



# Learning Design: Heutagogical Approach to Developing Self-Determined Learning Skills

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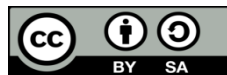
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## ABSTRAK

Praktik pembelajaran dan pengajaran diberbagai perguruan tinggi (PT) masih tetap dalam pedagogi didaktik yang mengabadikan metode pembelajaran yang berpusat pada pendidik, sehingga gagal dalam memanfaatkan perkembangan teknologi. Tujuan penelitian ini yaitu mengembangkan rancangan desain pembelajaran pendekatan Heutagogi yang bertujuan untuk mengembangkan self-determined learning skill's pembelajar melalui skema blended learning. Jenis penelitian ini yaitu penelitian pengembangan. Model yang digunakan dalam mengembangkan desain pembelajaran pendekatan Heutagogi yaitu model pengembangan 4D. Subjek penelitian ini yaitu ahli desain pembelajaran, ahli media pembelajaran, dan ahli perangkat pembelajaran. Subjek uji coba ini yaitu seluruh mahasiswa yang berjumlah 60 orang. Metode yang digunakan dalam mengumpulkan data yaitu kuesioner dan soal tes. Instrumen yang digunakan dalam mengumpulkan yaitu lembar kuesioner dan soal tes. Teknik menganalisis data yaitu analisis deskriptif kualitatif, kuantitatif, dan statistik inferensial. Hasil penelitian yaitu pertama, desain pembelajaran dan perangkat pendukung pembelajaran untuk mengembangkan self-determined learning skill's valid dan reliabel. kedua, terdapat perbedaan tingkat efektivitas desain pembelajaran strategi self-determined learning (Heutagogi). Ketiga, terdapat korelasi nilai self-determined learning skill's dengan capaian pembelajaran mata kuliah (CPMK). Disimpulkan desain pembelajaran pendekatan Heutagogi layak digunakan dalam pembelajaran dan meningkatkan capaian pembelajaran pada mahasiswa.

## ABSTRACT

Learning and teaching practices in various tertiary institutions (PT) remain in didactic pedagogy, perpetuating teacher-centered learning methods, thus failing to take advantage of technological developments. This research aims to develop a pedagogical approach to learning design to develop learners' self-determined learning skills through a blended learning scheme. This type of research is development research. The model used in developing the Heutagogi approach to learning design is the 4D development model. The subjects of this research are learning design experts, learning media experts, and learning device experts. The subjects of this trial were all 60 students. The methods used to collect data are questionnaires and test questions. The instruments used in collecting were questionnaire sheets and test questions. Techniques for analyzing data are qualitative, quantitative, and inferential statistical descriptive analysis. The research results are as follows: First, the learning design and learning support tools for developing self-determined learning skills are valid and reliable. Secondly, there are differences in the effectiveness of learning designs for self-determined learning strategies (Heutagogi). Third, there is a correlation between the value of self-determined learning skills and course learning outcomes (CPMK). It was concluded that the Heutagogi approach to learning design is suitable for use in learning and improves student learning outcomes.

## 1. INTRODUCTION

Educational institutions and educators are tasked with developing lifelong learning process designs that can survive and develop in global knowledge. In addition, learning must develop learners who have the ability to effectively and creatively apply skills and competencies to new situations in a complex and constantly changing world (Lewis et al., 2020; Ward et al., 2016; Zhao et al., 2021). Therefore, educational methods with a pedagogical approach, even andragogy, are no longer completely sufficient in preparing students to develop, there needs to be an approach and use of technology that encourages independent learning, so that students are able to reflect on what is learned and how it is learned (Huang et al., 2021; Kim et al., 2022; Wan Hassan et al., 2020). The independent learning approach is inevitable in today's educational practices, thanks to the rapid advances in technology that are creating social

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transformations that are drastically changing the way we communicate and interact with each other (Antee, 2021; Chin & Wang, 2021; Lukita et al., 2020; Sunarya et al., 2020). The phenomenal level of acceptance and integration of mobile devices in people's daily lives can be attributed to the social capabilities that mobile devices embody (Imelda et al., 2019; Suprianto et al., 2019). Connectivity through broadband internet and mobile applications and ever-evolving capabilities provide a variety of mechanisms that enable connection, communication, collaboration, easily creating contextually rich data and the ability to share it with anyone around the world regardless of time or geographic barriers (Ismail et al., 2018; Sousa & Rocha, 2019).

