

PAPER

Heutagogy Approach in Mobile Learning: Developing Technology-Enabled Lifelong Learning

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Padang, Indonesiawiloleaks@unp.ac.id**ABSTRACT**

Students in higher education are using mobile devices, which challenges our understanding of what it means to learn in modern environments. By using mobile devices as instructional aids, students gain a variety of social, cognitive, and technical abilities. Mobile devices may therefore be seen as supporting the growth of employability skills and broader lifelong learning, both of which may be helpful in a variety of circumstances. The quickly evolving landscape of technology and education presented teachers with a number of challenges, and they had to retrain and refresh their skills in order to provide practical training. As a result, heutagogical methods are ideal for enhancing their collective knowledge and skills. Online and blended learning (BL) offer a learning environment that incorporates technological affordances to facilitate learning. This enables the growth of an independent, capable, and self-directed lifelong learner. Heutagogy provides an educational strategy in this context that may link the development of lifelong learning competencies with BL and online learning environments. Using this methodology, we investigate the potential contribution of online and blended higher education to technology-enabled lifelong learning where heutagogical experiences are available. The results support the notion that heutagogy and lifelong learning are linked by some basic concepts that apply to both mixed and online learning environments.

KEYWORDS

mobile learning (M-learning), lifelong learning, heutagogy, online learning

1 INTRODUCTION

Mobile learning (M-learning) is being used by many universities to provide students with more studying flexibility. With the spread of wireless technologies and gadgets, it is anticipated that this trend will only continue to develop. In addition to learners being more mobile and capable of learning across many devices, it is anticipated that the subsequent era of mobile education will be pervasive. While there are several ways to define mobile education, this study uses the definition to

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refer to any type of learning that occurs when a learner is not in a set, predefined location or when they take advantage of the possibilities for learning provided by handheld devices.

Because of how quickly technology is evolving, mobile devices frequently lead to new study opportunities in mobile learning. The focus of study has shifted as a result of changes in communication technology in addition to gadgets. For instance, texting, “applications,” and social media are widely used. [1] Mobile technology is evolving swiftly, and so is how it is used in education. As a result, it is necessary to regularly analyze “trends in mobile phone types and performance, along with the types of learners and their utilization of handheld devices in different fields and courses.” Because they affect how study findings are disseminated, understood, and applied, study goals and methodologies are crucial. Study goals and techniques have a significant impact on how findings are disseminated, recognized, and applied. Review analyses can provide direction for future study planning and aid in identifying advancements in the subject. Policymakers in higher education can also benefit from knowledge of study patterns when making decisions about technology use in educational settings.

1.1 Mobile technology and teaching methods

Frameworks to assist educators in integrating technology into the curriculum have emerged in response to calls from scholars for their consideration. The framework for content knowledge, pedagogy, and technology was created to emphasize how important it is for teachers to possess knowledge and abilities across these various TPACK domains. According to the author, when utilizing technology in the classroom, educators should integrate all of these different types of expertise and teaching abilities. They should also think about how to modify TPACK-informed instruction to take into account the cultural, linguistic, and age diversity of their students. The evolving norms for the use of technology show trends towards this kind of integration. Early standards emphasized the value of imparting fundamental knowledge of software and the usage of computers. The teacher skill set that was emphasized in the 1990s included learning how to utilize Microsoft Office and Microsoft PowerPoint, among other programs. With the growing prevalence of technology in classrooms, the focus of instructional technology has switched from teacher knowledge of technology to teaching teachers to integrate information into their teaching and instructional methods.

Many were calling for the integration of technology into formal education due to their enthusiasm for its advantages and its increasing importance in both business and life. However, there was not enough consideration given to the positive effects that technology may have on the learning environment; instead, educators concentrated on the things that technology could supplant. Educators frequently employed mobile devices for tasks that did not capitalize on their special advantages, utilizing 22nd-century technologies for instruction that originated in the 20th century. This disregard for the transformative effects of technology brought to light the necessity of creating instructional structures that make use of the special advantages offered by mobile devices to improve learning both in theory and practice. Teachers were able to see mobile technology advantages from a different angle by using substitutes, enhancements, alterations, and redefining paradigms. [2] When technology is employed for a task that might be completed without it, the SAMR framework describes it as a continuum with a substitute

at the bottom. Redefinition, on the other end of the spectrum, is the application of technology to generate fresh possibilities that were not possible in the absence of it. Think about using Google Documents on a mobile device as an example. There isn't much of a difference between paper and pencil and Google Docs at the substitute level; the pupil would enter information into the document, print it, and give it to the teacher.

