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Pedagogical challenges faced by lecturers without formal higher education teacher qualification.

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Abstract: Some institutions of higher learning recruit lecturers without formal teacher qualifications. The untrained lecturers seem to face pedagogical challenges in their profession. The purpose of the study is to explore challenges lecturers without formal higher education teacher qualification and what could be done to help them improve their teaching. The study adopted a constructivist paradigm and qualitative research design since it is qualitative in nature**.** Self-Determination and Technological Pedagogical Content Knowledge theories form the basis for the study. The former holds that motivation is enhanced when independence, competence, and relatedness are supported. The latter claims that effective teaching requires the integration of technology, pedagogy, and subject content knowledge. Data were generated from the critical review of the relevant literature. It was interpreted and analysed thematically hence the adoption of Castle and Amanda's five steps thematic analysis. The results show that pedagogically some untrained lecturers fail to implement effective and appropriate teaching methods and classroom management skills. They also fail to draw effective lesson plans and assessment tools. In addition, their level of pedagogical competence and motivation are very low which affects their teaching abilities. Universities should recruit lecturers with higher education teaching qualification. On job trainings could be introduced. The study concludes that lecturers without formal higher education teacher training qualifications fail to solve pedagogic related challenges. It is therefore recommended that institutions of higher learning should employ lecturers with formal higher education teaching qualification. Also, teacher development training programmes should be enhanced. Finally, teaching methods such as collaborative teaching, peer observation and inter-teaching should be encouraged as well as technological teacher training sessions and professional mentorship.
Keywords: Pedagogical challenges, lecturers, formal, higher education, teacher qualification.

I. Introduction and Background

In some institutions of higher learning, lecturers are teaching without formal higher education qualification. The observation is consistent with Murtonen & Vilppu's (2020) statement that many university teachers still teach without any pedagogical training. The scholars further emphasise that universities are very different study contexts considering the fact that there are teachers who start their teaching duties with no pedagogical training. For example, in Bangladesh teachers are recruited through Bangladesh Civil Service examination where new teachers come without any prior experience or training (Rozina Afroz, et al., 2024). The same practice is also seen at Mangusutu University of Technology (MUT) in South Africa where most academics are not necessarily trained as teachers so they possess limited exposure to teaching pedagogies on appointment while others apply outdated instructional strategies (Gumede, 2023). Research further shows that formerly, the scholarship of teaching in higher education was not fully recognized, since teaching at university was understood to be strongly linked to the teacher's research competence (van Dijk et al., 2020). This implies that some universities recruit academic staff based on their ability to write research or even their PhD completed thesis yet lecturing is more than just ability to write research but ability to apply effective teaching methodologies in the class. The analogy is in line with the observation that concomitantly, university teachers often have solid content knowledge, given their prolonged education and research in a particular discipline (Gehrtz et al., 2022). It can therefore intrinsically be expected that such lecturers may encounter pedagogical challenges. The assertions above affirm that there are lecturers without formal higher education teaching qualification. The situation implies that inevitably, such lecturers are likely to encounter pedagogical challenges in their profession which could negatively affect students' performance. The implication is consistent with Gumede's (2023) postulation that the situation affects not only students' performance and the outcome at the end of the year but also the concerned lecturers themselves. That is, lecturers' teaching capabilities such as classroom management skills, limited and archaic teaching methods and poor assessment are restrained which lowers students' confidence and trust on the lecturers. The lecturers' competences, intrinsic and external motivation are challenged. Furthermore, Gumede (2023) takes the discussion further and provides a solution to the lecturers' pedagogical challenges; he suggests that in this

kind of situation, Continued Professional Development (CPD) is ideal to help both the new teachers and the untrained ones to cope up with their profession. The programme could empower lecturers without teaching qualification while at work especially because efforts to improve teaching quality within higher education institutions have predominantly been sporadic and ad hoc (Gehrtz et al., 2022). In addition, in the study carried out by Rozina Afroz, et al., (2024) in Bangladesh on CPD, the study revealed that in the higher education sector, the programme is not widely used and its practice among teachers is rare where most of them are not even motivated. Contrary to the study's finding, one would think that since CPD is intended to improve lecturers' teaching abilities, Bangladesh would consider this initiative as ideal given their challenges. The understanding is that such initiative should resuscitate the lecturers' profession. At the present moment, the Government of Bangladesh is trying to face the new challenges of 21st century by enhancing the quality of education in all stages but ensuring quality teaching is a big challenge particularly in higher education (Rozina Afroz, et al., 2024).

Taking the discussion further, in a study carried out by Gumede at al., (2023) on Lecturers' perspectives of pedagogical training initiatives at the University of Technology in Kwazulu-Natal, South Africa, the study reveals that participants expressed a need and willingness to learn and develop new instructional techniques and acquired a positive outlook on teaching and learning following the professional development training. The study also recommends redesigning the pedagogical training to include on-going support activities and customisation in addition to the generic version. It can be inferred that the university has taken this initiative to improve teacher training programmes because there is a need for that due to pedagogical challenges that should be solved. The scholar further reports that in 2013 MUT established the Teaching and Learning Development Centre (TLDC) whose mandate is to design, coordinate, and implement the academic professional development within the institution. One of the TLDC's focuses is to design, coordinate and offer pedagogical training. The scholars further emphasise that the pedagogical training for academics is facilitated by academic development practitioners within the TLDC and peers from other institutions of higher learning. The initiative shows that lecturers welcome the training and believe that their teaching ability would improve with the support of TLDC and CPD.

The primary implementation strategy for teacher professional development is through workshops, seminars, and formal programmes, namely Postgraduate Diploma in Higher Education and Postgraduate Diploma in Educational Technology (Gumede, 2023). The initiative is meant to improve all lecturers' teaching abilities since it is even supported by the Department of Higher Education (DHET) (Gumede, 2023). The value of teacher training programmes is acknowledged and considered to improve academic staff teaching and learning capabilities as well as technical skills (Bingwa and Ngibe, 2021; Pekkarinen and Hirsto, 2017). Research further shows that in higher education institutions (HEIs) in the Sultanate of Oman, in the Southern part of the Arabian Peninsula for example, teachers were reported to have limited language proficiency and, therefore, felt challenged to comfortably teach in English (Alhassan, 2021). Moreover, similar pedagogical and linguistic challenges along with calls for EMI teacher education and professional development were also reported in the South American context (Martinez & Fernandes, 2020**).** In a study conducted in Japan as well, EMI content teachers were found to have language-related challenges that negatively impacted on the students' content lecture comprehension and the overall academic performance in EMI programs of study (Aizawa and Rose, 2019). The implication of the above statement is that language proficiency is one of the challenges lecturers face in a classroom which in the end affects students' performance. The above studies have highlighted that many institutions of higher learning lecturers recruit lecturers without higher education teaching qualifications but very few cover why universities recruit pedagogically untrained lecturers and what could be done to rectify such practice. The study therefore sets out to explore the pedagogical challenges for lecturers in higher education and how such challenges could be rectified.

