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Understanding the Uzbekistani higher education context through the lens of reorientation

Teck Choon Teo^A

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Associate Professor, TMC Institute, Tashkent, Uzbekistan

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professional learning and development;
Uzbekistan.

Abstract

Numerous university graduates are actively looking for professional learning development (PLD) possibilities to help them adapt to a wide range of professional roles and responsibilities. For these reasons, this paper aims to create a research-based framework for graduate professional development that considers the shifting nature of the labour market. The purpose of this paper was to summarize and build upon prior research on graduates' PLD through an integrative theoretical translation approach. To develop a strategy for PLD, the author consulted with relevant parties and analyzed data gleaned from surveys, interviews, and scholarly articles. The four essential pillars of the PLD framework are acculturation, career skills, astuteness, and competence. There are 16 categories under each of the four primary domains, each representing a different collection of abilities and skills that a graduate can acquire once they leave university. Graduates, their supervisors, and higher education institutions can use the framework to better prepare students for post-graduation life and job.

Correspondence

teo.john@tmci.uz ^A

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Introduction

With the emergence of independent governments following the collapse of totalitarian regimes, the role of education in developing students' critical thinking has gained a prominent position. Creating environments conducive to lifelong learning is becoming the state's foremost objective. It should be highlighted that the effectiveness of the state's domestic and foreign policies depends on the individual's readiness for the enacted reforms. The ultimate objective of this democratic reform is to fulfil the socioeconomic demands of the individual, particularly those of Gen Z students in the prime of their civil society development (Mowforth, 2018).

Education's ultimate goal necessitates shaping today's youth's physical, moral, spiritual, and political identities. Religious and secular knowledge is essential for raising young Uzbeks with a love of their country and a strong sense of national identity in the face of the challenges posed by globalization and the proliferation of information at their fingertips. Because of their central role in students' personal and professional growth, contemporary educational institutions are receiving significant attention. These institutions are expected to turn out competent graduates who can compete successfully in the labour market, pushing the boundaries of knowledge in all fields forward and benefiting humanity. They play a crucial role in encouraging future generations to appreciate the country's history, literature, art, and physical and spiritual culture. Teaching young people about the events that shaped their government is essential to developing a healthy political culture among the next generation. Finally, amid globalization, throughout their formative school years, today's youngsters laid the groundwork for respecting national and international ideals (Muhammad et al., 2012).

Uzbekistan, located in Central Asia, is divided into 12 provinces, the independent Republic of Karakalpakstan and the city of Tashkent. Nearly half of the country's total population of 34.6 million lives in urban areas (Statistics, 2022). The population of Uzbekistan is increasing (by 1.48 per cent every year). By 2070, it is expected to have peaked at 44.4 million. In 2020, the dependency ratio in the nation as a whole was 97.9 per 1006, based on the UN Population Database (Statistics, 2022). In line with a UNICEF report from 2018, the government is in the early stages of a structural transformation, and the generational opportunity window is anticipated to continue for another three decades. Only through investments in human capital development, such as education and skill development, may the demographic dividend be realized.

In retrospect, we live in a time of swift change. The rate of technological development, the diminishing half-life of knowledge, the shifting demand for skills and expertise in the workplace, the accessibility of learning, etc., all contribute to this transformation. Given this context, it is essential to reexamine Uzbekistan's education system and determine if adjustments are necessary. Thus, this paper focuses on the rationale for reforming the higher education design, the critical considerations, and what specific changes are required, with the hope that it serves as a valuable reference

for further conversations.

Universities play a crucial role in preparing graduates for the workforce by providing them with the discipline-specific information and skills necessary to navigate the opportunities and difficulties caused by globalization (Villar-Onrubia & Rajpal, 2016; Parrott & Jones, 2018). In addition, the relevance of building essential competencies in new graduates has been extensively documented from the perspectives of policymakers, researchers, and graduates. Outbound mobility experiences (OMEs) and foreign study exchange programs have become recognized components of higher education worldwide (Bell et al., 2016). The broad advantages of overseas learning experiences include offering travel opportunities to students who might not otherwise have them, fostering cross-cultural awareness, and promoting student growth in a global setting (Tran & Vu, 2018). As such, and as stressed in the literature, OMEs equip students with vital 21st-century skills necessary for the future of work and are widely advocated by universities for their capacity to foster worldwide career-relevant talents and personal development (Downey et al., 2012; Adams et al., 2011). Alongside this, officials and academics have become increasingly vocal about the impact of OMEs on building further institutional partnerships and connections, as well as chances for public diplomacy between nations (Byrne & Hall, 2013; Hong, 2021; Tran & Vu, 2018).

