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Andragogy: A Theory in Practice in Higher Education

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Abstract: Adult learning principles develop through an analysis and synthesis of adult education, andragogy, teaching, and learning in higher education. This research investigates foundational assumptions relevant to the field of adult education with a focus on andragogy in higher education. Characteristics of adult learners and principles of adult learning in higher education bear focus through the lens of andragogy. As such, andragogy as the preferred learning style of adults, andragogy vs. pedagogy, and cognitive learning develop relational significance to adult learners in higher education. As a result, the implications of linking learning styles and reflections of andragogy as a learning style are considered.
Keywords: adult learning, andragogy, learning theories, cognitive learning styles, learners' motivation.

Andragogy learning style is the instruction technique adult learners prefer in higher education settings (MacKeracher, 2004; Pratt, 1988). Knowles' theory of andragogy sought to highlight the distinctiveness of adult learning. Knowles (1984a) contended that adults are self-motivated and tend to assume responsibility for their role in the learning process. Thus, adult learning programs must accommodate this significant perspective. Andragogy influences accompanying trepidation about learning outcomes. For instance, adults need to know why they must learn specific learning material; adults need to learn experientially; adults approach learning as critical thinking, and adults learn best when the subject of instruction encourages confidence. In viable terms, andragogy implies that adults concentrate more on the process and less on assessment. Strategies such as contextual analyses, role-playing, simulations, and self-assessment are generally valuable to adult learners. Given the learning inclination of andragogy; educators and students should embrace their role as co-facilitators instead of lecturers or solely as students (Knowles, 1984a).

MacKeracher (2004), indicated several critical adult learning theories regarding making sense of adult learning in higher education. For instance, several principles exist to define adult learning, such as the learning-centered approach, learning as a natural process, and of course, the various dialectical processes of learning, such as the interactive, constructive, and transformative dimensions of learning (Muneja, 2015). Moreover, the learning process is cyclical. Learners have various styles of learning and exhibit extremes of gaps in learning on an individual basis (MacKeracher, 2004). Training and teaching professionals must be aware of adult learners' preferred strategies for learning. The concept that learning as non-normative is a vital addition; whereas, learning means different things to different people based on the content provided. Moreover, what is normal for one person may not

be typical for someone else even while working on the same activity, through experiential learning practices, or even reading the same text. Finally, learning takes place within the context when a carefully designed teaching strategy in higher education ensures the adult learner gets the most from the learning experience.

1   How Andragogy is Implemented in Higher Education

Currently, higher educational organizations understand the need in changing themselves from a pedagogy level of instructing to andragogical level instructing. As a result of technological influences, educators are challenged to blend the underpinnings of both styles to meet the situational demands of curriculum and student needs. Indeed, Joshi (2017) found that higher education organizations thrive upon a culture where students are seen as adults who take more responsibility for their learning than those in compulsory institutions. Adults bring intuitiveness and experience to the classroom in way that pedagogical education does not. For instance, andragogy engages both the instructor and the student in a symbiotic relationship where the success of both is tied to their ability to collaborate, share experiences, provide contextual investigations, engage in meaningful conversations, and critical thinking. Andragogy requires students to provide deeper levels of connection to the theory provided by linking the context to the workplace. Innovative learning practice engages students by inspiring them to think beyond traditional careers and explore the range of possibilities that exists in one field or many. As a result, objectives and purposes for andragogical learning and the utilization of learning is dynamic.

Furthermore, andragogy is applicable to the needs of higher education students. Sufirmansya (2019) found that adults have a desire, capacity, intention, and requirement to learn because of the importance

of learning for one's career. Therefore, the importance of andragogy to the students in higher education is extremely synergistic with providing students with autonomy in their learning. Therefore, course developers, designers, and instructors must consider how assignments are structured for higher education students. Students need assignments they can complete independently. The presumptions that underlie andragogical learning methodologies in tertiary institutions is that students must comprehend their learning direction, have a focused outlook, gain proficiency with their background, understand their capabilities in the learning process, and reinforce their natural inspiration. Online courses must be structured so as they are easy to navigate, accessible to those with limited ability, requirement and assignment documentation must be clearly communicated. At the same time, instructors must create an environment that engages the learning community by utilizing announcements, discussion boards, blogs, video conferencing, group project interactions, simulations, and gaming.

