

Towards a Paradigm Shift from Andragogy to Heutagogy: Learners' Utilization of Online Resources at the Institute of Adult Education

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Abstract

The study explored learners' utilization of online resources with a view to shade some light on a paradigm shift from andragogy to heutagogy. The specific objectives were;- first to explore the learners' capabilities in utilizing online resources and second to assess institutional mechanisms in supporting a paradigm shift from andragogy to heutagogy. The study was conducted at the Institute of Adult Education in Morogoro Campus. It employed a qualitative research approach and case study design. The respondents were;- 33 ODL Students, one librarian and one ICT specialist. The participants were obtained through purposive sampling procedure. Data collection methods were; open-ended questionnaires, documentary review, semi-structured interview, observation and focus group discussions. Gathered data were analysed using thematic and descriptive analysis. The findings revealed that; students with prior ICT experience were capable of utilizing e-materials effectively than those with no prior experience. Moreover, the study noted some of critical challenges facing librarian and ICT specialist in supporting students such as: most of the students were not aware of free e-libraries; insufficient of e- materials, lack of internet connectivity and absence of computer laboratory. The study concludes that, effectiveness of the paradigm shift to heutagogy depends much on the learner's capability in ICT skills and institutional support services.

Keywords: Heutagogy, Self-determined learning, online resources, Distance education and Open Learning.

Introduction

The traditional perspectives on the relationship between the teacher and learner relied exclusively on the pedagogical assumptions. In the realm of pedagogy as a philosophical tool of analysis, the teacher is one who decides what the learner needed to know and which kind of knowledge and skills should be taught. The contemporary society observed the paradigm shift from pedagogy to andragogy and from andragogy to heutagogy (Hase and Kenyon, 2001).

Based on the paradigm continuum, pedagogy was the starting point and it was followed by andragogy. Pedagogy literally means the art and science of teaching children. Andragogy on the other hand refers to the art and science of helping adults learn (Knowles, Holton and Swanson, 2005).

Blaschke, (2012) noted that it is more than thirty years have lapsed since andragogy was introduced by Knowles. According to Blaschke the world's events and people's life always change, many things in the world particular in education have changed since the time of Knowles, and the rate of change seems to increase every year. The development of individual capability in the twenty-first century need the approach like heutagogy in order to meet the demand of the job market (Uday, 2019).

In view of Hase and Kenyon, (2000) the term "heutagogy" refers to "self-determined learning". Umashankar and Charitra (2016) define the term heutagogy as self-determined and student centric learning challenging the traditional methods of pedagogy which is a teacher centric. Additionally, Hase and Kenyon (2007) define heutagogy as the study of self-determined learning, whereby learners' capabilities are viewed as the major agent in self-teaching and autodidact learning as a result of individual's experience.

Blaschke, (2012) argued that in the heutagogical approach the process of teaching and learning focus on the learners' autonomous and self-determined. Thus, the learning objectives are based on the learner's capacity for competing in the global job market and the complexities of today's workplace. Blaschke and Marín (2020) noted that the current job market requires specific employees who possess generic skills such as decision making, critical thinking and problem solving skills.

Heutagogy advocated for a special interest on distance education and open and distance learning through key attributes, such as learner autonomy and self-teaching. Most of the participants of distance education/open learning are

mature adult learners (Blaschke, 2012). Distance education and open learning are the modes of learning which combine the principles of learner centeredness, lifelong learning, flexibility of learning provision, and also helps to remove the barriers to adult learner to access learning (Butcher, 2005).

Mushi (2010) describe adult learners as men and women who seek to improve themselves or their community by developing their knowledge, skills and attitudes. The author noted that adults bring a wealth of information and experience to the learning situation. Based on this assumption the heutagogical approach seems to be suitable in accommodating the adult learners' needs, interest and characteristics. Blaschke and Hase (2019) argued that the rising popularity of open and distance learning has created renewed interest in established educational approaches that focus on supporting learner agency. These approaches include theories such as self-efficacy, self-determination, constructivism, and self-directed (andragogy). As approaches that develop learner agency, they are foundational to self-determined learning (heutagogy). The study conducted by Umashankar and Charitra (2016) on andragogy and heutagogy in adult education with reference to Bloom's Taxonomy revealed that learners who are able to access to the IT resources they are good in utilizing those resources for self-determined learning. Moreover, Patel and Khanushiya, (2018) contended that the development of science and technology in the digital age contributes to the paradigm shift from campus based learning to virtual education. Furthermore, the authors argued that 21th century experienced the advancement of technological devices considered as a motive for a paradigm shift from pedagogy to andragogy then to heutagogy.