However, in fact, learning and teaching practices in various higher education institutions (PT) in Indonesia in particular and in general throughout the world, still remain in didactic pedagogy which perpetuates teacher-centred learning methods, thus failing to utilize the development and capabilities of technological devices in learning practices and teaching (Bates, 2015; Wulandari et al., 2020). Educator-centered learning methods can make students think less critically, because the conventional methods used can cause students to only pay attention to the information provided without analyzing it critically (Damayanti et al., 2020; Meilana et al., 2020).

The problems above can be overcome with the Heutagogical learning approach. Heutagogy or self-determined learning is defined or self-determined learning, holistic learning, future-focused, and its core principle is for learners to learn how to learn or acquire 'lifelong learning' skills through an active and proactive learning process (Arini & Sudatha, 2023; Nicole Hainsworth et al., 2022; Nuansa Bayu Segara et al., 2021). In designing independent learning using the Heutagogy approach, it refers to: Heutagogy learning phases, Heutagogy principles, and Heutagogy design elements as a way to develop self-determined learning skills. Heutagogy is a learning design that focuses on the learner as the center of learning which can be achieved through three learning stages, namely learning contracts, learning activities and learning outcomes (Blaschke & Hase, 2015). In implementing self-determined learning, it is necessary to apply the following main principles: learner agency (learner-centered), capability or ability, self-reflection and metacognition, double loop learning, and non-linear learning (Blaschke & Hase, 2015; Nicole Hainsworth et al., 2022). Heutagogical design elements consist of six important elements in implementing self-determined learning skills, namely: exploration, creation, collaboration, connection, self-reflection, and sharing (Blaschke, 2012). The Heutagogy approach learning design aims to develop learners' self-determined learning skills through a blended learning scheme.

Online learning basically talks about learning in the context of space and time (synchronicity). Some literature refers to online learning in two ways, namely simultaneous learning (synchronous learning) and asynchronous learning (Ajinomoto, 2021; Fitriyani et al., 2020; Pramesti et al., 2021; Saputra et al., 2021). E-learning or specifically online learning has basically become another mode of learning besides face-to-face learning (Agbenyegah & Dlamini, 2019; Khasawneh et al., 2016). Online learning is grouped with simultaneous learning settings into two categories, namely learning that occurs in the same space and time (live-synchronous learning) or known as face-to-face and learning that occurs at the same time, but in a different space from each other (virtual synchronous learning) (Chaeruman, 2017). Likewise, non-simultaneous learning is grouped into learning that occurs anytime and anywhere without other people (self-directed asynchronous learning) and learning that occurs anytime and anywhere with other people (collaborative asynchronous learning) (Amin et al., 2021; Lubbe, 2016).

Previous research findings state that learning activities carried out online can make it easier to learn anywhere and anytime (Helsa & Kenedi, 2019; Islam, MK, Sarker, MFH, & Islam, 2022). Other research also reveals that blended learning can improve critical thinking (Korkmaz & Karakus, 2019; Yustina et al., 2020) and learning outcomes (Nortvig et al., 2018; Setiawan et al., 2019). Other research also states that the heutagogical approach can be used in learning activities (Lynch et al., 2021; Setiawan et al., 2019). However, Heutagogy as a new learning approach certainly still needs to be studied in more detail. Previous findings suggest research to provide empirical evidence that seeks to validate the Heutagogical learning approach (Moore, 2020). Indicators in independent learning and self-determination skills can be developed in the online learning process so that learner learning outcomes can be directly observed (NB Segara et al., 2021). Based on the analytical study above, the focus of the research is the development of a Heutagogical approach learning design to improve skills in independent learning or self-determined learning skills through a blended learning scheme. The aim of this research is developing a Heutagogical approach learning design which aims to develop learners' self-determined learning skills through a blended learning scheme. This type of research is development research.

