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Competency-Based and Experiential Learning: NEP 2020 Approaches for Developing Future-Ready Life-Long Learners

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Abstract

CBE or Competency-Based Education emphasises what a student can do rather than how long it takes to learn. By demonstrating nerve steps, the learners may progress according to their competence. CBE requires knowledge of the specific skills relevant to a field and transferable skills. Competency refers to the knowledge, skills, attitudes, and personal characteristics. CBE finds a place in various educational policies all over the world. The Indian National Educational Policy (NEP) 2020 reflects CBE through its support to the National Skill Development Mission 2020-2030. Moreover, the CBE NEP 2020 structure aims for the allocation of budget through the Central Skill Mission. That being so, CBE is an important part of education systems. According to David Kolb's learning theory, Experiential Learning (EL) refers to learning from experiences only. According to Kolb, a popular conceptualisation of the Experiential Learning cycle entails: concrete experience, reflective observation, abstract conceptualisation, and active experimentation, which he defines as knowledge creation through the transformation of experience. India's NEP 2020 officially supports both EL and CBE, as noted in Johanna Sistermans' (2020) and McKeen et al.'s (2018) reports.

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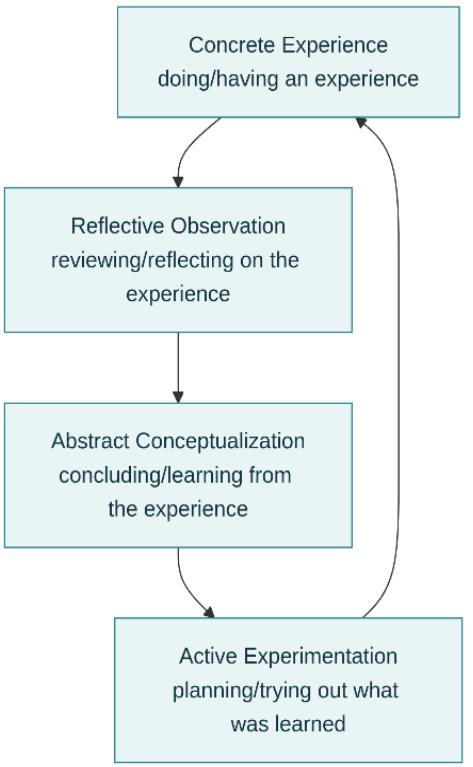
1. Introduction

Artificial Intelligence (AI) is quickly changing higher education by modifying NEP 2020 aims to develop future-ready competencies and competence-based learning pathways for higher education institutions from the perspective of

attaining the UN's 2030 Sustainable Development Goals. Competency-based education (CBE) focuses on the results of student learning outcomes over time, education formalisation of competencies in accordance with systemic and transparent requirements, and the systematic linking of different competency frameworks. Experiential learning helps students experience problems and environments first hand and integrate theory with practice. It helps students to contextualise their learning and improves their decision-making. Experiential learning and CBE build a sense of responsibility for learning. Competency frameworks define the particular behaviours that are important in being functional and professional. Education reduces the need for supplementary extracurricular activities or work experiences and helps to acquire competence sooner.

Higher Education has been positioned by NEP 2020 as an instrument for acquiring knowledge, skills and competencies for life-long learners, to remain relevant for job-seekers and professionals, and for the development of India. Educational institutions are supposed to impart the knowledge, skills and competencies required to manage life and the world of work. Skill and experience-based settings for learning develop the capacity for future-ready citizen development (Johanna Sisterman, 2020). The ability to communicate in a manner that is easily understood and is value-driven has not only featured in lists but also been explored, articulated, mapped, and formally documented in learning opportunities. Curricular pedagogy designed, integrated & holistically developed are competency-based and have experiential learning with alignment of frameworks with NEP 2020.

Competency-based curricula articulate competencies essential for entering the workforce, thereby directing curriculum structure, delivery methodology, and preferred pedagogical approach. Proficient and systematic infusion of employability skills collected and documented from various sources across contexts leads to identifying relevant competency items. Specified competencies support contextualization of career pathways within selected employability outcomes. Competencies required for higher education, larger societal roles, future work, and relevant progress across qualifications form the basis for defining comprehensive, progressive, pedagogically-appropriate yet executable and trackable learning competencies within course offerings.



2. Conceptual Framework: Competency-Based Education and Experiential Learning

According to the National Education Policy (NEP) 2020, real-world competencies such as experimentation, exploration, and critical thinking are necessary for future-ready lifelong learners. Competency-Based Education (CBE), which frames learning for outcomes that signify the achievement of literacy for living and learning, and Experiential Learning (EL), which rests on the premise that learners have a right to experience learning, align with this vision. Together, these approaches promote 21st-century outcomes such as creativity, collaboration, communication, and critical thinkinking that are essential for learners to thrive in the fourth industrial revolution. CBE and EL are therefore complementary approaches for establishing a system of education in India that addresses the skills crisis, prepares learners for complex life situations, and offers well-chosen content in a vast world of irrelevant information. CBE has been a global focus for more than half a century, and the time is opportune to adopt it in Indian higher education. A robust movement for EL is also shaping up in India, underlining the need to understand how the two approaches can be integrated. Future efforts must therefore synthesise the conceptual basis and evidence for taking a systemic approach. Competency is a complex term that has many interpretations in higher education today, and CBE encompasses various frameworks and variants that can diverge considerably in practice. CBE most powerfully makes the distinction between what and how. It emphasises the definition and assessment of the what—competency outcomes such as knowledge, skills, and dispositions—and the selection of teaching and learning processes that suit the how: the approaches that enable learners to achieve those outcomes. EL is also a broad term encompassing many definitions and proposals, such as hands-

