



Does the Heutagogy Approach Have Interconnectivity with Transversal Skill for Prospective Economics, Business and Accounting Teacher? A Literature Review

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Abstract. Economics, business, and accounting teacher education faces a skills gap between what is being taught and what is needed in the job market. Transversal skills are a global concern for university graduates entering the complex world of work. The purpose of this literature study is to examine how to build transversal skills from the perspective of 21st century curriculum and learning style, namely the heutagogy approach. The method of this study is literature review, which is focused on searching and analyzing scientific articles, books, and other publications related to the issues of transversal skills and heutagogy approach. The searching is carried out through electronic academic databases such as Emerald, ScienceDirect, Google Scholar, and Research Gate. The results of this study show that there are three integration models of transversal skills in the curriculum: specific subjects, cross-subjects, and extra-curricular activities. Meanwhile, on a more specific aspect, previous research studies have shown that the heutagogy approach is excellent for building transversal skills in students who would become prospective economics, business, and accounting teachers. The existing heutagogy approach is also relevance to the aspects of transversal skills. University for teacher education is advised to build their students' transversal skills using a heutagogy approach so that every graduate can enter the job market.

Keywords: Heutagogy, Transversal Skills, Curriculum, Prospective Teachers

1 Introduction

Fast and exponential technological advancement needs changes in the field of education, both in terms of the process and the resulting output. The advancement of technology and information also allows for the creation of learning processes that make use of technology. Learning strategies have evolved into future learning, with information and communication technologies serving as learning resources and tools. The presence of smart devices such as smartphones has helped in learning connectivity that is not limited by space and time, so it can be done anywhere and at any time, which is called ubiquitous learning [1]. On the other hand, technological advancements encourage the world of education to generate competent human resources capable of competing in a highly competitive job market. In line with [2], there are four areas that are driving the transformation of the education sector, namely, multi-agency educational pathways, lifelong learning organizations, personalized learning, and future skills.

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[3], who have observed public education systems in 113 countries throughout the world, describe education as more than providing students with academic or technical skills for work. However, it is also vital to equip students with transversal skills that will allow them to adapt to the difficulties of this complicated and unpredictable world. Transversal skills, according to [4] are skills that are not explicitly tied to work, assignments, or academic subjects, but are skills that may be employed in a range of work situations and settings. These skills are increasingly in demand among university's students in order to successfully adapt to change and lead meaningful and productive lives. These skills also aid a student's transition from higher education to the workforce.

Transversal skills are currently a global issue. According to [5], there is a rational integration of transversal skills into the educational curriculum from three perspectives: economic, social, and human. While the level of urgency of these skills is seen from a comprehensive scope, namely global, national, and personal. In nations such as Japan, Mongolia, and Malaysia, the economic perspective appears to be the most powerful driver of rational integration of transversal skills. These countries focus on transversal skills to boost economic development and international competitiveness. The detailed summary of rational integration of transversal skills in education can be seen in Table 1 below:

Table 1. Rational Integration of *Transversal Skills* in Education

Perspec- tive	Economic course	Dis-	Social Discourse	Humanity Discourse
Global	Competitiveness		Understanding and Peace	Global Citizenship
National	GDP Growth		HDI Growth	Patriotism
Personal	Employability		Community/Harmony	Moral Formation

Source : UNESCO, 2013

If examined further, in a fast changing world, teacher education must contain knowledge of the most recent scientific research on learning, not just to improve teaching practice, but also to develop growth mindsets and tendencies in teachers to become lifelong learners.

Accounting students must develop transversal skills in order to compete and succeed in a competitive, hyper-connected global economy with increasingly massive technology advancements. One must develop and apply a series of transversal skills as the foundation for all his/her efforts ([6]. [7] concluded in his research that transversal skills are the most important for the accounting profession, along with generic skills, interpersonal skills, and emotional intelligence, as well as, in terms of technology in particular, Information and Communication Technology (ICT). According to the research, higher education still concentrates on technical skills and has not completely developed transversal skills.

