Heutagogy: A Pedagogical Framework for Cultivating Critical Consciousness in Nursing Students

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Abstract

Background: Nursing education has traditionally utilized andragogical principles with the recent adoption of universal design learning to inform curricular decisions. What is missing is cultural safety and humility to ensure a justice, equity, diversity, and inclusion (JEDI) perspective. Cultivating critical consciousness in nursing education involves restructuring curricula and faculty development. Heutagogy, a unique learning approach, promotes mutual learning through critical self-reflection, self-directed goals, and ongoing professional and societal transformation.

Objective: This study described a nursing course that incorporated a critical consciousness theoretical approach and heutagogy as a pedagogical framework to delve into the real-life experiences of individuals living with addiction.

Results: Learners viewed themselves as continuously evolving through their learning journey. This perspective aligns with heutagogy, where individuals embrace lifelong learning consciousness and personal responsibility. At this stage, they became self-directed learners, in an innate and internal process of critical

Conclusions: Seamlessly blending heutagogy and c critical consciousness offered a comprehensive framework for disseminating not only the requisite skills and knowledge but offering a profound understanding of their role in championing the social and ethical dimensions of health care. These meaningful learning experiences empowered learners to emerge as catalysts for change, diligently and ethical working towards equitable and just healthcare systems**.**

Keywords: Nursing Education, Clinical Consciousness**,** Heutagogy, Addictions

Introduction

Nursing education, traditionally andragogical, has integrated universal design learning (Levey, 2018) to address the demands of healthcare settings marked by personnel shortages and resource constraints, particularly highlighted during and after the COVID-19 pandemic (Jackson et al., 2020; Miranda et al., 2020). Faculty focus primarily on technology, evidence-based practice, collaboration, and critical thinking competencies (Tella et al., 2014; Immonen et al., 2019; Stone et al., 2020).

However, the concepts of cultural safety and humility are often missing, crucial for a justice, equity, diversity, and inclusion (JEDI) perspective. Narrowly viewing cultural diversity as religion and ethnicity can result in a deficit approach (Chae et al., 2020). To foster critical consciousness and emancipatory awareness, learners must explore social locations, their own and those of the individuals they care for, to understand power, privilege, and oppression (Hankivsky & Christoffersen, 2008). This approach aligns with critical consciousness, creating compassionate, ethical, socially just learners ready to address health inequities (Halman et al., 2017; Killam & Camargo-Plazas, 2022).

Cultivating critical consciousness in learners requires a fundamental shift in curricular design and faculty professional development. Heutagogy, a unique learning interface, offers a pathway for reciprocal learning through critical reflexivity, self-determined goals, and ongoing transformation for the profession and society (Blaschke, 2012; Hase & Kenyon, 2012; Blaschke & Hase, 2016; Agonacs & Matos, 2019). This paper aims to (1) provide a brief overview of nursing education's current state, (2) emphasize the value of a blended critical consciousness perspective, and (3) present evidence of a teaching and learning experience addressing the aforementioned competencies.

Background

The State of Nursing Education

Nursing faculty face the challenge of preparing learners for diverse practice settings, requiring skills like use of technology, collaboration, psychomotor proficiency, and social justice awareness, amongst others. Traditional teaching methods fall short in the face of rapidly changing information accessibility and evolving workplaces. Innovative pedagogical approaches have emerged to address these limitations.

The COVID-19 pandemic accelerated the need for innovative teaching methods in undergraduate nursing programs. To facilitate meaningful learning experiences, new strategies are essential, enabling learners to navigate complex healthcare scenarios, draw broader conclusions, and identify consistent care patterns (Lira et al., 2020; Seah et al., 2021). Simulation, standardized patients, and online communication platforms like Google Meets and Zoom have bridged the gap for remote teaching and assessments (Seah et al., 2021). Technology has driven nursing education reform, with the emergence of AI applications like ChatGPT, emphasizing innovation, creativity, and ethics in curricular design (Abdulai & Hung, 2023).

While the primary goal of undergraduate nursing education is to prepare learners for practice, the process should also nurture lifelong learning. This approach encourages learners to question, innovate, and actively engage with knowledge rather than passively receiving it. It enhances creativity and equips learners with the skills to adapt to evolving nursing practice. A unique learning interface is necessary to support this shift in nursing education paradigms.