II. Theoretical framework

The study is premised on the two theories namely; Self-determination theory and Technological Pedagogical theory. Self-determination theory (SDT) is a macro theory of human inspiration that evolved from research on intrinsic and extrinsic motivations and expanded to include research on work organisations and other domains of life (Mackenzie et al., 2018; Deci et al., 2017; Deci & Ryan, 2000). The scholars further state that SDT provides the concepts that guide the creation of policies, practices, and environments that promote both wellness and high-quality performance. By implication, the scholars mean that the theory is about individual inner push, desire and determination to achieve certain goals. It is also based on external drive or outside influence that forces one to perform a particular task without expecting any reward. Standards, targets and a conducive atmosphere are set to help one achieve the set goals. Research further shows that SDT is a theory that has been successfully applied across domains including parenting, education, healthcare, sports and physical activity, psychotherapy, and virtual worlds, as well as the fields of work, motivation and management (Ryan & Deci 2017; Deci & Ryan 1985a). It can therefore be understood that SDT is applicable in all disciplines and professions for it determines one's output in the work space. In the context of this study, lecturers who have the inner and external drive will always desire to pedagogically perform well. They will also create pedagogically suitable programmes

and environment for themselves and students so as to improve teaching and learning. The theory therefore advocates for taking action about the unsettling situation or even to improve it which could be analogous to the training of lecturers without higher education teaching qualifications with the intention to improve their teaching methods. The theory further specifically suggests that the type of motivation lecturers have for their job activities (Deci et al., 2017) affects their performance and their well-being. It differentiates types of motivation and maintains that different types of motivation have functionally different catalysers, concomitants, and consequences. The scholars further explain that autonomous motivation is characterised by people being engaged in an activity with a full sense of willingness, volition, and choice. Often, autonomously regulated activities are intrinsically motivated. That is, it clarifies when individuals understand the worth and purpose of their jobs. They feel ownership and autonomy in carrying them out, and receive clear feedback and support so they are likely to become more autonomously motivated and reliably perform better, learn better, and be better adjusted. Similarly, when untrained lecturers get the support from the experienced ones and the university administration, their confidence improves therefore perform better in the classroom. On the contrary, when motivation is controlled, either through contingent rewards or power dynamics, the extrinsic focus that results can narrow the range of employees' efforts, produce short-term gains on targeted outcomes, and have negative spill over effects on subsequent performance.

Another type of motivation is intrinsic motivation. It refers to a specific type of autonomous motivation in a form of activities for which the motivation lies in the behaviour itself (Deci et al., 2017). This means the spontaneous experiences of interest and enjoyment entailed in the activity that supply the rewards. Here, one is enthusiastically engaged in the activities without external rewards or stimuluses. Another type of motivation is Extrinsic. The extrinsically motivated behaviour involves doing an activity to attain a separable consequence, whether tangible or otherwise. That is, extrinsic motivation encompasses all instrumental behaviours. Rather than viewing all extrinsic motivation as "bad," which some authors such as Gerhart & Fang (2015) have claimed, SDT has always maintained that extrinsic rewards can have different functional significances that lead to enhancements, diminishments, or no effects on intrinsic motivation (Deci, 1972). In essence, the theory proposes that people of all ages have three basic psychological needs that, if satisfied, will lead to optimal motivation (or effort expenditure) at work (Van den Broeck et al., 2021, 2016; Gagné & Deci, 2005). The basic psychological needs pertain to feeling like one is acting of their own volition (autonomy), one is efficacious in their actions (competence), and one has meaningful relationships at work (relatedness) (Gagné, 2018; Gagné & Deci, 2005).These three needs cover the essential experiences conducive for optimal human functioning (Vansteenkiste et al., 2020), making satisfaction of them in the workplace of utmost importance for employees' psychosocial adjustment and well-being. The need for autonomy pertains to feeling as if one has freedom; the need for competence is the feeling that a person has the skills and ability to achieve goals; and the need for relatedness captures the feeling of being connected to others (Gagné & Deci, 2005). Through satisfying basic psychological needs, people experience higher levels of autonomous (i.e., self-directed/self-determined) motivation, which is the ideal type of motivation since it leads to optimal functioning at work (Van den Broeck et al., 2016; Gagné & Deci, 2005).

Technological Pedagogical Content Knowledge (TPACK) theory also forms the basis for this study. The concept of TPACK describes how teachers' understanding of technology, pedagogy and content are integrated. Based on Koehler and Mishra's (2006) thinking, TPACK consists of three main types of knowledge: content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK). The knowledge is then enhanced by the interaction between the three components, resulting in additional knowledge such as Technological Pedagogical Knowledge (TPK), Pedagogical Content Knowledge (PCK), and Technological Content Knowledge (TCK), which support the comprehensive application of technology in learning (Mishra & Koehler, 2006). CK is the knowledge of the material to be taught in the form of facts, concepts, theories and procedures. It is also knowledge of the discipline in general and specific concepts that are usually already organized in the curriculum (Janssen et al., 2019). The scholars further emphasise that mastery of content knowledge influences teachers to master the important concepts of a topic of material to be delivered including the possibility of conceptual errors owned by students related to the content. Taking the discussion further, PK is referred to as a teacher's in-depth knowledge of learning processes and practices or method which includes the understanding of educational goals and values (Aktaş & Özmen, 2022). The scholars also define PK as a broad knowledge of teaching principles and strategies, classroom management, and organization specific to different material content. In clear terms, PK is concerned with teaching methods and their application to enhance student teaching (Janssen et al., 2019). In essence, the theory holds that university lecturers should not only possess content/discipline specific knowledge but teaching methods as well as the ability to use technological devices to enhance teaching and learning. Furthermore, 21st Century is the era of technological use, so lecturers' competence in the implementation of ICT is inevitable.

PCK is knowledge about pedagogy, teaching practices, and planning processes that apply to a particular material. Pedagogical Content Knowledge is a concept coined by Shulman 1986. Shulman's PCK theory

emphasizes the importance of combining content knowledge (what to teach) and pedagogical knowledge (how to teach it). According to Shulman (1986) an effective teacher not only needs to master the material or content of the field of study being taught, but also must understand how to best deliver the material to students, including appropriate teaching methods, strategies to overcome learning difficulties, and how to adapt teaching to the individual needs of students.

While most PCK frameworks originated in science disciplines within school education, this review suggests that their general theoretical contributions to PCK have led to their widespread adoption across various disciplines in higher education (Sarkar et al., 2024). Typically, in the university settings, teachers' subject matter expertise is highly valued, regardless of their expertise in teaching and student learning of that subject matter. Shulman (1987) contends that just knowing content and general pedagogy is, however, insufficient for effective teaching. Rather, effective teaching requires "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (Shulman, 1987, p. 8). The scholar proposed this "special amalgam of content and pedagogy", termed pedagogical content knowledge (PCK) that a teacher should possess and enact. As a theoretical framework, PCK can be utilised to understand how teachers design learning activities and transform their subject matter knowledge into forms and representations (analogies, illustrations) that are meaningful and comprehensible to students and match their development. Thus, PCK links knowledge about teaching and learning together, creating a powerful knowledge base for building high-quality teaching expertise. In furtherance to the concept of knowledge, TK is about the knowledge of how to operate a computer, use of software, the internet and various applications as well as how to solve problems in the classroom situation at hand (Janssen et al., 2019). The scholars also emphasise that TK is the continuation and development of knowledge about technology for information processing, communication and problem solving and focuses on productive applications of technology. The assertions imply that Technological knowledge is not only about ability to operate different digital devices but also possessing skills and competences to solve classroom problems using different pedagogical approaches and teaching methods. It also involves the ability and use of ICT tools in general and specialised ICT tools such as simulations and games in learning (Janssen et al., 2019). The scholars also argue that Technology is actually not only talking about digital-based tools, but with the development of the era, technology here is included in Information and Communication Technology (ICT). Furthermore, TCK is the knowledge of the relationship between subject and technology including the appropriate technology to explore the content to be delivered. It shows how ICT can be used to represent content in the most effective and understandable way (Mishra & Koehler, 2006). Actually, TPK is the knowledge of how to utilize technology in the learning process, including the use, advantages and constraints of these technologies in the process with pedagogical designs and strategies. That is, it represents teachers' understanding of how ICT can enhance the learning process and how teaching methods should be aligned with ICT tools (Koehler et al., 2011). The two theories are relevant in the study because they advocate for very important key factors for effective teaching in a classroom; such elements are: motivation, knowledge of content, teaching methods and technological awareness to enhance pedagogy.