There are three important reasons why university must urgently develop transversal skills of accounting education's students in order to meet the demands of businesses. First, consider its relationship to the development, growth, and advancement of the world. Transversal skills are valued in the twenty-first century and industrial revolution 4.0. These skills are useful for improving employability, not only for adapting to the

demands of employers, but also for creating value in future jobs[8, 9]. According to [10] transversal skills are a set of skills that need to be developed and are critical for success in school, higher education, job, personal life, and social life.

The second reason has to do with market demand. The job market wants employees who are not just reliant on special skills and technical knowledge, but also on a variety of transversal skills. With these skills, an employee can deal with the challenging and changing environment that every company is now facing. Companies, in fact, prefer employees with transversal skills [9][11] Graduates of university must acquire transversal skills in order to be equipped to meet job market needs.

Next, the third reason is related to the responsibility of a university to generate graduates who are experts in accounting. [12] emphasized the need of educational institution's students having transversal capabilities and universities being able to adapt to the significant socioeconomic changes that characterize this era. The primary purpose of education should be to prepare accounting specialists through relevant training and learning in order to develop transversal skills [13]; [14] Accounting professionals' competition with technology raises the importance of creating professional accounting education and forces university to be effective in preparing their graduates. According to [15] the development of transversal skills after students graduate is also better offered since these skills have greater visibility and are more effectively accounted before in learning objectives in university. As a result, accounting educators throughout the world are being asked to adapt curriculum in order to educate accounting graduates with more than just technical accounting abilities[16]

Transversal skills have a significant impact on the competitiveness of each member of society as well as the overall growth of society [17]. Transversal skills are vital from company's perspective as a member of society. A survey conducted by [18] found that 74% of the organizations surveyed believe it is crucial for companies to strengthen their employees' transversal skills, particularly critical thinking, emotional intelligence, and teamwork. However, just 10% of the organizations are prepared to increase their employees' transversal skills. This means that higher education must build these skills via through learning.

Developing transversal skills in the context of higher education has been a concern during the previous three decades [19]. However, transversal skills are still an unexplored topic of study [20]. In the face of these challenges, teacher education in various countries have made significant efforts to reform the teacher education system [21]; [22]; [23], [24] and create new strategies and approaches in the midst of these challenges. Teacher education appears as an important way of preparing teachers to face the various problems of this profession. The challenge for teachers in this time is to become agents of changes who are experts in applying learning media/technology as well as learning methods/procedures and are equipped with expertise in their particular subjects.

Examining learning and skills in the technological era correlates with curriculum components, which is in this case the learning approach. All competencies or skills are the result of the educational learning strategy. Of course, learning approaches have developed through time, thus classic approach is no longer applicable to 21st century's skills. [20, 25] argue that traditional teacher-driven and teacher-led education is not flexible or personalized enough to meet diverse needs of students. In line with the opinion [26] that traditional educational approach fails to prepare students for success in a

modern work world. Now, the main reference for the success of a learning process in schools is influenced by the rapid development of Information Technology (IT) [27].

The learning approach is currently a challenge for a university. There needs to be a reformation of approach that is able to accommodate the needs of prospective teachers in the future. [28] suggests that the current challenge in schools and higher educations is to develop the appropriate learning method that is adaptable to situations or settings in order to prepare future generations that are dependable, have excellence, are sustainable, and are internationally competitive. According to [29] preparing and developing potential teachers is the key to provide the groundwork for producing excellent teachers. This is the foundation for the appearance of a new approach in teacher education.

More specifically, research results from [30] recommend shifting the learning approach towards e-learning, namely from cognitivism to social constructivism, connectivism, and heutagogy. The heutagogy method is said to be a relatively recent method that is frequently mentioned along with technology. The heutagogy approach is based on the philosophical idea of self-determinism and is rooted in agency theory, humanistic theory, and constructivism [31]. The heutagogy method is claimed to be relevant to students' demands in the twenty-first century, particularly in terms of improving individual skills and the advancements of technology [32]. It is supported [33] that heutagogy is a valuable method for empowering students to be independent in their learning, especially in higher education.