Teaching students how to question, innovate, and actively engage with knowledge within a heutagogical framework involves cultivating their ability to identify learning goals, assess resources, and critically engage with content. Students learn to question not only for information but to deepen their understanding and spark curiosity. Heutagogy, with its emphasis on autonomy and continuous learning, enables students to develop a skill set for formulating insightful and contextually relevant questions, promoting a lifelong learning mindset.

A Unique Learning Interface

Critical Consciousness.

Engaging in critical reflection is a catalyst for unlocking creativity and sparking scientific curiosity. This process hinges on fostering deep interactions between students and educators, emphasizing the reevaluation of existing skills and the generation of novel knowledge (Freire, 2016). It stands in stark contrast to the traditional "banking education" model, which primarily involves the passive deposition of knowledge and its transmission to students,

leading to rote memorization and stifling of true engagement. This outdated approach fails to empower individuals to integrate actively into society with a participatory, liberating, and transformative mindset (Freire, 2018).

The concept of critical consciousness, originating in emancipatory endeavors with marginalized communities, holds significant promise in the realm of health professions education (HPE) when the objective is nurturing empathetic and socially responsible healthcare practitioners (Halman et al., 2017). Viewing education and healthcare through a critical consciousness lens helps learners discern the underlying social and political dimensions, as well as the dynamics of power and privilege in these domains. This enables individuals, both as independent thinkers and as integral parts of the healthcare community, to challenge ingrained assumptions that perpetuate oppression.

Therefore, embracing a critical consciousness perspective is crucial to ensure personal growth and heightened critical awareness co-evolve with professional competencies. This approach safeguards against the inadvertent creation of healthcare providers proficient in technical skills but deficient in addressing the expanding social responsibilities inherent in healthcare (Killam & Camargo-Plazas, 2022). Nevertheless, adopting this lens necessitates vulnerability, maturity, and practice by all parties involved. Therefore, introducing supportive frameworks for learners is highly recommended.

Maguerez's Arch

Maguerez's Arch, a pedagogical framework, emerged through Charles Maguerez's innovative teaching experience in 1959 during an assignment to educate a predominantly illiterate Moroccan population about electromechanics (Berbel, 2012). This educational approach has evolved into three recognized versions: Maguerez's original, a 1982 adaptation by Bordenave and Pereira, and Neusi Berbel's 1985 revision (Berbel & Gamboa, 2011; Berbel, 2012).

Irrespective of version, the core principle remains a distinctive problem-solving approach rooted in critical consciousness pedagogy (Bordenave & Pereira, 1982; Berbel & Gamboa, 2011). Aligned with Paulo Freire's educational philosophy, Maguerez's Arch embodies concepts like reflection, conscientization, problematization, and transformation (Berbel, 2012).

The framework unfolds across five stages, commencing with the observation of a complex issue's facets and concluding with the transformation of learners' understanding and the development of practical interventions (Colombo & Berbel, 2007). The first stage involves studying reality, examining aspects with potential for change (Observation of Reality). In the second stage, learners, guided by a mediator, select issues for investigation (Key Points) and critically analyze influencing factors and their personal connection to the problem.

The third stage, Theorization, backs key points with evidence from published sources. This may either validate, extend, or challenge earlier assumptions. The fourth stage involves creating solutions or hypotheses (Solution Hypothesis). The final stage, Application to Reality, brings the learners back to the initial issue to transform their awareness and determine practical interventions (Colombo & Berbel, 2007). Through this critical consciousness approach, Maguerez's Arch empowers learners to actively engage in meaningful problem-solving and aligns with the principles of progressive education.

In developing this pedagogical process, specific characteristics are pivotal. Firstly, teachers do not present problems for students to solve; rather, students themselves are entrusted with the task of examining and questioning reality. Secondly, the subjects of study should not be abstract or detached from actual life; the focus is on concrete, real-world scenarios to facilitate learning and practical intervention. This approach nurtures an understanding of the intricate nature of social phenomena under scrutiny, culminating in transformative action. Lastly, students learn by active engagement,

while teachers play a guiding role in methodologically steering the learning process, among other responsibilities (Berbel, 2012). This methodological approach promotes knowledge construction, fuels critical and creative thinking, and motivates students for social, political, and ethical learning. The teacher's role primarily encompasses guidance, support, and ongoing feedback, with a strong emphasis on formative evaluation (Berbel, 2012).