III. Literature Review

Pedagogical Challenges lecturers without teaching qualification encounter

Lecturers without teaching qualification for higher education encounter various pedagogical challenges in their profession. Some lecturers face challenges in their teaching careers because they lack adequate training (Gumede et al., 2023). The observation is consistent with Ramolula and Nkoane's (2024) argument that failure to get proper teacher training for tertiary level, pedagogical challenges such as low motivation, low self-esteem, teaching abilities and teaching methods could be anticipated. The assertion implies that without formal teacher training for higher education, lecturers are not able to solve some of the pedagogical challenges that could easily be solved by teachers who had had proper teacher training. Examples of such challenges could be; classroom management skills, application of effective and relevant teaching methods, preparation of effective lesson plans as well as assessment (Winoto, 2022). In a study carried by Winoto, (2022) on the quality of education at the State Islamic Religious University (PTKIN) in Indonesia, the findings reveal that Indonesia is still behind other countries, especially in relation to the internal quality of campuses, namely curriculum, facilities, and quality of human resources as well as the recruitment of non-PNS lecturers without straightforward selection process to meet the availability of teaching lecturers due to many State Islamic universities UIN students (Winoto, 2022). The implication of the assertion is that the university is facing challenges some of which are teacher recruitment and effective teaching by lecturers with and without pedagogical training for higher education. The mentioned factors above affect teaching and learning of students and their performance as well.

Another major pedagogical challenge according to Alhassan (2021) is teachers' failure to attend to students' learning styles especially where English is used as a Medium of Instruction (EMI). Teachers are reported to not attend to students' preferred strategies when designing and delivering lectures. Due to lack of pedagogical

training, lecturers are inevitably failing to meet students' needs in terms of the application of relevant and effective teaching methods in an EMI class. Winoto (2022) takes the discussion further and reports that in a study aimed to investigate the challenges of improving the quality of education concerning curriculum and quality of lecturers-based technology in the State Islamic University (UIN), the main challenge is integrating skills, themes, concepts, and topics based on digital technology amid a shift in cultural and ethical values and inequality in access to education. The scholar further postulates that another challenge concerns the quality of lecturers still not qualified due to the traditional paradigm of religion, limited funds, low motivation to learn in technology-based training, and self-competence. The assertion above implies that lecturers are not able to incorporate and relate pedagogical competences, as well as the application of technical skills because of financial challenges, lack of motivation to get training in information and technology. The scholar further argues that, the increasing dependency on technology is a challenge difficult to avoid. That is, as much as application of technological skills is still a challenge to lecturers but some of them rely too much on ICT. In a study carried out at Universidad Tecnológica Metropolitana of Chile from 2017 to 2022 on Effect of a teacher training program with Information Communication and Technology (ICT) on university students' learning, the results show that in 2017–2022, students who had courses with trained instructors performed better on tests than students who had classes with untrained teachers on average (Sanhueza et al., 2025). The scholars further elaborate that also, it has been found that in Science, Technology, Engineering, and Mathematics (STEM) areas, instructors receive training that is generally more effective than non-STEM teachers. The assertion affirms that pedagogical training is key in academia especially to lecturers because they transfer content knowledge to students. The analogy is in line with the understanding that teacher training improves lecturers' pedagogical skills and self-efficacy (Ramolula and Nkoane, 2024). It goes without saying that those without formal teacher training, limitations are inevitable.

Taking the discussion further Murtonen & Vilppu (2020) postulate that university teachers are strongly committed to research, while teaching can be seen as an obligatory duty and therefore a less important part of an academic career path. It can be deduced that lecturers consider research as a priority than teaching. In other words, teaching is secondary to research. Lecturers focus their attention more on the publications than effective teaching in the classroom. The observation suggests that effective teaching is undoubtedly not given much attention as it should. Students therefore are at the receiving end. Sharing the same view point is the observation that, formerly, the scholarship of teaching in higher education was not fully recognized, since teaching at university was understood to be strongly linked to the teacher's research competence (van Dijk et al., 2020).

Importance of pedagogical Training of lecturers in higher education

Pedagogical training of lecturers for higher education is very important for effective teaching at that level. The idea is consistent with Houdyshell and Kirk's (2020) emphasis that, when academics are trained to understand the methods of teaching holistically, they are better prepared to serve students. In fact, pedagogical training has a positive impact on the development of pedagogical skills and confidence as a teacher (Ödalen et al., 2019). The assertions imply that when lecturers are trained on proper and effective teaching methods, not only students benefit but also lecturers as well. Furthermore, prior research on teacher education shows that teachers acquire their noticing skills not only through teaching experience, but also through well-designed pedagogical courses or interventions, especially among pre-service teachers (Lee, 2021). That means, lecturers can recognise their internal and external experiences such as effective communication, self-awareness, ability to think and control emotions as well as awareness of other students' behaviour and reactions to different situations from clear and well organised pedagogical structurers. Such programmes help build the novice teachers. The above are acquired from the course content offered not only through teaching experience. Contrary to the above idea there is research evidence that indicates that teachers with less teaching experience find it easier to change teaching conceptions and practices than those with extensive experience (Vilppu et al., 2019). The reason behind such flexibility is that they are ready to apply different approaches at their disposal since they do not have enough experience in the field. The already experienced gurus have their established teaching philosophy they believe in and they know its successes and weaknesses, they may be reluctant sometimes to try new approaches because it means applying new and more effort into it.

Furthermore, there is also evidence that pedagogical training is positively related to the frequent use of digital tools in teaching (Myyry et al., 2022). It can be inferred that the training could among other things include the use of computers and other electronic devices to improve teaching. The analogy is consistent with the understanding that teacher training could be enhanced by online training and workshops, which could influence capacitating and developing academic staff in terms of technical skills (Bingwa & Ngibe, 2021; Fernandes et al., 2023). Ramolula and Nkoane (2024) also aver that workshops and online teacher training by experienced gurus should be implemented to improve novice and old lecturers' teaching skills, especially the latest teaching methods. Taking the discussion on training of lecturers for higher education further, is Sanhueza et al., (2025)'s understanding that the training includes components that encourage peer training and co-learning to develop technological skills. The scholars further highlight that it also stimulates collaboration by creating online courses

combined with local technical support, which can assist teacher educators in reaching the required threshold for their ICT proficiency. The assertions indicate that pedagogical training could promote training among colleagues, studying together and of-course collaboration among trainees especially in relation to the use of technological tools such as online teaching and learning. Sharing the same view point are Forkosh-Baruch & Avidov-Ungar, (2019)'s statement that teacher educators' professional development needs to be confident in the value and use of ICT to empower teaching and promote pedagogical change. The account echoes the importance of pedagogical training that should include among other competences, the use of ICT since it is the latest teaching and learning strategy in academia. The initiative is therefore requisite because university teachers are bound to have digital skills, not just motivation, willingness to change, and flexibility in the teaching-learning process (Sanhueza et al., 2025).