The heutagogy approach is recommended by [34] to be applied in business education as a teaching and learning revolution. The argument on that is that failure to engage proactively in teaching and learning innovation can result in disappointment for both lecturers and students. It is also suggested that the heutagogy method may be used to satisfy students' needs. This literature study investigates prior researches to address questions of how a heutagogy method might be used to prepare transversal skills for future economics, business, and accounting teachers to face the challenges of 21st century education. This study is based on a cohort of education with a personalized curriculum idea, which is currently being widely discussed in the research world. It is hoped that the results of this literature study can be used as a discourse related to educational reform for prospective economics, business and accounting teachers. Furthermore, it can be a recommendation for teacher education to apply a heutagogy approach in order to prepare 21st century accounting teachers.

2 Methodology

The method used in writing this study is a narrative literature review. The steps in the narrative review include compilation, tabulation, research result comparison, and summarization. For literature review studies, the writer of this study collects articles from Google Scholar with the aid of publish or perish and examine the novelty of the research with Vosviewer. Ten articles are chosen after searching for keyword criterion research. The journal articles chosen are open access, full text journals, and indexed journals, with publication are dominated by the previous five years (2019-2023) and are relevant to the topic being studied. Article distribution took place between May 27 and June 8, 2023. The writer of this study looks for international journal articles with the keywords 'heutagogy approach, economic business teacher, teacher education, heutagogy in

teacher higher education, and transversal skills'. In addition, relevant articles are chosen and examined in order to answer this study questions. This study investigates the efficacy of the heutagogy approach in teacher education. The writer of this study hopes that this study would serve as a resource for policymakers of university in Indonesia in developing learning approach for economics, business, and accounting teacher education

3 Results and Discussion

3.1 Transversal Skills in the Perspective of Curriculum Development for Economics, Business and Accounting Teacher Education

The industrial revolution is marked by volatility, uncertainty, complexity, and ambiguity, or often known as VUCA [35]; [36], therefore economics, business and accounting teachers must be able to adapt to the changing contexts and the demands as "economic educators of the 21st century". As a result, teacher education must create curriculum that are relevant to today's skill requirements. Furthermore, according to [37] the curriculum should assist learners in preparing themselves to cope with the uncertain world of work. In keeping with the characteristics of curricular changes, 21st century teacher education must aspire to educate teachers who are ready to serve and capable of surviving in a rapidly changing and unpredictable environment.

The report from[38] explains that transversal skills are relevant to several professional fields but these skills emerge as a need for future accountants. Transversal skills have received real attention over the last few years because of the importance of these competencies in establishing learning independence [39][40] states that there are 7 components in transversal skills that prospective accountants must have, namely communication skills, technology usage, teamwork, critical thinking, problem solving, leadership, time management, and ethics.

Discussing skills are directly connected to curriculum. According to [41] the curriculum in teacher education consists body of knowledge, skills, and values that prospective teachers must acquire in order to build skills and competences for teaching. Teacher education includes teaching skills, strong pedagogical theory, and professional skills. The curriculum in teacher education includes disciplinary materials and how the materials are taught to students. Curriculum in various nations are now facing the twenty-first century, and they must be designed to generate students who can adapt to the changing social, economic, political, and environmental situations.

Each country's education system has its own unique traits. Differences in education systems have consequences for different methods of integrating transversal skills into the curriculum. Broadly speaking, [5] divides 3 models in integrating transversal skills in the curriculum:

Specific Subject: The learning of transversal skills as well-defined entities inside the formal curriculum, such as special purpose subjects and formal teaching syllabuses.

Cross Subject: The learning of transversal skills crosses, infiltrates and/or underlies all "vertical subjects", i.e. traditional school subjects.

Extracurricular activity: The learning of transversal skills is integrated into all forms of non-classroom activities and made a part of school life.

[42] discovered that in most countries with diverse educational systems, the development of transversal skills is taught utilizing a variety of ways. This can be accomplished through cross-curricular approaches that are integrated into existing subjects or presented separately. Figure 1 depicts the visualization of the transversal skill model in connection to curriculum development.