At the augmentation level, text can be automatically added to documents using the text-to-speech capability, or students can work simultaneously on a single page. Multimedia elements, such as audio, video, or hyperlinks, could be introduced to the document at the alteration level to rethink the way the content is presented. The Google Doc can be enhanced with technologies such as SAS composing reviser for redefinition. With the application of AI, this was able to quickly and precisely deliver feedback on the learner's writing with respect to writing rules, including lengthy sentences and improperly positioned modifiers. The content written by the student will be highlighted by SAS composing reviser, which will also provide fields of text with the necessary revision instructions.

1.2 Relationships between cognitive theories of learning and mobile education

The purpose of handheld gadgets and application programs is to provide learners with the ability to interact with rich digital materials, other students, and their instructors while also facilitating seamless learning between both official and informal situations.

Table 1. Behavioral educational theories and mobile learning: interactions

A Feature of Mobile Education	Theories of Psychological Education
Acquiring knowledge in various settings	Move, personal instruction, and informal education
Relationships with specialists, teachers, peers, and the global community	Learning that is socially shared, interactive, supported, help seeking, suggestions, and investigation based on design
An ecological paradigm for integrating mobile learning	Hypothesis of social-cultural education
Lifelong learning pedagogy	Self-control, feelings the idea of constructivism and self-regulated education

Many of the characteristics found in concepts of (M-learning) are also explored and studied in the fields of education by scholars who focus on learning procedures and use theories of thinking, drive, and environmental factors, perhaps under different titles. Study can go in many new and exciting directions when wireless and cognitive theories of learning are combined. Table 1 identifies conceptual parallels between these theories of psychological and mobile learning, and it offers some examples of how these linkages might advance both psychological and mobile educational study and practice. To further explain, we will concentrate on movement, guidance, socially collaborative educational oversight, and informal education in the ensuing parts. [3] We seek to uncover contemporary coherences between these hypotheses as well as methods in which they enrich and expand upon one another by putting these links into clearer contexts.

1.3 Heutagogical approach

In general, pedagogical concepts are closely related to the concept of mobile education. All the benefits of open and distant educational settings are available with mobile education, including greater flexibility in the timing, method, and location of teaching. With the use of mobile devices, students can produce their own content, making it possible for teaching to be more adaptable and specific to the requirements and interests of individual learners. This can prove to be an important advantage when studying online.

Higher education: Heutagogy is frequently discussed about adult learning; however, it has broad used in education in many instances. Canning and Callan (2011), in their investigation of UK higher education institutions, connected the use of pedagogical concepts to the display of ability and capability. In courses in higher education, pedagogical ideas have been applied to rebuild the course with an emphasis on student-centered learning rather than instructor-centered learning. Redesigning courses in journalistic enterprise education and instruction in architecture has been guided by the incorporation of pedagogical ideas.

Medical education: Medical education is another setting where the application of pedagogical principles has proven successful. Healthcare practitioners need to be up-to-date on the latest best practices and can correctly use this knowledge in certain contexts. Heuristic principles provide support for this need to adjust to changing work environments. Physicians also need to have prior expertise in handling a range of medical scenarios. A flipped classroom strategy, which offers possibilities for students to comprehend the material and then implement it in real-world settings, is one way to address these needs. This strategy has been beneficial, especially for those studying medicine and nursing.

Educators can choose from several distinct strategies to address these disparities and establish a pedagogical approach-friendly environment. Firstly, professional development can be made more transparent by leveraging technology, especially social media. Educators can exhibit the independence that is so important to heutagogy and have more influence over their students' learning by utilizing social media. Since the discussions are going to be learner-driven and centered on the subjects that are most relevant to the participants, the conference structure is linked to pedagogical philosophy. Focused discussion and networking can occur beyond the boundaries of that one session as a synergy is created around those issues.