Furthermore, Lecturers play a role in providing quality educational services, that is, the relationship between lecturers and universities is expected to encourage lecturers' interest to be committed to making better academic potential to improve the quality of education (Kaya, 2021). The implication of the statement is that lecturers and their institutions should empower themselves. Institutions should have clear programmes on teacher development. Similarly, lecturers themselves should take initiatives to improve their teaching related skills. The reason is that qualified lecturers can translate, describe, and transform the values contained in the curriculum for students so the behaviour of educators in the learning process will considerably influence the development of student behaviour and personality (Winoto, 2022). As a consequence, students' performance in that kind of learning atmosphere is bound to improve. The scholar emphasises that the quality of a lecturer is an attitude or quality of self, skills, and understanding a person has concerning teaching and character. There is no doubt that the quality of teaching staff which highly depends on the expertise gained from the education and training process contributes to the students' progress in effective learning (Winoto, 2022). The scholar also stipulates that the literature states that human resource factors, especially educators, tremendously affect the quality of student learning outcomes, ultimately changing their attitudes and behaviour for the better. It can be deduced that students are the products of the quality of their educators.

Strategies to mitigate pedagogical challenges

Different stratagems could be employed to mitigate the challenges teachers without formal pedagogical training for higher education encounter. To this effect, Rozina Afroz, et al., (2024) opine that Continuing Professional Development (CPD) is essential for enhancing teaching quality to bring anticipated transformation in the field of higher education. The programme is meant to improve the quality of teaching through the support structure to the novice lecturers, those without teaching qualification as well as the old gurus. It equips the new lecturers, refreshes and resuscitates the old with new and already existing knowledge and experience. The idea on CPD is consistent with the understanding that coaching and mentoring between early career and experienced teachers can also be fostered and maintained (Alhassan, 2021).

The scholars further emphasise that if CPD is provided institutionally, teachers will get the opportunity to develop professionally, and students will also benefit through it (Sela and Harel, 2019). Rahman (2019) agrees that effective CPD measures can be helpful in colleges to overcome teaching challenges which is being widely practised in developed and developing countries. University teachers may need more accurately targeted pedagogical training that helps them learn to focus more on student-centred learning (Heinonen et al., 2022; Södervik et al., 2022; Alhassan, 2021). The scholars imply that, teachers' training should specifically be student-centered so that they will be able to address challenges students encounter in their learning and also to adopt their preferred learning styles that first suit them. Furthermore, research also shows that institutions of higher learning in many countries provide voluntary pedagogical training for teachers (Ödalen et al., 2019; Vilppu et al., 2019), the effectiveness of which has consistently interested researchers in the field.

Taking the discussion further, action research is also considered the most influential and the fastest-growing orientation towards staff development (Houdyshell and Kirk, 2020). This means it can also help untrained teachers to research and learn more about pedagogy because it is empirical, experiential and practical. It is mainly based on challenges teachers encounter so they research on issues they experience in their profession with the intention to improve their teaching. Another strategy could be that of teachers voluntarily being subject to classroom observation as part of their professional development (Rozina Afroz, et al., 2024). The purpose of classroom observations is to help teachers improve their teaching in that the observer provides feedback with the intention to help one to be a better teacher. The scholar also suggests that the untrained teachers as well as the educationally certified teachers should be provided adequate time to participate in workshops for professional development. The department of education and their own institutions besides teacher evaluation system should consider teacher student ratio (Rozina Afroz, et al., 2024). That is, each teacher should teach a manageable number of students in the class for effective teaching. The number will allow a teacher to reach each and every student in the class. Another factor is the concept of teaching quality, which goes together with competitiveness. According to Sanhueza et al., (2025), university administrators believe that improving the competitiveness of the efficiency

indicators of their institutions which largely depends on the result of the teaching-learning process, for which the professors are ultimately responsible can improve lecturers' performance. The foregoing takes on special importance because it directly influences the learning environment and thus, students. The implication is that if institutions of higher learning could improve or initiate incentives to promote competition amongst stuff that could improve the performance of both lecturers and students as well.

Moreover, lecturers should go under pedagogical training so as to raise teachers' awareness of their conceptions and practices, which could then be enhanced or changed (Farrell, 2020). The scholar further explains that it is also worth pointing out that pedagogical training includes enhancing knowledge of learning as well as teaching generic skills and giving examples of how to integrate them into disciplinary courses. That is, pedagogical training does not only equip teachers without teaching qualification with pedagogy but also with generic skills. The observation is in line with the understanding that in pedagogical training, it is important to model good practices that enhance the learning of generic skills. On the contrary, Tuononen et al., (2022) highlight that teachers do not have a clear understanding of what generic skills are and how to implement them in their curricula and teaching; teachers lack both the confidence and the time to teach and assess these skills. The implication is that the pedagogical training should include learning of generic skills and how to pass them on to the students. In support of the learning of generic skills, the reasonable identified strategies are collaborating with peers and working-life representatives through using various sources and forms of knowledge, and fostering change in terms of ideas and practices as well as combining authentic or simulated experiences with theoretical content and conceptual learning, problem-solving and reflection (Muukkonen et al., 2022, 2020, 2017; Virtanen and Tynjälä, 2018)

Furthermore, research also shows that co-teaching could also be used effectively, that is, subject teachers could collaborate with teachers of writing to enhance writing skills (Kleemola, Hyytinen, and Toom, 2022b; Muukkonen et al., 2020; 2022; Hyytinen, Toom, and Shavelson, 2019) and new teachers could teach with more experienced teachers. The scholars further emphasise that collaboration among teachers and pedagogical experts could facilitate the integration of generic skills into courses and curricula in a constructively aligned way. It can be inferred that collaboration and co-teaching amongst teachers can improve teachers' pedagogical abilities along-side acquisition of generic skills. Taking the discussion further is the understanding pedagogical training could also draw on a range of techniques to enhance teachers' reflection on their own classroom delivery and practices. For example, trainers could use peer observation techniques (Farrell, 2020). Peer observation is also very important in that it helps the observer to learn from colleagues in action. Alhassan (2021) takes the discussion further and suggests subject teacher training programs which according to him should feature two main components: linguistic and pedagogical training with the former focusing on the language-related issues and the latter on the teaching methodologies, techniques, strategies and classroom management. In addition to the discussion above, the literature also highlights that when academics are trained to understand the teaching methods holistically, they are better prepared to serve students (Kirk, 2020; Harel, 2019) which is the whole purpose of teacher training.

In furtherance to the discussion above Ramolula and Nkoane (2024) opine that key to teacher training in higher education is funding. They argue that institutions of higher learning need financial support to pedagogically train their staff to improve their teaching skills, though funds should be monitored for transparency and accountability. Fernandes et al., (2023) also highlight that the European University Association (EUA) published a report on the state of teaching and learning in the European higher education area. The report emphasises the need for universities to prioritise staff development, arguing that training and support for academic staff in their teaching role is essential to ensure the ability to design and deliver high-quality teaching and learning experiences (Sela and Harel, 2019). Begibaevna et al., (2024) also argue that providing professional development programs to higher education institutions is essential for participating professors and teachers. Research further shows that professional development is essential to academic staff and the improvement of student learning and success (Gumede et al., 2023). Che et al., (2023) acknowledges that most professional development programmes are directed mainly at novice academics and that the middle layers of academics (such as senior lecturers, course convenors and heads of department) would benefit from capacity development. In Finland and other countries, many institutions of higher education provide university pedagogical courses for teaching staff (Ödalen et al., 2019) to support their capabilities for quality university teaching. The evidence shows that pedagogical education may have an influence on teachers' conceptions of teaching and learning; such that they are more likely to focus on student, learning rather than merely transmitting content (Vilppu et al., 2019).