## 2. METHODS

This type of research is development research. The model used in developing Heutagogical approach learning design which aims to develop learners' self-determined learning skills through a blended

learning scheme, namely 4D development model consisting of define, design, develop and disseminate stages (Yuniarni et al., 2020). At the define stage, learning requirements are determined and formulated. At the design stage, planning is carried out. Heutagogical approach learning design which aims to develop learners' self-determined learning skills through a blended learning scheme. At the develop stage, the Heutagogical approach learning design was developed. At stage disseminate effectiveness test is carried out. Heutagogical approach learning design towards developing learners' self-determined learning skills through a blended learning scheme. The subjects of this research are learning design experts, learning media experts, and learning device experts. The subjects of this trial were all 60 students, the experimental group (30 people) and as a comparison the control class (30 people) was used. The methods used to collect data are questionnaires and test questions. The questionnaire method was used to collect data in the form of validation results regarding the Heutagogical approach learning design provided by experts. The test method is used to collect data in the form of student learning outcomes after following the Heutagogy approach to learning design. The instruments used in collecting were questionnaire sheets and test questions. The research instrument grid is presented in Table 1.

**Table 1.** The Research Instrument Grid

No.	Instrument Type	Aspect
1	Learning Design	Instructional design Learning structure Learning preparation Learning process Learning assessment Communication and interaction Source of instructional materials Technology design Conclusion of learning
2	Learning Resources	Course identity Content standards: introduction to the course Content standards: teaching material topics Initial activity phase Learning activity phase Evaluation phase Process standards Lecturer activities Student activities Communication and interaction activities
3	Learning Media	Learning contract worksheet Study skills development plan worksheet Learning journal worksheet Self reflection worksheet Self-determined learning skill's assessment rubric document

The techniques used to analyze data are qualitative descriptive analysis, quantitative and inferential statistics. Qualitative descriptive analysis was used to analyze input provided by experts regarding Heutagogical approach learning design. Quantitative analysis is used to analyze the scores given by experts. Inferential statistical analysis is used to analyze the effectiveness of the Heutagogical approach to learning design in developing students' self-determined learning skills through a blended learning scheme. The experimental group was treated with a self-determined learning strategy (Heutagogy) with a blended learning scheme and the control group with a self-directed learning strategy (Andragogy) with a blended learning scheme. In this experiment, it began with a pretest which was carried out 2 (two) times to determine the stability of the research subject data and a posttest at the end of the research. As a result of the experiment, learning outcome data was obtained, namely pre-test scores, self-determined learning skill's scores, and post-test scores. The data is then analyzed using the SPSS application, namely: analysis of differences in pre-test and post-test scores to determine the level of correlation through the paired sample t-test and the level of effectiveness of the learning strategies used on course learning outcomes (CPMK) using the N Gain Score test, as well as Correlation analysis between self-determined learning skill's scores and post-test scores.

### 3. RESULT AND DISCUSSION

#### Results

This research aims to developing a Heutagogical approach learning design which aims to develop learners' self-determined learning skills through a blended learning scheme. First, At the define stage, learning requirements are determined and formulated. Second, at the design stage, planning is carried out Heutagogical approach learning design. The self-determined learning strategy learning design is designed to place the learner as the center of learning. The placement of the learner as the center of learning has begun in the learning contract phase, continued with high intensity in the learning activity phase, up to the learning outcomes or evaluation phase.

In the initial phase of the learning contract, students are facilitated from the start to prepare themselves to apply their own learning through a learning contract document which contains the results of identifying teaching material objects, preparing a learning plan, and negotiating the form of implementation and type of assessment, the process of preparing the learning contract through the consultation, feedback stage go back, and revise, then finalize the document. Self-determined learning or the study of self-determined learning and developed as an extension of Andragogy, learning contracts are carried out by students to identify teaching material objects, develop learning objectives and assessment plans. This is different from the self-directed learning strategy where the learning objectives are still determined by the educator, so that students are still dependent on the learning objectives and their autonomy is narrowed by the educator. Learners make themselves the center of learning by identifying teaching material objects, then setting their own goals to achieve, how students learn and where the sources come from. Through processes of consultation, providing feedback, and learning, revising the learning contract shows they understand their own educational goals. In the learning output phase, learning carries out learning evaluations in accordance with what the learner specifies in the learning contract. An overview of learning activities is presented in Figure 1.