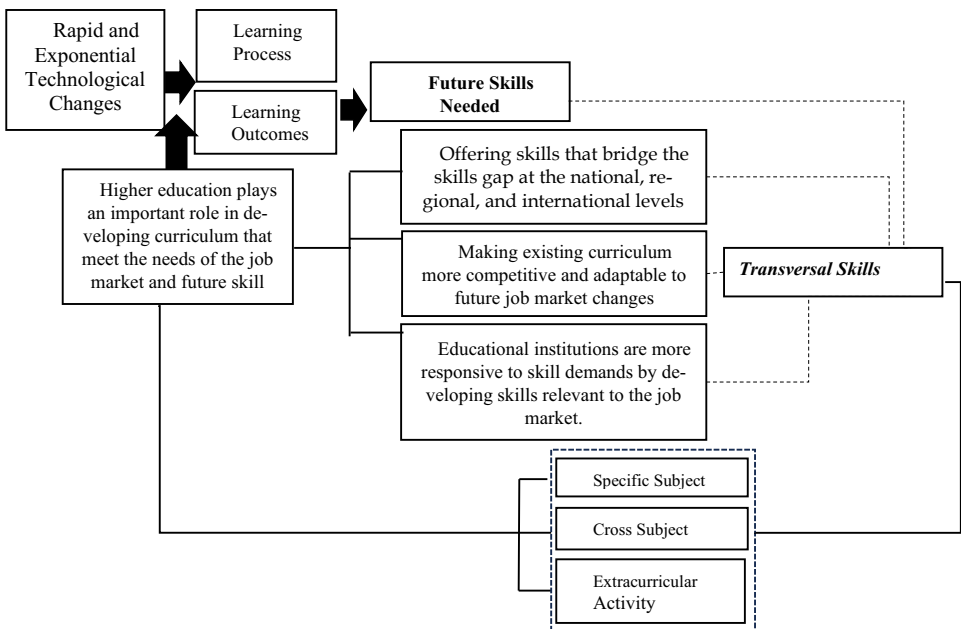


Fig. 1. Transversal Skills Model in Development of Curriculum

Source: From various sources, processed by the writer of this study in 2023

3.2 The Heutagogy Approach as a Solution for Integrating Transversal Skills in Economics, Business, and Accounting Teacher Education

The synergy between curriculum components, especially the learning process and the learning approach used, determines the success of a curriculum. The learning approach plays an urgent role in achieving the skills to be obtained as learning outcomes. To develop future skills, teacher education must engage in a discussion on how to modify methods to teaching and learning inside business schools. As prospective teachers and learning agents, students of economics, business, and accounting teacher education must be provided the 21st century learning method. This means that it is open for the students to come up with creative ideas, collaborate with friends, and reflect on the experiences they have gained. The skills of prospective teachers from business, economics, and accounting teacher education to manage learning that is determined based on their own needs is the key to the long-term progress of a prospective teacher in the future.

The heutagogy approach is the best approach for implementing learning in the digital revolution era because it allows for the creation of a holistic learning environment, particularly an online learning environment with communication and information technology tools that can be used to support the development of student's self-determined learning. Generation Z students' abilities to use information and communication technology devices substantially encourage the deployment of a heutagogy approach. Heutagogy, as a new learning approach based on the concept of self-determined learning, may be considered as a natural continuation of theory development based on prior educational theories, particularly the theory of capability development. In the heutagogy approach, students and teachers have the opportunity and freedom to choose, utilize, and benefit from various information resources regarding problems in schools [43]; [44].

The heutagogy approach comes with the changing times, the need for skills in the future, and the characteristics of the new generation that are increasingly different, so that the needs of learners are also different. [45] stated that education is currently aware of the fact that the heutagogy approach used in learning has the potential to develop the characteristics of students who are diverse and accommodate the needs of teachers. Learning in the education 4.0 era is carried out by utilizing digital technology, open-source content, and global classrooms as the application of lifelong learning, a flexible education system [46]; [47], and personalized learning ([48]; [49]. This is in line with [50] that a greater emphasis on the idea and realization of individual abilities in the workplace is needed, and this can be realized through a shift from the idea of cohort-based education to the idea of a personalized curriculum.

The heutagogy approach appears by placing the learner/student and teacher/learning leader [51] working in partnership when the learner negotiates what they will learn and how they will learn it. In the heutagogy approach, according to [52], students have full autonomy in being creative, active, proactive, and having fun learning. Learners are at the center of the learning process, not the teacher or the curriculum. The student-oriented approach emphasizes the independent learning process. Teachers will be one of the main supporters of the learning system. Students can actively learn using various facilities available in available information sources [53]. Students from teacher

education are the key to implementing the heutagogy approach. This approach focuses on student learning independence by implementing instruction from a curriculum. According to [54], the purpose of heutagogy is to empower students as human beings as well as enable them to become autonomous agents, educate citizens to understand the meaning of democracy as well as feel a moral responsibility to fight for a better world, motivate students as well as make meaningful learning to them, and bridge the gap between the formal learning process and the real world of work where we live.