Sanhueza et al., (2025) emphasise that training strategies are most effective when applied in the everyday context of practice, using a process-oriented and future-focused approach. This implies that it is important that the strategies newly acquired and learned should be put into practice regularly following a specific programme. Lecturers will be able to improve their teaching styles by accommodating latest new methods, some of which could be Information and Communication Technology (ICT) because it supports the quality of teaching (Winoto, 2022). The scholar further stipulates that ICT provides internet media to open teachers' access to learning

materials. Carvalho, et al., (2022) also highlight that ICT has excellent prospects in increasing the relevance and quality of continuing education. Likewise, supporting teaching and learning process facilities that can create a conducive learning environment without being limited by distance and time, develop creative ideas, and open up new challenges for higher quality education is exceedingly crucial (Das, 2019). Moreover, Information and communication technologies can help increase teachers' abilities and, as a result, the learning of new cohorts of students who, in the age of mass higher education, enter university classrooms less prepared (Sanhueza et al., 2025). It can be deduced that teachers' competence in the use of ICT in their teaching methods means easy transfer of such skills to students going for tertiary level. In fact, the professionalisation of teaching in HE has become increasingly pressing in the sense that lecturers should possess digital skills to enhance their teaching (Esteve-Mon et al., 2020). ICT is meant to pedagogically empower teachers in HE so as to promote student learning in such a way that they develop key competencies for successful professional performance (OECD, 2019). The scholar even stresses the fact that a significant part of pedagogical qualification involves incorporating ICT into the teaching-learning process (Sanhueza et al., 2025). This implies that the 21st century teacher must have digital skills that promote productive and quality pedagogical processes through the inclusion of technologies in their classes and the use of these tools to promote critical thinking (Sanhueza et al., 2025). Research also indicates that the use of ICT can enhance student achievement. However, despite its importance, there are many examples of the underuse of ICT across all levels of classroom teaching and learning (Sanhueza et al., 2025. Previous studies suggest that teachers' perceptions, attitudes, and motivation toward ICT play a crucial role in determining its practical use in the classroom. In a study carried out in Pakistan which measured the effect of university teachers' perceptions, attitudes, and motivation on their readiness to integrate ICT into their classroom teaching, the study concluded that there was a statistically significant effect of university teachers' perceptions, attitudes, and motivation on their readiness to integrate ICT in their classroom teaching. Based on the findings above, the study recommended that university teachers with basic ICT literacy should be encouraged to have a positive attitude toward technology use (Zamir & Thomas, 2019).

Other related findings

There are also relevant and related findings to the study. For instance, learning of generic skills such as critical thinking, argumentation, problem solving as well as collaboration and communication, in addition to acquiring domain-specific knowledge, are broadly agreed key aims and capabilities of academic university education to be enhanced in contemporary higher education (Tuononen et al., 2022). They are also referred to as key skills, transferable skills, employability skills, academic competences, core competences and generic attributes (Suleman 2018). Such skills are essential both in higher education studies as well as in life-long learning, development throughout academic careers, and academic citizenship in the democratic society (Hyytinen et al., 2021). The acquisition of generic skills is not only a major learning outcome of higher education, it is also an asset that students need from the very beginning of their university studies. These skills enable students to learn in the university, draw on their field specific knowledge and apply it in a variety of situations, in order to succeed in their studies (Hyytinen, Toom, and Shavelson 2019; Hyytinen et al. 2021; Tuononen and Parpala 2021). On the contrary, enhancing student learning of generic skills may be challenging for some teachers who may not have the necessary pedagogical knowledge and skills (Muukkonen et al., 2022). The assertions demonstrate the importance of the recruitment of pedagogically trained lecturers for higher education teaching.

IV. Research and Methodology

This study is a qualitative research which is defined as an inquiry process of understanding where a researcher develops a complex, holistic picture, analyses words, reports, and detailed views of the informants, and conducts the study in a natural setting (Creswell & Poth, 2018). The researcher has critically reviewed the literature on the pedagogical challenges faced by lecturers without formal higher education qualification, the importance of teacher training for higher education and the strategies that could be employed to promote teacher training for higher education. Qualitative researchers also attempt to make sense of or interpret phenomena regarding the meanings people bring to them (Aspers & Corte, 2019). That is, qualitative researchers try to understand the depth of the problem from the analysis of the written material on the subject. The intention is to learn something new, find the gap and probably discover workable solutions to the problem (Islam & Aldaihani, 2022).

V. Data Analysis

Data were analyzed qualitatively. Qualitative analysis can be referred to as a method to analyze a particular subject using non-numeric plus non-quantifiable indicators, behaviour, and characteristics to determine its overall situation, quality, value, or any other parameter (Ahmed, 2024). It also includes interpreting, identifying, and examining patterns and themes in textual data, which determine how the themes and patterns help

the researcher understand phenomena more profoundly to answer questions (Islam & Aldaihani, 2022). The researcher has critically examined the literature on the phenomenon, identified patterns, categorised them into themes, interpreted them, and constructed new knowledge following Castle and Amanda's Thematic Analysis (TA) (Matthews & Ross, 2010). TA is defined as a method for systematically identifying, organising, and offering insight into patterns of meaning (themes) across a dataset (Castleberry & Nolen, 2018). The scholars further state that TA allows the researcher to make sense of collective or shared meanings and experiences by focusing on meaning across a dataset. This method, then, is a way of identifying what is common to how pedagogical challenges lecturers without formal training for higher education teacher qualification face is discussed or written about and making sense of those commonalities.

VI. Findings and Discussions

The study explored the pedagogical challenges lecturers without teacher qualification face in institutions of higher learning, the importance of pedagogical training for lecturers for higher education and the strategies that could be employed to mitigate the pedagogical challenges. The researcher analysed the literature on the phenomenon. The themes that emerged from the literature are pedagogical challenges lecturers without teaching qualification encounter, the importance of pedagogical training for lecturers for higher education and the strategies to mitigate the pedagogical challenges lecturers face.

Pedagogical Challenges lecturers without teaching qualification encounter

The literature review revealed that there are numerous pedagogical challenges lecturers without formal teacher qualification face, for example, low motivation, low self-esteem, teaching abilities, classroom management skills, preparation of effective lesson plans, poor application of effective and relevant teaching methods as well as proper assessment (Ramolula and Nkoane, 2024; Winoto, 2022). The above challenges could easily be solved by certificated higher education lecturers. Another challenge is teachers' failure to attend to students' learning styles especially where English is used as a Medium of Instruction (Alhassan, 2021). The assertion implies that pedagogically untrained lecturers fail to adequately attend to students' appropriate and preferred learning strategies in the classroom. They are not able to reach out to students' level of understanding. As a consequence of that, students' performance is negatively affected. Furthermore, the study has also discovered that another challenge in the State Islamic University for example, is the application of integrating skills, themes, concepts, and topics based on digital technology amid a shift in cultural and ethical values and inequality in access to education (Winoto, 2022). The quality of lecturers still not qualified is affected due to the traditional paradigm of religion, limited funds, low motivation to learn in technology-based training, and self-competence (Winoto, 2022). It can be inferred that in the Islamic culture there is inequality in relation to access to some educational opportunities. Such setbacks affect teaching abilities of the affected ones. Furthermore, the review also points to too much reliance on ICT by some lecturers (Sanhueza et al., 2025). Excessive use of ICT jeopardises application and practice on generic skills such as critical thinking and inference.

