

Need Analysis on learning methods based on heutagogical strategies among lecturers of Institutions of Higher Learning

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Abstract: Teaching and learning based on heutagogical strategies is one of the current learning methods in an effort to improve learning strategies in Institutions of Higher Learning (IPT). In line with the 21st century learning approach, this heutagogy strategy focuses on self-determined learning by students and lecturers as facilitators so that students have the knowledge, talent and ready to enter the world of career. Today, the reliance of students on lecturers entirely in the acquisition of knowledge is less relevant, moreover the attitude of generation z students today who like things that are quick, easy and flexible should be celebrated positively by providing strategies that enable students to co- similarly planning learning. However to date heutagogical strategies (self -determination learning) by students occur less systematically and are not clear in existing learning activities. This study is to examine the need for learning methods based on heutagogical strategies (self -determination learning) from the perception of IPT lecturers. This study is qualitatively using a case study design. A total of twelve (12) lecturers from nine (9) public universities representing research universities, comprehensive universities and focus universities were the informants of the study. Study data were analysed manually based on thematic analysis using colour coding for each theme. The findings of the study found three main themes needed to implement heutagogical strategies in learning, namely the planning of implementation methods, commitment and readiness of students, support and learning activities. The method of teaching and learning using heutagogical strategy is a self -skill of students that need the guidance of lecturers and it is a continuous process that is constantly receiving changes and improvements in line with the needs and desires of the vision of Malaysian education. The findings of this study can be used as a guide in building a model of heutagogy (self -determination learning) in which learning in the 21st century VV has undergone change after change to adapt to the current situation where some learning activities are implemented virtually. In addition, the findings of this needs analysis can provide exposure to the higher education community, especially lecturers and students in realizing the aspirations of higher education, namely the transformation of higher education delivery and holistic graduates.

Keywords: Needs analysis, Heutagogy, Learning methods, Self -determination learning, Institutions of Higher Learning.

1. Introduction

The Ministry of Higher Education (MOHE) has outlined six strategic focuses to drive the ministry's direction for 2021. The sustainability of these Higher Education Institutions can push the higher education sector to glory. There are six strategic focuses of Higher Education namely; empowering the educational digitization agenda, strengthening strategic collaborative networks, strengthening graduate marketability, driving community well -being, fostering institutional excellence and inspiring morale (MoHE, 2018a).

Heutagogical learning strategies are also touched on in learning approaches in the 21st century. The ministry emphasizes learning methods such as heutagogy which is self -determination learning that gives students the opportunity to explore continuous knowledge (Blaschke, 2012). Similarly, the diversity of effective learning approaches, namely, student -centered learning, active learning, project -based learning and inquiry -based learning (MoHE, 2018b).

To meet the challenges of the future, this heutagogical strategy can help the production of quality teaching and learning. Through the recommendations from the Ministry of Higher Education, lecturers can transform towards Education 4.0 pedagogy in line with the Malaysian Education Development Plan (MoHE, 2013). In addition, this

futuristic learning is suitable to be applied to produce human capital that is characterized as intelligent problem solving, creative, innovative and flexible (Suhaimi et al., 2020; Kamrozzaman et al., 2019). Meanwhile, students are able to express the process of self-learning through a more sophisticated and up-to-date heutagogical approach (Agonács & Matos, 2019). In line with strengthening the marketability of graduates, this heutagogical approach in the education system in Malaysia is a preparation to produce a knowledgeable society with multidimensional skills in facing globalization and meeting the career needs of future students. Past learning strategies need to be improved as national education is constantly receiving waves of international change. Thus, heutagogy strategy is seen to meet the characteristics of the latest learning needs and requires a strong collaboration between various parties in realizing this strategy among lecturers and students of Institutions of Higher Learning.

2. Definition & theory of Heutagogy

The theory of heutagogy was pioneered by Hase & Kenyon who emphasized on students to acquire knowledge directly (Hase & Kenyon, 2001). The term heutagogy comes from the Greek meaning 'self' and is an extension of 'self-learning'. It is a holistic, self-contained and student-centered approach to teaching and learning (Marcut, 2018). This theory is also based on the concepts of humanism and constructivism in accordance with the current education system (Hase & Hase, 2014). In fact, this student-centered approach focuses on self-efficacy as well as student motivation (Bandura, 1977).