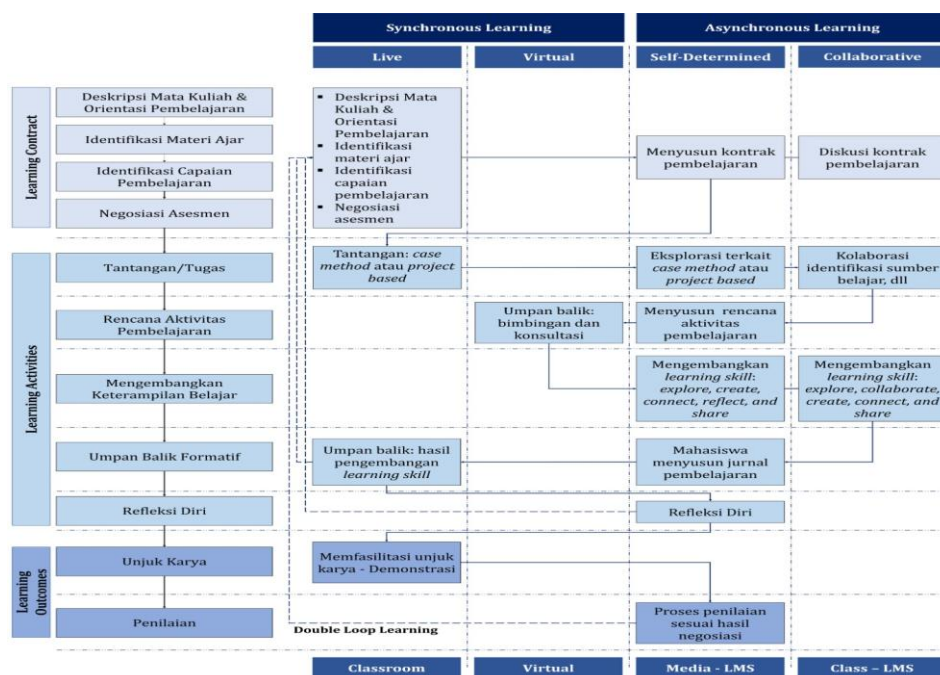


Figure 1. The Learner Activities in Schematic Heutagogical Approach Learning Design Blended Learning

At the develop stage, the Heutagogical approach learning design was developed. The development of the Heutagogical approach learning design that was developed was adapted to the Heutagogical approach learning design that was developed at the design stage. The Heutagogical approach learning design that was developed was then tested for validity by learning design experts, learning resource experts and learning device experts. The results of the validation of the learning design for the self-determined learning strategy for the blended learning scheme were that the overall average score for the learning design assessment aspects was 0.89 or high category reliability. Thus, the results of developing a learning design using a Heutagogical approach, a self-determined learning strategy, a blended learning scheme, are suitable for implementation in student learning. Assessment results: The results of the validation of learning resources



at SPADA Unismuh Makassar obtained an average score for the overall assessment aspect of learning resources on the LMS of 0.92 or high category reliability. Thus, the results of learning resources in the LMS are suitable for implementation in student learning. The results of the validation assessment of the self-determined learning skills' learning tools obtained an average score for the overall assessment aspects of the learning tools of 0.90 or high category reliability. Thus, the results of the development of learning tools using the Heutagogical approach, the self-determined learning strategy, the blended learning scheme, are suitable for implementation in student learning. The assessment results are presented in [Table 2](#).

