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| RESEARCH ARTICLE

Amplifying Learning Development in Human Capability Advancement through Soft and Hard Skills

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| ABSTRACT

This study review evolved in tandem with experiential learning in a group of next generation leaders. It emphasizes several practices in achieving soft and hard skills through identifying three core phases: awkwardness, awareness, and familiarity in practice. Kolb's experiential learning theory supports the paradigm of skills acquisition through experience, reflection, conceptualization, and experimentation. Skills acquisition is essential for development as a necessity for enhanced employability, enhanced productivity, and overall individual growth due to constant adaptation and learning. The review methods included a literature review approach by evaluating existing published findings on critical aspects of developing soft and hard skills, and receiving group feedback on experiential application. The panorama of aspects evaluated include understanding soft and hard skills, phases of practice in the skills development process, the role of practice in skills development, levels of thinking in translating theory into practice, critical, practical and creative thinking, reflective thinking, insight, foresight, hindsight, combining levels of thinking into practice. Collectively, the findings were intended to provide a detailed understanding of amplifying learning development and advancing human capabilities through soft and hard skills. Hard skills are defined as the technical competencies required to perform tasks, and are acquired through knowledge. At the same time, soft skills are required to integrate the hard skills into practice. Notably, skills development occurs in phases, including awkwardness, consciousness, and assimilation. Practice also plays a critical role in skills development by helping the brain to translate knowledge into practical skills. Translating theory into practice also requires levels of thinking, including critical, practical, and reflective thinking. Creative thinking at the workplace involves establishing new, unique aspects by considering various perspectives of the problem to develop a solution. Reflective thinking is a critical soft skill that allows individuals to navigate an unpredictable situation, allowing for the evaluation of actions. In reflective thinking, insight involves developing a coherent and in-depth understanding of aspects that were not transparent previously. Foresight entails drawing from previous experiences to predict the future and solve problems based on the individual's understanding of the problem. Hindsight provides a comprehensive understanding of the consequences of previous experiences, emphasizing the accuracy of insight into a specific aspect of the business. In sum, skills development is an essential concept in the modern human resource and talent acquisition sector, and thereto, developing both soft and hard skills is essential as shown by the reviewed literature. Furthermore, it is vital to comprehend that skills development occurs in phases, all drawn from Kolb's experimental learning theory, including awkwardness, consciousness, and assimilation. Overall, the learning process is crucial as it ensures that an individual can eventually perform these skills autonomously.

| KEYWORDS

Amplifying Learning, Human Capability, Soft and Hard Skills, Kolb's Experimental Learning Theory, Skills Development in Practice

| ARTICLE INFORMATION

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Introductory Overview

The crucial role of practice, practice, and practice has perhaps not received sufficient attention in the development of soft and hard skills insofar as these pertain to human capability development. Revisiting the related three phases of learning development in soft and hard skills acquisition is the focus of this review, forming as these do the foundation of professional development, which has been a focus of seminal texts over the years (Quinn, 1998; Quinn, 2000; Bruce & Klopper, 2017). The three phases in focus here pertaining to skills development are: (i) awkwardness in practice, (ii) consciousness in practice, and (iii) assimilation in practice.

Kolb's experiential learning theory is used as the theoretical framework, mainly focusing on the practice elements incorporated in this theory. This theoretical framework emphasizes the role of experiences, thoughts, environment, and emotions in the learning process (Kolb, 2014). The experiential learning theory has four critical steps, which are concrete learning, reflective observation, abstract conceptualization, and active experimentation. In concrete learning, the learner gains a new experience or perceives prior experience in a new way. Reflective observation involves reflecting on this new experience to comprehend its meaning and implications. In abstract conceptualization, the learner modifies their thought process and develops new notions founded on this new experience and their reflection on the experience. In the final stage, the individual implements their newly acquired ideas into real-life phenomena to evaluate their effectiveness and observe if any further modifications are required (Hayden & Osborn, 2020). The four stages of Kolb's experiential learning theory align with the skills development process outlined by Quinn (1998; 2000).