Taking the discussions further, the findings also show that university teachers are strongly committed to research while teaching can be seen as an obligatory duty and therefore a less important part of an academic career path (Murtonen & Vilppu, 2020). At institutions of higher learning, lecturers are expected to teach, carry research and reach out to the community amongst other responsibilities. There has to be a balance in this regard, but the moment more focus is shifted to research only, teaching will be negatively affected. On the contrary, according to the scholarship of teaching in higher education, teaching was not fully recognized, since teaching at university was understood to be strongly linked to the teacher's research competence (van Dijk et al., 2020). This implies that teaching was not prioritised, instead research was**.**

Importance of pedagogical Training of lecturers in higher education

The literature-related findings on the pedagogical training of lecturers without formal higher education training revealed that when academics are trained to understand the methods of teaching holistically, their pedagogical skills and confidence are improved and they are better prepared to serve students as a consequence (Södervik et al., 2022; Alhassan, 2021; Thoudyshell and Kirk, 2020; Ödalen et al., 2019; Vilppu et al., 2019). The training equips teachers with skills and techniques to use in a classroom situation. In furtherance to that, research also shows that teachers acquire their noticing skills not only through teaching experience, but also through well-designed pedagogical courses or interventions, especially among pre-service teachers (Lee, 2021). It can be implied that, clear staff-development structures could improve teachers' pedagogical skills.

The review also shows that pedagogical training is positively related to the frequent use of digital tools in teaching (Myyry et al., 2022). Similarly, the training could be enhanced by online training and workshops, which could influence, capacitate and develop academic staff in terms of technical skills (Ramolula and Nkoane 2024; Fernandes et al., 2023; Bingwa & Ngibe, 2021). Moreover, the literature also revealed that training of lecturers for higher education includes components that encourage peer training and co-learning to develop

technological skills as well as stimulating collaboration by creating online courses combined with local technical support which can assist teacher educators in reaching the required threshold for their ICT proficiency to empower teaching and promote pedagogical change (Sanhueza et al., 2025; Forkosh-Baruch & Avidov-Ungar, 2019). The review has also depicted that the quality of teaching staff highly depends on the expertise gained from the education and training process, which in the end contributes to the students' progress in effective learning (Fomba et al., 2022; Winoto, 2022; Alhassan 2021).

Strategies to mitigate pedagogical challenges

The study has discovered numerous strategies that could improve pedagogical challenges untrained teachers face in higher education. Continuing Professional Development (CPD) emerged as a strategy that could be essential for enhancing teaching quality to bring anticipated transformation in the field of higher education (Rozina Afroz, et al., 2024; Alhassan, 2021). It enables lecturers to get the opportunity to develop themselves pedagogically, which also benefits students (Heinonen et al., 2022; Södervik et al 2022; Alhassan, 2021; Sela and Harel, 2019; Rahman, 2019). Further research also shows that institutions of higher education in many countries could provide voluntary pedagogical training for teachers (Ödalen et al., 2019; Vilppu et al. 2019). Taking the discussion further, action research is another finding that is considered the most influential and the fastest-growing orientation towards staff development (Houdyshell and Kirk, 2020). It is mainly based on research on challenges lecturers experience in their profession with the intention to solve them and thus improve their teaching. Another strategy that emerged from the data is that of teachers voluntarily being subject to classroom observation as well as peer observation as part of their professional development (Rozina Afroz, et al., 2024; Farrell, 2020). Class observations by other colleagues could improve teachers' abilities. The scholars further suggest that the novice uncertificated teachers should be given adequate time to participate in workshops for professional development. Sharing of ideas and expertise with other colleagues improves teachers' confidence. The department of education and their own institutions besides teacher evaluation system should consider teacher student ratio (Rozina Afroz, et al., 2024). When lecturers teach a manageable size of students in the class, they will have time to reach out to every student through different approaches because students' abilities differ. Another finding is the concept of teaching quality alongside competitiveness amongst teachers (Sanhueza et al., 2025). If university administrators could create the spirit of competition amongst all lecturers, that could trigger teachers to want to perform better than others by using different teaching strategies thus students' improved performance. Furthermore, the study also suggests that lecturers should go for pedagogical training that does not only include teaching methods but acquisition of generic skills as well so that they will be able to pass them to the students (Muukkonen et al., 2022, 2020, 2017; Farrell, 2020**;** Virtanen and Tynjälä, 2018). Generic skills are life-long competences applicable in every aspect of life. The review also unearthed that colleague could co-teach among themselves, the novice untrained ones together with the more experienced (Kleemola, Hyytinen, and Toom 2022b; Muukkonen et al., 2020, 2022; Hyytinen, Toom, and Shavelson 2019). The scholars further emphasise that collaboration among teachers and pedagogical experts could facilitate the integration of generic skills into courses and curricula in a constructively aligned way. The review further revealed that pedagogical training could also draw on a range of techniques to enhance teachers' reflection on their own classroom delivery and practices. The literature also highlights that when academics are trained to understand the teaching methods holistically, they are better prepared to serve students (Kirk, 2020; Harel 2019). Another finding is that key to teacher training and staff development in higher education is funding which will help teachers to improve their teaching techniques (Ramolula and Nkoane, 2024; Begibaevna et al., 2024; Fernandes et al., 2023; Gumede et al., 2023; Che et al., 2023; Sela and Harel, 2019). The newly acquired teaching methods should be put into regular practice, for example, ICT provides internet media to open teachers' access to teaching and learning materials (Sanhueza et al., 2025; Carvalho, et. al., 2022; Winoto, 2022; OECD, 2019). This implies that the trainee lecturers should possess digital skills to enhance their teaching and promote critical thinking skills (Esteve-Mon et al., 2020; Zamir & Thomas, 2019).

VII. Conclusion

The study concludes that lecturers without higher education pedagogical training face challenges in the classroom, for example, they fail to apply relevant teaching methods for effective teaching and classroom management. As a result of that, their self-esteem is very low. The conclusion is consistent with the understanding that it is not easy to teach at institutions of higher learning without proper formal pedagogical training, so it is mandatory for lecturers to undergo formal teacher training at that level (Ramolula and Nkoane, 2024). It also concludes that pedagogical training equips lecturers with relevant skills, confidence and appropriate teaching strategies, for example, the use of ICT, digital tools and online teaching. It also promotes collaboration, peer observation and co-teaching, all of which improve teaching abilities of the lecturers. Funding is therefore necessary to augment the use of digital tools. Furthermore, the study also concludes that continuing professional development is ideal for lecturers who are already in the field without pedagogical training for higher education

in the sense that it allows them to learn from their gurus through classroom and peer observations. Action research could also help lecturers improve their teaching methods since it is based on classroom experiences. Moreover, the study also concludes that competition motivates lecturers to want to improve their performance.

VIII. Recommendation

Based on the findings and conclusions, the study recommends that recruitment of lecturers should be revised; it should not be based on the achievement of Master's and PhD qualifications only but on the mastery of content knowledge in their area of specialisation and expertise in the teaching methods for that level (Ramolula and Nkoane, 2024). There should be staff-development for university lecturers on pedagogical training which includes relevant teaching methods such as peer teaching, co-teaching and class observation, willingness to change, and flexibility in the teaching-learning process for effective and classroom management as well as the use of digital tools (Sanhueza et al., 2025; Forkosh-Baruch & Avidov-Ungar, 2019). The study also recommends that universities should secure funding for in-job staff development and promotion of research and competition among staff-members. The study however did not cover challenges trained higher education teachers encounter in institutions of higher learning, what universities could do to secure funding to improve teaching and learning. Future studies could focus on the challenges trained higher education lecturers face, how universities could get funding to improve teaching and learning.