on, digital, creative, and community-centred learning. Whether elaborated in terms of methods, modalities, or more broadly, EL highlights the learning processes that enable and motivate learners to achieve higher-order competencies and emphasises the centrality of the learner. Integrating these two approaches does not compromise either of their distinctive strengths, is informed by the Indian context, and supports the shift from a traditional transmission-centric approach to a learner-centric approach that is central to NEP 2020 (J. Belin, 2020; Johanna Sistermans, 2020).

3. NEP 2020: Policy Directions and Implications for Lifelong Learners

India's National Educational Policy (NEP) aims to transform education to meet national and global aspirational frameworks by addressing competency standards, lifelong learning, the developmental status of learners, multiple access pathways, and skill metamorphosis. The increasing importance of lifelong learning and the future-ready capability of developing integrated competencies is aligned with the United Nations Sustainable Development Goal 4, the World Economic Forum Future of Jobs Report, and the Organisation for Economic Co-operation and Development Learning Compass Framework.

Competencies comprise the combination of specific knowledge, skills, and attitudes or dispositions required for the successful execution of specific tasks (Phyu Thwe & Kálmán, 2023). The NEP-2020 delineation of the blended competencies of universal, job-role, and domain-specific competences of skills, knowledge, and attitude for students, mentions the Career of Social, Care, and other determines the level and kind of education and training to be of need at every stage, including individual access either formal, informal or non-formal. Competency-based education emerges at the intersection of competency and metacognitive learning literacy level situated at the centre of it, students are equipped with the ability to exhibit and is progressively shiftable across disciplines and domains, while experiential learning is defined as learning that is equitably integrated with social engagement and general understanding of individual and collective human rights, societal evolvement, and local to global sustainability (Ministry of Human Resource Development, 2020).

3.1. Defining Competencies for a Future-Ready Workforce

Competency-based education (CBE) and experiential learning (EL) are increasingly being recognised across the globe as approaches more closely aligned with 21st-century expectations and aspirations than traditional higher

education models. CBE determines competencies and clarifies expected outcomes. Facilitating learning through multiple, flexible pathways and assessing the attainment of outcomes rather than mandating standardised inputs, e.g. hours in classes. Experiential learning focuses on learning by doing, active practice, and reflective experiences in the world, which is based on the work of John Dewey and David Kolb. CBE and EL, when viewed together, provide a strong conceptual framework to develop lifelong and future-ready learners, which is urgently needed as suggested by the National Education Policy (NEP) 2020.

The word competencies can refer to a complex of succession of capabilities and attributes necessary for a fully effective performance of a given occupational or social role. However, the scope of use in this context has been reduced to a particular meaning exposed in literature. Competencies are integrated sets of KSDs (knowledge, skills, and dispositions, often affectionately combined). According to the Indian Higher Education Commission Report 2019, for a future-ready workforce, the competencies are analytical reasoning, collaboration, digital literacy, group-oriented attitude, lifelong learning ethos, and written communication. These capabilities include dispositions that shape mindsets and behaviours, and overall cover a wide and relevant context. We can formally cross-map them against major disciplinary domains, allowing for disciplinary agnosticism, as well as mapping relevance against other higher education frameworks and skills in national aspirational documents. Both the first iteration was dedicated either to elective or to core components can be realised along a formal programme design process.

3.2. Roles of Experiential Learning in the Indian Context

Competency-based education (CBE) is a promising instructional and assessment paradigm to nurture students into future-ready learners, particularly when supplemented by experiential learning (EL). CBE focuses on developing essential lifelong competencies at scale throughout a learner's educational journey, while EL cultivates related dispositions. CBE and EL thus constitute a feasible approach for realising the policy objective of nurturing future-ready learners under the National Education Policy 2020 (NEP 2020).

As the future is fast-changing, the National Education Policy (NEP) 2020 discusses how higher education learning creates "an empowered citizen of the future." Competency-based education (CBE) is now viewed as a promising way to help learners of the future become lifelong learners, and hence, the combination of experiential learning (EL) and CBE is an important consideration. Competency-based education (CBE) is a

viable means to nurture future-ready lifelong learners, and the integration of experiential learning (EL) into CBE is a viable strategy.

Experiential learning encompasses a continuum of approaches ranging from internships and projects to simulations, role play, and serious games. NEP 2020 illustrates these approaches as part of the College Affiliation System, which enables higher educational institutions to conduct internships and projects during the Degree Transfer System (DTS). The NEP 2020 flexibility of modular, stackable credits in degree programmes lends itself to the CBE–EL combination.