Sotiriadou et al. (2020) highlight skills development as a critical aspect in enhancing an individual's employability and improving their productivity. Skills development is the undertaking involving the acquisition and enhancement of various skills and competencies. The skills can either be soft or hard. According to Noah & Aziz (2020), soft skills encompass sociability, personal habits, personality traits, language fluency, and other attributes that improve an individual's interactions, career development, and performance. Lyu & Liu (2021) define hard skills as the technical abilities that are acquired through training and practice. Skills development offers several benefits, including improving employability and adaptability, establishing resilience and confidence, and enhancing communication.

Understanding Soft and Hard Skills

Research in the labor market has focused on investigating the skills needed to improve an individual's employability due to their importance in boosting innovation and economic performance (Hendarman & Cantner, 2018). Recent literature has divided the skills required in the labor market into soft and hard skills. Soft skills are referred to as the interpersonal traits needed to apply the technical knowledge and skills classified as hard skills, in the workplace. Lyu & Liu (2021) define these hard skills as the technical competencies required to undertake tasks and which are acquired through knowledge. Current demands in the labor market call for the possession of both skill types. Various studies have established that soft skills are as important as technical skills. Technical skills are important in fulfilling responsibilities, while soft skills improve individuals within their workplace (Gurjanov et al., 2020; Patacsil & Tablatin, 2017; Ternikov, 2022). Therefore, it has become necessary for professionals to acquire both hard and soft skills.

Phases of Practice in Skills Development

The phases of practice in skills development include awkwardness in practice, consciousness in practice, and assimilation in practice. This literature review will provide an understanding of soft and hard skills, analyze these phases, and determine the role of practice in skills development based on the seminal work of Quinn (1998; 2000). Kolb's experiential learning theory is the basis for Quinn's seminal works, explaining how learners acquire and hone their skills through experience. This theory perceives skills development as a cyclical process where learners learn to develop skills through engaging with new experiences, reflecting on them, establishing abstract concepts from their reflections, and implementing these concepts in real-life situations via active experimentation. According to Jonathan & Laik (2021), learning a new skill is a cyclical process of doing and reflecting. This learning cycle enables individuals to refine their skills and develop effectively continuously. The stages of Kolb's learning cycle are equally important in the skills development process and emphasize the need for practice for skill refinement.

The awkwardness phase is where a new skill is put into practice and feels artificial or clumsy. The awkwardness phase aligns with Kolb's learning cycle stages of concrete experience and reflective observation. According to Morris (2020), the concrete experience stage is where a learner experiences a new situation for the first time. At this stage, individuals mostly rely on their feelings to address specific tasks. An example is a medical student learning a new surgical procedure on a simulated patient (Wijnen-Meijer et al., 2022). In the reflective observation stage, the individual is trying to comprehend the new ideas from various perspectives. In a learning environment, objectivity and patience are required without taking any significant action. During these two learning stages, the learners are unaware of these new ideas. The learners are unfamiliar with these new ideas because they have not practiced them. Therefore, they may rely on their feelings to understand these skills and inform their opinions. This initial phase, where individuals experience struggles in skills development, can also be explained using Fitts and Posner's cognitive learning stage (Salehi et al., 2021).

Salehi et al. (2021) describe this stage as the phase where a learner is actively pursuing knowledge of the basics of a new skill. During this stage, the learner makes several errors consciously and experiments with different strategies to achieve the required result (Salehi et al., 2021). This phase also explains the motor skills development process and learning psychology. According to Newell (2020), motor skills development involves the acquisition and refinement of physical movements through practice and experience. This process always feels unnatural at first due to difficulties in coordination and execution. The awkwardness phase is important in building the foundation for further skills development. During this phase, learners should consistently practice, to ensure their progress and prevent ingrained errors that might prevent long-term skills development. Consistent practice in this stage is what leads to the next phase, which is consciousness in practice.

In the consciousness in practice phase, the application of the skill starts to feel okay due to improved awareness of the skill's use. As Quinn (1998; 2000) explained, the consciousness in practice phase is where the learners become more conversant with the skill and show improved performance in executing the skill. This phase is linked to Kolb's learning cycle stage of abstract conceptualization. Kolb explained that the abstract conceptualization stage is where learning entails applying reason, theoretical basis, and ideologies instead of feelings in understanding the phenomena or issues (Pamungkas et al., 2019). At this stage, the learners use systematic planning and practice to form various ideas and theories for solving the problems they experience. Sufficient practice is essential in helping the learners form the multiple ideas and theories for addressing their issues. These concepts relate to the consciousness in practice phase, where learners have a refined understanding of the new skill. Therefore, they can apply their knowledge more effectively in executing this new skill.