The desired outcomes of applying Maguerez's Arch include promoting lifelong learning through student-centric methods, enhancing decision-making abilities, fostering critical reflection on reality through double-loop learning, and allowing non-linear learning where students can set their own pace. However, it's imperative to acknowledge that merely adopting a framework is insufficient for a transformative educational shift; aligning with a pedagogical approach conducive to liberating education, such as heutagogy, is also crucial for fostering critical consciousness.

Figure 1 - Maguerez's Arch Scheme

Arch of Maguerez
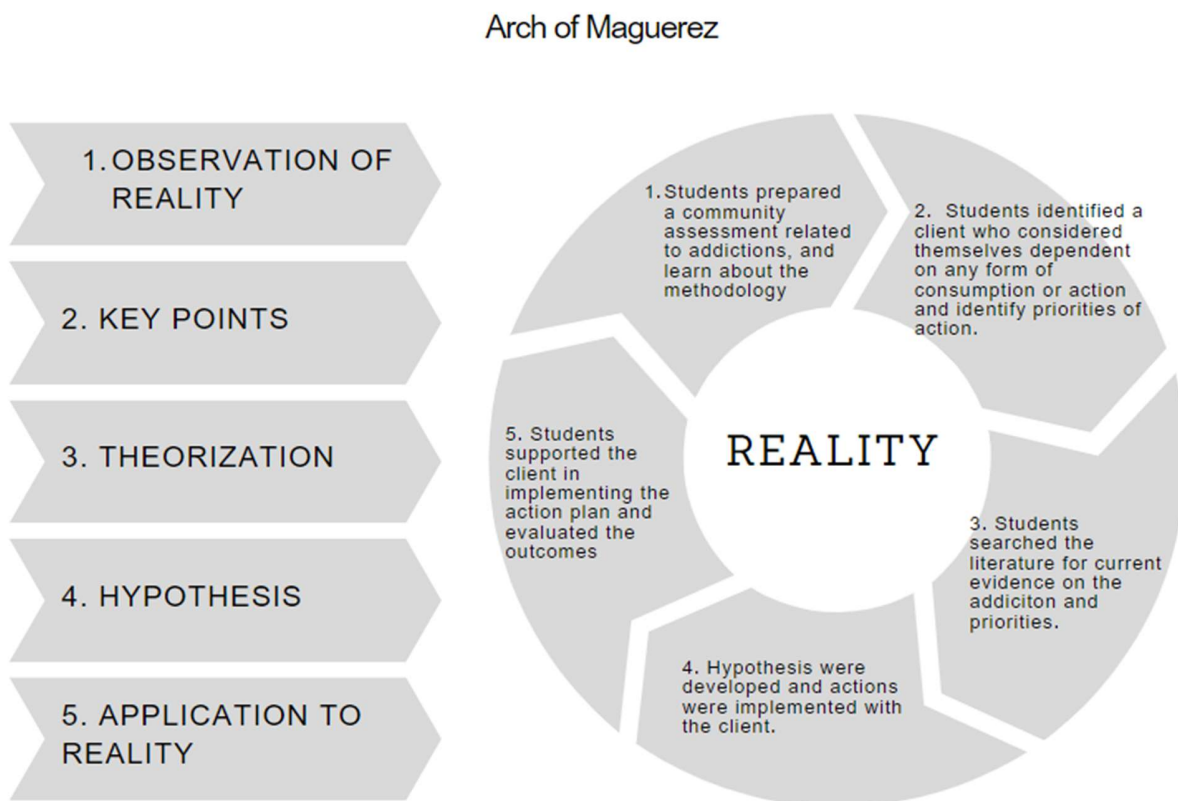
Heutagogy

Heutagogy, a self-determined learning approach, empowers learners to control both the content and the learning process (Blaschke, 2012; Hase & Kenyon, 2012; Blaschke & Hase, 2016). It revolves around the belief that learners are the primary agents in their own learning journey (Blaschke, 2012; Hase & Kenyon, 2012; Blaschke & Hase, 2016; Maykut et al., 2019). Heutagogy challenges traditional power dynamics, as it blurs the lines between teacher and student, with each person assuming both roles based on their experiences (Blaschke, 2012; Maykut et al., 2019). Meaningful learning experiences are rooted in relationships that foster a critical awareness of the forces influencing our understanding (Maykut et al., 2019). These principles encourage learners to curate knowledge based on their interests, preferences, or learning gaps (Ashton & Newman, 2006; Blaschke, 2012). This approach fosters critical inquiry into knowledge, the learning process, and the development of attributes like collaboration, creativity, curiosity, flexibility, and self-efficacy (Blaschke, 2012).