In addition, research demonstrates that students who participate in immersive learning settings are more likely to complete their coursework, identify with the subject matter, develop an interest in STEM (Science, Technology, Engineering and Mathematics) vocations, and feel comfortable in the classroom (Sanders & Hirsh, 2014; Adkins-Jablonsky et al., 2020; Garibay, 2015). Mobility is distinguished from typical classroom-based learning by the capacity to learn outside the classroom in an international setting through immersion. This immersive mobility experience is, according to Kolb's theory of experiential learning, a prime example of "learning by doing" (Doerr, 2013). Immersion within the framework of an OME combines the concrete (such as travel overseas) with the abstract (such as "learning" from experience) in a foreign region that is geographically and culturally distinct from the learners' preceding environs. Students in STEM areas rarely have time to ponder the gap between what they study in school and what they encounter in the real world (Coker, 2017). A STEM OME program that emphasizes hands-on learning through fieldwork, scientific research, and internships "encompasses the classroom into the community, and students are often challenged with dynamic situations that test and oppose their opinions" (Hatcher & Bringle, 1997, p. 156). Immersive and hands-on mobility possibilities like these promote global growth and learning.

The impact of industrialization on learning

Industry 4.0 is upon us, necessitating altering our learning, working, and living methods. However, the question is how and what to modify. The current change characteristics are not dissimilar from previous phases: it is technologically driven, disruptive, and inverts the established order.

Industrialization began with the automation of manual labour and the transformation of workshops into assembly lines. It further automated the cognitive processes and reorganized social cooperation from assembly lines to networks. Consequently, the fastest-growing industries shifted from those dependent on natural resources to those driven by innovation and ideas.

Given that one of the primary functions of education is to develop employees for the industry, industrialization significantly affected the delivery of education and instructional methods. Therefore, before the dawn of the industrial revolution, individuals learned in guilds and from masters. When modernization led to the division of work and the emergence of factories, schools were developed and designed to instruct young people on entering current jobs. Education has since become linked with both schools and universities. Today, as we embrace a fresh wave of industrialization, educators must naturally anticipate and actively pursue a shift in the form of education. In contrast to the early days of Uzbekistan's independence, the current nature of transformation is quite different.

Since Uzbekistan's economic plan was to bring MNCs (multinational corporations) to the country as direct investments from abroad to build up factories and create jobs, the MNCs were to establish factories and supply jobs. Higher education must respond to this by educating young Uzbeks to acquire the skills and knowledge MNCs require. This is a simple equation, but we have yet to determine what the jobs of tomorrow will entail. Constantly, industries create new job names and methods of organizing work. And it would be naive to believe that the previous school planning process will remain effective. We must cultivate human inventiveness and resiliency so that Uzbek children can grow up and live in a world we cannot fully comprehend. Education must evolve, not in definitive ways, but following the shape of future events. And so, what are the contours of the future?

Firstly, the education system must concentrate on acquiring and evaluating educational objectives and avoid overemphasizing the significance of academic performance, representing only a tiny portion of the traits necessary for success in life. To assist students in achieving these positive outcomes, we must thoroughly investigate the approaches best suited for their particular group. Finally, there are views today that have even questioned the usefulness of a university degree since the profusion of university graduates necessitates businesses seeking alternative means of differentiating talent. The effectiveness of a university cannot be assessed solely by pass rates, employment results, or worldwide rankings but by the protracted resilience of students and their willingness to experiment, take risks, and create. To achieve this, the system must acknowledge the diversity of abilities and talents amongst our youth and the fact that only an enthusiastic learning process will be self-directed, continuous, and resistant to disruption because the young person is motivated to learn, unlearn, and relearn. In this approach, the objective has switched from educating students enough to allow them to graduate to teaching them how to learn so they never actually graduate.

Research objectives

The purpose of this study was to create an evidence-based PLD (professional learning development) framework that may be utilized by:

- graduates to take some time to evaluate and prepare for professional development options;
- supervisors to encourage the professional development of the graduates under their supervision;
- school administrators to plan and provide professional development opportunities for graduates at their institution;
- policymakers at institutions to help guide decisions around postdoc professional development;
- for the benefit of potential employers, who may wish to learn more about the wide variety of knowledge and experience graduates can provide an organization.

