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University faculty perceptions of training transfer and professional growth: a qualitative study

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University faculty recognize training transfer as significant for professional development, enhancing skills/knowledge, building confidence, fostering career growth, promoting collaboration, and benefiting institutions. This qualitative study, grounded in constructivist learning theory, experiential learning theory, and situated learning theory, explores faculty perceptions of research methods training transfer in their context. Conducted at Kathmandu University School of Education, Lalitpur, Nepal, in March 2024, the study utilized semi-structured interviews across three phases (initial, follow-up, and final) with five purposefully selected faculty members (three male and two female) participating in professional development programs. Thematic analysis identified four key themes as barriers: (1) training initiatives lacking systematic needs assessments, (2) an overreliance on lecture-based delivery with minimal hands-on application, (3) contextual challenges in skill implementation due to time constraints and resource limitations, and (4) the absence of institutional follow-up mechanisms to evaluate training impact or address emerging needs. Findings underline a disconnect between faculty expectations and institutional training frameworks in research methodology training. However, professional development programs are essential for adapting to academic demands. So, the study highlights the need for context-sensitive, differentiated training approaches that directly align with faculty expertise levels and workplace realities. Recommendations include implementing participatory needs assessments, adopting active learning pedagogies (e.g., peer collaboration, real-world data workshops), securing institutional resources for sustained practice, and establishing structured post-training evaluations. This study contributes to the global discourse on faculty development by emphasizing the collaboration between situated learning environments, organizational support systems, and individual agencies in bridging the gap between training participation and pedagogical transformation.

KEYWORDS

training transfer, professional development, constructivist learning theory, experiential learning theory, situated learning theory, qualitative study, skills enhancement, effective training methods

1 Introduction

The academic success of higher education institutions depends on how their faculties learn and adapt the knowledge from the professional development programs. Jaramillo-Baquerizo et al. (2019) stated that "Universities seek innovation by designing and implementing professional development initiatives for their teachers." (p. 352). So, it is expected that training will not be enough until the learned knowledge and skills are transferred to their dayto-day teaching. Researchers have different perceptions regarding the skills the higher education educators receive from professional development programs and the ability they develop to use those skills in their pedagogical practices (Stes et al., 2007; Wu and Zhu, 2024). However, training is the structured process through which an individual acquires knowledge, skills, and attitudes (Buckley and Caple, 2009). Thus, professional development programs are essential in providing educators with the views, information, and abilities needed to adapt to the changing demands of their positions. Therefore, the effectiveness of these programs depends on how well-learned material is applied in the classroom and outside of it. In our professional job at the university, we have witnessed many occasions where the university faculties were unsatisfied with the professional development training they were receiving. We have also seen that some of our colleagues at our university-Kathmandu University, cannot transfer their knowledge and skills to their teaching. They often blame their teaching tools, saying that the training for their professional development did not address their demands and needs, including how professional training is not transferred to their professional practice.

Instead, the training transfer is the process of successfully utilizing knowledge, skills, and competencies gained during professional development programs in the classroom. As per Mdhlalose (2022), the term "training transfer" describes the extent to which attitudes, abilities, and knowledge gained during training programs are successfully implemented in the workplace. Empirical evidence shows that the capacity to formulate general principles was more helpful in training transfer than the existence of highly similar tasks (Baldwin and Ford, 1988). Indeed, higher education teacher training in Nepal encompasses a variety of programs, including graduate and post-graduate courses, such as B. Ed and M. Ed degrees, diplomas, short-term workshops, online courses, and subject-specific training. These initiatives aim to provide teachers and faculty with advanced knowledge, practical teaching skills, and modern pedagogical methods tailored to different education levels and subjects. In this study, the training was delivered both online and in person.

Similarly, training transfer is shaped by two key environmental factors: internal and external influences (Bhurtel and Bhattarai, 2023). Internal factors, such as organizational culture, management support, and resource availability, play a crucial role. Meanwhile, external factors, including industry standards, economic conditions, and technological advancements, also significantly impact the effectiveness of training transfer. However, participants in public sector training programs identified major impediments to transfer, including a mismatch between job tasks and training content and a lack of organizational support (Pandey et al., 2021). For instance, the administrative personnel of Duhok University's

medical faculties determined that the training given to human resources in those faculties is essential and successful (Abdal and Rasheed, 2023). During our studies at the university, we realized that in the learning process, we remain upset with some faculties because even though they are experts in their subject, they cannot satisfactorily transfer their knowledge and skills to trainees.