Also, the deliberate practice theory explains this phase where an individual becomes comfortable in using a skill through practice. Ericsson (2020) states that the deliberate practice theory is the notion that you can build expertise in a skill through consistent practice and enhancement. Practice enhances familiarity with a skill, resulting in improved performance. For example, the theory has gained significant traction among medical researchers who have used the concepts to impact medical education, master learning research and development positively, and inform new directions for medical learning and teaching (McGaghie et al., 2021). In this consciousness phase, feedback and self-awareness are crucial to skills attainment (Rhee & Siggler, 2024). Focused and intentional practice helps individuals determine particular improvement areas and seek input on how to refine their skills. The mastery of a new skill is from a deliberate effort to improve on that skill. Without practice or if practice is inconsistent, an individual's progress may become redundant. Lack of consistent and deliberate practice in this phase makes it difficult for learners to assimilate the skill into their tasks fully. It prevents the transition into the final phase of skills development - the assimilation in practice phase.

The final phase is the assimilation in practice. At this stage, the skill starts to feel natural and part of normal activities. DeKeyser (2020) refers to it as the autonomous stage of skills acquisition. At this stage, the skill is automatic and requires little conscious effort to perform. The assimilation in practice phase is reflected in Kolb's learning cycle in the active experimentation stage. During this stage, learning occurs in active form, with learners experimenting in real-life situations. Learners use a practical approach to determine what works in addressing their issues. This practical approach entails practicing what is learned to find a way of approaching real-life problems. According to Kolb, the active experimentation stage may happen over an extended period with the learner practicing to determine what works effectively in dealing with situations (Kolb, 2014). For example, a medical professional might learn, after consistent practice, that early preparations for procedures in advance leads to things running smoothly during the procedure (Wijnen-Meijer et al., 2022).

Therefore, the learner can concentrate on other aspects of their responsibilities while maintaining a high level of accuracy and consistency. The assimilation in practice phase is where an individual demonstrates a high level of efficiency and flexibility in different circumstances when using the skills (DeKeyser, 2020). This phase is accomplished through extensive and deliberate practice over time. Consistent practice strengthens the neural pathways dealing with this skill implementation. For example, Rudd et al. (2020) posit that the autonomous stage in physical literacy in early physical education is where young children develop complex movement skills through well-designed physical education lessons done repeatedly. However, a lack of consistent practice may result in the deterioration of the skill learned. Therefore, it is important to maintain repetitive application of the skill to reinforce the skill acquired.

The Role of Practice in Skills Development

The phases of skills acquisition all stress the importance of practice in learning a new skill. Neuroplastic processes demonstrate the need for practice in learning new skills. According to Johnson & Cohen (2023), neuroplasticity is the process by which the brain adapts to new experiences and practices. It essentially implies that the brain is restructuring itself and establishing new neural links while strengthening new ones. This practice is important when adapting to new skills. Ericsson (2020) also demonstrates the importance of practice in skills development. He emphasizes the need for deliberate practice in accomplishing high proficiency levels in a particular skill. Practice entails actions such as focusing on addressing weaknesses through seeking feedback.

Various studies in a range of fields have shown the importance of practice in skills development. Ericsson (2020) demonstrated the importance of deliberate practice in achieving expertise in sports. He states that the more deliberate practice, the higher the proficiency level gained in a particular sport. McGaghie et al. (2021) discussed the importance of deliberate practice in medical education. Medical students need to focus on deliberate practice to enhance their mastery level of medical knowledge and skills. Also, Patascil & Tablatin (2017) stressed the need for IT students seeking to enter cyberspace to practice their soft and hard skills consistently. It will improve their performance, especially in the provision of services. Therefore, practice is important in skills acquisition and has the capability of enhancing an individual's performance and productivity.