Heutagogy's foundational principles extend and enrich andragogy and pedagogy by integrating concepts from complexity theory, action research, recognizing learners' capabilities, and embracing double-loop learning (Hase & Kenyon, 2007; Moore, 2020). Blaschke (2012) identifies several key concepts crucial to a heutagogical curriculum: learner-centeredness, capability, self-reflection, metacognition, double-loop learning, and non-linear learning. The process starts with a learning contract, followed by engaging activities that stimulate critical thinking and creativity. Evaluation is pivotal for informing future learning activities (Blaschke & Hase, 2016).

While heutagogy was initially developed for in-person learning, it has implications as a prospective framework for online and distance education. In these settings, learners must manage their own educational experiences and take control of their learning journey. Heutagogy promotes lifelong learning and the development of critical thinking skills through the integration of new technologies and ideas to ensure relevance in chosen careers (Hase & Kenyon, 2000).

The Maguerez Arch in heutagogy empowers learners to take proactive control of their education. Instead of passively receiving information, heutagogical learners engage in self-directed exploration and problem-solving. They set learning goals, find resources, and participate in hands-on experiences, promoting critical thinking, creativity, adaptability, and a deeper understanding of subjects through intrinsic motivation and self-determined actions (Blaschke, 2012). Learning is not confined to a specific method but is an ongoing process, enhancing lifelong learning skills.

The Course - Teaching and Learning Exemplar

The undergraduate nursing course "Living with Addictions", offered in a hybrid approach, aims to promote reflections and discussions on the path of drugs in society and how they are currently recognized through the theoretical framework of critical consciousness, which is operationalized through the use of Critical Counsciousness and the Maguerez's Arch and follows the principles of Heutagogy. Throughout the development of the discipline, educators and students were invited to explore different aspects that make up the experience of Living with Addictions in the quest for understanding its interface with people, as well as its social impact. The ultimate purpose of the discipline is to collectively build knowledge about the topics, enabling intervention as future healthcare professionals in the lives of clients involved in this phenomenon.

Each synchronous meeting (which alternated with asynchronous meetings) aimed to facilitate dialogue about the stage of the Maguerez's Arch that students were in, what had been built up to that point, and any questions that arose.

The asynchronous moments aimed to put the Maguerez Arch into concrete action. Individually, or in groups, students identified clients in their own lives, whether in the family, work, or study context, who considered themselves dependent on any form of

consumption or action. Alongside these individuals (clients), students conducted observations during previously scheduled conversations in which they discussed how they dealt with dependence. Table 1 details how each step of the Arch of Maguerez was accomplished during the course.

Throughout the course, students shared their reflections and experiences with the class during the synchronous classes or on Online Discussion Forums. The last session of the course was dedicated to the presentation of the projects structured by students alongside the clients. Life stories were recounted, requiring critical, ethical, and political reflection by students regarding addictions. These stories raised awareness about the experiences of living

with addictions and the need for comprehensive healthcare for these individuals, regardless of the nursing professionals' role, whether in primary health care or mental healthcare reference centers.

The heutagogical principles were skillfully integrated into the structure and content of the course, creating an environment that encouraged self-directed learning and personal growth. These principles, as outlined by Blaschke (2012), formed the backbone of the course's design and delivery, fostering a dynamic and engaging learning experience. Table 2, included below, illustrates specific examples of how the course embodied these principles

Table 1 - Operationalization of the Arch of Maguerez

Steps of the Arch of Maguerez	Operationalization
Observation of the Reality	In the first session, students were introduced to the teaching plan and the critical consciousness framework, where they had the opportunity to express their perspectives, demonstrating their acceptance of the presented proposal. Learners conducted a community assessment to better understand the experiences of people living with addictions around them.
Key Points	Students identified clients who considered themselves dependent on any form of consumption or action. Students were encouraged to identify priorities for the clients: What were their priorities regarding addictions? They interviewed the clients and listed the priorities and areas of focus.
Theorization	The third stage allowed students to take a step back and deepen their theoretical understanding of the addiction as well as the priorities defined by the clients.
Solution Hypotheses	Hypotheses were developed in collaboration with the clients. Together, they aimed to formulate feasible actions and achievable goals for addressing the issues at hand, even if they could only be implemented in the long term.
Application to Reality	The hypotheses became concrete actions for the clients, such as seeking professional help or reducing substance use, among other measures.