Furthermore, university faculties are not satisfied with the training they receive and the professional performance they deliver. This issue rationalizes the call for this research, as we realized the need and rationale for exploring effective training transfer's implementation and impact on the professional growth of university faculty. Despite significant investments by the Nepal government and its universities through the University Grants Commission (UGC) to enhance teacher training across various educational levels, research indicates limited effectiveness, underlining the need for a more holistic approach. Effective pedagogical transformation goes beyond mere training provision; it necessitates robust collaboration among stakeholders, updated training content and skills that align with the current social context, and a focus on nurturing teacher and faculty motivation and commitment. Bist (2019) argues that practical training can benefit students, teachers, and faculty. However, achieving this requires a comprehensive approach that addresses all relevant factors in the training transfer process, including examining professional development theories. Professional development providers must connect theoretical concepts with practical work applications to bridge the gap between actual and ideal beliefs and behaviors and effectively support teachers and faculty (Lovett and Cameron, 2011).

All of the above, Perifanou et al. (2022) explored a strong relationship between the training and individual characteristics and between the teachers' evaluation of the program's utility and their post-training self-efficacy for skill transfer. However, the study by Perifanou et al. (2022) did not establish the variations in specific training features. Likewise, the study of Cho and Wang (2023) show that few attributes of trainees positively impacted training transfer. They were job-related and learning transfer program design, peer and supervisor support for the transfer atmosphere, self-efficacy and learning program design. In addition, learning transfer motivation, peer support, job-related self-efficacy, and supervisor support significantly impact training transfer. So, these areas are essential to examine because they are part of the professional development program.

Additionally, it was observed that training on research methods was conducted more frequently at the Kathmandu University School of Education, Nepal. However, these sessions appeared more promotional than driven by a genuine need for professional growth analysis. The literature emphasizes the importance of cognitive, process, resource management, and social system skills for professional development, with peer coaching and mentorship playing a crucial role in fostering conducive learning environments (Radoslavova, 2022). However, challenges such as insufficient needs analysis, lack of follow-up, and workplace barriers hinder effective training transfer, particularly in resource-constrained settings (Jaramillo-Baquerizo et al., 2019; Raut, 2014). Studies recommend context-adapted programs, active learning methodologies, and trainer competencies to address these gaps to enhance engagement and practical application (Jacobs and Jaseem Bu-Rahmah, 2012; Jaramillo-Baquerizo et al., 2021; Perifanou et al., 2022; Rouiller and Goldstein, 1993; Salas et al., 2012; Yilmaz and Yavyuz, 2020). Despite these insights, limited attention has been paid to regional contexts, long-term impacts, and the role of organizational policies in supporting sustained skill application. Future research should focus on longitudinal studies, innovative delivery models, and faculty-driven program design to improve training relevance and effectiveness. Motivated by these considerations, we decided to investigate how research methods training was being transferred to the professional development of faculty members. This study aims to address the research question:

• How do university faculty members perceive and understand training transfer in their professional development programs?

2 Literature review

The discourse of professional development training and its implementation and impact on professional growth is considered one of the buzzwords in higher education pedagogy. Radoslavova (2022) argues that it is probable that cognitive, process, resource management, and social system skills are crucial factors that employees should learn and adapt. Also, Dhamala (2024) added that peer coaching, mentorship, and cooperative initiatives could establish favorable learning environments and use new abilities for professional development. However, despite some limitations of professional development, Pant et al. (2023) highlighted the positive development of virtual workshops on teachers' professional development during COVID-19, as faculties perceive training as part of their professional development. Jaramillo-Baquerizo et al. (2019) suggested intervention design, workplace environment, and learner characteristics that influence the training transfer. In this regard, Raut (2014) highlighted that most teachers looked reluctant to transfer the training knowledge in the classroom to government schools in Nepal. To overcome those problems, training transfer relevance can be increased through programs adapted to regional contexts, considering faculty input, and attending to institutional needs (Karki and Adhikari, 2018). Neupane (2024) conducted a study concentrating on teacher development at Tribhuvan University, Nepal. Despite faculty admitting the potential usefulness of the training, it was found that insufficient opportunities for practicing new skills and a lack of follow-up methods hampered transfer. To solve the problem of faculty training transfer, Pandey et al. (2021) argued that universities can prioritize training transfer by establishing feedback mechanisms, allocating resources, and matching training objectives with institutional goals.