2 RELATED WORKS

Educators can choose from several distinct strategies to address these disparities and establish a heutagogical approach-friendly environment. Firstly, professional development can be made more transparent by leveraging technology, in particular social media. Educators can exhibit the independence that is so important to heutagogy and have more influence over their students' learning by utilizing social media. Since the discussions are going to be learner-driven and centered on the subjects that are most relevant to individuals, the conference structure is linked to heutagogical philosophy. Focused discussion and networking can occur beyond the boundaries of that one session, as a resonance is created around those issues. [4] Three categories of non-formal education consist of intentional and conscious self-directed instruction, accidental and conscious education, and inadvertent and intuitive tacit learning. Informal learning is defined by these principles as any free-of-charge, autonomous education that takes place in a variety of real-world contexts.

Social learning may benefit from the use of mobile phones and tablets, which are among the most accessible instruments in everyday use.

According to research, using augmented reality (AR) technology in educational contexts has several benefits. AR, for instance, enables students to participate in everyday life and realistic explorations. AR makes it easier to see occurrences that are difficult to see with the unaided eye by superimposing virtual features on real-world items. As a result, it boosts students' enthusiasm and aids in their development of stronger study techniques. Creating absorbed hybrid educational settings that blend both physical and digital items is AR's distinctive advantage, as it can help develop analytical thinking, problem-solving, and communication skills through interconnected cooperative exercises. [5] According to a relatively recent study, virtual reality (VR) technology helps undergraduates develop a favorable mindset towards physics experimental work and improves their research skills.

The independence of learners is strongly emphasized in heutagogy, wherein students are inspired to take responsibility for their education, establish their objectives, choose their learning path, and develop a sense of uniqueness and autonomy. "From a social realist standpoint, the student actively interacts with his social and physical surroundings to build his learning" [6]. It encourages learning to be elastic and flexible, able to adapt to diverse educational circumstances, make use of a range of resources, and build the skills necessary for independent learning, all of which are especially important when it comes to the use of technology. The term "self-determined learning" refers to a method of learning that goes against conventional notions of leadership in education and pedagogy. Instead of serving as the main knowledge source, teachers can take on more facilitative roles, mentoring students and offering support.

Independent learning is also supported by heutagogy, even if it is still taught by an instructor. It is also crucial to stress that, while self-motivation, which is highlighted in the notion of self-determination is a component of heutagogy, the concept of self-determined learning is distinct from the theory of self-determination. Rather than being a well-established method of instruction, heutagogy is still relatively new. The theory has undergone constant modification and advancement. Several publications throughout the years have clarified and improved the theoretical basis of heutagogy. [7] New ideas that emerged from instructional design, such as the self-authoring learner and the pedagogy and heutagogy (PAH) spectrum, demonstrate the conceptual reliability of instructional design and its consideration within various approaches.

A viewpoint on heutagogy instruction: The setting and resources for heutagogy learning should be provided via instruction, along with a structure for deep learning to support the growth of skills for the 21st century. A pedagogy-andragogy-heutagogy continuity that offers a structure for enabling learners via independent learning and presents a route to student participation and 21st-century education should also be included in teaching. Higher education must develop innovative approaches to motivate, encourage, and assist students' learning while also giving them the information, abilities, attitudes, and values necessary for success in the real world. [8] Most importantly by recognizing each student's uniqueness, skills, desires, and pursuits, educational planning and training should foster freedom. Teachers' agency in the setting of distance learning was defined by action instead of just capacity or skills, even though they frequently had little experience and expertise in distance learning. It affects teachers' capacity to take positive action, guide their career growth, and support the progress of their professional partners and aspiring teachers.

Consequences for lifetime education: Lifelong learning encompasses an extensive variety of learning possibilities, going beyond conventional educational and certification systems to include formal instruction and unofficial forms of instruction. [9] It is the result of integrating “formal, formal instruction, and unofficial learning to develop the ability to continue lifelong improvement in quality of life.” People’s ability to learn new things throughout their lives has become crucial for overcoming the issues of today, given that future economic growth and safety depend on “people’s ability to make educated decisions, become accustomed to rapid change, and ultimately to develop lasting solutions to urgent challenges.” Several organizations are now using ICT to create efficient informal learning environments after realizing the importance of lifelong and informal education “for maintaining and enhancing the expertise and abilities employees need in a 21st-century work climate.”