3.3. Assessment Paradigms Under NEP 2020

Competitive pressures and fragmentation mean that institutions are now much less capable than they were a decade ago of determining precisely the social worth of their graduates, while the scope for assessing, let alone assuring, the multifarious (and often unwritten) accountabilities of higher learning has increased in parallel. Similarly, with the advent of lifelong and incremental learning, individuals are now less likely than previously to acquire all their knowledge and skills in a single course of study and, even for those who do, assessment systems find it increasingly difficult to trace the provenance of subsequent achievements. The semi-armchair quest for greater clarity resists a single dimension within which to explore the problems around assessment. It is therefore easier to examine the effects of these overlaps in greater detail, with respect first to the profile of the graduate and focused next on a more dynamic conception that embraces an increasingly extensive variety of learning— from experience, from the workplace, and from practice (Williams, 2014).

4. Designing Competency-Based Curricula

Competency-based education (CBE) and experiential learning (EL) are critical for lifelong learning and employability. CBE specifies what is expected of learners at the end of the program based on competencies for the workforce. Competency-based education connects learning outcomes with employability skills and the metamorphosis of competencies. Competency-based education is objective and provides a framework for higher education.

Competency-based education specifies the desired competencies of the graduates and the related evidence to determine the achievement. Competency-based education implementations differ in how to demonstrate competency achievement and the level of performance. Competencies are knowledge or physical skills, and the ability to act based on them. Competency-based education can

help to acquire the knowledge or skills needed to act competently and to connect the learning much more closely with employability. Articulation lifelong learning can be expressed as a metamorphosis of competency.

The workforce of 2020 needs new competencies such as creativity, innovation, higher-order thinking, collaboration, effective communication, and technological and digital knowledge. Competencies with knowledge, skills, and dispositions of graduates needed to shape a better future-ready workforce are (Knowledge about the Sustainable Development Goal-SDG) for Graduates of higher education institutions. The competencies with specific definitions can help institutions to design a programme. Graduates of higher educational institutions having the attributes are linked to reach stated by the Indian National Documents. Higher education needs to design work at creating experiences that help graduates learn to be competent, creative, innovative, system thinkers, collaborators, entrepreneurs, ethical, digitally friendly, responsible, and knowledge-enabled thinkers. The link between employability skills and these competencies is missing; in the higher education sector it is clearly understood by both faculty and students. Employment and Employability skills are continually changing and there is a need to address this issue. (Johanna Sistermans, 2020)

4.1. Curriculum Alignment with Competencies

Competency-Based Education (CBE) has arisen out of decades of experimentation and innovation in education and training, has captured the attention of organisations worldwide, and is emerging as a serious alternative in the higher education landscape in India. CBE gained momentum in North America in the 1970s and has re-emerged with renewed focus on defining and measuring the competencies sought and required by the world of work. CBE has been defined broadly as "an education system in which the degree to which learners advance toward a credential is based on their demonstration of knowledge and skills, independent of time, place or pace of learning", which is an agreed position of many organisations promoting CBE. Competency-Based Education (CBE) is increasingly being framed within the context of learning outcomes, so much so that the two terms are often used interchangeably. The term "Competency" originally referred to a broad cluster of holistic behaviours, knowledge and abilities required for effective performance in diverse real-world tasks, while "Learning outcomes" focused exclusively on what was to be assessed at the end of a learning experience. According to the 2019 draft

"Guidelines for National Assessment of Competence", the focus should now be on the "competency" and not on the "educational input".

Competency-Based Education (CBE) and Experiential Learning (EL) were the outcome of enormous shifts in the economic, industrial and political context, specifically within the United Kingdom, Europe and the Commonwealth since the early 1960s. The impact has shifted the way of designing educational programmes, and competency-based education in the broadest sense continues to be both an important concept, a potential framework and guiding principles. Competency-Based Education (CBE) has invariably focused more at the global level on competencies intended to meet national and international vocational/occupational demands: socio-economic, policies/direction, current and anticipated, on behalf of individuals, organisations, the private sector, and anticipated outcomes. The two concepts thus display significant overlap in their educational goals and desired anchoring frames for defining concepts such as skills, competence, employability or the like.

CBE and EL both pursue unchanged five higher-order global, universal educational goals: learn to know; learn to do; learn to be; learn to live together; learn to have. CBE elaborates a cluster of generic competencies termed as the Competence Wheel, comprising headings such as communicative, social-relational, self-managing, systems, technical-operational and uses a methods frame broadly categorised as descriptive, didactic, and frames the process. The elaborate work on the internationally highly acclaimed "Lausanne principles of innovation", which offers ten principles still applicable today after twenty years have elapsed, has also generated a plethora of instruments addressing these principles to literally generate compelling institutions such as polytechnics.

