using lecture, question and answer methods and other things that lecturers use in the teaching and learning process (Sugiarti, 2013). Task Learning is a learning method that combines a concept achievement model and a well-structured laboratory or practical model that is implemented with a thorough plan. Concept achievement model means students actively participate in identifying and explaining descriptions of construction pattern models or various types of basic patterns using different construction pattern systems.

4. Conclusion

Based on the results of research using the task learning approach in the Clothing Pattern Construction course, it can be concluded that the grades obtained by students are in accordance with the table above. Based on the results of the evaluation of clothing pattern construction learning, students do not experience significant obstacles in understanding the learning material in the manual. making basic patterns and collecting assigned tasks. The average score and percentage of students' grades before cycle I in the medium/moderate category is the overall average score of 76.3% of students, while the average score and percentage of students' grades after implementing the actions in cycle II are in the very extraordinary/exceptional category, with a student's overall average score of 86.7%. The increase in learning outcomes showed a very significant increase, and the difference in the average student score was 9.9%. The learning outcomes achieved by students in cycles I and II are considered quite optimal through task learning in accordance with the main objective, namely task learning.

Author contribution

Hadiastuti is a reseacrh and analysed data for study and also worked on the references. Ernawati is

a critically reviewed the paper and Puji Hujria Suci is a interpreted the results and prepared the manuscript. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest

No conflict of interest and approved the article for review and publication.

References

Alifiyarti, T., Wuryandani, W., & Retnawati, H. (2023). How the Teacher's Efforts to Instilling Responsibility Character in Learning from Home Era? *JPI (Jurnal Pendidikan Indonesia)*, *12*(1), 10–19. https://doi.org/10.23887/jpiundiksha.v12i1.40078

Azman, S. M. S., Arsat, M. bin, & Suhairom, N. binti. (2022). *Sustainable Innovation In Teaching And Learning Of Pattern Making Skill*. 204–215. https://doi.org/10.15405/epms.2022.10.21

Boonchom, S., Nuchwana, L., & Amorn, M. (2012). The Development of Standards, Factors, and Indicators for Evaluating the Quality of Classroom Action Research. *Procedia - Social and Behavioral Sciences*, *69*, 220–226. https://doi.org/10.1016/J.SBSPRO.2012.11.402

Borrego-Balsalobre, F. J., Martínez-Moreno, A., Morales-Baños, V., & Díaz-Suárez, A. (2021). Influence of the Psychomotor Profile in the Improvement of Learning in Early Childhood Education. *International Journal of Environmental Research and Public Health*, *18*(23), 12655. https://doi.org/10.3390/ijerph182312655

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving Students' Learning With Effective Learning Techniques. *Psychological Science in the Public Interest*, *14*(1), 4–58. https://doi.org/10.1177/1529100612453266

Ernawati, E. (2022). Fashion design education students' ability to create fashion patterns: investigating the effect of antecedent factors. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, *8*(2), 312. https://doi.org/10.29210/020221733

Folkourng, F., & Sakti, R. H. (2022). The design of expert system to determine the university majoring based on multiple intelligence using forward chaining method. *Journal of Engineering Researcher and Lecturer*, *1*(1), 17–24. https://doi.org/10.58712/jerel.v1i1.6

Fortuna, A., Waskito, Purwantono, Kurniawan, A., Andriani, W., & Alimin, M. (2023). Designing Learning Media Using Augmented Reality for Engineering Mechanics Course.

Journal of Engineering Researcher and Lecturer, *2*(1), 18–27. https://doi.org/10.58712/jerel.v2i1.20

Greyling, A. J. (2009). Reaching for the dream: quality education for all. *Educational Studies*, *35*(4), 425–435. https://doi.org/10.1080/03055690902876529

Hermanto, M. S., Z., Japar, M., & Sumantri, M. S. (2022). *The Implementation of Character Education Classroom Based Learning in Social Sciences Primary School*. https://doi.org/10.2991/assehr.k.220102.087

Hernández-López, L., García-Almeida, D. J., Ballesteros-Rodríguez, J. L., & De Saá-Pérez, P. (2016). Students' perceptions of the lecturer's role in management education: Knowledge acquisition and competence development. *The International Journal of Management Education*, *14*(3), 411–421. https://doi.org/10.1016/j.ijme.2016.10.001