Moving forward, andragogical methods can be applied to well-coordinated self-assessment and peer-assessment (Machera, 2017). Utilizing self-assessments provides several advantages when constructed by students, instructors, higher learning organizations, and university stakeholders. Machera (2017) indicated the outcomes elevate the organization with regards to receiving authentic feedback. The impact of self-assessment and peer-assessment to all educational stakeholders create a spirit of innovation and community in that the process engages students to become part of educational development process. Moreover, stakeholders indicated that self-assessment and peer-assessment improve learning in higher education thus the need to incorporate self-assessment and peer-assessment is a promising practice.

2   Theme 1 – Andragogy is the Preferred Learning Style of Adults

The andragogical learning and instructional method demonstrate it remains a focal model for adult learning in higher education (Holton, Swanson, and Naquin, 2001). Merriam (2001) contended andragogy and self-directed learning is an essential aspect to modern conceptualizations and understanding of adult learning. Arguments regarding the discrepancy between child and adult learning styles have existed for decades. Pedagogy has a long practice of providing educational guidance in which there is little differentiation between child and adult education. In the past, both groups learned in the same manner. Alternately, andragogy, promoted by Malcolm Knowles in the 1970s, is a well-developed modality to address the unique needs of adult students in higher education. Knowles' idea of andragogy has been generally well received by instructors from different backgrounds, so far. Andragogy includes six assumptions: (a) self-directedness, (b) need to know, (c) use of experience in learning, (d) readiness to learn, (e) orientation towards learning, and (f) internal motivation (Chan, 2010; MacKeracher, 2004; Merriam, 2007).

Andragogy is a significant learning style to achieve performance improvement for adult learners in higher education (Holton, Swanson, & Naquin, 2001). More specifically, performance improvement objectives clarify the current state of the andragogical principles. Andragogy also addresses specific issues of adult learners and offers a more explicit framework for adapting andragogy to different learning styles. Andragogy, in practice, indicates that more specific factors develop when adapting andragogy to the learning environment. An analytic framework expressed as andragogical learner analysis demonstrates the andragogy model in practice during needs

assessment and curriculum development (Holton, Swanson, & Naquin, 2001).

3   Theme 2 – Andragogy vs. Pedagogy

McGrath (2009) purported there are similarities between adults and children in how they learn in context to language, interaction, and communication. Conversely, adult learners exhibit different learning behavior from that of children. In comparison, andragogical learning comprises two conflicting learning theories, andragogy, and pedagogy which are significant to adult educators. A learning theory that has attempted to overcome some of the negative aspects of pedagogy to the adult learner is a theory, which was introduced by Malcolm Knowles known as andragogy. Andragogy, as defined, is a scientific discipline that studies everything related to learning and instructional methods to develop adults to their full potential (McGrath, 2009). Unlike pedagogy, andragogy's premise is that the instructor does not possess all knowledge; therefore, adult learners are encouraged to take part in the classroom by incorporating their own experiences. In doing so, the instructional environment is much more engaging, supportive, and dynamic (Lawson, 2009). Moreover, the theory of andragogy, as developed by Malcolm Knowles, remains an essential theoretical framework for adult education practitioners and higher education students.

The main point of andragogy indicated that instructional professionals apply andragogy in adult learning practice. Knowles (1984a) described andragogy as a learning theory specific to the needs of adult learners. The concepts of andragogy are different from pedagogy, which is indicative of learning in childhood. Consequently, there is an emphasis placed on adults who thrive in self-directed learning environments, whereas adults often take responsibility for

their learning and decisions throughout the learning process. Knowles (1984a) suggested that adult learning programs consider the specific needs of adults to accommodate this fundamental aspect. The precise attributes of andragogy are that learners demonstrate self-directedness, and as learners, they are multifaceted resources for learning. Likewise, developmental tasks of social roles are present, the application is immediate, learning hinges on being problem-centered, instead of theoretical, there is mutuality, respectful, and collaborative interactions (Davenport & Davenport, 1985). Likewise, often communication and collaboration are informal. Adult learners tend to accept mutual self-diagnosis and negotiation. A focus on sequencing learning materials encourages preparedness and readiness. The importance of inquiry-based learning underscores mutual surveillance of the learner's needs and measurement of a learning program. Finally, the role of andragogy is an essential departure from pedagogy in adult learning in that maturity of the adult learner assists them in moving towards dependency on being self-directed. As a result, their experiences develop knowledge, readiness to learn is predicated on social roles, and the focus of the material is less on theoretical knowledge as much as it is focused on problem-centered materials (Davenport & Davenport, 1985; Knowles, 1984a).