Accreditation, regulation, quality monitoring and quality assurance systems increasingly articulate the importance of assessment encompassed within competencies. CBE/EL articulates outcomes necessary for employability and lifelong learning through the construction of prescribed occupation-specific and generic competence profiles, which compile the whole educational framework. Competence-based Education (CBE) formally originated in the mid-1970s as an educational innovation in the United States of America and has, around the globe, grown into a serious alternative within technical vocational education and training. Competency-based education movement was principally concerned with vocational education and training, thus restricted itself to the workplace and closely derivative environments.

Encountering competence-based education means sitting in on or observing a vocational or educational institution prepared to offer training for individuals to complete a national qualification and/or diploma scheme.

4.2. Pedagogical Strategies for Experiential Learning

Experiential learning gives students direct experience of what they are learning; it happens through integrated work placement, community fieldwork, individual or group projects, internship, service learning, etc. The definitions and implementation of this process vary widely, but a common structure contains active participation in an experience, onlooking, reflective observation, conceptualisation, and testing conclusions (El Mawas & Muntean, 2018). The frameworks focus on creativity, collaboration, and multidisciplinarity, besides supporting the six competencies of critical thinking, problem-solving, creativity, collaboration, communication and information literacy, which NEP 2020 strives for. In India, theoretical knowledge is favoured over practical ability because of the academic system. Students' stakes are extremely high, as getting into a good university is highly valuable. Socio-economic factors further complicate the situation (Herodotou et al., 2019).

Problem-based learning gets students exploring solutions to problems, often real-world issues, that are complex and ambiguous. Scenarios such as stimulate curiosity of a learner for information-gathering, application, and extension of existing knowledge through different means, integration of theory with practice and development of solutions. Through structured, focused and intentional thought about experiences, reflective practice allows us to become aware of what we learned and how we learned, also, what we did with the learning, what worked, and what did not. When you enter a cycle of reflection, you note the processes that contributed to your successes and difficulties. You also note any adaptations that may be associated with these in similar future contexts.

4.3. Mapping Learning Outcomes to Assessment Methods

While much of the theory of assessment, and of educational systems, has been that the object is to measure what has been learned, more voracious—and disruptive—systems have required that rather than defining curriculum and attempting to assess how well it has been fulfilled, the dimensions of competence that are essential to performance in the real world are first specified (Palmer-Brown et al., 2016). The learning and experience necessary to be able to perform at a specified level in each of the

required competencies is then integrated into the educational program. Rather than build up and measure only analytical skills in the recognition that critical analytical skills must be deployed in any legitimate process of producing new knowledge, experience has shown that—particularly in research fields—such skills are developed more rapidly when students are first required to engage in a process of producing new knowledge.

Competency-based education is predicated on the principle that an education system must prioritise the setting of standards and the verification of competencies that will enable individuals to undertake productive roles in society. The cyclical nature of the educational process—first establishing the competencies required by the intended beneficiaries of the educational provision, then identifying pathways and opportunities for the acquisition of those competencies, and finally assessing the acquisition of the specified competencies—needs to be undertaken in the local context. Such local adaptations of educational systems should not be limited to identifying the competencies, required practices, and assessments that address the local context.

5. Implementation Mechanisms and Institutional Readiness

Competency-based education (CBE) and experiential learning (EL) aim to craft learners for a future yet unknown. The educators ranked future work competency skills among the top domains of desired competencies (U. Tatpuje et al., 2022). Ends, means, and eventualities demonstrate the educational process. Designing programs to develop competencies is paramount. Education elaborates competencies, enabling improved employability through early work experiences, multiple career transition opportunities, systemic job change without reskilling, and capacity for lifelong self-learning (Palmer-Brown et al., 2016).

Preparation for jobs, coupled with employability upon completion of the program, constitutes the immediate relevance of competency-based education. Experiential modes and accompanying programmes enhance learning ecologies, foster learner increase of learning and development, widen learning and development prospects, and underscore the need for incessant preparatory and collegial returns to learning from job and even post-job experiences (El Mawas & Muntean, 2018). They serve each competency and desired professional career precursor—player, engineer, leader, or educator.

The National Education Policy 2020 recommends ambitious reforms in education in the country. Showcase the

present commonality, demonstration, scalability, regularity of employment gaps, and linkage of newly emerging vocational or transferable Skill competencies to the preparatory education system needed to establish through the adaptable and skilful programmes. Adherence to NEP 2020 specifies each aspect of Competency-Based and Experiential Learning, even by mainstreaming everyday learning.

5.1. Faculty Development and Capacity Building

For successful, large-scale implementation and scaling up, it is essential to prepare the faculty to practice and support competency-based, experiential learning inside and outside courses. This requires faculty development, capacity building, and continuing professional development in and across pre-service, in-service and post-service stages. Any faculty enrichment and capacity-building initiative can succeed only when it is informed by a clear understanding of the existing competencies and capacities of the educators.

Using frameworks that specify the competencies required of academic staff is expected to improve existing institutional programmes and assist institutions in meeting continuing professional development needs that arise from the implementation of competency-based experiential learning (El Mawas & Muntean, 2018). According to Anna Mloka et al. (2024), Faculty Development emphasises the possession of competencies for a range of hard and soft skills. In addition, for the preparation of future-ready lifelong learners, supportive infrastructure, connectivity, technology and mobility of stakeholders (Phyu Thwe & Kálmán, 2023).

