Skill Development and Lifelong Learning: Implication for Human Resource Management

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Abstract- This paper is aiming to explore the level of skill development as well as lifelong learning from employees' after they reached the labor market and their impact in human capital. To stay competitive and survive in job market it is suggested to acquire higher and broader skills and competencies. To achieve this, it is necessary to use the major variables in skill development include training, education, experience, and exposure. Lifelong learning include continuous process of acquiring new knowledge, skills, and competencies throughout one's life and Human resource management (HRM) include strategic management of an organization's workforce that involves recruitment, selection, training, performance management, and career development. The interrelationship between skill development and lifelong learning and its implication on human resource management is significant. The initial search was conducted using keywords such as "skill development," "lifelong learning," and "human resource management" on various academic databases such as JSTOR, Pro Quest, and Google Scholar. The PSM was used to study the relevancies of 150 articles related to the topic, and 50 articles were selected for further reading. The Pyramid Scheme Method (PSM) was used to analyze 75 articles on skill development and lifelong learning: implication on human resource management. Key themes identified included the importance of training and development programs, the role of technology in facilitating lifelong learning, and the need for organizations to create a culture of continuous learning. Content analysis revealed that there are several key factors that contribute to effective skill development in the workplace, such as leadership support, employee engagement, and a focus on continuous improvement.

This paper aims to enhance an individual's employability by acquiring new skills and knowledge, improving job prospects, and increasing their chances of promotion. It explores the impact of training and lifelong learning on human resource management, highlighting the shift towards skills development and lifelong learning due to technological advancements, globalization, and changing workforce demographics. Companies are now focusing on providing continuous learning opportunities, such as online courses, to future-proof their workforce.

1.INTRODUCTION

Global antecedents on skill development and lifelong learning have been affected by globalization, technological advancements, demographic changes, and economic shifts. One of the key antecedents is the concept of human capital, which emphasizes the importance of investing in education and training to enhance individuals' skills and abilities (Rastogi, 2009). The shift towards a knowledge-based economy has also led to an increased emphasis on education and training as a means of developing the necessary skills to succeed in this type of economy and the recognition that learning is a lifelong process has led to the continuous acquisition of knowledge and skills throughout one's life Conner (2009).

The African continent has a rich history of knowledge and learning, with many traditional societies placing great importance on the development of skills and the quest of lifelong learning Amutabi (2009). Ubuntu is a concept that emphasizes the importance of community, cooperation, and sharing, while apprenticeships were a common way for young people to learn new skills and trades from experienced mentors (Geber and Keane, 2013). Storytelling is another key antecedent of African thought on skill development and lifelong learning, as it is used to convey knowledge, wisdom, and values from one generation to the next. Africa has a rich history of skill development and lifelong learning, dating back to ancient times Geber and Koyana, (2012).

Nigeria has a long history of prioritizing skill development and lifelong learning as a means of achieving economic growth and social development. This includes the establishment of the National

Manpower Board in 1959, the Universal Primary Education program in 1976, and the establishment of several vocational training centers across the country. In 2004, the government launched the National Policy on Education, which emphasized the importance of vocational education and training in preparing students for the workforce. Despite funding constraints, inadequate infrastructure, and a lack of qualified teachers and trainers, Nigeria remains committed to these goals Musa, (2018).

The Industrial Revolution led to the need for skilled workers to operate and maintain new machinery, leading to the establishment of vocational schools and apprenticeships James Avis (2018) and Schwab, (2017) . Lifelong learning is crucial for career success and personal growth in today's rapidly changing world, driven by rapid technological advancement, globalization, and longer lifespans, as people adapt to new roles and industries. Research has shown that ongoing learning can have numerous benefits, such as improved cognitive function, increased creativity, and enhanced well-being Harter, et al. (2003).

Problem Statement

The rapid advancement of technology and automation in the workplace is posing challenges to traditional job roles, necessitating employees to acquire new skills. Skills mismatch can hinder an organization's ability to adapt to changing market demands, leading to productivity and innovation challenges. Insufficient skill development opportunities can negatively affect employee engagement and retention, leading to talent attrition and loss of valuable institutional knowledge. As opined by Pasmore et al (2019), Skill development and lifelong learning emphasize continuous learning for job market competitiveness and societal adaptation. However, this idea can be problematic, putting too much responsibility on individuals, narrowing education understanding, and leading to a cycle of training and upskilling.. To address these concerns, a more holistic approach to education and training is needed that takes into account broader societal factors as well as individual needs Adepoju (2021).

- Relevant research questions

The field of skill development and lifelong learning is complex, with numerous research questions that are relevant to understanding how individuals acquire and develop skills over time. These questions include what factors influence skill development, how to measure skill development, what are the most effective strategies for promoting skill development, and how to support individuals' ongoing learning and development. These questions focus on personal characteristics, motivation, self-efficacy, and cognitive ability, as well as environmental factors such as access to education and training opportunities, social support networks, and economic resources.

- The general objectives

1. To improve an individual's employability by obtaining new skills and knowledge, develop their job prospects and increase their chances of getting hired or promoted.
2. To learn new things that can help individuals broaden their horizons, gain new perspectives, and become more well-rounded individuals.
3. To adapt quickly to new situations by helping individuals develop the flexibility and adaptability needed to thrive in a constantly changing environment.
4. To be creative and innovative in their personal and professional lives.
5. To increase their self-confidence by providing them with a sense of accomplishment and mastery over new skills or knowledge.

2.0 THEORETICAL FOUNDATION

The social cognitive theory proposed by Albert Bandura suggests that learning occurs through a dynamic interaction between personal factors, behavior, and the environment Allan, J., 2017. The constructivist theory suggests that learning is an active process where individuals construct their knowledge based on their experiences and interactions with the environment. Finally, the adult learning theory suggests that adults learn differently than children and that their motivation to learn is driven by practical needs and goals. Several models have been developed to explain how individuals acquire skills over time, such as the deliberate practice model proposed by Anders Ericsson (Ericsson et al. (2007) and the experiential learning model proposed by David Kolb Mcleod, (2017). These models suggest that individuals learn best when they engage in a cycle of concrete experiences, reflective observation, abstract conceptualization, and active experimentation.