Further, training design is a crucial part of the training transfer. It should meet the objectives of training support. In this line, Baldwin and Ford (1988) argue that setting specific objectives enhances trainees' motivation and provides a framework for assessing their learning process. A trainer should design the session in an interactive way where participants are engaged in roleplaying, group discussion, and applying the theoretical knowledge to the practical situation with real-world scenarios as an avenue for learning. Supporting this line, a study by Salas et al. (2012) argue that applying active learning methodologies fosters a deep understanding of concepts and is helpful while solving the same situations in the workplace.

Training delivery has a significant impact on training transfer. If a trainer could not deliver their existing knowledge, skills, and experience to the trainees, then there will be a gap in training transfer. Supporting this line, research done by Noe and Schmitt (1986) emphasize the importance of instructor competencies for effective training transfer. Therefore, the trainer must be a subject matter expert and be able to facilitate the session with good communication skills. Nowadays, we recognize that people have multiple intelligences and that everyone learns and understands differently. Therefore, trainers need to be well-versed in various delivery skills and techniques. According to Sitzmann and Ely (2011), using different methods and techniques can significantly enhance the effectiveness of training transfer.

3 Theoretical referents of the study

This study is based on three key learning and professional development theories: constructivist learning theory, experiential learning theory, and situated learning theory. It also uses Baldwin and Ford (1988) model of training transfer. These theoretical referents help explain how university faculty understand and use research methods training in their work and the foreground gaps between what institutions offer and what faculty need. Constructivist learning theory (Vygotsky, 1978) suggests that people build knowledge through experiences, social interactions, and reflection. In this study, the effectiveness of training for faculty depends on how well it matches their existing knowledge, teaching environments, and professional goals. The theory emphasizes the importance of identifying gaps between current skills and desired outcomes. Learning is less effective if training programs do not consider faculty existing expertise, such as offering basic SPSS training to advanced researchers. Constructivism also stresses the value of peer collaboration and reflective practice, which aligns with participants' preference for interactive, discussionbased training over lectures. Kolb (1984) experiential learning theory focuses on learning through concrete experiences, reflection, abstract thinking, and active experimentation. The study found that training programs with practical applications, like workshops using real-world data, were more effective than theoretical lectures. Participants criticized short, rushed sessions for lacking handson activities, which are essential for mastering skills like mixedmethods research. Experiential learning theory explains why faculty found training with fieldwork, group projects, and ongoing feedback more beneficial-they align with Kolb stages of learning, promoting deeper engagement and retention. Situated learning theory (Lave and Wenger, 1991) argues that knowledge is tied to the context and community where it is used. The study showed that training content often did not match the faculty real-world teaching and research environments, such as limited access to literature in Nepal or time constraints. For training to be effective, skills must be taught in realistic scenarios and supported by communities of practice, like peer mentoring. The lack of follow-up mechanisms further hindered situated learning, as faculty needed ongoing support to apply new skills in their daily work. Baldwin and Ford (1988) model of training transfer identifies three key factors for

successful training: training design, trainee characteristics, and work environment. The findings of the study align with these factors. Participants criticized lecture-based training, mismatched skill levels, and insufficient practical time. Faculty sought selfdirected learning when institutional training, such as attending external workshops, did not meet their needs. Barriers like limited resources, time constraints, and lack of follow-up also hindered the application of new skills.

4 Framework of the study

This section outlines our research process and procedures. Figure 1 represents the research process, data collection methods, evaluation, and monitoring procedures.