References

[1]. Ahmed, K. (2024). Qualitative analysis. https://www.wallstreetmojo.com/qualitative-analysis/

[2]. Aktaş, İ., & Özmen, H. (2022). Assessing the performance of Turkish science pre-service teachers in a TPACK-practical course. *Education and Information Technologies*, 27, (3). https://doi.org/10.1007/s10639-021-10757-z

[3]. Alhassan. A. (2021). Challenges and Professional Development Needs of EMI Lecturers in Omani Higher Education. *SAGE* Open October-December 1–12

[4]. Aizawa, I., & Rose, H. (2019). An analysis of Japan's English as medium of instruction initiatives within higher education: The gap between meso-level policy and micro-level practice. *Higher Education,* 77, 1125–1142. https://doi.org/10.1007/s10734-018-0323-5

[5]. Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research. *Qualitative Sociology*, 42, 139-160. https://doi.org/10.1007/s11133-019-9413-7

[6]. Begibaevna T. A., Yunusovna, J. N., Xudaybergen qizi, X. D., Medetbay qizi, D. A. (2024). Modern approaches to improving the pedagogical skills and psychological potential of teachers of higher education institutions. *Ta'lim va rivojlanish tahlili onlayn ilmiy jurnali*. 4(2), 22-26.

[7]. Bingwa, L & Musawenkosi N. (2021). "The impact of academic training programmes in improving teaching and learning: A case of academic staff at a selected university of technology." *South African Journal of Higher Education* 35(2): 21–41. https://doi.org/10.20853/35-2-4620.

[8]. Carvalho, M., Cabral, I., Verdasca, J., Alves, M. J. (2022). Strategic Action Plans for School Improvement: An Exploratory Study about Quality Indicators for School Improvement Plan Evaluation. *Journal of Social Studies Education Research* (JSSER), 13(1), 143-163.

[9]. Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning,* 10(6), 807-815. https://doi.org/10.1016/j.cptl.2018.03.019

[10]. Che, E. S., Brooks, P. J., Schwartz, A. M., Saltzman, E. S., & Whiteman, R. C. (2023). How do graduate students approach college teaching? Influences of professional development, teaching assistantships, and Big Five personality traits. *Frontiers in Education,* 8. https://doi.org/10.3389/feduc.2023.982998

[11]. Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th Ed). Sage.

[12]. Das, K. (2019). The role and impact of ict in improving the quality of education: An overview. *International Journal of Innovative Studies in Sociology and Humanities* (IJISSH), 4(6), 1 7. from www.ijissh.org

[13]. Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: State of the science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 19–43. https://doi. org/10.1146/annurev-orgpsych-032516-113108

[14]. Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.

[15]. Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109–134.

[16]. Deci. E. (1972). The effects of contingent and noncontingent rewards and controls on intrinsic motivation. *Organ. Behav. Hum. Perform*. 8(2):217–29
[17]. Esteve-Mon, F., Llopis-Nebot, M. Á., & Adell-Segura, J. (2020). Digital teaching competence of university teachers: A systematic review of the literature. *IEEE Revista Iberoamericana de Tecnologías del Aprendizaje*, 15(4), 399–406. https://doi.org/10.1109/RITA.2020.3033225
[18]. Farrell, T. S. (2020). Professional development through reflective practice for English-medium instruction (EMI) teachers. *International Journal of Bilingual Education and Bilingualism*, 23(3), 277–286.
[19]. Fernandes, S., Araújo A. M., Miguel I., & Abelha, M. (2023). Teacher Professional Development in Higher Education: *The Impact of Pedagogical Training Perceived by Teachers. Educ. Sci*. 13, 309. https://doi.org/10.3390/educsci13030309
[20]. Forkosh-Baruch, A., & Avidov-Ungar, O. (2019). ICT implementation in colleges of education: A framework for teacher educators. *Journal of Information Technology Education: Research*, 18, 207–229. https://doi.org/ 10.28945/4312
[21]. Fomba, B. K., Talla, D. N. D. F., & Ningaye, P. (2022). Institutional quality and education quality in developing countries: Effects and transmission channels. *Journal of the Knowledge Economy*, (0123456789). https://doi.org/10.1007/s13132-021-00869-9
[22]. Gagné, M. (2018). From strategy to action: Transforming organiza tional goals into organizational behavior. *International Journal of Management Reviews*, 20, S83–S104. https://doi.org/10.1111/ ijmr.12159
[23]. Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. https://doi.org/10.1002/job.322
[24]. Gehrtz, J., Brantner, M., & Andrews, T. C. (2022). How are undergraduate STEM instructors leveraging student thinking? *International Journal of STEM Education*, 9, 18. https://doi.org/10.1186/s40594-022-00336-0
[25]. Gerhart B, Fang M. (2015). Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: revisiting long-held beliefs. *Annu. Rev. Organ. Psychol. Organ. Behav.* 2(1):489–521
[26]. Gumede, P.R., Sithole, M. P., & Gumede, D. (2023). Lecturers' perspectives of pedagogical training initiatives at a university of technology in Kwazulu-Natal, So
[27]. Lee, M. Y. (2021). Improving preservice teachers' noticing skills through technology-aided interventions in mathematics pedagogy courses. *Teaching and Teacher Education*. https:// doi. org/ 10. 1016/j. tate. 2021. 103301
[28]. Martinez, R., & Fernandes, K. (2020). Development of a teacher training course for English medium instruction for higher education professors in Brazil. In M. Sánchez-Pérez (Ed.), *Teacher training for English-medium instruction in higher education* (pp. 125–152). IGI Global.
[29]. Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A Framework for Integrating Technology in Teacher Knowledge. *Teachers College Record*, 108(6), 1017 1054
[30]. Islam, M. A., & Aldaihani, F. M. F. (2022). Justification for adopting qualitative research method, research approaches, sampling strategy, sample size, interview method, saturation, and data analysis. Journal of International Business and Management, 5(1), 1-11. https://doi.org/10.37227/jibm-2021-09-1494
[31]. Janssen, N., Knoef, M., & Lazonder, A. W. (2019). Technological and pedagogical support for pre service teachers' lesson planning. *Technology, Pedagogy and Education*, 28(1), 115–128. https://doi.org/10.1080/1475939X.2019.1569554
[32]. Kaya, M. M. (2021). State, Citizens and Education in the Ottoman Empire: Civic Education Curriculum in the Early 20th Century. *Research in Educational Policy and Management*. (REPAM), 3(2), 42-72. https://doi.org/10.46303/repam.2021.6
[33]. Kirk, D. (2020). *Precarity. Critical pedagogy and physical Education.* Routledge.
[34]. Kleemola, K., H. Hyytinen, and A. Toom. 2022b. The challenge of position-taking in novice higher education students' argumentative writing. *Frontiers in Education* 7: 885987. doi:10.3389/feduc. 2022.885987.
[35]. Koehler, M. J., Mishra, P., Bouck, E. C., DeSchryver, M., Kereluik, K., Shin, T. S., & Wolf, L. G. (2011). Deep-play: developing TPACK for 21st century teachers. *International Journal of Learning Technology*, 6(2), 146. https://doi.org/10.1504/ijlt.2011.042646
[36]. Mackenzie, C. S., Karaoylas, E. C., & Starzyk, K. B. (2018). Lifespan Differences in a Self Determination Theory Model of Eudaimonia: A Cross-Sectional Survey of Younger, Middle-Aged, and Older Adults. *Journal of Happiness Studies*, 19(8), 2465–2487. https:// doi.org/10.1007/s10902-017-9932-4
[37]. Matthews, R., & Ross, E. (2010). *Research methods: A practical guide for the social sciences.* Pearson Education Ltd.