2.1 Identify areas of prior scholarship

Skill development and lifelong learning have been the subject of extensive research over the years, with numerous studies exploring various aspects of these topics. These include the importance of lifelong learning in today's rapidly changing world, factors affecting skill development, the role of education and training, the relationship between skills and work, and the impact of technology on work and learning. Studies have examined the effectiveness of different types of educational programs and training interventions, as well as the impact of education on social mobility and economic outcomes Barnett, (2004).

2.2 Source of Skill Development in the context of its contribution.

Development is the process of acquiring knowledge, abilities, and attitudes that enable individuals to perform tasks effectively United Nations Development Programme (UNDP)- https://www.undp.org/.There are various sources of skill development, including formal education, training programs, on-the-job learning, self-directed learning, mentoring, coaching, and feedback. Formal education is structured learning that provides individuals with a broad range of knowledge and skills that are relevant to their chosen field of study. Training programs are structured learning activities that are designed to improve specific skills or competencies related to a job or profession. On-the-Job learning is an informal way of acquiring knowledge and skills through observation, experimentation, and feedback from colleagues and supervisors Ashforth, (2007).

Each source contributes uniquely to the understanding of specific issues, areas of research or theory under review. On-the-job learning contributes to the understanding of specific issues by providing practical experience in applying theoretical knowledge to real-world situations. Self-directed learning is an informal way of acquiring knowledge and skills through independent study, research, and experimentation. Mentoring is a relationship between a more experienced individual and a less experienced individual to help the mentee develop specific skills or competencies related to their profession Pan et al, (2011). Coaching is a structured process of providing feedback, guidance, and support to help individuals improve their performance in a specific area. It can be provided by a coach or manager within an organization or by an external coach hired specifically for this purpose (Butt et al 2013).

2.3 The relationship of each source to the others.

The relationship that exists between these selected sources: In the learning and development process, the selected parts of formal education, training programs, on-the-job learning, self-directed learning, mentorship, coaching, and feedback are interconnected and complement each other. Here are some of the connections between these elements:Formal education can provide a broad foundation of information and abilities that can then be developed and utilized through various types of learning. Training programs can supplement formal education by teaching specialized and practical skills that are directly applicable to certain work roles or sectors.

On-the-job learning helps individuals to use their formal education and training program knowledge and skills in real-world work circumstances, acquiring practical experience and expertise. Self-directed learning supplements traditional education and training by allowing individuals to pursue their own interests. Mentoring and coaching provide personalized guidance, support, and expertise to individuals, helping them navigate their learning journey, identify areas for improvement, and enhance their performance.

Feedback is crucial in all learning contexts, including formal education, training programs, on-the-job learning, self-directed learning, mentoring, and coaching. It helps individuals understand their strengths and weaknesses, make necessary adjustments, and continuously improve their skills and knowledge (Butt et al, 2013)

2.4 Clear categorization of sources.

Categorizing the selected elements of formal education, training programs, on-the-job training, self-directed learning, mentoring, coaching, and feedback into those that support, oppose, or offer completely different arguments for a particular position can vary depending on the context and perspective. However, here's a general categorization based on common viewpoints:

2.5 Supportive of a Position:

Formal Education: Formal education is often seen as a foundational requirement for many professional positions. It provides individuals with a broad range of knowledge, critical thinking skills, and credentials that are valued in the job market.

Training Programs: Training programs are typically designed to equip individuals with specific skills

required for a particular job or industry. They are supportive of a position when they align with the job requirements and enhance the individual's qualifications.

On-the-Job Training: On-the-job training allows individuals to acquire practical skills and knowledge directly relevant to their job roles. It supports a position by helping individuals adapt to their specific work environment and become proficient in their responsibilities.

Offering Different Arguments:
Self-Directed Learning: Self-directed learning can offer a different argument by emphasizing the importance of individual autonomy and personal interests. It allows individuals to pursue knowledge and skills beyond formal education and training, exploring diverse subjects and expanding their horizons.

Mentoring: Mentoring can offer a different argument by highlighting the benefits of guidance and support from experienced individuals. It fosters personal and professional development by providing insights and advice that may not be obtained through formal education or training programs.

Coaching: Coaching can offer a different argument by focusing on specific skill development and performance improvement. It helps individuals achieve their goals and overcome challenges through personalized guidance and feedback.

Opposing a Position:
Feedback: While feedback is generally considered essential for growth and improvement, it can be opposed when it is poorly delivered or lacks constructive elements. Inadequate or overly critical feedback can hinder progress and discourage individuals.
None of the elements in themselves are inherently opposed to any particular position. However, a viewpoint may arise where a person opposes a heavy reliance on formal education and structured training programs, arguing that real-world experience and self-directed learning hold more value.
It's important to note that the categorization of these elements can vary based on individual perspectives, context, and specific arguments presented. Different viewpoints may interpret and prioritize these elements differently, leading to varied categorizations Chadwick et al, (2013).

2.6 Discuss distinctiveness of each source and its similarities with others.

Each of the selected sources - formal education, training programs, on-the-job learning, self-directed learning, mentoring, coaching, and feedback - has distinct characteristics that set them apart from one another. However, there are also similarities and overlapping aspects between them. Let's discuss the distinctiveness of each element and its similarities with others:

1. Formal Education: Distinctiveness: Formal education refers to structured learning programs offered by educational institutions. It follows a predetermined curriculum, leads to certifications or degrees, and covers a wide range of subjects and disciplines. It often includes classroom instruction, assignments, examinations, and assessments. Similarities: Formal education shares similarities with training programs as both involve structured learning. However, formal education tends to be more comprehensive and broader in scope, providing a foundation of knowledge and skills across multiple areas.
2. Training Programs: Distinctiveness: Training programs are designed to provide specific skills and knowledge required for a particular job or field. They are typically shorter in duration and more focused on practical, job-specific skills. Training programs often incorporate hands-on exercises, simulations, and workshops. Similarities: Training programs share similarities with formal education in terms of structured learning. However, training programs are more targeted and practical, addressing specific job-related skills, while formal education covers a broader range of subjects.
3. On-the-Job Learning: Distinctiveness: On-the-job learning occurs when individuals acquire new skills and knowledge while performing their job duties. It involves learning through practical experience, observation, and direct application of concepts in the workplace. On-the-job learning is often informal and tailored to the specific work environment. Similarities: On-the-job learning can be seen as a form of practical training. It shares similarities with training programs as both involve

acquiring job-specific skills. However, on-the-job learning is more contextual and experiential, happening within the actual work setting.