Methodology

The framework was developed using an integrated knowledge translation strategy (Graham et al., 2006). A graduate, an academic director, graduate supervisors, and the director of educational development all worked together on the interdisciplinary project at the same university. The team collaborated to generate research topics and participated in all stages of the framework's creation. To design and fine-tune the evidence-informed framework, the team consulted with key stakeholders and incorporated the findings from mixed-methods research (evidence synthesis, document analysis, surveys, and informal/hybrid interviews). The evidence from two exhaustive literature studies was synthesized. The first was an examination and synthesis of PLD evidence (Nowell et al., 2018). The second summarized the literature describing contemporary methods of PLD (Nowell et al., 2019). The questionnaire and the semi-structured interviews were developed in light of these reviews (see Figure 1).

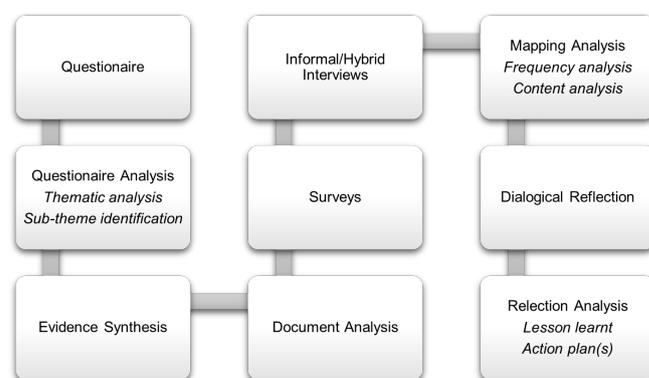


Figure 1: Data collection and analysis process.

The sample size is not crucial in qualitative studies (Creswell & Clark, 2018; Bryman et al., 2021). The idea of saturation deserves special consideration (Mason, 2010). Saturation occurs when data from additional respondents do not fundamentally contribute to collecting new information beyond what was previously realized in the qualitative sample (Bowen, 2008). As a result, qualitative research has no standard sample size. Therefore, the study's use of purposive sampling helped choose heads of department (HODs) who could provide in-depth, informative answers thanks to their specialized training (Teddlie & Yu, 2007). Morse (1994) advocates six to ten respondents when conducting qualitative research, where individual case participants are interviewed extensively to have factual data, which justifies the sampling of ten HODs for this study. Again, Atran et al. (2005) suggest that ten informants may be sufficient to reach an agreement in some research.

Saturation was reached after collecting data from eight (8) of the ten (10) respondents in the sample, at which point no additional information could be gleaned from interviewing further respondents. Only three (3) interviewees out of eight (8) were willing to speak on Zoom while remaining anonymous. Despite anonymity guarantees, five (5) participants were adamantly against being videotaped. They would rather have an in-person chat where the interviewer may take notes on the spot. In both circumstances, the interviewer had to resubmit the participants' replies to get their feedback on whether or not their answers had been accurately recorded and whether any key information had been left out. Also, they were given complete creative control over re-editing the transcribed responses. Six (6) of the eight participants were male, and two (2) were female. Interestingly, just two (2) of the eight participants were affiliated with public universities, while the remaining six (6) were associated with private institutions. Finally, one individual had minimal experience, two had moderate experience, and five had extensive experience. The characteristics of the study participants are summarized in Table 1.

Table 1: Profile of participants.

CLASSIFICATION	PARTICIPANTS (N)	PERCENTAGE (%)
<i>SEX</i>		
Female	2	25
Male	6	75
Total		100%
<i>DISCUSSION MODE</i>		
Zoom	3	37.5
Face-to-face	5	62.5
Total		100%
<i>UNIVERSITY CLASSIFICATION</i>		
Private	6	75
Public	2	25
Total		100%
<i>RESPONDENT EXPERIENCE</i>		
Very experienced	5	62.5
Fairly experienced	2	25
Relatively inexperienced	1	12.5
Total		100%

Document inquiry

Collecting and thematically analyzing crucial documents relating to the formulation, decision-making, operation, and evaluation of an extensive private institutional, professional development program at one institution. The PLD Program was established in 2017 after the institution's research leaders deliberately chose to invest in such assistance. This choice has led to a significant increase in the number of students at the institution. The program intends to assist students in distinguishing themselves in a competitive job market by motivating them to excel in academics, management, coaching, capacity development, teamwork, social inclusion, and earning potential. Using the document analysis findings, the future questionnaire was developed, a semi-structured interview guide was amended, and existing professional development resources were catalogued.

Questionnaire survey

On the basis of the results of the evidence synthesis and document analysis, a questionnaire was developed. School administrators and managers were given the questionnaire. It contained questions concerning demographics and professional development possibilities, including perceptions of, learning gained, and application of acquired information and abilities. In addition, they emphasize the utility and significance of the PLD advancement prospectus relating to learning and instruction, management and scheduling, writing skills, job placement, and professional growth.