4 Theme 3 – Cognitive Learning

Learning styles conceptualized as a cognitive, affective, social, and psychological behavior indicate what the learner perceives in response to the learning environment. Interestingly, the notion of cognitive style and cognitive ability are different from one another. Cognitive ability refers to the concept of that which one knows, whereas cognitive ability can be associated with the level of intelligence the learner achieves for a given goal. The best instruction happens when the in higher education

instructors creates a classroom environment or a training environment in which there are measures of cognitive, affective, psychological, and interpersonal styles of learning, regardless of learner preference (Merriam, Caffarella, & Baumgartner, 2007).

MacKeracher (2004) explored factors which affect adults' learning styles; whereas these factors may also affect adults' learning styles. These styles are cognitive, affective, physiological and interpersonal. Of these styles, the interpersonal style links to the ability of an instructor in higher education to connect with their audiences. Interpersonal learning style focuses on relational connections versus autonomous learning and connected versus separate procedural knowing. This learning behavior is related to social or relational factors. Interpersonal learning style includes the capacity to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people.

MacKeracher (2004) discussed features of the following thinking strategies: analytic cognitive style, holistic cognitive style, narrative, and paradigmatic thinking styles. What follows are examples to correlate each of the thinking strategies. In developing the course curriculum and material, it is vital to understand how learners think. An analytic cognitive style characterized by logical reasoning, a narrow focus on conspicuous objects in the foreground, and a belief that aspects of knowledge are the products of individuals and their attributes are noteworthy. Analytic thinkers tend to "disentangle phenomena from the contexts in which are embedded." (White, 2012). The holistic cognitive style involves understanding a system by sensing its large-scale patterns and reacting to them (Dewey, 2011). Narrative cognitive style is a way to conceptualize the learning process and is concerned with the context ascribed to experiences through stories (Adler, 2008). The essential features of narrative learning allow for reflection, thus an effective way to teach adults (Clark & Rossiter, 2008). Paradigmatic cognitive style is the mode of educational theory concerned with logically categorizing the world (Adler, 2008; Brookfield, 1995;

MacKeracher, 2004). An example of the complexity of individual learning preferences and styles, there some areas where one is right-brained, and others left brain. For example, some learners who ask questions appreciate closed-ended questions and answers, yet enjoy analytics that focuses on time, economic resources, and variables.

Theme 4 – Relational Significance to Adult Learners

MacKeracher (2004) discussed adult learning theories, such as the relational-centered approach, focusing on establishing and strengthening relationships with learners and helping learners know the ways of learning. As the learning process is cyclical, learners have different styles of learning and gaps in learning, so the best way to help learners is to engage with them. Unlike in pedagogy, adult learners are more apt to tell the instructor what is needed to gain achievement in the learning process because they are personally engaged. Andragogy promotes critical thinking in connection to pedagogy, andragogy, and their relationships to student motivation (Pew, 2007). As training and teaching professionals in in higher education, one must be aware of adult learners' preferred strategies for learning. The concept that learning is relational is a vital addition; whereas, the term 'relationship' means different things to different people based on the context of the topical matter (Merriam, Caffarella, & Baumgartner, 2007). Therefore, what is relational for one person may not be relational with another in the same way. Finally, learning takes place when a carefully designed teaching strategy institutes learning where adult learners can interact and build relationships in the classroom environment.

Given the relational aspect of the learning environment, emotions, and stress affect learning and information processing; therefore, instructors can help adult learners deal with emotions and stress in learning in higher education. According to Lawson (2009), design principles are necessary to develop an instructor's planned activities and materials. Instructional principles required for exceptional design are providing an icebreaker to build group cohesiveness and assess group needs. Further, the utilization of a similar design for each class

uses different purposes and published designs should be modified to adapt to the purpose of the course or training. Lawson indicated the instructor should think of lectures that can be stretched, compressed, or eliminated, instead of the time available and the expertise of the participants.