3 METHODS AND MATERIALS

3.1 Permanent education skills for possible employment

A multitude of investigations and frameworks have surfaced in recent years that emphasize the significance of continuing education. They reported on a range of future talents that the following day’s employed students will need in their Delphi survey, which involved over fifty educational professors, scientists, and organizational executives. three aspects are depicted in Figure 1.

Skills linked to subject growth: The capacity for contemplation, independence, improving oneself, creativity and drive for success, adaptability, self-assurance, managing oneself, and uncertainty tolerance.

Skills about objects: quickness, creativity, and competence with electronic media.

Social abilities and institutional expertise: future-focused pondering, the ability to work together and interact, and the capacity to make sense of things.

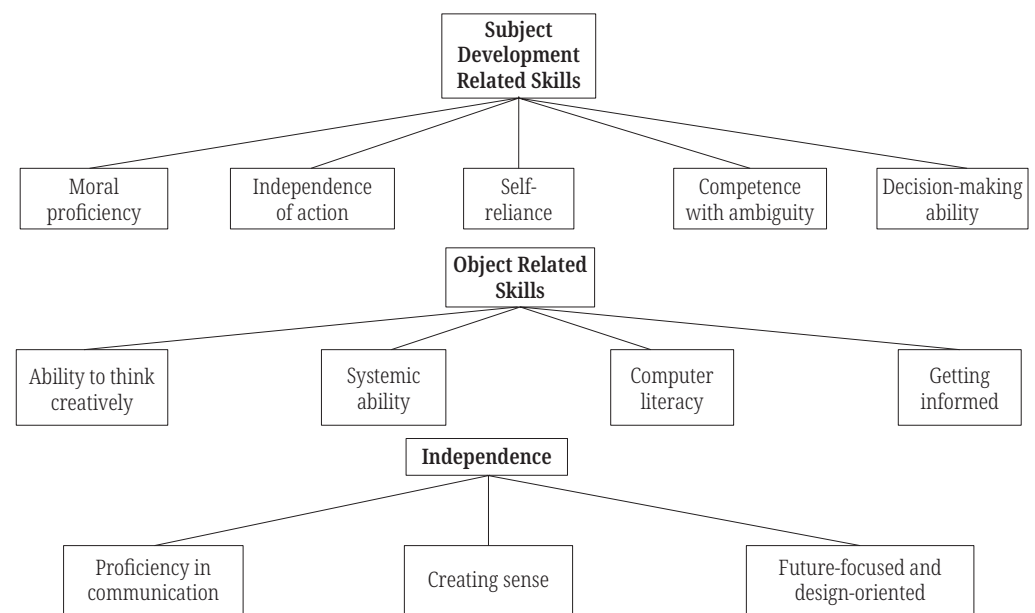


Fig. 1. Prospective competence structure

3.2 Heutagogy principles are aligned with lifelong learning skills

The lifelong learning abilities outlined in the LifeComp and DigEduComp Structures, as well as the data from Delphi research, are nicely aligned with the heutagogy concepts that include student agency, confidence and capacity, introspection or consciousness, and nonlinear learning. The continuous education skills outlined in the previously mentioned frameworks and the heutagogy principles they fit with are summarized in Table 2. [10] The fact that the concepts of heutagogy and lifelong learning skills overlap suggests that heutagogy may be a viable and significant theoretical framework for cultivating lifelong learning skills.

Table 2. Principles of heutagogy in line with skills for lifelong learning

Principle of Heutagogy	Lifelong Learning Abilities
Student authority	Active learning and its methods of instruction, autonomy, creativity, flexibility, management, personal skill, autonomy, independent thinking (or internal drive), managing themselves, and autonomy
Self-assurance and aptitude	Self-confidence and tolerance for uncertainty
Metacognition and introspection	The capacity for contemplation, imaginative and analytical thinking, sophisticated solving issues, thinking critically and analytically, inspiration, logic, discipline, and making sense
Non-linear Education	Knowledge of digital utilization of technology, collaboration, communication and collaboration skills, proactive learning and teaching methodologies

3.3 Blended learning

“Blended learning” (BL) refers to the skill of fusing online educational materials with face-to-face instruction in a regular classroom. BL is a well-planned fusion of purposeful activities in both online and in-person modes. It is not just a combination of these modes. While there are many aspects to take into account, the student-focused educational setting and educational outcomes should be the primary emphasis of this blend. BL models are recommended by the NEP 2020 due to the rise of technological advances and the growing significance of technology for teaching and learning at all stages, from K–12 to higher schooling. To adequately recognize the value of in-person classroom instruction, the NEP-2020 declares that online education and learning must be encouraged. This means that to replicate blended instruction effectively across many disciplines and situations, it is necessary to identify several models.