Informal/hybrid interviews

Based on survey results, actors from various schools who volunteered to be interviewed were purposefully recruited and selected to capture variances across genders, disciplines, and years of individual experience. The interview guide consists of open-ended questions meant to investigate the perspective and involvement of each participant with PLD prospects. The interviews revealed the value, relevance, and significance of professional development for graduates in a professional, academic, and personal context.

Data synthesis

After analyzing each data set separately and using a mixed-methods of synthesis (O'Cathain et al., 2010), the data was synthesized from each component of the study to see where they converged, supported, or differed. Using this integration technique, the data were studied in depth together. Utilizing a systematic review enhanced pattern identification between data types and produced a reliable documentation trail (Wendler, 2001). As a result of this procedure, a thorough summary and visual PLD framework emerged (see Figure 2).

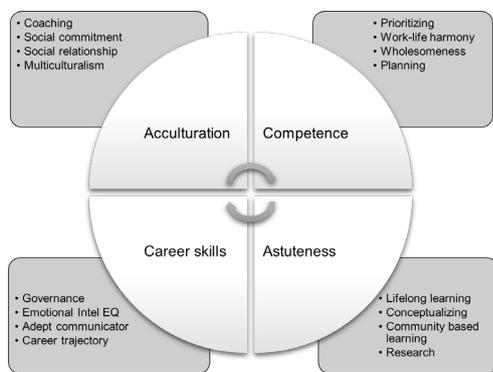


Figure 2: Graduate professional learning & development framework.

Participant discourses

Throughout data collection, analysis, and framework creation, the team regularly conversed with graduates, career counselling supervisors, educational development consultants, and the associate dean of research. During the discussions, participants were presented with the emergent themes and asked to comment on their application, relevance, and gaps. Their input was progressively incorporated into the final architecture.

Results

The data collection and analysis outcomes are presented here, discussing each overarching theme in turn. The PLD framework for graduates is a tangible product of this study (see Figure 1). Four fundamental categories comprise the PLD framework: acculturation, career skills, competence, and astuteness. The four core categories are segmented into sixteen sub-categories representing the many skills and competencies that graduates can develop throughout their studies. Figure 1 gives a summary of the significant themes and comments thread and serves as a graphical foundation for the presentations of the findings that follow.

Acculturation

The term “acculturation” refers to the process of adapting to a new workplace’s customs, beliefs, values, and practices. Both graduates and faculty cited acculturation as a critical area for improvement. Acculturation can be aided by engagement in coaching, social relationships, and multiculturalism. Graduates may benefit from professional socialization activities by understanding social connection ideas essential in any varied team setting.

Coaching

One strategy to enhance acculturation is to make use of available coaching opportunities. Graduating students may benefit socially if they acquire the skills of attentive listening, constructive criticism, and insightful response through their educational experiences, as proposed by school administrators. Undergraduate results can be improved

through coaching graduate students to build teaching and dissemination skills. In addition, graduating students who participate in coaching programs tend to exhibit higher levels of emotional intelligence (a sub-category in the skills domain).

Social commitment

A strong sense of social obligation is seen as essential to successful acculturation. Students learned that education’s reach and impact could be increased by focusing on understanding community needs through collaboration with key players. To teach students the importance of contributing to the greater good, school officials advocated for their active participation in community service projects. The openness of communication, the cultivation of professional socializing, and the development of a feeling of community can all result from encouraging recent graduates to participate in local opportunities and demonstrate skills and abilities at public events. In addition, students saw volunteering as an opportunity to give back to the communities they hope to improve using their newfound knowledge and skills. Participating actively in one’s community is related to having strong communication abilities.

Social relationship

Recognizing potential venues for social interaction is also crucial for successful acculturation. Recent grads want to strengthen their networks and how they can be adaptable and open to new ideas in the workplace by participating in social processes. Graduates who develop active listening skills and are aware of diversity in various settings serve as models for less seasoned students. In this context, role modelling is related to coaching in cultural adjustment. School leaders say that incorporating multiple points of view into their initiatives and products was a great approach to improving the quality of their work and promoting acculturation among their graduates.

Multiculturalism

Multiculturalism is a fundamental part of building relationships in the workplace. Graduates appreciated opportunities to work together within and beyond their respective academic and professional communities. The competence category of planning is related to collaboration. It was recommended that graduates respond to opportunities by presenting their work at conferences and establishing personal, professional, or online networks with other graduates to gain feedback, advice, and critical appraisal. Graduating students were better able to recognize trends and apply knowledge by integrating with interdisciplinary partners and understanding the linkages between their own and others’ education. Graduates learned the value of collaborating with peers and making connections in the business world. Graduates who participated in interdisciplinary networks were better able to make conceptual leaps between fields of study inside and outside academia.