Among the advantages of using this heutagogy strategy is to provide awareness and help students perform tasks in order to achieve goals (Kamrozzaman et al., 2019). It is also an alternative to teaching and learning based on the ability of students from pedagogy, andragogy to heutagogy (Hase, 2006). In addition, students have the autonomy to choose their own learning concepts because they are more flexible and adapted to the needs of generations y and z (Hamdan, 2019). Even support from Higher Education Institutions is also important in flexible self-learning (Malek, 2017). Heutagogy can also apply a holistic approach to influence students' self-efficacy through an active and proactive process. This is because students are the main agents in learning in addition to support from personal experience (Hase & Kenyon, 2007).

The role of the lecturer in the heutagogical approach is as a mentor as well as providing assistance if needed. In addition, encouragement and motivation from lecturers will increase students' self-efficacy to make the learning continuous. Meanwhile, educational institutions as a driver in providing complete infrastructure facilities such as course modules, management and administration (Kamrozzaman et al., 2019). The principles found in heutagogical learning strategies are exploration, creation, collaboration, relationship, sharing and reflection (Glassner & Back, 2019). Through the exploratory element, students are encouraged to explore a variety of teaching and learning material resources. The use of the internet is so ideal in student self-determined exploration. Among them are sources from digital libraries, mediums from Google and so on.

In addition, the element of creation also exists through a heutagogical approach to foster student creativity. The task that students need to practice is to plan some classroom activities including the use of computer facilities or online resources. They can use interactive materials by accessing the internet and integrating them in learning. In addition, the use of Web Quest in information retrieval. Students are free to plan their learning projects and ultimately get good results (Hase, 2006).

Through the element of cooperation, students can diversify ideas with each other. Virtual platforms are used for discussions, messages, questions, schedules and more. At the same time, collaboration in producing assignments provides an example that students can follow (Tümen Akyıldız, 2019). To complete the assignment, students will work in groups and add a variety of ideas. They help each other throughout the learning process as well as share information and experiences. Still, the role of the educator as a coach if needed, but students have full autonomy to manage learning activities. So is online collaboration, which is virtual discussion. Students are encouraged to connect with other friends using social media. Among social networking sites such as Twitter, LinkedIn, Academia.edu, Facebook, WhatsApp and Google can facilitate professional relationships. Through this relationship new learning methods can be shared. Students need to plan projects and be disciplined to complete the task (Hase & Kenyon, 2001).

The element of sharing between the experiences that students go through can be shared. Among the virtual reality platforms used are such as Slide Share, Research Gate, Twitter, and Facebook. Students share their work on the online platform and get ratings from peers. At the same time, they can see the diversity of ideas as well as be able to improve their own projects (Canter, 2012).

The element of reflection is an important element that is, students have the opportunity to reflect on knowledge and new abilities in the learning process as a whole (Sani, 2013). At the end of the course, students share their opinions on experiences and findings made during the learning process (Cochrane et al., 2012).

The heutagogical approach in teaching and learning is characterized by the centralization of students in terms of the context and content produced by students. Thus, it is clear that the elements found in heutagogy help in clarifying the need for learning methods based on heutagogy strategies among lecturers of Institutions of Higher Learning.

3. Methodology

This study uses a qualitative approach. Cresswell (2012) explains that qualitative research can provide a detailed understanding of the phenomena studied by exploring the practices or practices of study participants. This is also explained by Merriam (1999), a qualitative approach allows researchers to examine issues and problems that occur in the real environment. The selection of a non -positivist approach is seen as appropriate given that the study focuses on an in -depth acquisition of the need from the lecturer's perspective to implement heutagogical strategies in learning. In this study a case study design was selected. Case studies are empirical research that investigates contemporary phenomena in a real -life context (Yin 1994) involving individuals or groups in an area (Stake 2001). This is in line with this study where the researcher intends to explore the needs of lecturers in implementing heutagogical strategy -based learning. Bogdan & Bikden (2003) view when the researcher together with the study participants are indirectly able to respond to and understand the community as a whole. This case study is exploratory (explanatory) to find out the needs of lecturers in teaching based on heutagogical strategies so that the output of the model produced can meet the needs of stakeholders involved.

Sample

The study involved representatives from all types of public university categories in Malaysia; research universities, comprehensive universities and focused universities. The involvement of lecturers representing all types of university categories is aimed at eliciting feedback that celebrates the needs of lecturers from various levels. The total study sample in this interview involved twelve people representing various categories of universities. Spencer and Spencer (1993) are of the view that the number of study participants is sufficient as many as seven (7) people to obtain valuable qualitative data. The sample size in a qualitative study based on the views of Fraenkael et al. (2012) meanwhile, are between 1-20 people. Therefore the selection of participants of this study is to meet the requirements of the sample. Table 1 shows the breakdown of the composition of lecturers along with the fields that are participants in this study.