4. Self-Directed Learning: Distinctiveness: Self-directed learning is a process in which individuals take responsibility for their own learning and set their own goals. It involves identifying learning needs, seeking out relevant resources, and engaging in independent study or practice. Self-directed learning allows individuals to pursue knowledge and skills based on personal interests and career aspirations. Similarities: Self-directed learning differs from formal education and training programs in its autonomy and individual-driven nature. However, it can complement both formal education and on-the-job learning by providing opportunities for personal growth and skill development outside of structured programs.
5. Mentoring: Distinctiveness: Mentoring is a relationship in which a more experienced individual (mentor) provides guidance, support, and knowledge to a less experienced individual (mentee). Mentoring involves sharing insights, offering advice, and helping the mentee navigate their personal and professional development. It is typically a long-term and personalized relationship. Similarities: Mentoring can be seen as a form of guidance and support similar to coaching. However, mentoring is often more focused on overall development, career guidance, and sharing of personal experiences, while coaching tends to be more structured and goal-oriented.
6. Coaching: Distinctiveness: Coaching is a process in which a professional coach assists individuals in achieving specific goals or enhancing their performance. Coaches provide support, guidance, and feedback to help individuals develop their skills and maximize their potential. Coaching is often more structured and focuses on specific areas of improvement or skill development. Similarities: Coaching shares similarities with mentoring in terms of providing guidance and support. Both involve a relationship between a more experienced individual and a less experienced individual. However, coaching is typically more focused on specific goals and performance improvement.
7. Feedback: Distinctiveness: Feedback refers to information provided to individuals regarding their performance, behavior, or progress. It can come from various sources, including supervisors, peers, mentors, or coaches. Feedback plays a crucial role in learning and development by helping. Dabbagh & Kitsantas (2012).

2.7 Identify new ways to interpret and shed light to any gap in previous research.

Research on skill development and lifelong learning in human resource management is limited. Micro-learning breaks down complex skills into manageable, transferable pieces, emphasizing continuous learning and encouraging employees to view it as a lifelong pursuit.

However, there are still some gaps that need to be addressed, such as the lack of attention paid to the role of motivation in learning and the limited focus on informal learning. These gaps have implications for human resource management. Most studies have focused on formal training programs and educational institutions, neglecting the fact that individuals also learn through informal means such as on-the-job experience, social interactions, and self-directed learning. There has been limited research on the impact of technology on skill development and lifelong learning, and there is still much that is not understood about how technology can be used to support lifelong learning and skill development. These gaps in previous research have important implications for human resource management, such as understanding the motivational factors that influence learning, recognizing the importance of informal learning, creating a culture that supports ongoing learning and development, and ensuring that employees have access to the latest tools and resources. (Kyndt et al., 2016; Macia and Garcia 2016).

2.8 Factors Affecting Skill Development and Lifelong Learning:

Technological advancements have revolutionized the way we work, communicate, and learn, leading to a growing demand for workers with advanced technical skills. Globalization has created a highly competitive job market where individuals need to possess a diverse set of skills to succeed. Demographic changes such as an aging population and increased diversity have significant implications for skill development and lifelong learning. Economic conditions such as recessions or economic booms can also have an impact. Human resource managers need to recruit individuals

who possess the necessary skills for the job but also have a willingness to learn and develop new skills over time. They also need to provide ongoing training and development opportunities to employees, such as online courses, mentoring programs, and job shadowing opportunities. Finally, they need to incorporate skill development into their performance management systems, such as setting goals and objectives that focus on developing new skills and providing feedback and recognition for progress made. (Gairin, 2020). Rodriguez – Gomez (2020).

2.9 Theories of Skill Development:

The theories of Social Learning Theory, Cognitive Load Theory, Experiential Learning Theory, and Lifelong Learning Theory all have implications for human resource management. Social Learning Theory suggests that individuals learn by observing and imitating others, and can be applied through mentoring programs, job shadowing, and on-the-job training. Cognitive Load Theory suggests individuals have a limited capacity for processing information, and should be designed in a way that minimizes cognitive overload and maximizes retention. Experience Learning Theory suggests individuals learn best through hands-on experiences, and training programs should provide opportunities for employees to apply their new skills in real-world situations. Lifelong learning should be incorporated into an organization's performance management system, and organizations that prioritize skill development and lifelong learning are more likely to attract and retain top talent. Brieger et al., (2020).

2.10 The cognitive learning theory, social learning theory, and constructivist theory were all proposed by different theorists at different times.

Step 1: Who propounded the theory and when.

The cognitive learning theory, social learning theory, and constructivist theory are three of the most influential theories in the field of education. Adler, N.J., & Gundersen, A. (2008). The cognitive learning theory is based on the idea that learning occurs through mental processes such as perception, attention, memory, and problem-solving. The social learning theory emphasizes the role of social interaction in the learning process, while the constructivist theory emphasizes the importance of hands-on, experiential learning and recognizes that learners bring their own prior knowledge and experiences to the learning process. These theories provide a unique perspective on how individuals learn and acquire knowledge. The constructivist theory emphasizes hands-on experiential learning and recognizes learners as active constructors of knowledge. Cognitive learning theory is a psychological approach that explains how people acquire knowledge and skills through mental processes such as perception, attention, memory, and problem-solving. It is based on the assumption that the mind is an information processor that uses various mental strategies to learn new information and skills. It has three underlying assumptions: learning is an active process, knowledge is constructed, and learning involves mental processes (Gairin, 2020).