Career skills

Career preparation is rarely an element of formal education. However, the ability to manage or administer an organization, to have high emotional intelligence, to communicate effectively, and to chart one's career course are all crucial to professional success. The school administrators understood the need to prepare their students for the workforce by teaching them professional skills. In addition, they said graduates should be given more responsibility and encouraged to work with industry partners to acquire the marketable abilities they will need in their chosen fields.

Governance

A mastery of governance is crucial for professional advancement within and beyond the university. Graduates reported that they learned governance skills by taking charge of creating and directing teams. Graduates improved their professional leadership skills by establishing a collaborative workplace wherein they coached junior colleagues and learned to delegate tasks among team members. Therefore, leadership is related to the field of coaching known as acculturation. For graduates to become influential leaders, it is essential, according to school administrators, that they network with industries and learn about the significance of creativity and innovative thinking in their professional sphere. Additionally, graduates who are taught to mix various leadership approaches creatively will have a competitive edge in the governance arena.

Emotional intelligence (EQ)

Emotional intelligence is a crucial aspect of any successful professional's toolkit. Graduates said they learned the most about dispute resolution and EQ from working in groups. The school administration saw the necessity for graduates to acquire negotiation skills to improve collaborative outcomes. They also mentioned that improving one's political knowledge and dispute-resolution skills in the workplace were essential components of a well-rounded EQ.

Adept communicator

Comprehension, interpretation, and expression are essential abilities for graduates to acquire in the workforce. To succeed in knowledge mobilization or making their achievements visible, digestible, and applicable to a wide range of audiences, graduates need to acquire proficiency in several forms of communication (e.g., one-on-one, social media, dashboards, and apps). Opportunities for graduates to gain experience with visual analytics, multi-media products, and social media profile building were highly sought after. At the same time, faculty members and administrators pushed students to weigh the benefits and drawbacks of having an online profile. To enhance digital academic dialogues and networking and to reach bigger audiences with their interactions, graduates were urged to improve their technical abilities, employ various technology tools and approaches, and remain current with the most

recent pertinent communication technologies.

Career trajectory

Invaluable contributions to a graduate's resume are abilities related to their chosen professional path. New graduates can benefit significantly from career workshops, counselling, and internships to better prepare for the job market. Career coaching aids recent graduates in recognizing areas where they still need work and provides them with the impetus to take the initiative to expand their skill sets. Graduates can benefit even more from career coaching as they map their professional futures since they are better equipped to set attainable goals and devise strategies to boost their employability. New graduates agree that internships and work-study programs are great for making professional connections. Career trajectories are related to the domain of acculturation, where multiculturalism is part. Applying for jobs is an excellent opportunity for new graduates to showcase their abilities, interests, and experiences through resumes, cover letters, and interviews.

Astuteness

A crucial part of a student's education that is usually linked with universities is astuteness, which centres on actions that improve education, knowledge, and skills. University committee work was seen as a vital avenue for graduates to continue studying, develop their analytical thinking capacity, and contribute value to the academic community. Graduates' savvy was also affected by their exposure to different types of instruction.

Lifelong learning

According to school administrators and new graduates, lifelong learning is a self-initiated education that strongly emphasizes self-improvement. Without a universally accepted definition, "lifelong learning" is typically understood to include any learning outside a traditional educational setting such as a school, university, or corporate training program. The term "lifelong learning" is sometimes used interchangeably with "informal learning". The best way to characterize it is as a choice made for one's happiness. As a result, more direct links between study and instruction might be established. Gaining expertise in a new area can boost confidence and help graduates succeed in their personal and professional lives. For graduates, this self-assurance might result from the emotional reward of a lifelong commitment to education and growth. Conversely, this sense of assurance might be graduates' confidence in their abilities and knowledge to put it to use in the working world.

Conceptualizing

Both new graduates and school managers value conceptualization expertise. To hone these abilities, graduates might practice evaluating scenarios and conducting in-

depth analyses of their and others' work. Improvements in problem identification and the development and use of novel, resourceful solutions can result from the deliberate cultivation of critical judgment. A person's ability to think creatively about problems directly affects where they go in their professional lives. The dissemination of knowledge and experience to broader audiences is enriched when graduates can transform ideas into companies. The ability to mobilize one's knowledge base is a crucial element of emotional intelligence (as noted in the career skills domain). In addition to providing possibilities for coaching, an aspect of the acculturation domain, making solid and objective evidence-based judgments also encourages analytical and critical thinking in less experienced peers.