The following are crucial components of a blended educational setting:

- Greater involvement of students in their education.
- Improved communication between teachers and students.
- Accountability for education.
- Effective scheduling and adaptability
- Enhanced learning results for students.
- Improved standing inside the institution.
- More adaptable environment for instruction and learning.
- Improved chances for hands-on learning.
- More accommodating to independent and ongoing learning.

3.4 Benefits of blended learning

Increased learning abilities, easier access to educational resources and knowledge, improved educational results and student happiness, and chances to teach and learn alongside others are all benefits of BL for learners.

- One way to improve learning results is through virtual teamwork, where students collaborate cognitively in groups of one online.
- **Increased adaptability:** Due to technology-enabled education, pupils can study at any time, any place, regardless of personal support.
- **More communication:** BL makes it possible for there to be more interactions between pupils, educators, and other instructors.
- **Improved education:** Instead of relying just on memorization, students are more engaged when they participate in a variety of learning activities that help them comprehend things at a deeper level.
- **Creating virtual citizens:** Students engage in a deeper understanding of subjects rather than memorization through social and intellectual projecting in a virtual environment of inquiry.

3.5 Creating an integrated education

The leadership team of the organization must put a lot of thinking, organizing, and study into deciding whether to expand the current online program or start a new one. Clearly stating the academic goals and offering quantifiable measurements to gauge the implementation's success are essential first steps. [11] The leadership team can start preparing for staff, continuing education, instruction, amenities, and the internet, amongst other things, after these goals have been established. By devoting a substantial amount of time and resources to this initial planning, educators may help develop educational programs that empower learners to attain academic success and distinction.

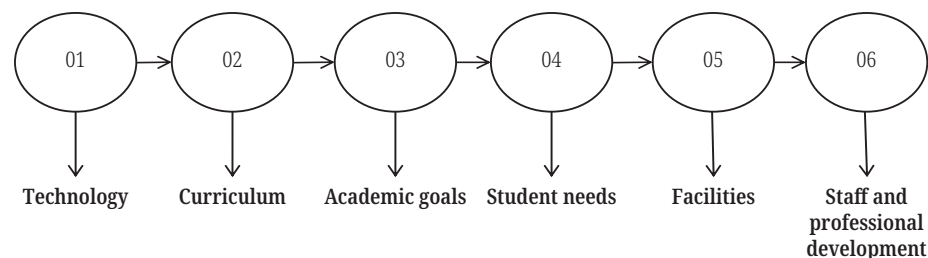


Fig. 2. Procedures for creating a BL paradigm

3.6 Heutagogy

Hase and Kenyon defined heutagogy (derived from the Greek word for “self”) as a method of auto-determined education in 2000. Despite learning as a continual and reactive activity and students acting as “the main actor in their development, which happens as a consequence of their encounters,” heutagogy takes an integrated approach to building learner skills. Similar to an andragogical strategy, heutagogy involves the instructor supporting the learner by offering assets and guidance, but the learner fully assumes responsibility for their education and process, negotiating

education and deciding what needs to be discovered and how. The idea of double-loop instruction and reflection is central to heutagogy. In double-loop education, pupils reflect on the process of issue-solving and how it affects their own beliefs and behaviors, in addition to taking into account the issue at hand and the subsequent action and results (see Figure 3). [12] When students “question and evaluate one’s individual beliefs and presumptions as being essential to improving learning how to learn,” they are engaging in double-loop learning.

Acquiring both skills and capacities is crucial for learners engaging in independent learning. It is possible to think of competency as the demonstrated ability to acquire information and abilities, whereas ability is defined as the learner’s trust in their competence and consequently their capacity to “engage in suitable and efficient action to create and resolve issues in both acquainted and not familiar and altering settings.” The characteristics of capable individuals include:

- Self-worth, or the capacity to acquire knowledge constantly and evaluate one’s progress;
- Collaboration and interaction abilities, including the ability to work together with others and interact honestly;
- Innovation, especially when utilizing skills in novel and unfamiliar contexts and by being versatile and adaptable in one’s techniques;
- Optimistic values.