Table 2 - Examples of the Principles of Heutagogy

Heutagogy Principle	Examples from the course
Learner-centred	Students decided on which topics (types of substances and/or behaviors) they would like to address.
	Students decided on how to deal with conflicts within the classroom and classroom management.
	Students can choose the sources of information to support their findings.
Capability	Positive feedback from the students at the end of the course.
	Students' reports on increased self-efficacy at the online forums.
	Students decided when and how they would carry out the tasks and how they would approach the clients.
Self-reflection, metacognition and Double-loop	Discussion forums.
	Final reflection and presentation to the class.
	Students were challenged to review their values and beliefs regarding living with addictions.
	Double loop learning:
	Students were asked to reflect about their values related to addictions.
	They identified a problem within their community based on evidence.
	They interviewed individuals with lived experience with addictions and came up with a life project to change.
	They evaluated the outcomes with the clients and developed new plans.
	After the process, students were encouraged to reflect on their values and identify changes and determine new learning opportunities.
Non-linear learning	Freedom to go back to the stages for review.
	Freedom to choose the topics and identify the most relevant issues in their communities.
	Students reflected about their learning and decided how to continue the process

Discussion

Learning is not a binary process of receiving information which originates from external sources and flows toward the learner. Instead, true critical consciousness and learning are internal movements, flowing from within to the outside in an iterative cycle of analyzing the relevancy and credibility of knowledge. This process is profoundly immanent because awareness goes beyond mere self-awareness by appreciating the contextual nuances and implications of not only the knowledge but the growth of the learner. Often, a learner may recognize the importance of a particular learning process (critical reflection) and understand their own responsibility (motivation). However, they may not achieve full consciousness as there is a lack of or limited comprehension of the necessary actions to

address disparities or inequities amongst peoples; in this instance with respect to health.

Complete consciousness occurs when an individual transforms themselves into a lifelong learner by utilizing knowledge as a product for changing who they are and their surrounding society. At this stage, they begin to see themselves as a continuous learner, constantly engaged in self-discovery and knowledge acquisition. The conscious learner, who places learning at the core of their existence, is one who maintains an epistemological curiosity (Ruiz-Alfonso & León, 2019). Learners who embrace this stance not only enhance their academic achievement but also recognize their role in disrupting inequities in society and evolve as global citizens. This final stage has the learner acquiring comprehensive knowledge of being in and with the world to strengthen their commitment to a cultural safety and humility approach. This enables the learner to understand both the content (epistemology) and the application of values (axiology) to enhance quality of life (ontology) from an emancipatory lens to foster justice, equity, diversity, and inclusion (JEDI) as actions (Hankivsky & Christoffersen, 2008; Halman et al., 2017; Chae et al., 2020; Killam & Camargo-Plazas, 2022).

During this evolution, which as earlier stated is not binary, everything is of interest to them and they recognize that both formal knowledge and knowledge of the world (lived experiences) is a part of their life's journey. They perceive themselves as a work in progress, in constant evolution, projecting themselves into the world as they learn. This concept closely relates to heutagogy, the idea that the learner is fully aware that learning is a lifelong journey for which they are personally responsible. It is at this point that they transform into a self-determined learner, in an intrinsic and immanent movement of critical consciousness.

Implications for Nursing Education: Heutagogy places a strong emphasis on self-determined learning to foster passion and epistemological curiosity (Blaschke, 2012; Hase & Kenyon, 2012; Blaschke & Hase, 2016; Maykut et al., 2019). This approach is particularly valuable in nursing, where the

cultivation of critical thinking and problem-solving skills is paramount as it fosters a sense of ownership and responsibility for educational growth. Crucial qualities of higher order thinking (curiosity, flexibility, innovation, and humility) are foundational attributes for a holistic educational experience which prepares them to navigate and mitigate the uncertainty of their future profession.