Community-based learning

School administrators recommended community-based learning (CBL) as a means to help students have a better understanding of their place in the academic community. They provided a pedagogical approach that places a premium on mutual learning and reflection by incorporating substantial community interaction into the instructional and reflective processes. Graduates' abilities to think critically and write research papers can be enhanced through CBL participation, which was seen as a means to improve academic efficiency.

Research

New graduates and school administrators concur that the capacity to undertake independent research is vital in any sector that demands practitioners to produce various written materials. The graduates desired to enhance their research by asking for grants, publishing their findings, and attending writing courses. Through collaboration on grants and publications, graduates were able to identify possibilities for broader distribution. Thus, research indicates a link between multiculturalism (within the acculturation domain) and adept communication (under the career skills domain). Graduates' understanding of appropriate credit and the value of acknowledging others' contributions was bolstered by co-authorship.

Competence

The capacity to get things done promptly and efficiently is a sign of competence. Graduates have identified improving their efficiency as a priority for their careers. Several others stressed the importance of competence abilities like prioritizing, fostering work-life harmony, preserving wholesomeness, and planning.

Prioritizing

Learning to prioritize one's responsibilities is a crucial skill that will significantly improve the employability of graduates. New graduates recognized the importance of setting priorities to accomplish tasks and projects within

the allotted time frame. In addition, graduates and school administrators emphasized the importance of understanding planning phases, budgeting and prioritizing activities, setting deadlines, and responding proactively to obstacles.

Work-life harmony

Competence is impacted by one's ability to keep work and personal life in check. Graduates have noted that supporting successful work-life harmony in their teams could increase knowledge of work-life harmony issues common in corporate settings, which is significant given that work-life harmony is rarely foregrounded in academic settings. New graduates said they were more productive individually and as a team when they made an effort to understand their peers' situations and offered assistance in juggling multiple priorities at work. New graduates expressed an interest in learning how to establish limits but saw few examples of this in their managers. A graduate's and a leader's ability to use calendars for planning and delegating duties is an asset that can improve the lives of those involved. Prioritizing (in the competence domain) and governance are essential in achieving work-life harmony (in the career skills domain).

Wholesomeness

Being wholesome (or healthy/fit) is linked to performing well at work, making good decisions, being innovative, staying focused, and coping well with stress. Successful graduates identified the need to increase their awareness of stress indicators in themselves, their peers, and their superiors. New graduates said they wish they had learned better coping mechanisms and self-assurance to reach out to others when they needed help. Graduates and their teams were encouraged to stay healthy by regularly sharing vacation and work schedules and sticking to them.

Planning

Managing one's strategy, goals, and activities is crucial to completing many tasks, and this factor directly affects one's efficiency. It was acknowledged that tactics including goal-setting, timeline-making, and action prioritization could help graduates improve their planning skills. Graduates have voiced a desire to learn about planning cycles and use project management tools and practices to become more effective leaders. Graduates can learn about their strengths and areas for improvement through self-assessment and critical reflection on planning experiences. Moreover, the graduates agreed they needed to learn more about financial management to improve their planning skills. The development of multi- or cross-disciplinary management abilities may be aided by exploring opportunities for cooperation with peers within one's and related fields, as well as with consumers and stakeholders of information to co-produce research results. This is closely linked to multiculturalism (in the acculturation domain) and research (in the astuteness domain). Training in event management, such as seminars and department meetings, may also help graduates improve their leadership abilities. In addition,

stakeholder dialogues confirmed the significance of graduates learning to manage funds and events.

Discussion

This study led to the development of a graduate-level PLD paradigm based on evidence (Figure 2). Some essential abilities that may affect graduates' PLD throughout their undergraduate careers and beyond are highlighted in the PLD framework. Through these sub-category connections, the framework's principal domains can communicate. While some talents are transferable to other areas of development, the author argues that the ideal development of graduates can be attained by integrating the various skill development domains.

This study also acknowledges the broader context and how it relates to understanding the Uzbek higher education system. Let us look at each of these central issues individually. Universities in developed countries and those recently given university status in developing nations often operate under the assumption that they will internationalize their academic curriculum and activities. However, recent observations have challenged this assumption by showing a downward trend in which colleges diminish or discontinue engagement in foreign economic activity (Mandrinou et al., 2022; Kafourous et al., 2021; Lim & Mandrinou, 2020). Deinternationalization describes this relatively new phenomenon in global trade.