Like experiential learning, cognitive apprenticeship is an excellent way to assist a student in practicing their craft. Simulations provide an alternative type of learning opportunity than traditional lectures do. Lectures in higher education have the potential to provide a larger volume of material to students, and thus, are usually necessary to provide the background and set the stage for more interactive techniques. On the other hand, students' greater involvement in a simulation can make a student's learning experience applicable to career development. For example, a skilled personal trainer achieves the certification, which exhibits skills and knowledge. It is the combination of theory, simulation, and exhibition that cognitive apprenticeship helps as students model skill (Merriam, Caffarella, & Baumgartner, 2007).

5   Implications: Linking Learning Styles

Experiential learning styles are popular despite critique about their legitimacy and usefulness (Bergsteiner & Avery, 2014). Likewise, there are fractured conceptualizations of understanding regarding the benefits of experiential learning. Bergsteiner and Avery (2014) presented a twin-cycle experiential learning model to eliminate confusion about experiential learning benefits in the field of education, which analyzed both Kolb's and Taylor's learning cycles. In both models, there is an increase in learning, which happens at the intersection of a concrete/active/primary learning cycle and an abstract/passive/secondary cycle. It is critical to observe that models

based upon factors depict six basic learning derivatives (participate in, expound on, watch, hear/see, read, hear). Moreover, learners use all their senses to connect to learning materials via (kinesthetic, visual, aural) modes and stages, which are concrete, active, primary, abstract, passive, secondary (MacKeracher, 2004).

6   Practical Application

From a practical perspective, people learn best by doing, seeing, and researching. When instructors in higher education teach content, they should use not only texts, but other resources as well, such as the library, technology, and community resources, and activities to convey content areas. An instructor should be passionate about linking students to community-based organizations and projects, so they may experience how processes work. Collegiate courses are designed to introduce participants to significant issues, learning strategies, and career resources about their respective fields create beneficial learning outcomes. As a result, in higher education instructors must focus on fostering student learning through inquiry-based curriculum design.

Moreover, the importance of instructional plan development lies in well-written learning objectives. To encourage collaborative learning in the classroom, students typically understand and retain an idea more effectively when they have had a part in developing information (Lawson, 2009). For instance, by dividing classes into small groups and assigning class members an essay question to answer as a way of reviewing for an exam allows for greater engagement—for instance, the assigned question written as an essay and required on the next assessment. Students write individual responses to the question for five minutes. Students then debrief within their group of three or so to discuss a topic. Finally, each group reports its conclusions. If the class is substantial, randomly selected groups report summary and substantive

outcomes. The reporting requirement encourages students to discuss the task at hand, rather than distracting topics. Further, the reports help the instructor to ferret out gaps in the students' understanding of the material.

7   Analysis

Conclusively, Knowles (1984b) purported that andragogy is the paramount study in higher education, indicating that adults learn differently from youth. Also, Knowles (1984b) specified six indications and reservations for effective andragogy in higher education. Adult learners must convey their life experiences and understanding to learning experiences, goal oriented, relevancy oriented, practical, and require respect (as cited in Merriam, Caffarella, & Baumgartner, 2007). Additionally, problem-centered focus allows adults immediate application of learning to career. Nonetheless, andragogy is not as connected with learning as the suppositions assume. St Clair (2002) determined that a humanist perspective was needed to ascertain if students indeed increased comprehension when andragogy was utilized as a teaching method. While andragogy has the potential for academic development, improved instructional techniques, various determinants analyzing social ways of critical thinking, and human connectivity make andragogy a novel instructional mode. Also, andragogy is viewed as a way to understand the education and development of adults. However, the most central critique is there is little knowledge of adult learner satisfaction with andragogy in multiple disciplines, so there is not a one-size-fits-all theory for the many variations possible and the needs of different disciplines.

Nevertheless, Knowles' theory laid the groundwork to apply andragogy to any adult educational setting (Knowles, 1984a). However, andragogy can no longer exist as the only theory in the adult education

field to express the needs of adult learners because it does not offer a distinct demarcation between the educational delivery for youth and for that of adults. As a result, andragogy will endure as the paramount in higher education adult learning theory when trying to understand how to best train adults. Conversely, andragogy is not adequate to clarify or shape the future needs of adults within various disciplines.

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