Figure 1 illustrates that the research process begins with a training needs analysis to determine the skills, knowledge, or competencies faculty members need to develop. This analysis informs the creation of a relevant training curriculum aligned with organizational or academic goals. Based on the identified needs, a structured curriculum is formulated, with key inputs from trainers responsible for developing and delivering the content. The training design outlines specific methods, approaches, and activities, including necessary materials and equipment, and the delivery method, which could be face-to-face, online, blended, or workshop based. The actual training sessions aim to impart expected competencies, focusing on what participants truly learn and retain. Training transfer assesses the application of newly acquired skills in real-world settings, ensuring benefits extend beyond theoretical knowledge. Training evaluation measures the effectiveness of the training by comparing expected and actual outcomes, assessing participants' performance and feedback, and evaluating the impact on their professional responsibilities. Faculty members receiving the training are involved in the delivery phase, provide feedback during evaluation, and apply learned knowledge in their professional context. Continuous monitoring ensures oversight of all steps, from needs analysis and design to implementation and transfer, promoting quality and improvement. The entire process is framed within the broader professional development goal of enhancing faculty skills and expertise over time.

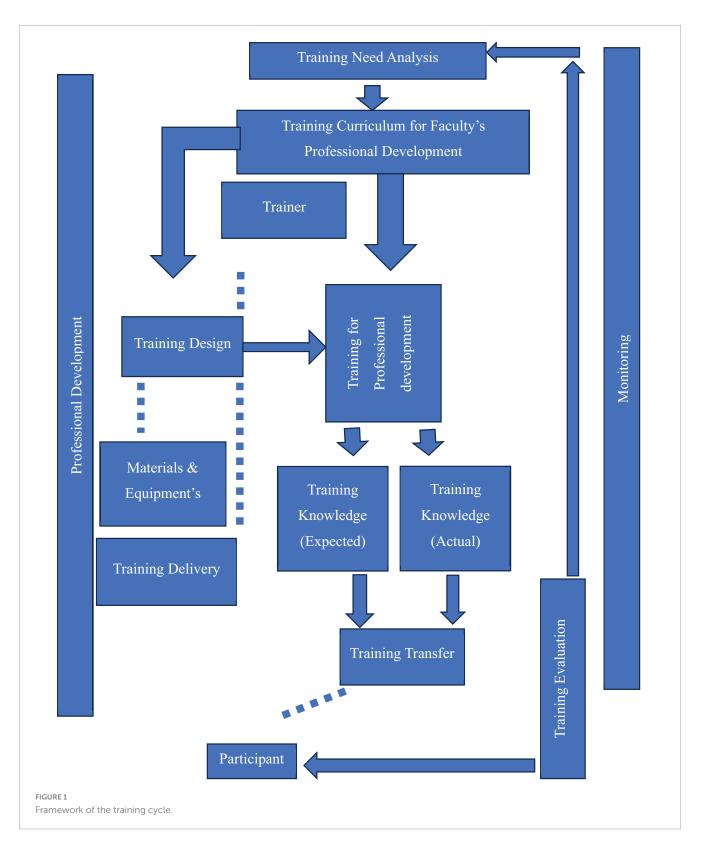
Thus, the overall framework of the training cycle begins with a training needs analysis, which helps develop the training curriculum. Next, the training is designed, outlining the trainers' plans, objectives, and content. This design phase also determines the necessary materials and tools for effective delivery. During the training session, training transfer is defined as the extent to which trainees apply the knowledge, skills, and attitudes learned to their jobs. Training transfer focuses on how job characteristics, such as task similarity and support, and individual characteristics, like motivation and cognitive capacity, work together to facilitate transfer (Baldwin and Ford, 1988). Actual training transfer is often lower than expected. Thus, training materials must be closely matched to real-world work scenarios for adequate transfer, aligned with the situated learning theory (Lave and Wenger, 1991). Learning is rooted in contexts and behaviors, making it a part of professional development theory (Radoslavova, 2022).