Step 2: What does the theory states and the underlying assumptions.

The social learning theory, also known as the social cognitive theory, is a psychological theory developed by Albert Bandura. It emphasizes the importance of both cognitive and environmental factors in shaping behavior. The underlying assumptions of the social learning theory are that learning occurs through observation and imitation, cognitive processes play a crucial role in learning, behavior is influenced by both personal and environmental factors, and learning can occur without direct reinforcement. The constructivist theory is a learning theory that emphasizes the role of learners in constructing their own understanding of new information and ideas. It suggests that learners actively engage with new information, using their prior knowledge and experiences to create personal meaning and understanding. The underlying assumptions of the constructivist theory include that learners are active participants in the learning process, that learning is a social process, that prior knowledge and experience shape new learning, and that learning is not just about acquiring new facts or skills, but also about integrating new information into existing knowledge structures.

Step 3: Who are the critics of the theory and what are the findings of their researches.

The cognitive learning theory is a psychological theory that explains how people learn and process information. It has been widely accepted and used in education and psychology, but there are some critics who question its assumptions and findings. These criticisms include focusing on individual learning rather than social or cultural factors, oversimplifying complex processes

such as memory and attention, and placing too much emphasis on individual differences in learning styles and abilities. Additionally, socio-economic status can have a significant impact on educational achievement, regardless of individual differences in cognitive abilities.

The cognitive learning theory is a psychological theory that explains how people learn and process information. It has been widely accepted and used in education and psychology, but there are also valid criticisms of its assumptions and findings. Critics argue that it may oversimplify complex processes such as memory and attention, overlook important social and cultural factors that may influence learning, and place too much emphasis on individual differences. Additionally, some researchers argue that the theory does not fully explain how these processes work, and that there may be more complex interactions between different cognitive processes than what the theory suggests. The cognitive learning theory has been widely accepted and used in education and psychology, but there are valid criticisms of its assumptions and findings. Critics argue that it oversimplifies complex processes such as memory and attention, overlooks important social and cultural factors that may influence learning, and places too much emphasis on individual differences rather than broader societal factors. Constructivist learning theory is a learning approach that emphasizes the learner's active participation in constructing their own knowledge and understanding of the world, but it has been criticized for its subjective interpretation of reality and difficulty to implement in practice. Additionally, it may not be appropriate for all learners, particularly those who struggle with abstract concepts or who may require more structured and explicit instruction. Despite these criticisms, there is also research that supports the theory. Research on cognitive learning theory has revealed that learners actively construct their own knowledge and understanding of the world around them. This theory suggests that learners use their existing knowledge and experiences to make sense of new information and integrate it into their existing mental frameworks. Additionally, learners benefit from instructional strategies that help them organize and structure information in meaningful ways. Research has also shown that cognitive learning theory can be applied in a variety of educational settings, from traditional classrooms to online learning environments. By understanding the mental processes involved in learning, educators can design more effective instructional strategies to help learners acquire knowledge and skills more efficiently.

The social learning theory, also known as the social cognitive theory, is a theoretical framework that explains how people learn new behaviors and attitudes through observation and modeling. It has gained widespread acceptance in psychology, but there are still some critics who challenge its validity and effectiveness. Critics argue that it does not take into account the role of genetics and biology in shaping behavior, that genetic factors play a significant role in determining personality traits and behaviors, and that it oversimplifies the process of learning by focusing too heavily on observational learning. Additionally, it places too much emphasis on conscious decision-making processes while ignoring the role of unconscious processes in shaping behavior.

Social learning theory is a psychological theory that explains how people learn new behaviors, attitudes, and values by observing others. It was proposed by Albert Bandura in the 1960s and has since been extensively researched and refined. Research has shown that this type of observational learning can occur in a variety of contexts, including in the classroom, at home, and in the workplace. Modeling is another important aspect of social learning theory, which refers to the process of imitating the behavior of others. This book includes a collection of research studies on self-efficacy beliefs, which are a key component of the social learning theory. Social learning theory emphasizes the importance of vicarious reinforcement, which occurs when people observe others being rewarded or punished for their behavior. Research has shown that vicarious reinforcement can be a powerful motivator for behavior change, such as if someone observes a coworker receiving praise from their boss for completing a project on time. Self-efficacy is also important, as it is influenced by past experiences, social support, and feedback from others. Individuals with higher levels of self-efficacy are more likely to engage in behaviors that they believe will lead to successful outcomes.

Step 4: Who are the supporters of the theory and what are the results of their researches.

Cognitive learning theory is a psychological approach that focuses on how people learn, process, and retain information. It suggests that learning is an active process of constructing meaning from experiences and

information. It has been supported by numerous researchers and scholars in the field of psychology and education, including Jean Piaget, Lev Vygotsky, Jerome Bruner, Allan Collins, John Anderson, Richard Mayer, and David Ausubel. It is based on the idea that learning occurs through the active mental processing of information, rather than through passive absorption of knowledge.

Cognitive learning theory is a psychological theory that suggests that learners construct their own knowledge and understanding based on their experiences and interactions with the environment. It has important implications for teaching and learning, such as creating learning environments that encourage students to actively engage with the material, ask questions, and make connections between new information and their prior knowledge. Metacognition refers to a person's ability to reflect on their own thinking processes and monitor their own learning, and students who are taught meta cognitive strategies perform better academically than those who are not. Social learning theory suggests that people can learn new behaviors, attitudes, and values by observing and imitating others, particularly those who are perceived as credible or influential. Finally, feedback provides learners with information about how well they are doing and what they need to do to improve, and can improve motivation, self-efficacy, and academic performance. By understanding these principles, educators can create more effective teaching strategies that promote active engagement, meta cognition and feedback.