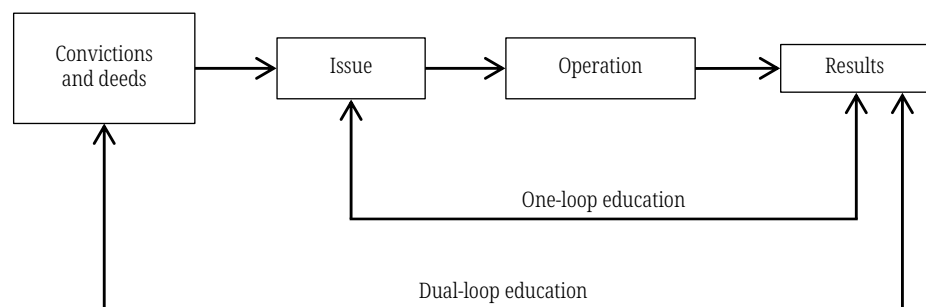


Fig. 3. Double loop learning

3.7 Data collection and analysis

For the initial twelve weeks that we taught the fresh course, we kept weekly notebooks, which are acknowledged as a legitimate tool for gathering data. Any aspect of our BL experience, including the usage of the internet, the teacher’s role, and the reactions of the students to the material and the online environment, was covered in our entries. We completed 24 entries in journals in all. Every item contained details about our actual events, our interpretations of them, and our emotional and cognitive reactions to them. [13] The posts frequently discussed the difficulties we encountered daily as teachers and the strategies we employed to overcome them. We utilized the abilities found in the iNACOL mixed learning teacher capability framework to analyze each of the 24 entries in the journal that were gathered throughout the twelve weeks to derive meaning from our experiences. We accomplished this methodically by going over each journal entry again and again in an iterative process to find the pertinent abilities that were evident, either directly or indirectly, in each one. After classifying each item by the competencies being demonstrated, we kept track of the total instances in which each competency was demonstrated. Until they both agreed upon the pertinent skills, we went over the material again.

4 RESULT ANALYSIS AND DISCUSSION

4.1 Acceptance of mobile-learning

Structural equation modeling was used to investigate the influence of an expert on behavioral intent, perceived value, and overall usability. Figure 4 displays all of the significant continuous path values. By examining the quality of the fit data ($\chi^2 = 3.46$, $df = 5$, $Q < 0.645$, $SRMR = 0.04$, $TSI = 0.94$, $CEI = 0.93$, $QCEI = 0.42$, and $RESDA = 0.0$ (90% $SI = 0.01-0.06$), it was determined that this model was an appropriate fit. Out of every single piece of fit data, only the $\chi^2 P$ value indicated a good fit. Even though the chi-square (χ^2), its number of degrees of freedom (df), and its Q value are displayed, χ^2 they have been widely reported to be poor indicators of model fit that frequently produce false negatives. The evaluation of m-learning's accessibility and value has a significant impact on students' intentions to accept and use it, as demonstrated by the student adoption model. [14] Both highly developed knowledge of IT and fine-core IT abilities are closely correlated with advanced mobile competence. Additionally, the model determines that the degree of basic IT ability has less of an impact on their willingness to adopt and use m-learning. The results show that learners were more likely to embrace and use m-learning when they were highly skilled in a variety of basic IT tasks. Advanced mobile competency was made known in order to mediate between the perceived utility and applicability of learners' acceptance and adoption of m-learning. This makes it clear that learners' opinions of m-learning will depend on how proficient they are with mobile technology.