**Table 2.** The Results of Heutagogical Approach Learning Design Assessment from Experts

No.	Expert	Mark	Category
1	Learning Design Expert	0.89	Tall
2	Learning Resources Expert	0.92	Tall
3	Learning Tools Expert Self-Determined Learning Skill's	0.90	Tall

At stagedisseminteeffectiveness test is carried outHeutagogical approach learning design towards developing learners' self-determined learning skills through a blended learning scheme. The results of the correlation analysis of the pretest and posttest in the experimental group and the control group are shown in [Table 3](#). The results of the analysis of differences in the influence of each strategy used using the pretest and posttest scores are shown in [Table 4](#).

**Table 3.** The Results of Correlation Analysis *Pre-Test with Post-Test*

		N	Correlation	Sig.
Pair 1	Heutagogy Pre-test Score & Heutagogy Post-test Score	30	0.900	0,000
Pair 2	Andragogy Pre-test Score & Andragogy Post-test Score	30	0.903	0,000

**Table 4.** The Results of Analysis of Differences in Influence According to the Strategy Used

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 <i>Pre-test</i> Heutagogy - Post-test Heutagogy	-44.705	11.850	2.163	-49.130	-40.279	-20.66	29	0.000
Pair 2 <i>Pre-test</i> Andragogy - Andragogy Post-test	-33.592	11.026	2.013	-37.709	-29.475	-16.68	29	0.000

Based on [Table 3](#), and [Table 4](#) above, it can be interpreted, the first interpretation of the correlation level shows a probability value (Sig.) of 0.00 between the pretest and posttest scores for both the self-determined learning strategy and the self-directed learning strategy which can conclude that between the pretest scores and The posttest has a positive correlation with the very strong category for the two strategies used. The second interpretation, the probability value (Sig.) for both strategies shows 0.00, which can be concluded that the two strategies used have an influence on course learning outcomes (CPMK), what differentiates the two strategies is the difference in the average value between the pretest value and the posttest. The difference in the average value of the self-determined learning strategy is 44.71 while the self-directed learning strategy is only 33.59. The results of the analysis of differences in effectiveness using the N-Gain Score analysis test obtained the N Gain Percent value to see the level of effectiveness of the impact of the learning strategy used on course learning outcomes (CPMK) shown in [Table 5](#).

**Table 5.** The N-Gain Score Percent Effectiveness of Learning Strategies used for CPMK

	Learning Independence - Blended learning	Huber's M- Estimatora	Tukey's Biweight b	Hampel's M- Estimatorc	Andrews' Waved
N_Gain_Percent	Self-determined Learning(Heutagogy)	56.1579	56.1370	56.0643	56.1418
	Self-Directed Learning(Andragogy)	46.5924	46.6960	46.5933	46.6877

Based on [Table 5](#), the N-Gain percentage score can be interpreted as the level of effectiveness of the independent learning approach, both with self-determined learning and self-directed learning strategies, towards increasing course learning outcomes (CPMK) by referring to the categories and interpretations of effectiveness. Hake, RR (1999), as follows. (1) The N-Gain score of the self-determined learning strategy is 0.56 or the medium category with an effectiveness percentage level of 56.16% (Huber's M-Estimator) or can be interpreted as quite effective in increasing course learning outcomes (CPMK). (2) the N-Gain score for the self-directed learning strategy is 0.46 or the medium category with an effectiveness percentage level of 46.59% (Huber's M-Estimator) or can be interpreted as less effective in improving course learning outcomes (CPMK). Based on the results of the interpretation above, it can be concluded that there is a difference in the level of effectiveness of the learning design of the self-determined learning strategy (Heutagogy) and the self-directed learning strategy (Andragogy) on course learning outcomes (CPMK), where the self-determined learning strategy (Heutagogy) is quite effective in increasing course learning outcomes (CPMK), while the self-directed learning strategy is less effective in increasing course learning outcomes (CPMK), even though the CPMK test and the material objects used are the same, and are facilitated by LMS learning resources with the same scheme. the same, namely the blended learning scheme.

Correlation analysis aims to determine the close relationship between the value of a learner's ability to develop self-determined learning skills and course learning outcomes (CPMK) presented in [Table 6](#).