Levels of Thinking when Translating Theory to Practice

Translating theory into practice in real-life situations necessitates several levels of thinking for theoretical knowledge to be implemented. The various levels of thinking required include critical, practical, creative, and reflective thinking. These thinking processes are essential to bridging theory and practice. The application of these thinking processes to practice is explained.

Critical Thinking

Alsaleh (2020) notes that critical thinking is an essential thinking skill and is an indicator of higher-order thinking. It refers to the process of skillfully and actively conceiving, employing, processing, and evaluating information to make a judgment. This conception of critical thinking has been effectively defined in the Paul-Elder framework. According to this framework, critical thinking entails three essential aspects: analysis of thinking, evaluation of thinking, and improvement of thinking (Anggreani et al., 2024). The analysis of thinking refers to the focus on structures or parts of thinking. The evaluation of thinking focuses on the quality of thinking, while the improvement of thinking entails applying what has been learned. This skill needs to be actively developed via repeated implementation under different circumstances. Consistent practice enables an individual to continually refine their capacity to evaluate information and determine biases in reaching well-informed conclusions.

Critical thinking ensures that theoretical ideas are deeply evaluated for pertinency, including determining any potential weaknesses. Critical thinking has been applied in various fields, including accounting, education, and medicine. Abdul Latif et al. (2019) reported that critical thinking helps in promoting autonomous thinking and reasoned judgment and can help prepare students for their professional, market-ready development. Critical thinking is also vital for improving the inquisitiveness, open-mindedness, and cognitive maturity of nursing students (Wu & Wu, 2020). In the education field, critical thinking is also applied to various subjects and concepts to help students develop reasoned judgment that can improve their understanding of the concepts taught (Tan, 2020). This level of thinking is, therefore, necessary for situations where analytical reasoning influences the effectiveness of practical applications. It provides grounds for informed and well-reasoned decision-making processes for effective analyses.

Practical Thinking

Practical thinking is another level of thinking that can be used when translating theory into practice. According to Odiljonova (2023), practical thinking entails the ability to apply knowledge and reasoning to solve problems in real-world situations. The focus is on using an individual's knowledge to achieve an important objective. According to Sternberg's WICS model, practical intelligence relates to the mental activity engaged in accomplishing fit to context (Sternberg et al., 2021). The practical thinking process involves three steps: adaptation, shaping, and selection. People who apply critical thinking use these steps to establish an ideal fit between themselves and their environment. Based on Sternberg's WICS model, this level of thinking helps individuals adapt to different environments. Practical thinking, when used together with creative, wisdom-based, and analytical approaches, helps form effective solutions.

Practical thinking is focused on circumstantial and action-oriented approaches to solving real-world problems. Practical thinking skills are particularly incorporated in the development of teaching curricula since the focus is on ensuring students can apply the knowledge learned to real-life situations (Azid & Md-Ali, 2020). In developing their practical thinking, students have to undergo consistent practice throughout the curricula until they understand how to apply their knowledge to real-life situations. According to Atthachakara (2021), practical thinking helps students connect curricular activities to real-life experiences and helps them solve these problems successfully. This level of thinking is also applied in cybersecurity operations. Shreeve et al. (2020) stated that practical thinking can be critical in addressing issues with the traditional risk assessment methods in cyber security decision-making. The insights drawn point to the application of practical thinking in ensuring the subjectivity of risk perception and modification of social, cognitive, contextual, and organizational factors in accomplishing cyber security goals.

Creative Thinking

This level of thinking entails developing innovative ideas to solve issues. In practice, creative thinking entails actively forming new and unique concepts by considering the various sides of a problem and then linking the multiple concepts to find an innovative solution (Sowden et al., 2019). There are numerous examples of creative thinking in practice. In a workplace environment, creative

thinking could entail having an interactive brainstorming session in which people give their initial ideas. It can also entail assessing the current process to generate steps for improvement. Creative thinking is also at play in the development of innovative marketing techniques for prospective clients such as identifying an opportunity that can be utilized to promote a company's brand (Helzer & Kim, 2019). These strategies show that creative thinking is grounded in innovation.