Ahmad, Mehar, Siddique, and Khan, (2021) noted that globally research contribution in effective approaches for facilitating adults (andragogy and heutagogy) is still lacking. Most of the researches have been conducted in USA, UK and Australia. A study by Blaschke (2012) shows that the University of Western Sydney in New South Wales, Australia, is an example of one institution that has implemented a heutagogical approach in its teacher education program by redesigning programs to integrate learner self-directedness through blended learning. In this regard, the purpose of the study was to explore the capabilities of learners in using online resources with a view to shade some light on a paradigm shift from andragogy to heutagogy at the Institute of Adult Education in Morogoro Campus.

Literature Review

From Pedagogy to Andragogy and then Heutagogy

The contemporary education system has been observing the revolution in terms of teaching and learning methodologies. Traditionally, using the pedagogical model, the teacher had a full responsibility in all process of teaching and learning (Knowles, Holton and Swanson, 2005). The pedagogy was gradually replaced by the andragogy which focused more on the student-centric education rather than teacher-centric education. In andragogy (self-teaching/autonomous), what is to be learnt it is determined by the teacher and directed by the learner (Shpeizer and Glassner, 2020).

In the digital age the heutagogy approach is gaining credit as a response to online learning. Based on the Heutagogy assumption, a learner may pursue their education online without any constant instructions from the facilitator (Umashankar and Charitra 2016).

Heutagogy introduced by Stewart Hase and Chris Kenyon as an offshoot of andragogy. The term “heutagogy” is a combination of two Greek words “Heauto” that means “self” and “agogy” meaning “leading” (Patel and Khanushiya, 2018). From the andragogy to the heutagogy approach, the paradigm shift perspective focused on the key concepts “self-teaching/autonomous” in andragogy and “capability versus competency” in heutagogy (Hase and Kenyon, 2001). Figure 1 bellow provides a pictorial illustration of the heutagological approach perceived as a progression from pedagogy to andragogy then to heutagogy, with learners likewise progressing in maturity and autonomy (Canning, 2010).

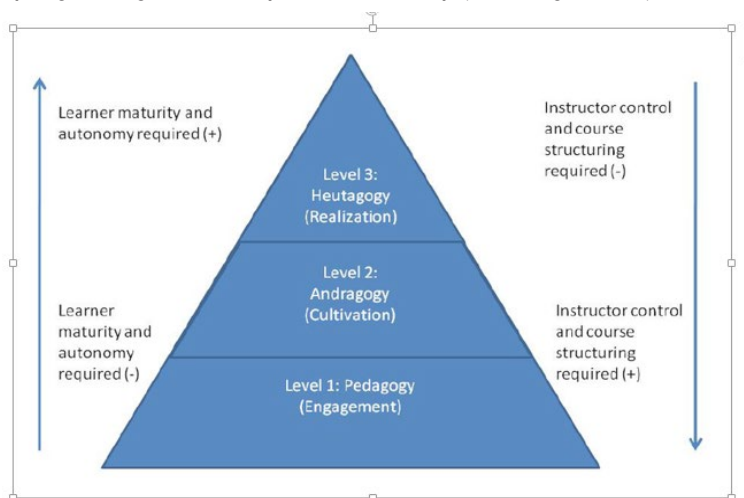


Figure 1. Paradigm shift from pedagogy to andragogy then to heutagogy.

Source: (Adapted from Canning, 2010, p. 63).

Blaschke, (2012) identified the specific academic areas that distinguish andragogy from heutagogy perspective (see Table 1). In andragogy, curriculum, questions, discussions, and assessment are designed by the facilitator according to the learner needs and interest. On the contrary in heutagogy, the learner sets the learning course, designing and developing the map of learning, from curriculum to assessment.

Table 1: HEUTAGOGY AS A CONTINUUM OF ANDRAGOGY

Andragogy (Self-directed)	Heutagogy (Self-determined)
Single-loop learning	Double-loop learning
Competency development	Capability development
Linear design and learning approach	Non-linear design and learning approach
Instructor-learner directed	Learner-directed
Getting students to learn (content)	Getting students to understand how they learn (process)

Source: Blaschke, (2012).