Social learning theory is a psychological theory that explains how people learn new behaviors, attitudes, and values through observation, modeling, and imitation. It was developed by Albert Bandura in the 1960s and has been widely researched across various disciplines. The results of social learning theory research have been extensive and have contributed to our understanding of human behavior and development. Some of the key findings include observational learning, reinforcement, and vicarious reinforcement. Observational learning is when individuals learn new behaviors by observing others and the consequences of those actions.

Reinforcement is when individuals are more likely to repeat a behavior if it is followed by a positive consequence. Vicarious reinforcement is when an individual observes someone else being rewarded for a behavior and then imitates that behavior in order to receive the same reward. Social learning theory research has focused on self-efficacy, aggression, gender roles, and constructivist theory. Self-efficacy is the belief in one's ability to perform a specific behavior, while aggression is learned through observation and modeling of aggressive behaviors. Gender roles are learned through observing the behaviors of others and the consequences of those behaviors.

Constructivist theory emphasizes the role of the learner in constructing their own understanding of the world. The theory has been applied to various fields including education, criminology, and psychology to develop effective interventions and strategies for behavior change.

Constructivist theory is a philosophical and educational approach that emphasizes the active role of learners in constructing their own understanding of knowledge and reality. It has been supported by Jean Piaget, Lev Vygotsky, Seymour Papert, John Dewey, Jerome Bruner, and Howard Gardner. Constructivist theory has been applied to teaching and learning practices in various fields, including education, psychology, and sociology, and has provided valuable insights into the effectiveness and limitations of constructivist theory. Constructivist theory has been used to explain human cognition and development. It has been found to be effective in promoting critical thinking and creativity among students, and to explain individual differences in cognitive development.

Cognitive learning theory is a psychological approach that focuses on the mental processes involved in learning, including perception, attention, memory, and problem-solving. It proposes that learning is an active process that involves the learner's cognitive processing of information and experiences. Prior knowledge refers to the existing knowledge and experiences that learners bring to a new learning situation, and when learners have prior knowledge related to the new material, they can more easily integrate and build upon this knowledge.

Cognitive learning theory is a psychological approach that focuses on how people learn and process information. It proposes that learning is an active process that involves several variables, including prior knowledge, attention, memory, meta-cognition, motivation, feedback, and transfer. It emphasizes the role of prior knowledge and experiences in shaping new learning, and one variable of cognitive learning theory is attention.

Cognitive learning theory (attention, perception, memory, and problem-solving) explains how learners

interact with their environment and acquire new knowledge and skills. Attention refers to the ability to focus on specific stimuli in the environment while ignoring others. Perception refers to the way individuals interpret and make sense of sensory information from their environment. Memory is how learners store and retrieve information. Problem-solving involves using mental processes such as reasoning, planning, and decision-making to solve complex problems. Social learning theory is a psychological theory that explains how people learn new behaviors, attitudes, and values through observation, modeling, and reinforcement.

Social learning theory is a psychological theory that explains how people learn from observing and imitating others. It is divided into four main categories: environmental factors, behavioral factors, cognitive factors, and personal factors. Environmental factors include the physical and social environment in which learning takes place, behavioral factors include the behavior of the individual being observed, and cognitive factors include the mental processes involved in attention, retention, reproduction, and motivation. Personal factors include personality traits, beliefs, attitudes, and values, which can influence how an individual perceives and interprets information and affect their motivation to engage in certain behaviors. Social learning theory suggests that individuals acquire new behaviors and attitudes by observing the actions of others and the consequences of those actions.

It is based on four variables that explain how individuals learn from their environment: attention, retention, reproduction, and motivation. Attention is influenced by the salience, complexity, and relevance of the behavior to the observer's goals. Retention is influenced by cognitive abilities, level of interest in the behavior, and the amount of practice they have had with similar behaviors. Reproduction is influenced by physical abilities, motivation, and access to resources needed for replication.

Constructivist theory is a learning theory that emphasizes the active role of the learner in constructing their own understanding and knowledge of the world. It is based on four variables: prior knowledge, social interaction, cognitive processes, and motivation. Prior knowledge refers to the knowledge and experiences that learners bring to a learning situation, while social interaction involves interactions with peers, teachers, and experts. Cognitive processes involve attention, perception, memory, and problem-solving. Motivation is influenced by the perceived consequences of engaging in the behavior, social norms surrounding the behavior, and personal goals and values.

Constructivist theory is a perspective within psychology that emphasizes the role of an individual's subjective experiences in shaping their understanding of the world. It suggests that individuals actively construct their own knowledge and understanding through interactions with their environment, which are shaped by prior knowledge, social interaction, and cognitive processes. Contextual factors include the physical, social, cultural, and historical context in which learning takes place. Motivation refers to the internal factors that drive learners to engage in learning activities. Social interaction provides opportunities for individuals to share and negotiate meaning, which can lead to deeper understanding and more complex thinking. Cognitive processes involve attention, perception, memory, and problem-solving.

Step 5: Weigh the positions of the critics and the supporters and take a position based on how their respective positions affect the interactions between your variables.

Skill development and lifelong learning have been a topic of debate among critics and supporters. Critics argue that the traditional education system provides enough knowledge and skills to start a career, while supporters believe that they are essential for individuals to remain competitive in the job market. Human resource managers need to consider both positions when designing training programs for their employees. The traditional approach to skill development involves training employees for specific job roles, while lifelong learning focuses on continuous learning and development throughout an individual's career. To strike a balance between these two positions, human resource managers should consider providing training opportunities that are relevant to the company's goals and objectives, and offer personalized training plans that cater to individual employee needs and interests.

This approach will ensure that employees feel valued while also minimizing unnecessary costs. Organizations should invest in training programs that develop specific skills needed for current job roles and prioritize lifelong learning as the primary focus of human resource management. This position suggests that organizations should create a culture of continuous learning and development, where employees are encouraged to learn

new skills and acquire knowledge that goes beyond their current job roles. The interaction between skill development and lifelong learning can have significant implications for human resource management, as organizations that prioritize skill development may struggle to adapt to changes in the business environment while those that prioritize lifelong learning may be better equipped to adapt. This interaction can also impact employee engagement and retention, with organizations that focus solely on skill development likely to attract and retain employees who value continuous growth and development, while those that focus on skill development may not be able to retain those who seek opportunities for personal growth. The interaction between skill development and lifelong learning is complex and multifaceted, with significant implications for human resource management. Organizations must find a balance between these two approaches to create a culture of continuous learning and development that supports employee engagement, retention, and organizational success.