The heutagogy approach anticipates a future in which knowing how to learn will become an important skill in education [55] and requiring a fundamental shift away from the idea of uniform teaching and learning where “one size fits all” [56]. Because the heutagogy approach promotes collaborative learning, it is appropriate for the post-modern era. The heutagogy approach, explained by [50], is critical to develop in order to apply in their future workplace.

[57] argue that lecturers approve of this idea because they are able to use the facilities available to give assignments and to ensure assignments are monitored. In fact, the curriculum and facilitators must provide opportunities for students to be involved in preparing assessments and applications that will be used in various contexts. This is in line with [34], although heutagogy approach reorients lecturer's job toward facilitating and assisting rather than conveying knowledge, lecturers still have an important role to play in formulating a more personalized curriculum.

According to [58] heutagogy offers a better way to redesign teaching practices under learning schemes where educational practices are not limited to curriculum standards. Flexible curriculum and assessments are also another major heutagogy issue. [59] comments that students are presented with a variety of choices to ensure that students can choose the ideal focus area for their individual development and specialization. Lecturers say that the heutagogy method is a critical solution for addressing major challenges that students confront in their everyday job settings, as well as recognizing their workplace demands and establishing desirable learning patterns [60]; [55].

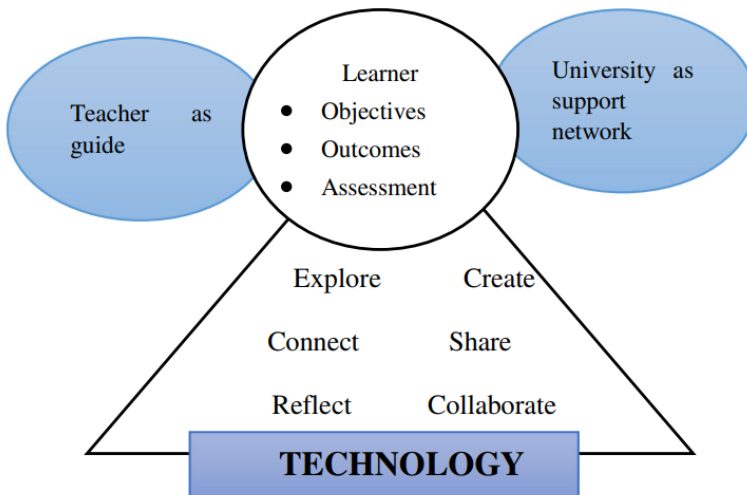


Fig. 2. Heutagogy Approach Design Framework [61]

Based on Figure 2, it can be seen that the implementation of the heutagogy approach requires the roles of universities, lecturers, and technology. The university provides network assistance, while the professor serves as a guide or facilitator. The elements of the heutagogic approach consist of (a) explore; (b) create (c) collaborate; (d) Connect (e) Share; (f) Reflect [44]; [62] The heutagogical approach is regarded as a holistic approach [44] and is always associated with developments in information technology, so that this approach has the advantage of improving not only academic aspects but also non-academic aspects, namely soft skills in the form of transversal skills.

The heutagogy approach is based on six components that allow students to participate in discussion about the learning process, participate actively in learning activities, and accomplish continually. The six components are exploration, creation, collaboration, connection, sharing, and reflection [44] If examined closely, these components correspond to the indicators in the transversal skills that prospective accountants must possess, namely communication skills, technology use, teamwork, critical thinking, problem solving, leadership, time management, and ethics [63]. In line with [64], transversal skills The heutagogy approach is built on six elements that enable students to be involved in discussions about the learning process, be actively involved in learning activities, and achieve continuously. The six components are exploration, creation, collaboration, connection, sharing, and reflection [44, 65]. When analyzed in depth, these components are in line with the indicators in the transversal skills which prospective accountants must have, namely communication skills, use of technology, teamwork, critical thinking, problem solving, leadership, time management and ethics [63]. In line with [64] transversal skills possessed by individuals to communicate, take initiative, work in teams, or solve problems are one of the requirements for the demands of the new work organization.