Learning Theories in the Heutagogy Approach

The heutagogy approach founded into two learning theories/philosophies: constructivism and humanism. Constructivists believed that people construct their own version of reality using past experience and knowledge, and their current experience (Blaschke, 2012). Meanwhile, humanism believed that individuals had their own intellectual capacities and inborn ethical sense. Therefore, education goals should aim to develop individuals’ self-concept in relation to humanity (Blaschke and Marín, 2020).

Nyirenda and Ishumi (2008) argued that the existentialism emphasize the growth of uniqueness and freedom of the individual person against the herd, the crowd or mass society. Existentialists believed that the contemporary education through formal system hinders the growth of authenticity. To overcome this obstacle, some existentialist educators have turned their attention to informal and non-formal kind of education such as “open classrooms” or “open education” as ways of encouraging the growth of authenticity.

In the humanistic perspective, individuals are assumed to be naturally good if given the freedom of choice and friendly environment towards self-actualization. To achieve the concept of self-actualization, humanism emphasizes methods like experiential learning and self-assessment to be applied in face to face, distance education and in open learning (Mushi, 2010).

Distance Education and Open Learning

Becker, (2004) contended that there is no clear differences between distance education and open learning since these two concepts can be used interchangeably. Moreover, the author noted that in the contemporary society other terms have emerged describing what are essentially in distance education and open learning courses including: e-learning, flexible study, remote access courses, and open-ended modular study.

Distance education is a mode of learning conducted differently from the campus-based mode of learning (Dewal 1986 cited in Holmberg, 2005). Lockwood (2017) describes distance learning as a kind of learning in which learners are separated from their teachers in time and space but are still guided by them through pre-recorded, packaged learning materials. Open learning is a mode of learning that provides learners a wide range of choice and control learning content and strategies (Dewal 1986 cited in Holmberg, 2005). Lockwood (2017) defines open learning as a system which enables individuals to take part in programmes of studies of their choice, no matter where they live and their circumstances.

ODL Support Services in the Digital Age

It is assumed that globally there is internet connectivity whereby learners easily access and search for study materials from various online sources by using electronic devices. In such situation teachers are no longer a source of knowledge rather but facilitators of the learning process. Learners do not depend entirely on teachers both in terms of learning materials and subject matter (Sumarson, 2019).

Blaschke (2012) noted that heutagogy is an approach that could be applied to emerging technologies in distance education and lifelong learning, as well as serve as a framework for digital age teaching and learning. Sumarson, (2019) argued that in the digital age facilitators are supposed to equip learners with supporting environmental facilities such as internet network with general or special search engines, such as Elsevier, google scholar engine, Scopus journal engine, IEEE journal engine, genesis library journal engine.

Technological developments provide opportunities for open and distance learners to explore and learn independently with help from electronic devices and media supporting self-determined learning (Blaschke and Marín, 2020).

Moreover, Sumarson (2019) discussed that heutagogy learning gives learners full freedom to develop their abilities outside the classroom and is fully supported by a cybergogy approach that facilitates students learning autonomously using ICT resources.

The study conducted by Blaschke (2012) in reviewing heutagogical practice and self-determined learning indicated that Web 2.0 and social media has played an important role in generating new discussions about heutagogy within higher education. Web 2.0 design supports a heutagogical approach by allowing learners to direct and determine their learning path and by enabling them to take an active rather than passive role in their individual learning experiences. Moreover, Blaschke (2019) identified some of the challenges of adopting a heutagogical approach in the digital age such as; academic resistance to change and a “fear of hand over power” (from instructor to student), increased financial and learning pressure on students due to new technology requirements, and a continued student focus on assessment and grades rather than the learning process.

Furthermore, Umashankar and Charitra (2016) conducted a study on andragogy and heutagogy in India. The results through survey reports that teachers and learners preferred more heutagogical learning process than the traditional mode of learning in a classroom set-up. Further, the study also suggests some of the effective learner-centric information and technology tools under heutagogy that can effectively build the required generic skills among learners. Indeed, the study suggested information and technology tools that help the learners for an independent study and they are also intended to enhance their cognitive abilities.

Within the context of Africa Chimpololo (2020) conducted an analysis of heutagogical practices through mobile device usage in a teacher training programme in Malawi. The study shows that few student-teachers claim to engage in self-determined learning. Conversely, most of them tend to participate in communities of practice, particularly those involving students only. In addition, few student-teachers hold the intention to use their information and technology devices in their own teaching.

Conceptual Framework Towards Self-determined Learning

This study adopted the information literacy Catts, Lau, Lee, and Chang, (2012) model which has four standards that used to explore learners’ ICT skills towards self-determined learning (See Figure 2).