Conflicting interests and a Disruptive, Volatile, Uncertain, Complex, and Ambiguous (DVUCA) global business climate are realities for many colleges today. However, colleges must be nimble and adaptable to thrive (i.e., maintain profitability) in both home and international markets. Universities can accommodate and remain in a global market with competing interests or pull back and leave the market altogether. As an alternative to internationalizing as an export reaction, academic institutions may deinternationalize in either of these scenarios (see Figure 3).

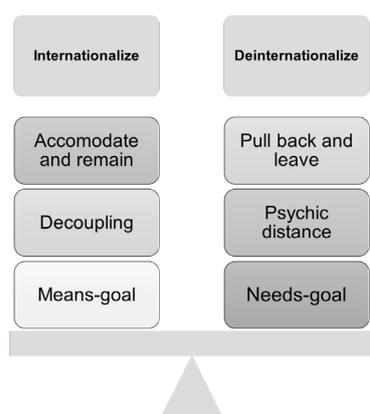


Figure 3: International business approaches.

As we circle back to the topic and examine higher education from the Ministry of Public Education's (MPE) vantage point in Uzbekistan, we are forced to guess the prospects for the sector. When it comes to Education 5.0, will schools be prepared? The "goal" refers to the ultimate purpose. This means that it answers the question, "where is higher

education headed in the next three years?" Means allude to the strategies and methods MPE will use to achieve the desired results. The method used should be emphasized over the end product. Why? For the simple reason that everything can be achieved provided sufficient means are available. Because of this, it is only helpful to try to get ready if one has access to adequate resources.

The PLD framework vis-a-vis skills is in high demand among employers and educational institutions due to the importance of STEM in addressing the world's expanding social and environmental concerns. There is evidence that mobility experiences, whether in an OME (offline) or virtual mobility experiences (VME; online), can help students develop skills necessary for success in the modern world. The growth of graduates' critical thinking is likely done through reflection and, at times, as an unanticipated by-product of other planned activities and interactions, notwithstanding criticisms surrounding the measurement and assessment of graduate learning. The use of an active learning PLD framework is central to this, and it is clear that the architecture of the experiences, either physical or virtual, impacts the growth of capacities. There are many well-documented benefits to involving STEM graduates in immersive learning environments. The ability to think critically is one of these gains.

The potential for modifying a PLD paradigm for Uzbek undergraduates has received less attention. The PLD framework is grounded in studies that show how incorporating outdoor experiences into interdisciplinary coursework improves students' ability to think critically, solve problems creatively, and believe in themselves. Students' interaction with authentic content (such as empirical data, virtual situations, industry attachments, or online discussion) has fostered critical thinking in the extant PLD literature. Therefore, it is crucial to integrate chances for participants to reflect on their experiences and express their viewpoints when establishing a program with PLD as its goal. While PLD does not replace the true contextual experience, and often discomfort, of curriculum changes that can be transformative for students, they do provide a potential option to enrich student learning and development. Further, PLD programs offer a more inclusive learning environment for most local Uzbek students who would otherwise miss out on an international educational model.

Problems and prospects

1. Uzbek schools and businesses will benefit from Future Learning's "sandbox," an unregulated environment for trying out new ideas.
2. What if we offered teachers and business owners more leeway to try new teaching and learning methods to keep up with the ever-evolving world?

The need to conform to policies, institutions, and regulations is often cited as a reason why creative ideas are stifled. This may be inaccurate in light of the many reforms the Ministry of Public Education (MPE) implemented throughout the years. However, given the world's current state of

exponentially expanding upheavals, it may be necessary to quicken the rate at which these changes are applied across the schooling environment. With how much time saved, how many changes can be made, tested, and improved? There needs to be an atmosphere for educational innovation to be constantly refreshed. Although there are already novel methods, providing schools, teachers, and entrepreneurs with more room, freedom, and support to try new things is essential. This will encourage grassroots solutions to this challenging issue, originating in classrooms and spreading to the business world.

Future learning “sandbox” is suggested

In Uzbekistan, the sandbox technique is a novel notion. Existing sandboxes in developed nations have provided the incentive for innovation, particularly in the field of technology in Singapore, such as the autonomous car and drone testbeds in One North and the Fintech sandbox being developed by the Monetary Authority of Singapore (MAS). The Health Ministry in Singapore (MOH) has also announced sandbox-based projects. In a similar vein, the MPE can construct and codify a “future learning sandbox” that encourages increased experimentation and grassroots innovation to diversify the Uzbek education landscape. It is possible to test new learning paradigms, ideas, and models. The new initiatives will not only expand opportunities to learn for Uzbek children. Still, they may serve as a proving ground for broader adoption in Uzbekistan and its Central Asian neighbors.