Table 1: Participants

No	University	University category	Expertise	Position	Length of service
1.	Universiti Sains Islam Malaysia (USIM)	Comprehensive	Arabic Language	Prof Madya	12
2.	Universiti Islam Antarabangsa Malaysia (UIAM)	Comprehensive	Education (Instructional Technology)	Penolong Profesor	8
3.	Universiti Malaysia Pahang (UMP)	Focus	Idslamic study (Spiritual Development)	Pensyarah Kanan (Dr.)	12
4.	Universiti Utara Malaysia (UUM)	Focus	Islamic Banking	Pensyarah Kanan (Dr.)	8
5.	Universiti Teknologi MARA	Comprehensive	Syariah	Pensyarah Kanan	6
6.	Universiti Teknologi MARA	Comprehensive	Islamic Civilization	Pensyarah Kanan	6
7.	Universiti Teknologi MARA	Comprehensive	Islamic Thought	Pensyarah Kanan	13
8.	Universiti Kebangsaan Malaysia	Research	Da'wa & leadership	Pensyarah Kanan (Dr.)	8
9.	Universiti Islam Sultan Zainal Abidin	Focus	Education	Prof Madya	15
10.	Universiti Teknologi MARA	Comprehensive	Arabic Language	Pensyarah	6
11.	Universiti Malaysia Kelantan	Focus	Human Development	Pensyarah Kanan (Dr.)	10

12.	Universiti Malaya	Research	Islamic study	Pensyarah Kanan (Dr.)	12
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Based on Table 1 can be seen the list of lecturers involved as study participants. The selection of participants is by purposive sampling because the selection of participants is guided by the criteria, nature and information required in the study. Babbie (2002), explains the selection of study participants in this way gives the researcher the opportunity to select the most useful and appropriate sample as well as meet the needs of the purpose of the study. The characteristics of the selected samples are homogeneous namely; lecturers in the fields of Education, Islamic Studies and Arabic, lecturers with a service period of more than 5 years and lecturers who are experienced in using mediamorphosis in teaching.

4. Data Collection Methods

Semi -structured interview method was used to collect information related to the need for learning methods based on heutagogical strategies from the perceptions of lecturers of Institutions of Higher Learning. To ensure that the interview questions can be understood by study participants and meet the objectives of the study and aspects of validity, the questions were reviewed by two (2) experts and conducted a pilot study involving four (4) lecturers who have the same criteria as the actual study participants. This aims to familiarize the researcher and identify the appropriateness of the words used with the understanding of the informants so that the objectives of the study are achieved since heutagogical strategies are strategies that are less practiced explicitly and widely by lecturers. Study data were transcribed after each interview session was conducted to preserve the true meaning of the data. Next the transcription data were sorted, coded and analyzed thematically. Then the study data is reviewed by experts to ensure that the interpretation of the data and the themes constructed are accurate, appropriate and have high reliability.

Data analysis

Interview data were analyzed using color coding through manual methods to identify themes, concepts and meanings as suggested by Merriam (1988). Coding categories and subcategories were developed after the first data collection was performed (Gustafsson, 2017). Coding categories and subcategories are analyzed continuously, meaning that each category is refined case by case so that certain categories can describe the situation that occurs in the cases studied. . Therefore, coding needs to be done carefully and categorized based on the interviews that have been recorded and transcribed in each line of the sentence (Miles et al., 2013). Table 2 below shows the color coding process of the themes that emerged from the analyzed data. Categories and sub -categories that appear under the same theme will be marked with the same color code namely red code (heutagogy implementation planning), yellow code (student preparation and commitment) and green code (support and learning activities) as shown in Table 2 below:

Theme Informants	Impelmentantion and planning of heutagogy-red code	student preparation and commitment-yellow code	support and learning activities-green code
A.	/		/
B.	/	/	/
C.		/	/
D.	/		/
E.	/		/
F.			/
G.		/	/
H.		/	/
I.	/		/
J.		/	/
K.			/
L.			/

Table 2: Themes of learning method requirements based on heutagogical strategies

Finding and discussion

The analysis of interviews with lecturers in this research shows three main themes in the need for heutagogical strategies from the perceptions of lecturers of Institutions of Higher Learning. The first theme is the need from the aspect of the implementation of heutagogy, the second theme refers to the self -element of students and the third theme is the potential of heutagogy.

The first theme: The need for planning for the implementation of heutagogy.