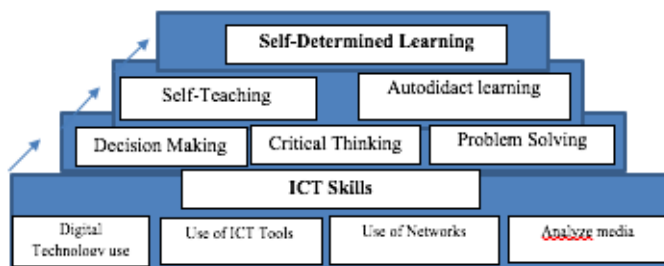


Figure 2. Conceptual Framework for Exploring Students' ICT Skills and Capacity for Self-Determined Learning

Source: Adopted and modified from Catts, Lau, Lee, and Chang, (2012)

As Figure 2 suggests, four levels of hierarchical skills model are crucial for developing self-determined learning. The first level at the bottom identifies the four ICT skills namely; digital technology use, use of communication tools, use of networks, and analysis of the media message necessary in digital learning.

The second level comprises some of the personal abilities (generic skills) such as decision-making, critical thinking, and problem-solving skills. The situation of mastering ICT skills helps one's to facilitate decision-making to solve different problems as well as ability to think critically accordingly to information needed. The third level comprises two dimensions for self-directed learning, the generic skills as identified at level two facilitates one's engagement in a certain status of learning such as self-teaching and autodidact learning. At this level, learners have the capability to choose the learning mode depending on their interest, time, socio-economic status and career development. Online studies, self-paced courses and open and distance learning are the learning modes that are encouraged at this step.

The fourth level (at the top) is "self-determined learning" in the digital age. This is the level whereby a self-determined learner can do academic work independently with minimum or without assistant from teacher/facilitator.

Material and Methods

This study employed qualitative research approach informed by social constructivism paradigm which asserts that reality is subjective and context based (Bryman, 2012). The paradigm was chosen because it is considered to be effective for exploring learners' capabilities of utilizing online resources towards

a paradigm shift from andragogy to heutagogy (Plano-Clark and Creswell, 2018). The study was based on this view of reality mainly because it provided an opportunity to explore and understand the research problem through interaction with the participants within the campus settings by using semi-structured interviews and open-ended questionnaires. Furthermore, this approach give voice to the participants to explore the impact of online resources towards self-determined learning (heutagogy) as recommended by Cohen, Manion, and Morrison (2011). The study employed a case study design because it needed detailed exploration to understand how learners possess ICT skills and how those skills could facilitate self-determined learning. According to Bernard (2006) a case study design has to be used when the focus of the study is to answer “how questions”, which was the case for this study.

The study was conducted at the Institute of Adult Education-Morogoro Campus which situated in Morogoro Region in Tanzania mainland. This institution was chosen because the literature review revealed there was a knowledge gap on studies deployed the approach used in facilitating open and distance learners. The Institute of Adult Education is among the oldest institutions which offer learning programmes through open and distance learning modes.

The study involved two experts (one librarian and one IT specialist) and 33 diploma students who pursue their studies through open and distance mode (17 first year and 16 second year students). Librarian and IT specialist were involved in the study on the basis of their potential to generate rich information about how they support and guide students to access and use online resources. On the other hand ODL students were involved in the study because of their learning mode that depend much online resources. Purposive sampling involved to select a sample of 35 participants. This sampling technique was used to librarian and specialist because the campus has only two experts in these areas of specialization. Also this technique was applied in selection of 33 students because the campus has both conventional and ODL diploma students. Therefore, students who pursue their studies through open and distance learning mode were purposely targeted by this study.

The study employed five data collection method, namely; semi-structured interview, observations, focus group discussion, documents review, and open-ended questionnaires. These research instruments used because they were

compatible with the study objectives and questions; therefore, helped to elicit participants' perceptions. To guarantee reliability of the research instruments, a pilot study was conducted before the actual data collection.

The data gathered from the study were more qualitative than quantitative and analysed through thematic analysis based on the research objectives. Direct quotations from respondents were used to authenticate the findings. The small quantitative data obtained through open-ended questionnaires were analysed data through descriptive statistics using Statistical Package for Social Sciences Version 20. The responses were presented using table in order to compare the results. The quantitative findings were used to supplement the results from the qualitative information.