According to Chen et al. (2022), Guilford's model provides a practical framework for evaluating creativity. This model stresses the significance of originality, flexibility, and fluency in generating new ideas. This level of thinking allows people to be flexible and innovative in dealing with practical challenges. For example, Akpur (2020) states that creativity is a positive predictor of academic achievement. Through creative thinking, students can come up with unique and original solutions to their problems or even test new ideas. Practice is essential for innovative thinking as it ensures people can accumulate knowledge and skills, apply them to different scenarios, and cultivate creative habits (Sharipova, 2023). Practice enables people to actively engage and learn from their mistakes in a continuous process that allows this skill to flourish.

Reflective Thinking

According to Erdogan (2019), this level of thinking entails assessing and translating experiences and learning into complex situations. It is also linked to critical thinking as it helps to improve an individual's critical thinking skills. This level of thinking is essential for complex and unpredictable situations. Akpur (2020) states that reflective thinking is essential when questioning new perspectives, identifying improvement areas, dealing with new challenges, or applying past experiences to new situations. It implies that it is applicable to situations where an individual needs to understand their past and use it to embrace new challenges. Reflective thinking is applied in various fields, enabling governments, business personnel, and academic leaders to evaluate their actions, the well-being of others, and the effect of their personal decisions on their actions (Sümen, 2023). Therefore, reflective thinking can be applied to practice in a diverse range of fields.

Researchers have mainly evaluated the implementation of reflective thinking in the education field. Yaacob et al. (2020) found that reflective thinking promotes pedagogical approaches, enhances knowledge sharing, improves teachers' comprehension of their learners, and results in professional self-development. Slade et al. (2019) also note that reflective thinking is essential in promoting self-awareness of teachers' attitudes and perspectives on their teaching process. Therefore, reflective thinking is an important level of thinking that enables adaptability and learning from past experiences. It is imperative in iterative learning environments where people are constantly required to refine their implementation of knowledge from past insights (Moghaddam et al., 2020). It enables professionals to use past experiences to adapt to the unique problems faced. Reflective thinking is considered vital for learning and professional development and can be developed through practice. However, it requires comprehending, interiorizing, and using some critical concepts to assess your learning. These critical concepts that can help an individual assess their learning in reflective thinking include insight, foresight, and hindsight.

Insight

In reflective thinking, insight refers to the development of clear and in-depth comprehension, often highlighting the underlying links and trends that were initially not transparent from past experiences. According to Norton & Sliep (2020), insight enables more critical analysis of situations, resulting in informed decisions and improved future outcomes. Basically, insight is an essential result of reflective thinking that propels professional and personal growth. It reveals the previously unseen associations and implications. Oh et al. (2020) describe insight as the sudden realization that drives problem-solving by linking previously unrelated ideologies. It leads to a better comprehension of the context, resulting in well-informed decisions. Therefore, it is an important aspect of reflective thinking that enables proper translation from theory to practice.

In the translation of theory to practice, insight is an important element for professionals. It enables different professionals to draw links from past experiences in modifying their strategic approach to current events. The process of drawing connections from past events ensures individuals have an improved understanding of addressing future events. Oh et al. (2020) state that people choose to engage in insight-related thinking for their personal and professional growth. The insightful thinking points them to their strengths, weaknesses, and motivations, which enables them to work towards self-development. It is also applied when there is a need to engage different viewpoints and comprehensively analyze situations to make proper judgments. Also, insightful reflection helps professionals to generate valuable lessons from past experiences. Therefore, it results in a more meaningful adaptation to current and future circumstances (Norton & Sliep, 2020). Reflection with insight also leads to career advancement and better professional performance from professionals.

Foresight

In contrast to insight, where people draw from their past experiences, foresight is the ability to predict future opportunities and problems based on an individual's understanding of patterns and trends (Norton & Sliep, 2020). Some important foundations of foresight include the recognition and acknowledgment that the future offers immense opportunities that cannot be predicted.

Therefore, there is a need to concentrate on the long term and incorporate both systemic and peripheral perspectives. Also, it is important to include the multiplicity of viewpoints to navigate biases. In reflective thinking, foresight can assist in determining and evaluating problems and possibilities emanating from various drivers of change shaping the future. This aspect of reflective thinking is critical in informing decisions and driving strategic choices in a situation with plenty of unknowns. According to Cuhls et al. (2024), foresight is integrated into different institutions and performs specific functions in the decision-making process and policy development.