Considering the “How” clause: For the sandbox concept to grow, it is necessary to adhere to specific rules. For instance, the legislation will empower interested parties, such as universities or training institutions, to apply to join and experiment with fresh learning approaches and ideas within a specified period. First, the MPE can outline the areas where it would like innovations to occur (e.g., assessment, curriculum, classroom time, school campus usage, etc.), and then constraints can be loosened. Within the parameters, involved universities and entrepreneurs can register with the MPE to test new proposals that may differ from the usual guidelines and may also receive support from the MPE or relevant government entities (e.g., funding, grants) to carry out the experiments. A disclosure (or statement), not permission, will be necessary within the sandbox’s parameters. Finally, it will assure ownership and offer the institution and entrepreneur the appropriate space for further “out-of-the-box” concepts that exceed what the sandbox permits; universities and entrepreneurs can petition for MPE consideration of a relaxation of the limitations on a case-by-case basis. For the length of the sandbox, MPE can play a strategic role in supporting the relaxing of certain regulatory and legal restrictions that the sandbox business would otherwise be subject to. MPE could also engage in the co-creation and cross-pollination of numerous emerging concepts.

Target audience

The potential learning sandbox will be relevant to innovative universities, educators, and private players. It will permit the safe proliferation of technology and new pedagogical techniques, which entrenched governmental dogmas or norms might otherwise thwart. Several of these may leverage existing curricula and instruction.

Historically, universities have embraced a teaching-learning model based solely on the transfer of information to students. Nevertheless, the developments over the past few decades necessitate rethinking the function of universities in 21st-century society and transforming them into pillars of economic growth, social progress, and sustainability (Cabedo et al., 2018). It is possible for Uzbeks to build private educational institutions on the cutting edge of their respective fields.

It is noteworthy that the MPE has already begun a new stage of development, namely, large-scale development being carried out to transform the overall structure of higher education. It gives impetus to creating new ideas, creating and introducing new pedagogical technologies, and providing students with the education and training they need to achieve the country’s socioeconomic development goals.

The introduction of highly-competitive educational programs is intrinsically linked to the ongoing reforms in Uzbekistan. Education is critical to Uzbekistan’s human capital, its steady growth under the present circumstances, and the success of continuing reform efforts. In this respect, the most significant path is to support novel endeavors in the realm of education, as this paves the way for the innovative growth of society and the enhancement of the quality of the process of producing university graduates.

- Students’ ethical and religious development and physical maturation are facilitated by access to and participation in high-quality higher education. Therefore, it is of great consequence to improve education in the context of the formation of civil society from the standpoint of continuing to develop and introduce pedagogical techniques into the learning system in higher education that achieves the objectives of establishing a generation of independent learners and critical thinkers.
- New concepts must be incorporated into instructional and holistic activities as the nation enters a critical developmental phase, as this will further the ongoing, comprehensive effort to overhaul the entire system of higher education.
- The development of the nation’s international collaboration necessitates the enhancement of innovation and entrepreneurship activities. This correlates with the government’s desire to improve the global ranking of the Uzbek educational system.

Conclusion and future research

This study aimed to examine a PLD (professional learning development) paradigm supported by solid empirical data. Learning associated with acculturation, competence, job skills, and astuteness were the four overarching themes that emerged from the research. Both secondary and primary sources agree that PLD frameworks help advance students' knowledge in higher education. It can serve as a yardstick by which graduate professional development programs can be measured and as a guide for refining existing institutional plans. The PLD framework improves the theoretical knowledge of graduate professional development and enables us to apply the findings in different settings where graduate students receive training to acquire marketable abilities.

Even if there may not be many PLD options for graduates at the moment, there is a definite international demand for graduates to acquire transferable abilities that may be applied in a wide range of professional contexts (Nowell et al., 2018; Nowell et al., 2019). There has to be extensive research into the value of graduate PLD programs and the resources allocated to them. Few such services are reviewed, according to the existing literature. Regular summative and formative assessments are needed, with well-articulated criteria. Quantitative (e.g., the percentage of graduates engaged in such programs) and qualitative (e.g., surveys, discussions, appraisal of CVs) data might be obtained from institutions and countries to measure PLD's impact on graduates. Satisfaction with learning new skills, productivity, and work-life harmony might all be evaluated quickly to gauge progress. Measuring success over the long term may involve monitoring factors such as job satisfaction, tenure, and professional growth. More study of the benefits and drawbacks of these programs is needed to help policymakers make educated decisions when creating PLD possibilities for graduates.

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