5 Research method

This study used a qualitative research approach. Qualitative research aims to understand phenomena by considering all relevant aspects and their interconnections (Lim, 2024). For example, analyzing participants' behavior from various perspectives-such as behavioral, cultural, demographic, geographic, psychographic, psychological, and social-offers a comprehensive view (Lim, 2024). Likewise, "The main aim of qualitative research is to explore and provide the deeper, comprehensive and detailed description of phenomena from non-numeric data." (Oranga and Matere, 2023, p. 1). This study focused on the professional development of research methods, considering the training transfer among university faculty members in one of the universities in Nepal. The study employs a qualitative research approach, gathering data through semi-structured interviews with open-ended questions from five higher education educators (three males and two females) who participated in professional development sessions. The interviews targeted faculty members who had completed the training and were in the transfer phase within their respective fields, acknowledging that beliefs and knowledge significantly influence individuals' attitudes and behaviors toward improving and adapting their teaching practices (Schoenfeld, 2011). So, subscribing to the qualitative approach and interviewing them helps us understand the trends and how practical the training was for the faculty in their everyday education and professional development.

5.1 Research participants and selection procedure

The study used purposive sampling to choose five faculty members from one of the renowned universities of Nepal, who had participated in research methods training. This method supports the qualitative research aim of achieving depth rather than breadth by selecting participants with direct experience in the topic being studied-training transfer. The study ensured that the participants could offer detailed information by focusing on faculty who had attended research methods training and context-specific insights into their challenges and successes when applying these skills in their professional roles. Considering that the faculty members are experts from various fields, we shared our research purpose with ten faculty members, but only five participated, and they agreed to our proposal. So, five faculty members who gave their time to respond to the interview questions and who have taken the research methodology training were selected for the study using purposive selection as a major source of the data (Dahal et al., 2024). Purposive selection ensures that faculty from diverse levels and schools with different genders obtain diverse information. We identified those participants teaching at the university and have taken various online and physical training courses to enhance their knowledge, skills, and attitude. By doing so, we can meet the purpose of the study of understanding training transfer from the faculty's point of view. We also took reflective notes, documenting nonverbal cues and contextual observations to enrich data interpretation. Ethical rigor was maintained through informed consent, where participants were briefed on the purpose



of the study, confidentiality, and their right to withdraw. Identities were anonymized using pseudonyms like "Hari" and "Sumi" to protect privacy. Table 1 below shows demographic information such as name (pseudonym name), designation, gender, age, major training area in research methodology, and last training on research methodology.

5.2 Data collection, data analysis process, ensure quality and ethical considerations

The data collection protocol was prepared with the help of faculty members (see more in the Supplementary Annex). The inconsistencies in the guiding questions were modified, and the

S.N.	Name (pseudonym name)	Designation	Gender	Age	Major training in research methodology	Last training on research methodology (year)
1	Hari	Assistant Prof.	М	40	Research methodology	Six months
2	Shyam	Associate Prof.	М	40	Proposal writing and mixed methodology	5 years ago
3	Ram	Faculty	М	48	Research methodology and SPSS	Three years
4	Pallavi	Assistant Prof.	F	48	Research methodology	Three years
5	Sumi	Assistant Prof.	F	44	Research methodology	Two years

TABLE 1 Participant demographic information.

final revised protocol was used for the open-ended interviews. Then, interviews were conducted following the ethical procedure of conducting interviews among the five faculties. Each faculty member who accepted the request participated in interviews ranging from 50 to 90 min in the first phase and follow-up interviews in the second and final phases. The interview included open-ended questions aligned with the framework of the training cycle and focused on how university faculty perceive the impact of training transfer on their professional growth. In addition, we wrote reflective notes and memos for each interview to narrate the participants' experiences. Table 2 below shows the data collection process.

After conducting the interviews, we manually transcribed the recordings to familiarize ourselves with the data. We then discussed the written transcriptions with the participants to ensure the credibility of the information. Next, we generated themes by organizing and familiarizing the data through reading transcripts, memos, and field notes, recognizing initial patterns and coding, and developing themes by uncovering relationships (Braun and Clarke, 2006), reaching saturation when no new information emerges, and addressing challenges such as managing bias, and ensuring rigor through peer debriefing among the researchers, triangulation, and reflexivity. Member checking was employed by sharing transcripts with participants to verify accuracy, enhancing credibility. Thus, inductive latent-level approaches were used to generate the key themes (Patton, 1990): (1) training without proper needs analysis, (2) ineffective delivery methods, such as lecturebased approaches and insufficient practical application time, (3) challenges in using learned skills due to time constraints and limited resources, and (4) lack of follow-up to assess training impact and identify further needs. For instance, Business Bliss Consultants FZE (2018) noted that teachers learn about the latest teaching methods and materials, student interactions, how students react and engage with the teacher and each other, and the types of language they comprehend and use in their reflective notes. Aligned with Business Bliss Consultants FZE (2018), unique dimensions were found in the reflective notes, which we used to enrich the interviews. Considering this, we examined these dimensions to derive meaningful insights. Table 3 shows the data analysis process, and Table 4 shows the key themes identified.