Conclusion: Seamlessly blending heutagogy and critical consciousness may offer a comprehensive framework for disseminating not only the requisite skills and knowledge but offering a profound understanding of their role in championing the social and ethical dimensions of healthcare. These meaningful learning experiences should empower learners to emerge as catalysts for change, diligently and ethically working towards equitable and just healthcare systems. Therefore, it is crucial for faculty to be cognizant of unforeseen societal shifts to cultivate learners by intentionally creating experiences and offering them choices to demonstrate not only acquire knowledge but to understand their own role in the process. This would prepare graduates to recognize additional learning that ey may be necessary to bridge the gaps of uncertainty. This active engagement should foster proactive thinking with a focus on facilitating learners who are actively engaged and participate in their roles as future professionals and global citizens. To bring about this essential change, we must change our approach to nursing education. This entails providing learners with opportunities to acquire lifelong learning skills and enabling them to proactively choose what, how, and when they learn.

References

Abdulai, A. F., & Hung, L. (2023). Will ChatGPT undermine ethical values in nursing education, research, and practice. Nursing Inquiry, e12556–e12556.

Agonacs, N., & Matos, J. M. (2019). Heutagogy and self-determined learning: A review of the published literature on the application and implementation of the theory. Open learning: The Journal of Open, Distance and e-learning, 34(3) 223-240. https://doin.10.1080/02680513.1562329.

Ashton, J., & Newman, L. (2006). An unfinished symphony: 21st century teacher education using knowledge creating heutagogies. British Journal of Educational Technology, 37(6), 825-840. https://doi.org/10.1111/j.1467-8535.2006.00662.x

Berbel, N. A. N. (2012). As metodologias ativas e a promoção da autonomia de estudantes. Semina: Ciências Sociais E Humanas, 32(1), 25–40. https://doi.org/10.5433/1679-0383.2011v32n1p25

Berbel, N. A. N., & Sánchez Gamboa, S. A. (2011). A metodologia da problematização com o Arco de Maguerez: uma perspectiva teórica e epistemológica. Filosofia E Educação, 3(2), 264–287. https://doi.org/10.20396/rfe.v3i2.8635462

Blaschke, L. M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. The International Review of Research in Open and Distance Learning, 13(1), 56-71. https://doi.org/10.19173/irrodl.v13i1.1076

Blaschke, L. M. and Hase, S. (2016). Heutagogy: A holistic framework for creating twenty-first century self-determined learners. In B. Gros, D. Kinshuk, and M. Maina (Eds.) The future of ubiquitous learning: Learning designs for emerging pedagogies. Berlin Heidelberg, Germany: SpringerVerlag.

Colombo, A. A. (2007). A Metodologia da Problematização com o Arco de Maguerez e sua relação com os saberes de professores. Semina: Ciências Sociais E Humanas, 28(2), 121–146. https://doi.org/10.5433/1679-0383.2007v28n2p121

Chae, D., Kim, J., Kim, S., Lee, J., & Park, S. (2020). Effectiveness of cultural competence educational interventions on health professionals and patient outcomes: A systematic review. Japan Journal of Nursing Science, 17(3), e12326. https://doi.org/10.1111/jjns.12326

Freire, P. (1979). Conscientização: teoria e prática da libertação: uma introdução ao pensamento de Paulo Freire. Cortez & Moraes.

Freire, P. (2016). Pedagogia da Autonomia. Paz e Terra.

Freire, P. (2018). Pedagogy of the Oppressed. Paz e Terra.