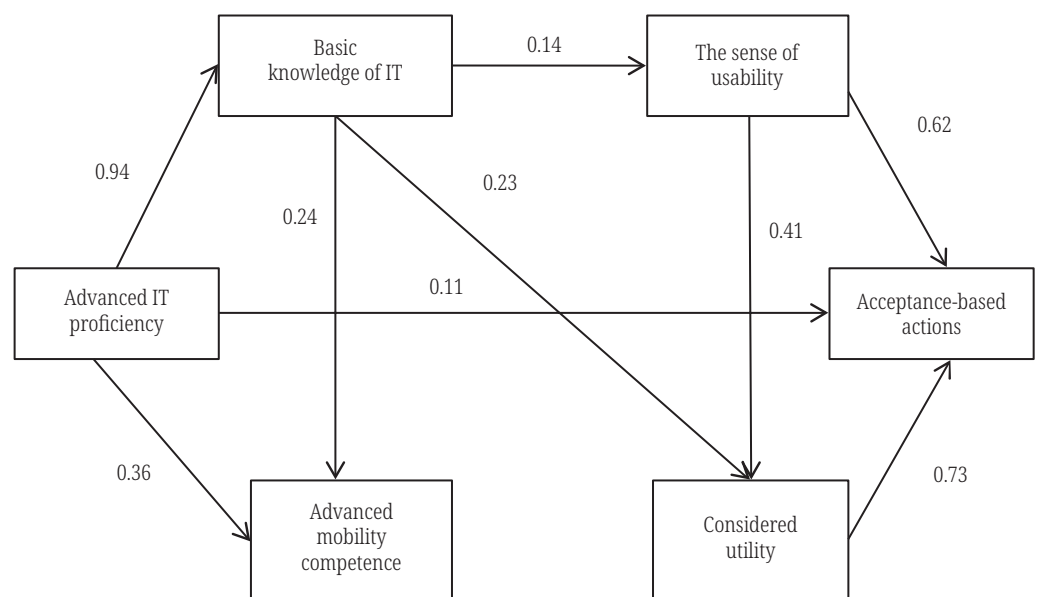


Fig. 4. SEM modeling results regarding students' acceptability of mobile learning

4.2 Individual education and accountability

Remarks like "it proved beneficial that we were able to pick pictures of specific interest that might have varied from the ones selected by others" and "I enjoyed the fact the pictures related to various locations, where we got to see various things and then compose about them, express our views, and then provide clarification on them"

are instances of pupils taking ownership of their knowledge creation. Some positive remarks about the material delivery were “we are building life skills,” “the assignment has been self-initiating while we thoroughly enjoyed debating topics with other learners,” and “developing mindfulness of one’s knowledge and learning.” Through diffuse and scattered systems, adaptable and blended instructional design promotes the creation and cooperative flow of information. Rather than treating teachers as knowledge providers or transmitters, heutagogy describes their job as knowledge brokers who connect and exchange “migrating information” with “rooted information” within environments of practice. Knowledge is shared between students and university educators in the online preschool education programmers at UWS, as well as in the smaller, geographically defined small group discussions and the bigger, in-person tutorials.

4.3 Challenges for students and staffs

To promote retaining learners, a comprehensive workshop was held before classes started, and work teams with similar locations were formed to foster relationships. Nonetheless, collaborations with the Learner Support Unit were established, and continuing assistance was incorporated into the curriculum modules, given that diploma holders have historically had difficulty with academic assignments at universities. [15] Although there hasn’t been any study on the attrition rate within the present group, incomplete assignments at the beginning of the term imply that difficulties in the classroom may have played a role in the decision of those who decided to drop out, and it was observed that the causes of student turnover were rarely as straightforward as a lack of community or educational integration. She discovered that several obstacles to life, such as impoverishment, violence in the home, and family obligations, had a big impact on whether or not students finished their degrees.

Although there are concerns about student retention, continuing students also encounter difficulties. The expectations of university coursework are significantly higher than in their prior courses, even though many students are driven to study. A considerable number of students expressed satisfaction with the “obvious, brief, and easy to comprehend” nature of online and in-person classes, as well as the “easy availability of digital materials that enabled us to solely focus on studying rather than locating readings.” Other students expressed decreased motivation to learn. The amount of reading and labor required, in light of previous readings and tasks, was mentioned as being “too excessive.” Others expressed a desire for an entirely online or in-person learning environment, preferring not to conduct study or visit external websites. Consequently, even though all the work requirements (both online and in person) for the units were already laid out before the course started, some students were equipped for the high standard of study and writing in academia. Additionally, certain pupils had limited access to computers outside of the campus, which made the online course elements more difficult.

Students reported that the educational material utilized in the virtual meetings contained ambiguity. For instance, they challenged the true meaning of the term “plan over.” Were pupils expected to write about their thoughts, just ponder, or think before acting? There were also uncertainties regarding the dates and the how, when, and how often of the missions. Forums for discussion should be available for a longer period, and whole site addresses should be included instead of connections, which don’t always work. Even though heutagogy emphasizes independent

learning and assuming individual accountability, the process needs early direction, particularly from teachers when working with learners who are new to academics or who find using ICTs challenging.