Because students nowadays are digital natives who are technologically proficient, the existence of technology cannot be separated from the heutagogy approach. In line

with [66] that the demand for the use of communication and information technology in education is a global issue. This implies that the heutagogy approach is applicable to present educational demands. According to the findings [67], the heutagogy approach has been used to all parts of blended learning, not simply those that are online or have digital technology components. In a further review of humanistic theory, the heutagogy approach emphasizes student autonomy in deciding the teaching-learning process while also emphasizing students' feeling [68]. These learning processes are aligned with all the technological devices in this study, as they support self-explorative learning [69]. Both researchers' reviews also highlight the critical symbiotic relationship between technology and heutagogy, enabling independent learners to utilize their resources and connections in new ways based on individual experiences and learning needs [70]; [71]; [72]. [44] suggest a practical framework consisting of core principles, processes, and design elements. The principles of the heutagogy approach can be described as follows:

Learner agency. Similar to the concept outlined by [73], [50] and [74] report that university students have full autonomy in their learning journey; this runs counter to the traditional form, which is the knowledge-seeking process. This shift develops a substantial sense of personal responsibility and identity due to an awareness of personal competence [75][76].

Self efficacy and capability. The second principle is ability, which refers to students' capacity to apply what they've learned in novel contexts or circumstances [44]. This may be accomplished by introducing curriculum that encourage students to connect with the real world [34], therefore providing them with important twenty-first-century skills. Moreover, as university student, it is required to have digital skills. [77] advocate for incorporating heutagogy approach into the teaching and learning process since it is compatible with the digital learning environment of the twenty-first century. As a result, 21st century graduates known as digitalists will be generated and are capable of adapting to the future workplace and community due to their digital abilities.

Self-reflection and meta cognisi or double-loop learning. Double loop learning requires that learners are both psychologically and behaviorally involved. They reflect not only on what they have learned, but also on how this new knowledge and pathways to learning have influenced their value and belief systems.

Non-linear learning. The heutagogy approach emphasizes self-determined learning, which means that the path for learning is decided by students rather than the teacher. Consequently, students choose their own path, learning in a non-linear format. Non-linear learning is a key principle of self-determined learning. A formal curriculum is not used therefore the learner determines learning outcomes and how these will be achieved; as a result, learners actively explore various pathways in pursuit of learning goals [78].

No	The Principles of the Heutagogy Approach Blaschke & Hase (2016)	Elements of <i>Transversal Skills</i> (Carvalho & Almeida, 2022: 4)
1	<i>Learner Agency</i>	Being a leader in learning, time management

2	<i>Self efficacy and capability</i>	Self-efficacy and tolerance
3	<i>self-reflection and meta cognisi or double-loop learning</i>	Reflect ability, analytical and innovative thinking, complex problem solving, critical analyzing, ability to communicate ideas as well as reasons, logic, ethical skill
4	<i>non-linear learning</i>	Teamwork, collaboration, communication skills, technology usage

Source: [44] and [63]

[79] conducted study on the heutagogy approach as it relates to skills. The study's findings indicate that the heutagogy approach is important for enhancing teacher competency in Indonesia. According to a study [80] which uses a systematic review method, the four characteristics of a heutagogic approach, namely student-centered, double loop learning, non-linear learning, and an emphasis on improving skills, are applied at local education institutions. [81] did literature study on how heutagogy approach might be implemented more generally in higher education through professional development. This suggests that the heutagogic technique is applicable to the development of student competencies.

4 Conclusion

The conclusion from the results of this literature study is that there are 3 models of integration of transversal skills in the curriculum, namely, through special subjects, cross-subjects and extra-curricular. Meanwhile, on a more specific aspect, based on previous research studies, the heutagogy approach is helpful for developing transversal skills for the students of economics, business, and accounting teacher education as prospective teachers. The principles of the heutagogy approach have relevance to the elements of transversal skills. A recommendation given to teacher education is to develop transversal skills through a heutagogy approach so that prospective teacher graduates can enter the job market.

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