Results

The findings from the study are presented based on the two research objectives: To explore open and distance learners' capabilities in utilizing online resources and to assess institutional mechanisms in supporting the paradigm shift from andragogy to heutagogy.

Capabilities of ODL Students in Utilizing Online Resources

The first research objective explored the capabilities of open and distance learners in utilizing online resources. From the analysis, different themes emerged regarding the ability of learners in using online materials as reported below.

Learners' Prior Experience in ICT Skills

With regard to the learners' prior experience in using ICT skills in learning process, during interview the study indicated variations among students in using online materials. The analysis indicated that students with prior ICT experience were capable of utilizing online materials effectively and ethically than those with no prior experience as illustrated.

I am not aware of online books and other related e-resources. More than 23 years have elapsed since I completed my secondary school and teacher's education "Grade A". Since that time I didn't attend any in-service training. It is my first time to learn and apply ICT skills at this collage (Interview, first-year female student no. 15).

Subsequently, during focus group discussion, it was noted that only few students were aware of search engines, as suggested.

I am aware of online sources of material which found in the IAE website; these sources are like Google scholar, Harvard library, Oasis Commonwealth of learning and Research 4life. I often visit these links for searching publications and PDF documents for my studies (Focus group discussion, second-year male student no.3).

I know some of search engines for utilizing online learning materials; I have experience from my certificate course. I often receive assignments from my facilitators, I use Google search engine to find answers. In the case of ethical use of information, I know how to acknowledge authors' work and do referencing (Focus group discussion, second-year male student no. 1).

The above quotes suggest some variation among students' experiences in applying ICT skills. These findings are also supported by quantitative data which shows female students had difficulties in applying ICT skills than male students (see Table 2).

Table 2. STUDENTS' RESPONSES IN ICT RESOURCES UTILIZATION

ICT Skills	Sex				Age								Marital Status					
	Male		Female		20 - 30		31 - 40		41 - 50		51 - 60		Single		Married		Divorced	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Digital Tech use	06	09	06	14	04	06	04	07	03	09	0	01	06	9	04	12	02	02
Use of ICT tools	04	11	03	17	04	08	04	10	03	09	0	01	03	12	02	14	02	02
Use of networks	07	08	05	15	04	06	05	08	02	08	0	01	06	09	04	12	02	02
Analyze media message	02	13	0	20	01	13	01	09	0	10	0	01	01	14	01	15	0	04

Table 2 indicates students' frequencies variations in using ICT skills in terms of gender, age, and marital status. The analysis indicates that most students had moderate capabilities in applying ICT skills like use of digital technology, use of ICT tools, and use of networks. Meanwhile, both male and female students show they face difficulties in analysing media message. In terms of age, the analysis indicated that students aged between 20 to 40 years were more aware of some ICT skills than those aged between 41 to 60 years.

Learners' Awareness on the Available Resources

It was noted that only few students were aware of the available online resources found in the IAE website and other websites. However, it was noted that some of the available online materials are irrelevant with learners' module contents, as suggested.

During orientation course, we learnt on how to access online materials. But when I visit some source just I find only few materials which are relevant to my module contents ((Interview, first-year female student no. 8).

The quote above suggests that some learners are familiar with online resources although they experienced some difficulties in identifying reliable sources of information relevant for their module contents. Further analysis from observation checklist indicated that most of the students were not aware of available free online library.

Further, findings from interview analysis indicated that some of the younger students were more aware of the available online material than older students. One of the possible reasons for variation could be most of younger learner are aware of the uses of modern technology devices (like Smartphone) than older students.

Library and IT supporting Services

In the second research objective, the analysis based on the nature and extent of library and IT support services. Different themes emerged regarding the learning support services and the extent librarian and IT specialist support learners in accessing the learning materials.

Insufficient of Online Materials

The analysis from interview with a librarian indicated that the campus library had insufficient online materials as reported.

The library has insufficient online materials (e-books, e-journals, and e-articles). The campus library also had no independent library website and the current used website had no an open courseware that stored study materials for both academicians and students. (Interview, librarian)

The above quote indicated lack of online material sources which are necessary for distance and open learners. Findings from observation checklist revealed that the current website used by campus library (the main campus website) had only two e-journals. Apart from that the available computers in the library were ill-equipped with no internet connectivity. Most of the interviewed ODL students reported that they were getting internet services from their own Smartphone bundles.