5.2. Infrastructure, Technology, and Stakeholder Engagement

The adoption of a truly transformative approach to Competency-Based Education (CBE) and Experiential Learning (EL) in any institution requires substantive commitment to develop the necessary Infrastructure, Technology, and Stakeholder Engagement. These building blocks must be attended to simultaneously and concertedly as each supports the others. A commitment to "real learning" often spurs the need for pedagogical transformations, but the requisite technological and infrastructure transformations are seldom accounted for, sometimes even believed to be superfluous to the contrary.

As most institutions of higher education are built around the traditional disciplinary systems, within which courses and aggregates of courses that constitute programs, the necessary CBE and EL reforms must be situated firmly within that structure. Such

contextualization permits fuller articulation of both the foundational and more advanced types of "real learning" involved. Therefore, an appropriate structure cannot follow from showing the unambiguously well-founded benefits of CBE and EL. New information and insights on those topics can facilitate the emergence of the structural framework, but cannot provide it in the absence of realistic attention to the institutional context.

5.3. Quality Assurance and Accreditation

Quality assurance and accreditation for CB-EL implementation in higher education must consider that competency-based education (CBE) is a whole-system approach encompassing curriculum design, pedagogy, assessment, and quality assurance. CBE refocuses the learning paradigm from teaching inputs to what is learned, the development of competencies, and how to provide evidence of having achieved the competencies. Implementing CB-EL is a gradual and incremental journey at each institution, and competency frameworks are one of the options considered, along with defining what is more important for the learners and when a student can be assumed to have achieved competency. The evolution approach is emphasised; however, it is important to highlight that the abundance of learning opportunities is not perceived as extravagant for learners to assume that no assessment is done, as curriculum design, pedagogy, and assessment are seamlessly aligned under CB-EL, very different from a classical approach (McKeen et al., 2018).

6. Equity, Inclusion, and Lifelong Learning

Educational institutions for higher education are key players in the creation of equal opportunities for people, the reduction of inequalities and the broadening of participation. Society, individuals, and institutions benefit from broadening access. When there is wider access, people can move ahead in knowledge and skills. It enhances people's participation in the workforce and social acceptance. Also, they can play an active, aware and responsible role in society.

The National Educational Policy 2020 affirms a commitment to equitable and inclusive education to ensure access and affordability for all. The above differential pathways must be designed relating to the diverse background and experience of the individual, especially the socially and economically deprived (Phyu Thwe & Kálmán, 2023). Such paths may be full-time, part-time, open-distance and online, along with flexible ingress and egress. Education according to capabilities tackles misbalanced ability in higher education systems. Competencies taken from different sources can foster greater equity if they

consider specificities, both contextual. The New Education Policy defines competency as skills, adaptability and lifelong learning. The fact that one can engage with education when they have personal, work or social commitments, at their own pace, or build new skills and improve existing ones through competency-based and micro-credential programs.

6.1. Ways to access equity and differentially learning.

The availability, fairness, and standardisation of learning pathways are a priority and a critical need for increasing participation in higher education from the disadvantaged groups. In looking at competency-based and experiential learning approaches, it is important to define access and equity in India's higher education context in relation to other terms and in a way that differentiates them affordability, inclusiveness, availability, etc. Gaining access implies the ability to reach a particular higher education institution of one's choice, while the term equity means equal consideration for admission to all institutions without any form of discrimination. Educational reform agenda promoting varied learning pathways supposedly can better assist underrepresented students through the provision of expanded opportunities and encouraging successful engagement. It can help them develop their existing assets while also reducing the barriers to participation (Chen, 2017). Students who enter with the right knowledge, skills, or competencies should have flexible routes for obtaining credit or recognition. Similarly, students following a pedagogical or other learning route should find transparent alignment toward common option end-goals. An integrated model, like competency-based and experiential learning approaches, can leverage the interconnections of different societal forces and institutional spheres towards scaling equity.

6.2. Inclusive Assessment Practices

Assessment practices and accommodations for learners with disabilities, which are at the heart of competency-based education and experiential learning, remain key to expanding participation (Saiyad et al., 2021). Although the meaning of competently can be difficult to pinpoint, Palmer-Brown et al 2016 believe it means competent within context and able to change. Competence is only evident in performance with the environment. Similarly is assessment ability – Palmer-Brown et al 2016. Through the use of biases, expectations, criteria, tools and feedback, the faculty development can result in authentic workplace-based assessment. These approaches encourage candidate-centred assessment and developmental feedback,

reconceptualising learning and enhancing capability articulation.