Step 6: How do the variables explain the interactions.

Individual, organizational, and environmental factors influence the relationship between skill development and lifelong learning. Motivation, self-efficacy, personality traits, cognitive ability, and learning styles drive skill development. Organizational factors like leadership support, culture, training programs, and performance management systems foster continuous learning. Environmental factors like technological advancements, economic conditions, and demographic changes also influence skill development. Human resource managers must consider these variables when designing training and development programs.

3.0 METHODOLOGY

In today's competitive business environment, organizations must focus on employee skill development to stay competitive. This involves identifying necessary skills, designing tailored training programs, implementing effective implementation, and encouraging lifelong learning through resources and mentoring. Investing in employee development can improve engagement, retention, and productivity, making it crucial for organizations to adapt to changing market conditions.

3.1 Developmental Configuration Approach (DCA)

The Developmental Configuration Approach (DCA) is a framework for skill development and lifelong learning, focusing on three components: developmental readiness, challenge, and support. It can improve job satisfaction, performance, and retention rates. Qualitative methods explore employee experiences and preferences, identify barriers to learning, and improve engagement. Quantitative methods use numerical data to track employee progress and evaluate training effectiveness. They can identify high-potential employees and develop succession plans, allowing HR managers to allocate resources more effectively. Both qualitative and quantitative methods are crucial for HR managers to develop workforce skills and competencies, making informed decisions about training, development, and talent management.

3.2 Theoretical Reasoning Approach (TRA)

The theoretical reasoning approach on skill development and lifelong learning emphasizes the acquisition of knowledge, skills, and abilities throughout an individual's lifetime. It emphasizes the importance of investing in employee development to retain talent and ensure organizational success. Human resource managers must recognize the need for continuous learning and adapt to new technologies and processes. The interrelationship between skill development and lifelong learning is significant, especially in the context of HRM, which involves recruitment, selection, training, performance management, and career development. The COVID-19 pandemic has accelerated the trend towards remote work and digital transformation, leading to an increased focus on virtual learning and development opportunities.

The Pyramid Scheme Method (PSM) was used to analyze 75 articles related to skill development and lifelong learning. Key themes identified included the importance of training and development programs, the role of technology in facilitating lifelong learning, and the need for organizations to create a culture of continuous learning. Content analysis revealed key factors contributing to effective skill development in the workplace, such as leadership support, employee engagement, and a focus on continuous improvement.

Technology plays a critical role in facilitating skill development and lifelong learning, with online training platforms, mobile learning apps, and virtual reality simulations enhancing the learning experience for employees. HRM plays a critical role in identifying the

skills required for different job roles and providing training opportunities for employees to acquire those skills. Workforce diversity is also important, as organizations are increasingly diverse in terms of culture, age, gender, and ethnicity.

4.0 RESEARCH DESIGN

4.1 Theory Synthesis

Cognitive learning theory synthesis is a theoretical framework that explains how individuals acquire, process, and use knowledge, focusing on mental processes like perception, attention, memory, and problem-solving. It emphasizes feedback, meta-cognition, and self-monitoring. Social learning theory synthesis, proposed by Albert Bandura in the 1960s, explains how people learn new behaviors through observation, imitation, and modeling. It emphasizes the active role of learners, cognitive processes, reinforcement, and punishment in shaping behavior. Overall, it provides a comprehensive framework for understanding how individuals learn new behaviors Grusec, J. E. (1994).

Constructivist theory synthesis is a framework that combines Constructivism and social constructivism, emphasizing learners' active role in understanding new information. It emphasizes social interaction and cultural context in shaping knowledge, promoting student-centered learning and deep understanding through active engagement, personal reflection, and social interaction. Jim McKinley (2015).

4.2 Theory adaptation

Cognitive learning, social learning, and constructivist theory are three learning models developed by psychologists and educators. Cognitive learning emphasizes active mental processes, social learning emphasizes social interaction, and constructivist theory suggests learners construct meaning from experiences. All models emphasize learner-centered instruction. This can be achieved through a variety of instructional strategies, such as problem-based learning (Piaget, J. (2022).

Additionally, learning is a social process, and learners can benefit from interacting with others who have different perspectives and experiences to gain new insights and perspectives. Finally, educators can help learners develop the skills and knowledge they need to succeed in a rapidly changing world.

4.3 Typology

Cognitive learning, social learning, and constructivist theory are three different typologies of learning that have been developed by researchers and educators over the years. Cognitive learning theory focuses on the mental processes involved in acquiring, processing, and retaining information, while social learning theory emphasizes the role of observation and modeling in shaping behavior. Constructivist theory emphasizes the importance of learners actively constructing their own knowledge and understanding through experience and reflection, and a typology paper classifies conceptual variants as distinct types. Typologies reduce complexity by logically and causally combining different constructs into a coherent and explanatory set of types Kozlowski et al. (2000).

4.4 Model

A model is a representation of a system, process, or phenomenon that is used to understand, analyze, or predict its behavior. Models can take many forms, including mathematical equations, diagrams, simulations, and physical replicas. They are used in a wide range of fields, including science, engineering, economics, and social sciences. Models are essential tools for understanding complex systems and making informed decisions based on data-driven analysis. Top 3 authoritative reference publications or URLs are "Modeling and Simulation" by Bernard P. Zeigler et al., "The Art of Systems Architecting" by Mark W. Maier and Eberhardt Rechtin, and "Model-Based Reasoning: Science, Technology, Values" edited by Lorenzo Magnani et al.