Meanwhile, the findings from IT specialist reported that the Institution had no computer laboratory for practical works and students' computer practices were

been done in the library room. Through observation the study revealed that there only fifteen (15) computers installed in the library. These computers are used by both conventional students and open and distance learners during the face-to-face sessions. Moreover, the campus library room is too small to accommodate a mass of both conventional and open and distance learners.

Learners' Guidance and Support in Using Online Materials

The interview conducted with librarian and IT specialist indicated that they supported students with challenges in accessing online resources as reported.

Often we receive calls from students seeking directives for searching online materials from the IAE website. We direct them on how to use search strategies such as keywords and phrase searching. (Interview, Librarian and IT specialist)

The above quote suggest some of the common ways in which students were being supported to gain ICT skills. Meanwhile, the librarian reported that there were many challenges in supporting students such as shortage of relevant books in relation module contents and inactive of OPAC in the IAE website.

Through observation, the study revealed that the IAE OPAC was inactive and other four online sources found in the IAE website were active (Google scholar, Harvard library, Research 4life and Oasis Commonwealth of Learning "COL OER link").

Further interview analysis indicated most of the students seemed to be unfamiliar with the use of ICT equipment. The IT specialist reported to support students using some of equipment like computers and projectors although the further analysis indicated most of students had begun to use these tools at the college level, as illustrated.

My department offers training on the use of available ICT devices in every orientation program. The most challenge I experience is lack of prior experience in ICT skills to first year students (Interview, IT specialist).

The above quote indicates the IT specialist support students during orientation programme on how to use ICT devices. The findings indicated that most of students especially first years lack skills in ICT and it was assumed to be the first time for them to learn ICT as a subject. Further analysis from the librarian and IT specialist interview indicated that most of students were unfamiliar with the available free online libraries where they can access free e-books and other PDF documents.

Discussion

It is assumed that adults accumulate a lot of experiences in their daily working environment. Findings from this study indicated variation of learners in having prior experiences for utilizing online resources. The analysis indicated that learners with prior ICT experience were capable of utilizing online materials effectively and ethically than those with no prior experience. Knowles, Holton and Swanson, (2005) argued that although adults assumed to have greater volume and different quality of experience they differ in experiences. This difference in quantity and quality of experience has several consequences in learning process. Blaschke and Marín, (2020) argued that prior experience in ICT skills contributes a great role to developing self-determined learners.

Regarding the aspect of learners' awareness of the available online materials the study revealed that only few learners were aware. The findings indicated that those few learners who were familiar with the online resources face difficulties in identifying reliable sources of information relevant for their module contents. Being unfamiliar with the online materials in distance learning context may inhibit the learner to be self-determined. Blaschke, (2019) argued that it is difficult to shift from andragogy to heutagogy if the target learners are computer illiterate or face technological challenge in the learning process. Umashankar and Charitra (2016) noted that barriers in online communication between a learner and facilitator may hinder the effectiveness of open and distance learning. Moreover, regarding the learner support services, the findings indicated that there were insufficient learning resources. Shortage of online materials which are necessary for distance and open learners was a major challenge to attainment of the learner's educational goals. Meanwhile, shortage of computer and lack of internet connectivity within campus area were reported to be the challenges hindering self-determined learning. Sumarson, (2019) show the role of technology devices in facilitating a paradigm shift from teacher-centred towards student-centred.

Therefore, in the open and distance learning context online materials are important for facilitating the concepts of self-teaching and autodidact learning leading to self-determined learning.

Furthermore, the study noted that learners were being supported to gain ICT skills. The findings identified some of the challenges in supporting learners to use effectively online materials, among of them including shortage of relevant online materials. Patel and Khanushiya (2018) argued that it is necessary in

this digital age to support learners to use technology devices because of a paradigm shift from pedagogy to andragogy and then to heutagogy. Sumarson, (2019) encouraged facilitators to create online learning environment equipped with the modern technological facilities such as internet network with special search engines, such as Elsevier, google scholar engine, Scopus journal engine, IEEE journal engine, genesis library and journal engine. The availability of these facilities in learning environment facilitates the concept of self-determined learning.

The study concludes that, the effectiveness of paradigm shift from andragogy to heutagogy depends much on the learner's capabilities in ICT skills and institutional academic support services. The study has revealed insufficient online resources is a major challenge for open and distance learners towards self-determined learning.

Lastly, the current study used a case study of a single campus which had only few diploma ODL students pursuing their studies through open and distance learning. The study recommends for further studies to undergraduate students within institutions or universities which offer programmes through open and distance learning.

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