Hutapea, F., & Purba, N. A. (2017). Pengaruh Penggunaan Media Pembelajaran Berbasis Video Terhadap Hasil Belajar Mengait Pada Siswa Tata Busana Smk Negeri 8 Medan. *Jurnal Pendidikan Teknologi Dan Kejuruan*, *17*(1), 58–66. https://doi.org/10.24114/jptk.v17i1.4814

Kawuri, M. Y. R. T., Ishafit, I., & Fayanto, S. (2019). Efforts To Improve The Learning Activity And Learning Outcomes Of Physics Students With Using A Problem-Based Learning Model. *IJIS Edu : Indonesian Journal of Integrated Science Education*, *1*(2). https://doi.org/10.29300/ijisedu.v1i2.1957

Ketut Widiartini, N. (2012). the Feedback on Learning Models Making Material Fashion Pattern. *Jurnal Evaluasi Pendidikan*, *3*(2), 188–200.

Kunlasomboon, N., Wongwanich, S., & Suwanmonkha, S. (2015). Research and Development of Classroom Action Research Process to Enhance School Learning. *Procedia - Social and Behavioral Sciences*, *171*, 1315–1324. https://doi.org/10.1016/J.SBSPRO.2015.01.248

Larraz-Rábanos, N. (2021). Development of Creative Thinking Skills in the Teaching-Learning Process. In *Teacher Education - New Perspectives*. IntechOpen. https://doi.org/10.5772/intechopen.97780

Marhawati, M., Syam, A., & Nurdiana, N. (2019). Pemberdayaan Perempuan dalam Pembuatan Pola Dasar Busana untuk Meningkatkan Pendapatan Keluarga di Kabupaten Pangkep. *Dedikasi*, *20*(1), 26–29.

Puspitasari, S. (2019). Upaya meningkatkan hasil belajar ipa dengan menggunakan model pembelajaran think pair share. *Jurnal Global Edukasi*, *3*(1), 55–60.

Rini, F., Pratiwi, L., Mary, T., & Weay, A. L. (2023). Analysis of student responses toward activities using e-learning in higher education. *Journal of Engineering Researcher and Lecturer*, *2*(1), 1–8. https://doi.org/10.58712/jerel.v2i1.11

Saihu, M., & Umar, N. (2021). The Humanization of Early Children Education. *AL-ISHLAH: Jurnal Pendidikan*, *13*(1), 173–185. https://doi.org/10.35445/alishlah.v13i1.419

Salwa, A. (2019). Model Task-Based Learning Untuk Membangun Pembelajaran Mandiri Pada Tutorial Online. *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, *20*(1), 10–16. https://doi.org/10.33830/ptjj.v20i1.331.2019

Somadayo, S., & Kurniawan, H. (2023). The Role of Teacher Professionalism in Learning Differentiation of Independent Learning for Students. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, *15*(1), 275–284. https://doi.org/10.37680/qalamuna.v15i1.2394

Sugiarti, L. (2013). Pengaruh Bahan Ajar Terhadap Kualitas Hasil Belajar Materi Konstruksi Pola Pada Prodi Pkk Tata Busana. *Fashion And Fashion Education*, *2*(1), 48–54.

Utari, N. N. R. D., Budhyani, I. D. A. M., & Angendari, M. D. (2020). Efektivitas Model Explicit Instruction Menggunakan Media Video Untuk Meningkatkan Hasil Belajar Pembuatan Pola Busana Wanita. *Jurnal BOSAPARIS: Pendidikan Kesejahteraan Keluarga*, *11*(2), 77. https://doi.org/10.23887/jjpkk.v11i2.30538

Weinstein, D. (2014). Mind Maps: A Lesson in Creativity. *The Utah Journal of Literacy*, *17*(1), 44–51. https://doi.org/10.1088/1751-8113/44/8/085201

Xu, X., Schönrock-Adema, J., Jaarsma, A. D. C., Duvivier, R. J., & Bos, N. A. (2022). A conducive learning environment in international higher education: A systematic review of research on students' perspectives. *Educational Research Review*, *37*, 100474. https://doi.org/10.1016/J.EDUREV.2022.100474