Heutagogy strategy is a learning strategy that is still newly practiced by lecturers. The results show that the informants are of the view that in order to implement this strategy, it needs to be cultured first. This strategy is seen as suitable to be implemented if it is not fully implemented online but implemented in the form of blended learning (Blended Learning) as stated as follows:

Lecturers own knowledge of how to implement. A change of mindset needs to be prioritized so that heutagogical methods are not considered compulsion or instruction. This appropriately applied heutagogical learning method cannot happen automatically because it starts with cultivating and implementation in a university. Learning fully using this virtual learning cannot be fully followed by the students. And it doesn't necessarily use technology alone. In fact, you can also use two methods, namely blended learning and conventional learning (PK1).

This statement was stated by other study participants as follows:

Lecturers need to understand the content of heutagogy. Understand the nature of the approach to be conveyed. Understand the target of the knowledge you want to convey. Control of information received by students when confronted with busy and attentive lecturers. Older lecturer levels for example are unable to access. Looks like the laptop is the media is the fiber right. (PK4)

Other informants are of the view:

If it involves servicing students and PJJ students, we will do blended learning (PK5)

In addition lecturers and students should understand and be clear about the nature of the courses offered and the methods of implementation of these strategies in learning. In implementing heutagogical strategies it is necessary to use a variety of mediums, various activities such as brainstorming, simulation and practical. In addition, in accordance with the current situation, it is necessary to use the medium of technology in order to attract students.

These heutagogies can be used in a variety of mediums so that they are not tied to a method determined by us alone (the lecturer). A fusion between andragogy and heutagogy methods. The lecturer informs the students the method of learning outside the classroom which must be determined by the students themselves (PK2)

The learning will be easily understood and today's students will not feel bored because they have explored and shared in the lecture room by simulation, hands on, live and errors in understanding the learning can be verified. (PK4)

Religion -based courses, students need talaqqi to get knowledge that is face to face with the educator first. You can use technology before starting an online class, for example, please take a selfie with your picture along with issues related to history subjects. (PK5)

Other informants also took the view by stating:

Not all forms of knowledge are suitable using heutagogical methods. If students issue a law without a valid source, then there must be an element of talaqqi (PK1)

The transition transition of learning strategies is in accordance with the current circulation. Education in the era of the 4.0 industrial revolution has changed from pedagogy to andragogy and heutagogy. Therefore, lecturers need to make a systematic learning plan so that the learning objectives outlined achieve the target. This can be seen based on the following views:

The teaching objectives are clear, plan the content of the material, and determine the basis for the assessment by listing the elements to be achieved in the method of heutagogy (PK3)

A study by Marcut (2018) on the implementation of tasks appropriate to the learning course is computer -assisted. Students are able to control the power of autonomy within the students themselves. In addition, the element of reflection is very important in order to achieve meaningful learning (meaningful learning) obtained through self -determination learning. It can develop the ability and competence of graduates (Stoten, 2020). They feel that students' self -autonomy can give them self -confidence in the elements of reflection and exploration of knowledge.

The second theme: Students' readiness and commitment to extracurricular activities

Aspects of the need to implement learning methods based on heutagogical strategies can be seen in the second theme which is the readiness and commitment of students. The heutagogical strategy is that learning is determined by the students to ensure that the learning objectives are achieved with the help of the lecturer. If the attitude of the student is still completely dependent on the lecturer or does not give commitment in the given assignment, the student will face difficulties in learning. This is because the principle of heutagogical learning requires students to organize their own learning outside the classroom. Therefore this strategy is suitable for producing talented students and holistic graduates because of the learning activities that need to involve students. This can be seen based on the participants' descriptions as follows:

For me, this heutagogy is more for my students to explore topics related to what I present and they find new skills, for example I teach video conferencing tools and after my class, students will explore the tools themselves and they will present findings to me. Lecturers give freedom about the implementation of assignments given according to students' interests (PK2).

According to other study participants, this strategy can improve students' cognitive level because one of the principles of heutagogical strategy is to explore. However, it still depends on the commitment and efforts of students as stated by the participants of this study:

Pelajar akan mencari ketepatan maklumat, menganalisa permasalahan dan memilih penyelesaian yang betul. Elemen eksplorasi sangat penting untuk diterapkan (PK3)

Other informants have the following views:

If I were you, I would give a case study, for example, trying to find out what factors, effects, on LGBT issues. Whatever he wants to present, he is the one who got the ideas. Students will access their own information on current issues (PK7)

Therefore to succeed in this learning strategy, students need to have a positive attitude, ability and character. Students are excited to learn, engage in learning, use learning resources everywhere, monitor and organize learning strategies can help them in learning (Hao et al. 2012). In fact self-determined learning by students can motivate towards learning (Narayan et al., 2019). This study is also supported by (Stoszowski & McCarthy, 2018). In addition, teamwork skills and spirit can also be formed (Stoszowski et al., 2018). Students gain opportunities to improve interpersonal and interactive skills through teamwork in collaboration including interpersonal communication, finding relevant sources of information, asking for help, convincing others by presenting good arguments and making decisions together.