4.4 Efforts of self-learning

The discussion focused on six key components of heutagogy: instruction, instructional materials, adaptable evaluation, confidence, imagination, and self-learning. Teachers who attempt to learn on their own are offered a self-learning approach in Table 3. Learning through self-study is a novel approach. With some very good outcomes, it enhanced traditional educational instruction rather than taking its place. Given how frequently both teachers and students utilize technology, independent learning has been demonstrated to be efficient, quick, and easy.

Table 3. Outcomes of attempts at self-learning

Object	Mean	Standard Deviation	Efforts
Acquiring a basic understanding of the course material will enhance the abilities to be attended to.	3.24	0.626	High
Seeking for possibilities to enroll in courses that will increase the real-life teaching skills.	3.42	0.588	High
Participate in educational initiatives.	3.33	0.563	High
During teaching, participate in skill-based activities.	3.45	0.589	High
Implement disciplinary measures while at work.	3.35	0.678	High
Obtain current issues regarding Technical and Vocational at home and abroad.	3.35	0.536	High
Average	3.36	0.682	High

Students become more confident in their ability to interact with people and are more inclined to participate actively in class when the environment is good. [16] To create an engaging and interactive learning environment, trainers must incorporate innovative features into their teaching. When imagination and education are combined properly, children be inspired to learn novel concepts and can be creative. The high level of creativity demonstrated by the teachers at Vocational College in Table 4 (average = 4.20, deviation = 0.685) ensures that the teaching process is more effective. The teacher uses a variety of media, develops more imaginative lesson plans, adds creativity to the professional and vocational syllabus to draw in students, and can foster a positive mindset that creates imaginative learners.

Table 4. Outcome of innovative initiatives

Object	Mean	Standard Deviation	Efforts
Integrate a variety of media into the process of teaching and learning.	3.12	0.765	High
Make sure the instructional resources you receive may be altered to facilitate more innovative methods of instruction.	3.26	0.657	High
Average	3.15	0.680	High

Additionally, Table 5 demonstrated a significant degree of educators' dedication efforts. A teacher's high degree of confidence is mostly correlated with the approaches and techniques they use to effectively manage their responsibilities. For instance, most believed that institutional atmosphere and college structure influence how successful teachers are (mean = 4.34, deviation = 0.634), and the majority of teachers had excellent results when it came to instructing pupils. It was proposed that learning through projects positively affects teachers' autonomy and that good student reactions can operate as a mediating factor in this relationship.

Table 5.

Object	Mean	Standard Deviation	Efforts
Incorporate and strengthen a strong learning foundation for an improved teaching and learning experience.	3.34	0.675	High
Create educational programs that can foster a positive outlook in order to generate pupils with a creative mindset.	3.38	0.634	High
Make sure there is more creativity in the Professional and Occupational syllabus to draw in pupils.	3.43	0.547	High
Average	3.30	0.622	High

5 CONCLUSION

Learning a new skill is an expensive and time-consuming endeavour with a high, if not accurate, probability of failure. Often, attempts to define current skills are inadequate in assessing student perspectives, run the danger of squandering time and energy, and may not fully grasp the benefits of the contemporary skill. As a result, student approval plays a crucial role in determining how well m-learning is carried out. In higher education, m-learning success is contingent on students' recognition of the benefits of learning the skill. According to a study participant, the fundamental ideas of heutagogy that support continuous education include options, student oversight, adaptability, incentives and independence, and self-assessment. The interviewers discovered that students showed the development of crucial ongoing learning abilities such as independence, collaboration and interaction, analytical contemplation, independence, managing oneself, and autonomy by employing a heutagogical method centered on student agency. In addition to finding learning to be interesting, relevant, and inherently motivating, students also felt that the method promoted deeper learning. According to this survey, the majority of educators adopt more effective self-improvement techniques, become more innovative, update their teaching materials, and create flexible curricula and evaluations. For researchers and academics alike, this study will spark fresh perspectives on how to enhance career and technical schooling through raising the level of educator expertise. Above all, this study greatly helps teachers by identifying the best ways to use heutagogical approaches to improve students' abilities and knowledge.

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