India's National Education Policy (NEP) 2020 underscores the necessity of freedom and flexibility to deter learners from resorting to informal learning avenues due to limited access to higher education. Traditionally, students are often assigned to specific subjects or disciplines upon their entry into this formal educational framework. Research findings regarding NEP 2020 indicate a significant degree of interdependence among various sectors. Consequently, when initiatives targeting individual sectors are proposed, it is imperative to implement distinct campaigns aimed at enhancing awareness of skill requirements and the career opportunities that are accessible to individuals seeking financial assistance while they remain within the educational system. Beyond the initiatives introduced by both state and national governments, it is anticipated that learners will be effectively motivated to move away from informal methods of knowledge acquisition. Comprehensive skill-mapping should be conducted not only for projects funded by supplementary financial measures but also for all avenues of access in light of the most recent advancements in the formal educational landscape of the Himalayan region, which include considerations about sustainability, misinformation, and inflexible or predetermined employment structures.

7. Challenges, Risks, and Mitigation Strategies

Competency-Based Education (CBE) has emerged as an effective model for achieving student learning outcomes (McKeen et al., 2018). The experiences of the United States and other nations with CBE reveal an unprecedented growth in interest in this approach to enhance learning opportunities for students. More specifically, interdisciplinary competency-based education offers a pathway to strengthen the connection between education and employability in a globalisation context.

Competency-Based Education (CBE) and Experiential Learning (EL) are integral components in translating the vision delineated in NEP 2020 into organisational practice in Higher Education (independent universities, affiliated colleges, Institutes of National Importance, etc.). CBE defines a competency as the knowledge, skills, and personal attributes needed to be successfully employed and competent in a job. EL, on the other hand, stipulates a formal way of engaging students in learning by way of real-life experiences after acquiring the necessary disciplinary knowledge.

7.1. Resource Constraints and Scalability

Scalability remains a central challenge for advancing education in competencies through experiential learning, in both management and broader higher-education domains. The range of different setups and interaction types for learning activities offers students opportunities to experience the roles of consultant, collaborator, or participant that characterise employment. The need for faculty development and for more exemplary multi-institutional cross-modal projects also informs scalability.

Among the principal constraints on scaling Experiential Learning is the considerable variability in the time and effort required for the design and facilitation of diverse activities (McKeen et al., 2018). Some highly dependent activities nevertheless offer accessibility at well-defined stages within courses and without complicated logistics. The design of the course into separate blocks for independent time-based projects with minimal faculty intervention makes the completion of multiple activities with a single cohort feasible.

7.2. Equity Gaps and Cultural Considerations

According to the National Education Policy (NEP) 2020, it does aim to be more Inclusive but there are serious equity gaps that limit participation of different social groups in higher education and other lifelong learning opportunities (J. Belin 2020) Authorities and civil society need to promote policies, practices and measures that will broaden participation and provide access to quality higher education without entry barriers. When considering competency-based education (CBE) and experiential learning (EL), it is crucial to adopt a framework centred on capacity development. This approach facilitates the alignment of learning outcomes with the distinct needs of individuals (Ali M. Abunaib, 2019), particularly in relation to spirituality, artistic expression, non-linear methods of knowledge acquisition, and various cultural considerations (Ali M. Abunaib, 2019).

7.3. Governance and Policy Coherence

The NEP–2020 outlines a sound and coherent lifelong learning vision for a future-ready workforce and issues in policy formulation for the same (Hunter,2019). The rapid technological, economic, lifestyle, and attitude changes taking place worldwide are creating the need for new competencies. Being aware of new trends and new possibilities can allow people to keep on reinventing themselves even after education. Competency-based education refers to the education that focuses on what learners are expected to achieve. This highlights the potential for skills to be transferred, and has proven to be an effective substitute for the traditional model of learning against a set content within a rigid timeframe. Competency-

Based Education means that education should be based on and oriented towards Competencies. The need to explore knowledge when we process our needs, which is the prior stage for knowledge to turn into competencies. The conversion of knowledge into skills results in employment or self-employment and entrepreneurship that contributes to wealth formation and enhances self-competency. By progressing through the necessary competencies, one can examine new areas. Through the recognition of prior competencies, knowledge can be mixed with new opportunities for continuous education, much beyond formal education. Competency-based learning takes education from the curriculum to the student.

Developing a Future-Ready Education Program. The National Education Policy (NEP) 2020 envisages a cohort of such a program to engage individuals with learning resources to develop capabilities necessary to thrive in the new economy and society in their life-long journey. NEP (National Education Policy) 2020 enables a workforce of the future and outlines the important changes needed in governance, policies and strategy making. It is an initiative by the University Grants Commission for higher education. According to social norms and an institution's pronouncements, such a shift will leave a long-lasting impact. The National Education Policy (NEP) 2020 explains the problems faced when implementing policies and how other issues crop up subsequently. The incorporation of competency-based education and experiential learning is a very effective way to deal with these issues.

8. Case Studies and Best Practices

A lot of institutions' studies and international examples demonstrate that competency-based and experiential learning (CB-EL) are in accordance with NEP 2020 objectives. Some Indian institutions have already started the implementation of CB-EL approaches, having alignment with the spirit of NEP 2020. Also, several foreign universities have adopted competency-based education (CBE) and experiential learning models, which have similarities with NEP 2020.