Cognitive learning, social learning, and constructivist theory are three learning models developed by psychologists and educators. Cognitive learning emphasizes active mental processes, social learning emphasizes social interaction, and constructivist theory suggests learners construct meaning from experiences. All models emphasize learner-centered instruction. (Kynt et al. (2016).

5.0 MAJOR CONCEPTS AND THEORIES ARE REVIEWED.

Cognitive learning theory is a psychological approach that focuses on how people learn and acquire knowledge. It includes three major concepts:

information processing model, schema theory, and cognitive load theory. The information processing model explains how people acquire, store, and retrieve information through stages. Schema theory suggests learning occurs when new information is assimilated into existing schemas or when new schemas are created. Cognitive load theory suggests that learning is most effective when germane load is maximized and extraneous load is minimized. Social cognitive theory emphasizes observation, imitation, and modeling in the learning process. Constructivism emphasizes the active role of the learner in constructing their own knowledge. These theories have significantly contributed to education, helping educators understand how students learn and facilitate their learning.

An example of such a model is the Community of Inquiry framework developed by Garrison, Anderson, and Archer (2000).

5.1 Juxta positioning of the concepts and theories to produce new knowledge, concepts or theories or Typology or Model

Juxta-positioning concepts and theories on skill development and lifelong learning can produce new knowledge for human resources management. Learning agility is a key concept, and deliberate practice is focused on improving performance in specific skills. Lifelong learning is crucial in today's economy, and organizations must invest in training programs to support employee acquisition. Typology or models can help identify skills and competencies required for different job roles, assess employee skill levels, design tailored training programs, and aid career planning, ultimately retaining talented employees and advancing their careers.

6.0 MAJOR CONTRIBUTIONS HIGHLIGHTED

Skill development and lifelong learning have become critical factors in the success of individuals and organizations in today's fast-paced and ever-changing business environment. HRM has a crucial role to play in promoting skill development and lifelong learning among employees. Through training programs, workshops, and other learning opportunities, employees can develop new competencies that enable them to take on new roles and responsibilities within their organizations. Additionally, they promote innovation and creativity within organizations by encouraging employees to learn new things, explore new ideas, and challenge existing ways of doing things. Finally, they contribute to employee engagement and job satisfaction by enabling them to pursue their personal interests and passions. In conclusion, skill development and lifelong learning have become essential components of effective HRM practices, as they help organizations build a more skilled workforce, foster a culture of innovation, increase employee engagement and job satisfaction, and ultimately drive organizational success.

REFERENCE

[1] Acemoglu, D. and Restrepo, P., 2019. 'Automation and new tasks: how technology displaces and reinstates labor', Journal of Economic Perspectives, 33(2):3–30.

[2] Adepoju, O. O., & Aigbavboa, C. O. (2021). Assessing knowledge and skills gap for construction 4.0 in a developing economy. Journal of Public Affairs, 21(3), e2264.

[3] Adler, N.J., & Gundersen, A. (2008). International dimensions of organizational behavior. Thomson South-Western.

[4] Amu (Eds.), Studies in lifelong learning in Africa (pp. 55–92). New York: The Edwin Mellen Press. Chap. 3. tabi, M. (2009). A History of lifelong learning in Africa. In M.N. Amutabi & M.O. Oketch.

[5] Aromolaran, E.A. (2014). Career Guidance and Skills Acquisition: A panacea for Unemployment.

[6] Allan, J., 2017. An analysis of Albert Bandura's aggression: A social learning analysis. CRC Press.

[7] A Seminar Paper Delivered at the Employment Workshop, Redeemed Christian Church of God, Arntz, M., Gregory, T. & Zierahn, U. (2016). The Risk of Automation for Jobs in OECD Countries. A Comparative Analysis. OECD Social, Employment and Migration Working Papers.

[8] Autor, D. & Handel, M. (2013). Putting tasks to the test: Human capital, jobs tasks and wages.Journal of Labour Economics, Vol. 31, No.2, pp. 559-596.

[9] Autor, D.H., 2019. 'Work of the past, work of the future', AEA Papers and Proceedings, 109:1–32.

[10] Augar, P. (2019). Independent panel report to the review of post-18 education and funding (the Augar report). Retrieved March18,2022, from https://www.gov.uk/government/publications/post-

18-review-of-education-andfunding-independent-panel-report.

[11] Ashforth, B. E., Sluss, D. M. and Saks, A. M. (2007), 'Socialization tactics, proactive behavior, and newcomer learning: integrating socialization models', Journal of Vocational Behavior, 70, 447–462.

[12] Barnett, R. (2004). Learning for the unknown future. Higher Education Research and Development, 23(3), 247–260.

[13] Bathmaker, A. M., & Orr, K. (2022). Higher Vocational education in England in the 2010s: Positioning, purpose, and possibilities in a highly stratified, high participation system of higher education. In E. Knight, A.-M. Bathmaker,

[14] Beighton, C. (2021). Biopolitics and lifelong learning: The vitalistic turn in English further education discourse. International Journal of Lifelong Education, 40(3), 229–243. https://doi.org/10.1080/02601370.2021.1946863

[15] Butts MM, Casper WJ, Yang TS. 2013. How important are work–family support policies? A meta-analytic investigation of their effects on employee outcomes. J. Appl. Psychol. 98:1–25.

[16] Brieger, E., Arghode, V. and McLean, G. (2020), "Connecting theory and practice: reviewing six learning theories to inform online instruction", European Journal of Training and Development, Vol. 44 No. 4/5, pp. 321-339. https://doi.org/10.1108/EJTD-07-2019-0116sey-Bass.

[17] Brown, P., & Lauder, H. (2016). Higher education, knowledge capitalism, and the global auction for jobs. In P. Scot.

[18] Chadwick IC, Raver JL. 2013. Motivating organizational to learn: goal orientation and its influence on organizational learning. J. Manage. In press. doi: 10.1177/0149206312443558.

[19] Conner, M. (2009). Introducing Informal Learning, Marcia Conner, viewed 30 September 2010.