Third theme: Support and learning methods

Student needs such as internet access, student background, environment such as facilities in the university to carry out heutagogy methods. There are also students in the B40 environment need to offline learning methods (PK1)

Seterusnya informan yang lain menjelaskan, bentuk-bentuk aktiviti heutagogi yang perlu dilakukan oleh pelajar di luar kelas untuk memastikan objektif pembelajaran tercapai.

Elements of heutagogy are implemented in the assignments of my students. 1.Exploration: find videos of religious talks on YouTube 2.Create: form groups and ideas of creativity of each group. 3.Working together: students operate online forums. 4. Relate: Online discussion session with group members during the lecturer's lecture time only without interrupting the lecture time of other lecturers), 5.Reflection: forming the nature of students who are brave forward, 6.Share: online video sharing uploaded in the application i-learn. Six elements in heutagogy can be formed because activities are implemented in groups on the creativity of students. (PK6)

This information was added by other informants as follows:

There are also my students who will be teachers who take with me educational technology that uses Arabic content, morals and so on I use virtual learning and augmented reality. And that is my approach to exposing students to new media (PK2)

The use of heutagogical strategies in learning plays a role in helping the application of meaningful learning among students. Higher education allocates a certain number of learning hours outside the classroom known as Student Learning Time (SLT) to students according to the level of learning in order to add space and time for students to conduct lessons outside the classroom. The learning activities are based on what the lecturers have given or according to the creativity of the students to make the most of their SLT time. Feedback from study participants on the responsibilities are as follows:

The following methods can be applied in heutagogical methods such as collaborative, discussion, contextualism, reflective, intensive and constructive methods (PK2)

In addition, there are informants who suggest that knowledge sharing be done among students or the community to challenge themselves and prepare to face outsiders. This can be shown through the informant feedback as follows:

Sharing knowledge with the surrounding community so that the knowledge is not only learned, but Islam emphasizes on good knowledge sharing (PK7)

This was added by a previous informant who mentioned:

Meaningful learning can be achieved when there is the nature of asking in the search for knowledge in Islamic Education. Knowledge is Fardhu Ain and Kifayah (PK4)

Another informant added with an opinion:

The lecturer gave an issue to be discussed, then the students gave feedback in i-learn (PK6)

The next informant had a slightly different perception namely:

Students learn independently. Easy to search for information, then knowledge is easy to discuss with friends (PK11)

Support from educators can influence student motivation when these heutagogical strategies can help reveal students' different self -skills and prepare them for the challenges of the current era (Levy Feldman, 2018). As a result, this strategy allows students to perform various activities in a planned manner outside the classroom and is more motivating to students (Agonac & Matos 2019). These findings are in line with studies (Blaschke, 2012) that explain about the elements found in the principles of heutagogy. Among them are learning contracts, flexible curriculum, inquiries directed at learners and flexible assessment. All discussions throughout the teaching and learning process can be used as a guide for students to understand the content of the course, state arguments and facts and stimulate reflection individually or in group work (Hase & Kenyon, 2001).

5. Conclusion

In conclusion, the need analysis of learning methods based on heutagogical strategies from the perception of IPT lecturers found that systematic planning, readiness and commitment of students and appropriate support and learning activities must be taken into account if to implement heutagogical strategies. This is in line with the National Education Philosophy which emphasizes the practice of continuous knowledge search and focuses on student responsibilities. Through the Malaysia Education Development Plan (Higher Education) 2015-2025, the Future Available Curriculum Philosophy and the National Higher Education Strategic Plan 2021 place heutagogy strategy as one of the main inputs to realize teaching and learning in the 21st century. Malaysia's higher education transformation has implemented a more flexible and interactive learning ecosystem including producing first -class human capital capable of using skills proactively, creatively, innovatively and technically as well as adapting to the changing global environment. These efforts can improve the quality of life and contribute to the well -being and marketability of graduates. Therefore, the implementation of learning methods based on heutagogical strategies should be further expanded in public and private institutions of higher learning because it can provide exposure to all target groups in order to achieve global progress.

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