Emory University's Rollins School of Public Health provides a compelling national example of CBE compatible with the articulation of lifelong learning and emerging skills. The development of competency-based online degree programs in public health began in 2014. Subsequently, a comprehensive re-examination of degree programs, core competencies, and learning outcomes led to CBE models that emphasise the importance of life-wide learning and explicit articulation of emergent skills such as social justice, cultural competency, and communication. The

need to reskill and upskill in response to the COVID-19 pandemic has accelerated demand for competency-based learning. NEP 2020's focus on a multi-modal, multi-disciplinary approach to education and lifelong learning resonates with these CBE principles.

An example of a competency-based programme in the United States is being developed by D'Youville College. The outcomes describe work-based learning and the development of an e-portfolio. The model represents a transition from content-based to competency-based curricula in various disciplines. The students can enter this programme anytime they want to earn badges by performing the expected learning outcomes. The course catalogue, which provides access to competencies and curriculum maps, also enables student mobility. The competence-based education approach of NEP 2020 intends to aid in development.

The Canadian Institute of Health Research launched an opportunity for developing competency-based medical education (CBME) programs that progress at the learner's pace. CBME entails an outcome-driven, educational framework where graduates meet specified competencies. Academic and clinical preparedness are viewed as complementary rather than residing within separate silos. The flexibility of CBME aligns with NEP 2020's advocacy of lifelong, learner-centric education.

International exemplars of experiential learning beyond the Indian context support CB-EL within NEP 2020. The Australian-based University of Queensland has developed an extensive suite of authentic learning opportunities linked to employability skills and Graduate Attributes. Building Communication Skills through assistance provided to end-users of assistive technology exposes students to real-world systems for client engagement; authentic tasks, coupled with expert and peer feedback, assist in developing job-ready capabilities. The Ontario-based Ryerson University School of Business offers an Experiential Learning (EL) Framework comprising action-based learning, industry engagement, student partnerships, and economic contributions to encourage the integration of EL into diverse pedagogies. The University of Alberta articulates a vision of the post-secondary experience that includes Unpaid Work Integrated Learning and has documented extensive experiential learning activities.

In an international context, the University of New Mexico School of Architecture and Planning has integrated competency-based educational approaches and the seminal work of George E. B. Merriam into a curriculum

focused on lifelong learning. Competencies incorporate not only knowledge and skills but also broader attitudes, values, professional behaviours, and ethics that play an important role in the education and development of professionals. A framework that articulates essential competencies and specifies a broader range of knowledge, skills, practices, attitudes, and values has been established. The University of Nebraska-Lincoln formed an all-college planning group to create alternative pathways to graduation that align with NEP 2020. The approach involves the development of a matrix relating degrees and competencies. Alerts guide students toward relevant courses during the registration process.

Institutions in other countries offer further examples of competency-based approaches with resonance for NEP 2020. The Essence of the Learner framework, developed by Ontario Tech University, identifies key areas for growth in learning and accomplishment. An all-institutional, all-student experiential learning platform facilitates engagement with community partners to develop real-world solutions embedded in course curricula. The University of Pittsburgh has published "Competency-Based Education: Orientation to Principles and Practices," introducing competency-based education as an approach to enhance educational access and success. Competency-based education is defined as an approach that expresses student progress in terms of an expected set of learning outcomes. The accompanying principles contribute to a shared understanding of competency-based education across educational institutions and training organisations.

Universities in New Zealand have engaged in collaborative self-assessment of educational practices and educational-cultural settings across the spectrum of competency-based education, gathering key sector data on letters of understanding associated with competency-based education across disciplines. Universities integrating competency-based, experiential learning design into programme specifications to meet broad, interconnected NEP 2020 objectives include the Universities of Technology in Sydney, La Trobe, Victoria University, Northern Melbourne, Sydney, and South Australia. These exemplars follow a process whereby competences are agreed upon across disciplinary boundaries.

8.1. Institutional Case Studies Demonstrating NEP 2020 Alignment

Universities in India have the dual responsibility of making their graduates ready for employment and also equipping them for lifelong learning. The challenges we face are made worse by the changing nature of work and the need for adaptable skills. Courses are being

redesigned by progressive institutions for competency-based experiential learning. More and more such institutions are showing interest in adopting similar reforms. The case studies given in this section are representative of the compatibility of institutional initiatives with NEP 2020 policy directives, Johanna Sistermans, 2020

8.2. International Exemplars in Competency-Based and Experiential Learning

Competency-based education (CBE) and experiential learning (EL) play an important role in terms of higher education reform. The two may facilitate student attainment of twenty-first-century competencies and nurture lifelong learning. CBE is a framework that defines the requisite competencies graduates must achieve and the proof that they are competent. The intended student learning outcomes for CBE are linked with the National Skills Development Policy to create wider employment opportunities. Practical education refers to broad experiences that enhance the competency of students. It enhances CBE by allowing learners to increase their skill set and adapt their skills to requirements as needed. The heightened acknowledgement that conventional time- and place-based systems are incapable of maximal support for students' learning is a key driver for CBE and EL (McKeen et al. 2018). CBE gives students the freedom to work at their own speed and choose their path to earn competencies.