**Table 6.** The Summary of Correlation Analysis self-Determined Learning Skill's with CPMK

		CPMK
K_Ex	Pearson Correlation	0.819**
	Sig. (2-tailed)	0.000
K_Col	Pearson Correlation	0.911**
	Sig. (2-tailed)	0.000
K_Kre	Pearson Correlation	0.909**
	Sig. (2-tailed)	0.000
K_Kon	Pearson Correlation	0.911**
	Sig. (2-tailed)	0.000
K_Ber	Pearson Correlation	0.821**
	Sig. (2-tailed)	0.000
K_RD	Pearson Correlation	0.911**
	Sig. (2-tailed)	0.000

Based on [Table 6](#), the results of the correlation analysis above can be interpreted, namely first, the relationship between exploration skills and CPMK has a very strong correlation with a coefficient value of 0.819 with a probability value (Sig. (2-tailed)) of 0.000. Second, the relationship between collaboration skills and CPMK has a very strong correlation with a coefficient value of 0.911 with a probability value (Sig. (2-tailed)) of 0.000. Third, the relationship between creative skills and CPMK has a very strong correlation with a coefficient value of 0.909 with a probability value (Sig. (2-tailed)) of 0.000. Fourth, the relationship between connection skills and CPMK has a very strong correlation with a coefficient value of 0.911 with a probability value (Sig. (2-tailed)) of 0.000. Fifth, the relationship between skill sharing and CPMK has a very strong correlation with a coefficient value of 0.821 with a probability value (Sig. (2-tailed)) of 0.000. Sixth, the relationship between self-reflection skills and CPMK has a very strong correlation with a coefficient value of 0.911 with a probability value (Sig. (2-tailed)) of 0.000. Based on the results of the interpretation of the correlation between the value of the learner's ability to develop independent learning skills (self-determined learning skills's) and course learning achievement (CPMK) in general, the correlation is in a positive direction, which can be interpreted that the higher the value of self-determined learning skills's, the higher the value of Course learning outcomes (CPMK) have also increased.

## Discussion

The results of data analysis show that the Heutagogical approach learning design, self-determined learning strategy, blended learning scheme is feasible to be implemented in student learning. Apart from that, the research results also show that there is a difference in the effectiveness of the self-directed learning strategy (Andragogy) on course learning outcomes (CPMK) compared to the self-directed learning strategy. This is caused by the following factors. First, the Heutagogical approach to the blended learning scheme is worthy of being implemented in learning because it can improve learning skills, such as: exploration, collaboration, creation, connection, sharing and self-reflection. The difference in the effectiveness of the

learning impact between self-determined learning (Heutagogy) and self-directed learning (Andragogy) strategies on course learning outcomes (CPMK) shows the breadth of the role of human agency in the learning process. The concept of self-determined learning or Heutagogy is considered a continuation or expansion of the theories that preceded it (Lynch et al., 2021; Narayan et al., 2019). Self-determined learning as the study of self-determined learning is a strategy developed and expanded by self-directed learning (Andragogy) (Nicole Hainsworth et al., 2022; McCormick et al., 2019). One of the differences between self-directed learning and self-determined learning is that self-determined learning further expands the role of human agency in the learning process. Learners are viewed as, "the primary agents in their own learning, which occurs as a result of personal experience" (Hase & Kenyon, 2013). *Self-determined learning* emphasizes self-determined learning, adaptability and capability as well as competency development (Blaschke & Hase, 2015; N. Hainsworth et al., 2022). Therefore, in transforming education, Pedagogy and Andragogy educational methods alone are not enough to prepare learners, but a more self-determination or Heutagogy approach is needed to strengthen the knowledge and skills as well as the abilities and capacities of graduates in the workforce in the future.