[38]. Muukkonen, H., M. Lakkala, L. Ilomäki, and A. Toom. (2022). Juxtaposing generic skills development in collaborative knowledge work competences and related pedagogical practices in higher education. *Frontiers in Education* 7: 886726. doi:10.3389/feduc.2022.886726.

[39]. Murtonen, M., & Vilppu, H. (2020). Change in university pedagogical culture – The impact of increased pedagogical training on first teaching experiences. *International Journal of Learning, Teaching and Educational Research, 19*(3), 367–383. https:// doi. org/ 10. 26803/ ijlter. 19.3. 20

[40]. Myyry, L., V. Kallunki, N. Katajavuori, S. Repo, T. Tuononen, H. Anttila, P. Kinnunen, A. HaaralaMuhonen, and E. Pyörälä. 2022. COVID-19 accelerating academic teachers' digital competence in distance teaching''. *Frontiers in Education* 7: 770094. doi:10.3389/feduc.2022.770094.

[41]. Ödalen, J., D. Brommesson, G. Erlingsson, J.K. Schaffer, and M. Fogelgren. (2019). Teaching university teachers to become better teachers: the effects of pedagogical training courses at six Swedish universities. *Higher Education Research & Development* 38, (2): 339–353. doi:10.1080/ 07294360.2018.1512955.

[42]. OECD. (2019). Higher education in Mexico: Labour market relevance and outcomes. *OECD* Publishing. https://doi.org/10.1787/9789264309432-en

[43]. Pekkarinen, Virwe and Hirsto, Laura. (2017). "University Lecturers' Experiences of and Reflections on the Development of Their Pedagogical Competency." *Scandinavian Journal of Educational Researc*h 61:6: 735–753, DOI: 10.1080/00313831.2016.1188148.

[44]. Rahman, M. M. (2019). Review of Policy and Development of Teacher Education in Bangladesh in the Perspective of 21st Century Education.

[45]. Ramolula & Nkoane. (2024). Pedagogical training of lecturers for higher education. *International Journal of Research in Business & Social Science* 13(6) (2024), 330-338.

[46]. Rozina A, Ramlan, S.S., Anny. N,Z., Islam, M.N. (2024). Using Continuing Professional Development (CPD) for Enhancing Teaching Quality in Higher Education of Bangladesh. *Journal of Education and Learning Research, 1 (2).* 47-60.

[47]. Ryan RM, Deci EL. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness.* New York: Guilford

[48]. Heinonen, N., Katajavuori, N., Murtonen, M., Södervik, I. (2022). Short pedagogical training in supporting university teachers' professional vision: A comparison of prospective and current faculty teachers, *Instructional Science* (2023) 51:201–229 https://doi.org/10.1007/s11251-022-09603-7

[49]. Houdyshell, Michael and Patti Kirk. (2020). "Graduate students' perceptions' on a professional pathway for academic advisors." *American Journal of Qualitative Research* 2(1): 77–96. https://doi.org/10.29333/ajqr/5795.

[50]. Hyytinen, H., M. Siven, O. Salminen, and N. Katajavuori. (2021). Argumentation and processing knowl edge in open-ended assignment tasks: challenges and accomplishments among pharmacy students. *Journal of University Teaching & Learning Practice*, 18, (6): 37–53. doi:10.53761/1.18.6.4.

[51]. Hyytinen, H., Toom, A & Shavelson, R. (2019). *Enhancing scientific thinking through the development of critical thinking in higher education. In Redefining scientific thinking for higher education: higher-order thinking, evidence-based reasoning and research skills*, eds. M. Murtonen, and K. Balloo, 59–78. Cham: Palgrave Macmillan.

[52]. Sarkar. M., Gutierrez-Buchel L., Yee Yip. S., Lazarus. M., Wright. C., White. P., Ilic. D., Hiscox. T., Berry. A. (2024). Pedagogical content knowledge (PCK) in higher education: A systematic scoping review. *Teaching and Teacher Education* 144 (2024) 104608. https://doi.org/10.1016/j.tate.2024.104608

[53]. Sanhueza, M., Sandoval, L., Ormazabal, M., & Zúñiga, M. (2025). Effect of a teacher training program with ICT on university students' learning. *Contemporary Educational Technology*, 17(1), ep556. https://doi.org/10.30935/cedtech/15745

[54]. Sela, O & Harel, M. (2019). "You have to prove yourself, initiate projects, be active': the role of novice teachers in their own induction process." *Professional Development in Education* 45(2): 190–204. https://doi.org/10.1080/19415257.2018.1441173.

[55]. Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–23. https://doi.org/10.17763/haer.57.1. j463w79r56455411

[56]. Shulman, L. S. (1986). Those Who Understand Knowledge. *Educational Researcher*, 15(2), 4–14.

[57]. Sodervik, I., Vilppu, H., Boshuizen, H. P. A., & Murtonen, M. (2022). Development of University Teachers' Professional Vision of Students' Prior Knowledge during a Short Pedagogical Training. *International Journal of Teaching and Learning in Higher Education, 34*(1), 7–24.

[58]. Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education* 76: 263–278. doi:10.1007/s10734- 017-0207-0.

[59]. Tuononen, T., H. Hyytinen, K. Kleemola, T. Hailikari, I. Männikkö, and A. Toom. (2022). Systematic review of learning generic skills in higher education - enhancing and impeding factors. *Frontiers in Education* 7. doi:10.3389/feduc.2022.885917.

[60]. Tuononen, T., and A. Parpala. (2021). The role of academic competences and learning processes in predicting bachelor's and master's thesis grades. *Studies in Educational* Evaluation 70: 101001. doi:10.1016/j.stueduc.2021.101001.

[61]. Van Dijk, E. E., van Tartwijk, J., van der Schaaf, M. F., & Kluijtmans, M. (2020). What makes an expert university teacher? A systematic review and synthesis of frameworks for teacher expertise in higher education. *Educational Research Review*. https:// doi. org/ 10. 1016/j. edurev. 2020. 100365

[62]. Van den Broeck, A., Howard, J. L., Van Vaerenbergh, Y., Leroy, H., & Gagné, M. (2021). Beyond intrinsic and extrinsic motivation: A meta-analysis on self-determination theory's multidimensional conceptualization of work motivation. *Organizational Psychol ogy Review*, 11(3), 240–273. https:// doi. org/ 10. 1177/ 20413 86621 1006173

[63]. Van Den Broeck A, Ferris DL, Chang C-H, Rosen CC. (2016). A review of self-determination theory's basic psychological needs at work. J. Manag. 42:1195–229

[64]. Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory: Advancements, critical themes, and future directions. *Motivation and Emotion*, 44(1), 1–31. https://doi.org/10.1007/s11031-019 09818-1

[65]. Vilppu, H., Södervik, I., Postareff, L., & Murtonen, M. (2019). The effect of short online pedagogical training on university teachers' interpretations of teaching–learning situations. *Instructional Science*, 47(6), 679-709. https://doi.org/10.1007/s11251-019 09496-z

[66]. Virtanen, A., and P. Tynjälä. (2018). Factors explaining the learning of generic skills; A study of uni versity students' experiences. *Teaching in Higher Education* 24, (7): 880–894. doi:10.1080/ 13562517.2018.1515195.

[67]. Winoto, S. (2022). Improving curriculum and lecturers: Challenges to quality based-technology. *Journal of Social Studies Education Research*, 13, 221-242

[68]. Zamir, S., & Thomas, M. (2019). Effects of university teachers' perceptions, attitude and motivation on their readiness for the integration of ICT in classroom teaching. *Journal of Education and Educational Development*, 6(2), 308–326. https://doi.org/10.22555/joeed.v6i2.2712