Halman, M., Baker, L., & Ng, S. (2017). Using critical consciousness to inform health professions education: A literature review. Perspectives on Medical Education, 6(1), 12–20. https://doi.org/10.1007/s40037-016-0324-y

Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: A Canadian perspective. Critical Public Health, 18(3), 271-283. https://doi.org/10.1080/09581590802294296

Hase, S., & Kenyon, C. (2000). From andragogy to heutagogy. ICTlogy http://pandora.nla.gov.au/nphwb/2001022013000/

Hase, S. and Kenyon, C. (2007). Heutagogy: A child of complexity theory. Complicity: An International Journal of Complexity and Education, 4(1), 111-119. https://doi.org/10.29173/cmplct8766

Hase, S., & Kenyon, C. (2013). Self-determined learning: Heutagogy in action. London, UK: Bloomsbury Academic

Immonen, K., Oikarainen, A., Tomietto, M., Kääriäinen, M., Tuomikoski, A. M., Miha Kaučič, B., Filej, B., Riklikiene, O., Flores Vizcaya-Moreno, M., Perez-Cañaveras, R. M., De Raeve, P., & Mikkonen, K. (2019). Assessment of nursing students' competence in clinical practice: A systematic review of reviews. International Journal of Nursing Studies, 100, 103414. https://doi.org/10.1016/j.ijnurstu.2019.103414

Jackson, D., Bradbury-Jones, C., Baptiste, D., Gelling, L., Morin, K., Neville, S., & Smith, G. D. (2020). Life in the pandemic: Some reflections on nursing in the context of COVID-19. Journal of Clinical Nursing, 29(13-14), 2041-2043. https://doi.org/10.1111/jocn.15257

Killam, L. A., & Camargo-Plazas, P. (2022). Revisioning assessment and evaluation in nursing education through critical caring pedagogy: Using authentic examinations to promote critical consciousness. Advances in Nursing Science, 45(1), E15–E30. https://doi.org/10.1097/ANS.0000000000000382

Levey, J. A. (2018). Universal design for instruction in nursing education: An integrative review. Nursing Education Perspectives, 39(3), 156-161. https://doi.org/10.1097/01.NEP.0000000000000249

Lima, V. V. (2017). Espiral construtivista: uma metodologia ativa de ensino-aprendizagem. Interface - Comunicação, Saúde, Educação, 21(61), 421–434. https://doi.org/10.1590/1807-57622016.0316

Lira, A. L. B. D. C., Adamy, E. K., Teixeira, E., & Silva, F. V. D. (2020). Nursing education: Challenges and perspectives in times of the COVID-19 pandemic. Revista brasileira de enfermagem, 73(suppl 2), e20200683. https://doi.org/10.1590/0034-7167-2020-0683

Maykut, C., Wild, C., & May, N. (2019). Heutagogy:

Enacting caring science practices. International Journal of Caring Sciences, 12(1), 11–17. http://www.internationaljournalofcaringsciences.org

Miranda, F. M. A., Santana, L. D. L., Pizzolato, A. C., & Saquis, L. M. M. (2020). Working conditions and the impact on the health of the nursing professionals in the context of covid-19. Cogitare Enferm, 25(e72702). https://doi.org/10.1590/1983-1447.2021.20200339

Mitre, S. M., Siqueira-Batista, R., Girardi-de-Mendonça, J. M., Morais-Pinto, N. M. de ., Meirelles, C. de A. B., Pinto-Porto, C., Moreira, T., & Hoffmann, L. M. A.. (2008). Metodologias ativas de ensino-aprendizagem na formação profissional em saúde: debates atuais. Ciência & Saúde Coletiva, 13, 2133–2144. https://doi.org/10.1590/S1413-81232008000900018

Moore, R. L. (2020). Developing lifelong learning with heutagogy: Contexts, critiques, and challenges. Distance Education, 41(3), 381–401. https://doi.org.10.1080/01587919.2020.1766949

Saviani, D. (2008) História das Ideias Pedagógicas no Brasil. Autores associados.

Seah, B., Ang, E. N. K., Liaw, S. Y., Lau, S. T., & Wang, W. (2021). Curriculum changes for pre-registration nursing education in times of COVID-19: For the better or worse? Nurse Education Today, 98, 104743. https://doi.org/10.1016/j.nedt.2020.104743

Stone, R., Cooke, M., & Mitchell, M. (2020). Undergraduate nursing students' use of video technology in developing confidence in clinical skills for practice: A systematic integrative literature review. Nurse Education Today, 84, 104230. https://doi.org/10.1016/j.nedt.2019.104230

Tella, S., Liukka, M., Jamookeeah, D., Smith, N. J., Partanen, P., & Turunen, H. (2014). What do nursing students learn about patient safety? An integrative literature review. Journal of Nursing Education, 53(1),7–13. https://doi.org/10.3928/01484834-20131209-04