Second, the Heutagogical approach to the self-determined learning strategy of the blended learning scheme is suitable for implementation in learning because it increases learning activities. The concept of self-determined learning by placing the learner at the center of learning is a perspective that supports the development of 21st century skills with the support of abundant learning resources on the internet (Nicole Hainsworth et al., 2022; McCormick et al., 2019). The blended learning concept combines face-to-face learning and independent learning through LMS by providing challenges (assignments) to encourage students to explore other learning resources on the internet, so that the role of educators is more of a learning facilitator (Akhmalia et al., 2018; Helsa & Kenedi, 2019; Jowsey et al., 2020). In blended learning, educators only act as facilitators or controllers of the learning process and emphasize learning that is learner-centered and determined by the learners themselves (Akhmalia et al., 2018; Yustina et al., 2020). By utilizing learning technology, the learning landscape is expanded by presenting new learning services, massive open online courses (MOOCs) which provide "big data" to provide learning services for anyone, anytime and anywhere. Learners will feel valued when educators give them the opportunity to determine learning objectives, learning content, activities, and assessments (Tempelaar, 2019; Akhmalia et al., 2018; Helsa & Kenedi, 2019; Jowsey et al., 2020). They can also choose learning tools such as Zoom for video conferencing with educators and friends, SlideShare for sharing slides, and Twitter for discussing with each other (Hamdan et al., 2021).

Third, the Heutagogical approach to the self-determined learning strategy of the blended learning scheme is worthy of being implemented in learning because it creates a pleasant learning atmosphere. In the learning output phase, learning carries out learning evaluations in accordance with what the learner specifies in the learning contract. Self-determined learning strategies help empower learners to participate in their own education by giving them the ability to self-determine both in their learning approaches and in evaluating their own learning (N. Hainsworth et al., 2022; Hase & Kenyon, 2013). The design of a self-determined learning strategy which is packaged through a blended learning scheme with reference to synchronous learning and asynchronous learning spaces is a natural improvement from the self-directed learning strategy as a result of the use of information and communication technology as a forum for connectivity between learner needs and other learning resources. Heutagogy is built on the theory of transformational learning as an educational strategy, which incorporates real changes in determining how, what, and when learning takes place (Nicole Hainsworth et al., 2022).

Other research results show that Pedagogy is significantly related to the practice of Andragogy and the practice of Heutagogy. Andragogy can be considered an innovative pedagogy that gives learners the autonomy to organize their learning and reduces the portion of the educator in the classroom, the more autonomy is given, the more Heutagogical the learning approach will be (Amiruddin et al., 2022; Rahmat, 2020). *Blended learning* offers promising possibilities for facilitating the movement of learners from learning characterized by Pedagogy and Andragogy towards Heutagogical learning (Purba, 2021; Rebecca & Maura, 2017). In this research, we facilitate students with learning document tools to develop self-determined learning skills. The results of the correlation analysis between the scores obtained on self-determined learning skills and the course learning achievement scores (CPMK) show a close relationship or correlation, with a positive correlation direction or in other words, every increase in the self-determined learning skill's scores is followed by an increase in the learning attainment scores. courses (CPMK). This indicates that the skills of exploration, collaboration, creation, connection, sharing and self-reflection are important elements in implementing self-determined learning strategies. Adopting a Heutagogical approach in the design and delivery of learning contributes to the development of self-determined learners. The Heutagogical Approach can also be used by policy makers in Higher Education to drive much needed change and agility across the sector, enabling and encouraging the development of learning-centred strategies. learners,

thereby producing graduates who are empowered and have self-determination in the future (Gillaspy & Vasilica, 2021).

#### 4. CONCLUSION

The results of data analysis showed that the learning design and learning support tools for the Heutagogical approach to developing students' self-determined learning skills are valid and reliable for use in learning with an independent learning approach, especially in improving learning skills in exploration, collaboration, creation, connection, sharing, and self-reflection. There is a correlation between the pre-test and post-test both in the application of self-determined learning strategies (Heutagogy) and self-directed learning strategies (Andragogy). There is a difference in the level of effectiveness of the learning design of self-determined learning strategies (Heutagogy) compared to self-directed learning strategies (Andragogy) on course learning outcomes (CPMK). There is a correlation between the value of self-determined learning skill's and course learning outcomes (CPMK), which can be interpreted as the higher the self-determined learning skill's value, the course learning achievement value (CPMK) also increases. It was concluded that the results of the Heutagogy approach to learning design through the blended learning scheme and the learning support tools used were able to develop self-determined learning skills and increase student learning outcomes.

#### 5. ACKNOWLEDGE

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