Therefore, foresight has an important function in strategic planning in different institutions (Cuhls et al., 2024). Through this aspect of reflective thinking, organizations and people can develop proper contingency plans and proactively prepare their reactions. In translating theory to practice, foresight helps people and organizations form proactive measures to deal with potential risks and improve their outcomes. In Dewey's theory of practice, he stated that reflective practice allows individuals to inform their actions with foresight (Greenberger, 2020). It implies that reflective practice enables organizations or individuals to know what they are about when they act. For example, a manager in a company setting can apply foresight to anticipate evolving technology trends and implement strategic measures that will enhance their technological resilience. Such mitigation strategies will ensure the company remains competitive despite future risks in technology adoption. Foresight is critical in providing a deeper understanding of larger issues and improving strategic preparedness.

Hindsight

According to Hellman (2020), hindsight is the knowledge gained through evaluating past decisions and experiences. While foresight is important in predicting and strategic planning, hindsight offers a wholesome understanding of the implications of past events. Hindsight is critical in the development of insight, as described by the '20/20 vision' phrase. This phrase stresses the accuracy of insight that is offered by hindsight. However, Mahon & O'Neill (2020) state that hindsight is prone to hindsight bias. This bias entails thinking of events as predictable after they have happened. People may overthink their capacity to predict a result, creating an illusion of inevitability. Despite this bias, hindsight is critical as it allows an individual to reflect on past events, encouraging personal growth and a deeper understanding of events.

In organizational setups, hindsight is applied when conducting after-action reviews or performance reviews. Reflecting on performance or the results of an action helps organizational managers assess the benefits of the implemented strategies. However, for higher efficiency, it is important to ensure a balance between the past and present (Lilienfield & Basterfield, 2020). Therefore, such reviews should be conducted with the aim of refining the approach taken to deal with future challenges and improve performance. Foresight and hindsight are intertwined aspects of reflective thinking that deliver insight. These aspects together shape an individual's understanding of their experiences and prepare them to address future challenges (Norton & Sliep, 2020). They help an individual explore the different perspectives and potential implications of their practices in making meaning of their experiences. These aspects can be improved through practice to ensure an enhanced understanding of and insightful lessons from one's experiences.

Combining Multiple Levels of Thinking into Practice

From the analysis, the levels of thinking are interlinked in the purposes they serve. Therefore, for proper translation of theory into practice, these four levels of thinking can be used collaboratively. This will provide a holistic approach to thinking, providing solutions to the sophisticated challenges faced in real life. According to Akpur (2020), critical, reflective, and creative thinking are interrelated and have a positive impact on academic achievement. It implies that these skills are interconnected and support each other in providing a positive outcome in practice. The four levels of thinking are collectively referred to as high-level thinking orders. Therefore, the application of these high-order thinking skills to various fields demonstrates the importance of these skills in enabling individuals to absorb theoretical knowledge and effectively use the knowledge to perform real-life practice.

Additionally, these levels of thinking are important for developing effective practical solutions. Critical thinking ensures that theoretical ideas are deeply assessed for suitability, including determining any potential weaknesses and ensuring the solution offered is effective for the situation (Latif et al., 2019). Practical thinking is aimed at situational and action-oriented approaches to solving real-world problems, while creative thinking focuses on developing innovative ideas for dealing with real-life issues. Reflective thinking engages past experiences to come up with practical solutions. The reflective thinking process involves the aspects of insight, foresight, and hindsight, which are intertwined in offering meaning to past experiences and their application to future events. Therefore, a multipronged approach engaging these levels of thinking will ensure people adapt to various phenomena and respond effectively to evolving challenges. These thinking levels can result in an adaptive application of theoretical knowledge in different fields.

Conclusion

Conclusively, skills development has become an important concept in the current labor market. The literature review has demonstrated the importance of soft and hard skills in the labor market, providing evidence of the need to develop both skills types. Also, the various phases of skills development are important in understanding the process of skills acquisition. The three phases of practice discussed include awkwardness, consciousness, and assimilation. These three phases of skills development draw from Kolb's experiential learning theory. This theory posits that the learning cycle has four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. These phases highlight the critical stages of skills development from learning to the point where an individual performs these skills autonomously.

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