[20] Dabbagh N, Kitsantas A. 2012. Personal learning environments, social media, and self-regulated learning: a natural formula for connecting formal and informal learning. Internet High. Educ. 15:3–8.

[21] Deloitte-https://www2.deloitte.com/global/en/pages/about-deloitte/articles/covid-19/learning-and-development-in-the-age-of-covid-19.html.

[22] EC (2016). The Future of Work: Skills and Resilience for a World of Change, European Political Strategy Centre Strategic Notes. Issue 13/2016. European Commission. Brussels.

[23] Ericsson, K. A., Prietula, M. J., & Cokely, E. T. (2007). The making of an expert. Harvard Business Review, 85(7/8), 114-121.

[24] Garad, A. and Gold, J. (2019), "The learning-driven organization: toward an integrative model for organizational learning", Industrial and Commercial Training, Vol. 51 No. 6, pp. 32.

[25] Geber, H. M. and Koyana, S. (2012). Mentoring of unemployed science graduates in South Africa. Acta Academica, 44(2), 88–109.

[26] Geber, H. and Keane, M. (2013). Extending the worldview of coaching research and practice in Southern Africa: the concept of Ubuntu. International Journal of Evidence Based Coaching and Mentoring, 11(2), 8–17.

[27] Grusec, J. E. (1994). Social learning theory and developmental psychology: The legacies of Robert R. Sears and Albert Bandura. In R. D. Parke, P. A. Ornstein, J. J. Rieser, & C. Zahn-Waxler (Eds.), A century of developmental psychology (pp. 473–497). American Psychological Association. https://doi.org/10.1037/10155-016.

[28] Harvard Business Review - https://hbr.org/ Society for Human Resource Management - https://www.shrm.org/ Association for Talent Development - https://www.td.org/ Training Industry - https://trainingindustry.com/.

[29] Harter, J. K., Schmidt, F. L., & Keyes, C. L. M. (2003). Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. In C. L. M. Keyes & J. Haidt (Eds.), Flourishing: Positive psychology and the life well-lived (pp. 205–224). American Psychological Association. https://doi.org/10.1037/10594-009.

[30] James Avis (2018) Socio-technical imaginary of the fourth industrial revolution and its implications for vocational education and training: a literature review, Journal of Vocational Education & Training, 70:3, 337-363, DOI: 10.1080/13636820.2018.1498907.

[31] Jean Piaget's, (2022). Constructivist Theory of Learning. By Sandra Waite-Stupiansky.

[32] Jim McKinley (2015) Critical Argument and Writer Identity: Social Constructivism as a Theoretical Framework for EFL Academic Writing, Critical Inquiry in Language Studies, 12:3, 184-207, DOI: 10.1080/15427587.2015.1060558.

[33] Journal of Organizational Behavior - https://onlinelibrary.wiley.com/journal/10991379.
[34] Kozlowski SWJ, Klein KJ. 2000. A multilevel approach to theory and research in organizations: contextual, temporal, and emergent processes. In Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions, ed. SWJ Kozlowski, KJ Klein, pp. 3–90. San Francisco: Jos.
[35] Kyndt, E., Gijbels, D., Grosemans, I. and Donche, V. (2016), "Teachers' everyday professional development: mapping informal learning activities, antecedents, and learning outcomes", Review of Educational Research, Vol. 86 No. 4, pp. 1111-1150.
[36] Lawrence, R.Z., 2020. 'China, like the US, faces challenges in achieving inclusive growth through manufacturing', China & World Economy, 28(2):3–17. International Journal of Human Resource Management https://www.tandfonline. com/toc/rijh20/current.
[37] LinkedIn - https://learning.linkedin.com/resources /workplace-learning-report-2021.
[38] Macià, M. and García, I. (2016), "Informal online communities and networks as a source of teacher professional development: a review", Teaching and Teacher Education, Vol. 55, pp. 291-307.
[39] Musa Adamu Mshelia, (2018) Ph. D Department of Educational Foundations, Federal University, Kashere, Gombe State. Redemption Chapel Ibadan. McKinsey https://www.mckinsey.com /featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce.
[40] McLeod, S. A. (2017). Kolb - Learning Styles. Simply Psychology.
[41] Mvududu NH & Thiel-Burgess J. 2012. Constructivism in Practice: The Case for English Language Learners. International Journal of Education, 4(3), p108-p118.
[42] Pan W, Sun LY, Chow IHS. 2011. The impact of supervisory mentoring on personal learning and Career outcomes: the dual moderating effect of self-efficacy. J. Vocat. Behav. 78:264–73.
[43] Rastogi (2000) and Haque et al. (2017) that "innovation and creativity" and "competitiveness".
[44] Rodríguez-G omez, D. (2020), "Impulsar el desarrollo y el aprendizaje organizativo a partir del aprendizaje informal", in Gairín, J. and Rodríguez-Gomez, D. (Coord.), Aprendizaje Organizativo e Informal en Los Centros Educativos, Pir amide, Madrid, pp. 37-52.
[45] Society for Human Resource Management - https://www.shrm.org/.
[46] Society for Human Resource Management (SHRM) https://www.shrm.org/ Harvard Business Review - https://hbr.org/.
[47] United Nations Development Programme (UNDP)- https://www.undp.org/.
[48] UNESCO (2016). 3rd Global Report on Adult Learning and Education. UNESCO Institute for Lifelong Learning. Hamburg.
[49] UNESCO. (2021). Reimagining our futures together, a new social contract for education.
[50] Webb, S. (2022). Higher vocational education and the matter of equity. In E. Knight, A.-M. Bathmaker, G. Moodie, K. Orr, S. Webb, & L. Wheelahan (Eds.), Equity and access to high skill through higher vocational education (pp. 9–36). Palgrave Macmillan.
[51] William Pasmore, Stu Winby, Susan Albers Mohrman & Rick Vanasse (2019) Reflections: Sociotechnical Systems Design and Organization Change, Journal of Change Management, 19:2, 67-85, DOI: 10.1080/14697017.2018.1553761.