A variety of educational systems around the world are progressively moving toward CBE and EL. The following examples demonstrate how other countries are promoting these approaches, providing insights and ideas relevant to their adoption within India.

9. Measurement of Outcomes: Evidence and Evaluation

According to many proponents, the Indian education sector is slowly moving away from traditional learning to competency-based education (CBE) and experiential learning (EL). Such an approach is advocated in the major policy documents like the National Education Policy (NEP) 2020 and the draft National Higher Education Qualification Framework (NHEQF) Those operating and working toward the success of the higher education system, e.g. educators, researchers, knowledge creators, thought leaders, alumni, students, etc. must have clarity on these educational paradigms to convert the NEP into actionable plans, measurable outputs, and learning that is to be verified and assessed continuously. Competency-based education (CBE) refers to both the intended outcomes and the curricula linked to students' key outcomes of an education programme.

Kansaart et al., 2017. The outcomes outline what a learner must know and be able to do after they have completed a level of study. Continuous assessment is based on competencies laid down in the syllabus. Students are assessed on their task performance ability (competence demonstration) and their fit with a workplace's employability criteria (employment readiness, lifelong learning) so that they can get ahead within their careers and in life.

The transformational potential of OERs (Open Educational Resources) is recognised as a valuable vehicle for higher-education institutions to lead innovation through diverse educational offerings, and to work together to make quality educational resources openly available across the globe.

9.1. Learner Outcomes and Employability Metrics

Learner outcomes indicate that a graduate is expected to be equipped with the competencies necessary to meet the demands of employment while enabling individuals to remain as lifelong learners and upskill, keeping up with emerging technology, thereby minimising job redundancy (Palmer-Brown et al., 2016), (Nayar K. et al., 2018). There is a growing response to the gap between expectation and perception of what an individual possesses; the perceived skill gap clearly expands with an individual's experience in the field. This is particularly reflected in the urgent need for capacity building to identify critical elements of competencies in the Indian context. The ability to meet the complexity of growing expectations and keep pace with emerging technologies requires that a more holistic, broader approach be taken, which encourages numerous valuable discussion platforms. An important consideration to maintain relevance is to pay close attention to the developmental context of the country where such competencies are being established. Discussions do occur, but remain surface eruptions due to the sheer volume, velocity and complexity of the needs being expressed and the ubiquity of emerging technology rapidly changing sooner than one can adapt and apply any guidelines to the needs being voiced.

9.2. Longitudinal Tracking of Lifelong Learning Trajectories

When individuals accumulate different types of experiences throughout their lives, the theoretical and practical skills used for both work and personal improvement change, resulting in the emergence of new skills in one's skill set. To highlight the need for longitudinal tracking of the transformational processes and achievements leading to lifelong competences development, the relevant European and Asian examples are addressed, and an emblematic lifelong learning competence development Event chart is included. Tracking mechanisms for the lifelong

learning trajectory among the former state "Socialist" and the Commonwealth of Independent States (CIS) are also provided (Phyu Thwe & Kálmán, 2023).

9.3. Research Gaps and Evaluation Frameworks

The body of knowledge created from the concerted effort of people engaged in lifelong learning is more relevant than ever. It is important to raise awareness of the necessity of continuous development. At the same time, conditions for participation must be created to foster lifelong learners capable of developing lifelong professional competencies. The government is working on establishing Adult Learning Competency Frameworks for articulation and tracking. Job seekers and investors often negotiate the meaning of competencies or specific knowledge, skills and attitudes needed for the job event. Competency-based education is a growing trend that is also supported by the National Reform Program of the National Education Policy 2020 (Giangrande et al.2019).

Learner development frameworks remain insufficiently covered by Academic Competency Frameworks (ACF) embedded in curricula for developing future-ready 21st-century literacies (Palmer-Brown et al., 2016). Informal and non-formal acquisition outside Learning and Educational Centres goes unacknowledged, often evading the Learning or Certification networks. Education and training are ongoing on continuous on-the-job platforms and the existing occupational composition-Country Context mapping. 21st-century Skill Frameworks, offering fewer Generic Skills, have not fully adapted to specific institutional maturity conditions and learner profiles (El Mawas & Muntean, 2018).

10. Conclusion

Competency-Based Education (CBE)—also referred to as Competency-Based Learning (CBL)—is an educational approach in which the learners have control over their progress through clearly defined competencies. The new National Education Policy (NEP, 2020) defines Lifelong Learners as those who are empowered to seek continual knowledge, skills and even memory improvement in skills for life and career, thus controlling their potential and social growth. The objective of CBE is to structure the educational framework according to these competencies within the NEP, as, coherently defines the competency, it is being observed that attaining the knowledge component of competency within the defined fields emerges as the demand too (Johanna Sistermans, 2020).

Within the workforce, RBM & Portfolio development—which defines the competencies that an organisation is expecting on its employees to have—

becomes key to enhancing the recruitment easily available at present. This trend that has emerged at present is aligned strictly with the CBE approach defined in NEP guidelines. Achievement of Knowledge, Skill and Attitude, which is being achieved through the CBE alignment.

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