To maintain research ethics, we informed the participants about the research process, why they were selected, and how the interview occurred in the data collection process. We obtained consent from all the participants regarding the interviews, and participants also provided written informed consent to publish any potentially identifiable names, images, or data included in this article. However, we assured them that this information would maintain secrecy and would cause no harm to them in the future. We asked our research participants to read the transcribed interviews to maintain the credibility and rigor of the study (Dahal, 2023). Likewise, we wrote data in detail to maintain the rigor of the study. We jotted our reflections while interviewing the participants with the help of the first author. This process helped us to obtain credible information from the field.

5.3 Positionality and reflexivity

As researchers, we have interacted deeply with faculty members at different times. We experienced their professional practices closely and heard their frustrations. During their sharing, we gained insights into training culture. All these experiences have pushed us to do this research and understand the context thoroughly. Although we know them (research participants) personally and are familiar with the working environment, we did not influence our participants' thoughts, viewpoints, perspectives, and interpretations. Thus, researchers acknowledged their prior interactions with participants to address reflexivity and bias mitigation but maintained neutrality by avoiding leading questions. Peer debriefing was conducted, where co-researchers reviewed coding and themes to minimize interpretive bias.

6 Data analysis

After the careful analysis of the data from the interview (see Table 4) using the thematic qualitative data analysis (Braun and Clarke, 2006), four key themes emerged for data for analysis: (1) training delivered without a needs analysis, (2) problems related to training delivery, (3) issues with practical sessions, and (4) challenges related to follow-up.

6.1 Training delivered without need analysis

Need analysis shows the gap between the actual and expected scenario as an outcome that significantly impacts training transfer (Noe and Schmitt, 1986). The organization seems to have not

Step	Description	
Interview guidelines	Developed with literature review and brainstorming, implemented with faculty members.	
Revisions	Inconsistencies in guiding questions were modified before finalizing.	
Interview phases	Conducted in three phases: initial (50–90 min), follow-up, and final.	
Interview focus	Open-ended questions based on the framework of the training cycle, exploring faculty perceptions on training transfer.	
Additional data	Reflective notes and memos documented participant experiences.	

TABLE 3 Data analysis process.

Step	Description	
Transcription	Interviews were manually transcribed for familiarization with data.	
Credibility check	Transcriptions were discussed with participants to ensure accuracy.	
Theme development	Data were organized by reading transcripts, memos, and field notes, recognizing patterns, coding, and uncovering relationships.	
Ensuring rigor	Peer debriefing, triangulation, reflexivity, and bias management were applied.	
Thematic analysis	Inductive latent-level approaches were used (Patton, 1990).	

TABLE 4 Key themes identified.

Theme	Description
Lack of needs analysis	Training conducted without proper assessment of faculty needs.
Ineffective delivery	Lecture-based approaches with insufficient practical application.
Application challenges	Limited resources and time constraints hinder skill implementation.
Lack of follow-up	No post-training assessments or identification of further training needs.

properly analyzed the needs, such as expectations, possible future requirements, and current struggles of the faculty in their profession for professional development. In this regard, Participant Hari shared that he was trained in only one method. He has no choice but to suggest the same method to students even if they want to use another method for their research. However, the learners communicate their method of interest. Remembering his experience, he said:

I was interested in mixed methodology, but I conducted qualitative research due to my university and departmental intentions. Due to this, I do not have knowledge of quantitative research methodology. During the learning process, when my students come to meet me for qualitative and mixed approaches, I convince them to use qualitative methods due to my knowledge constraints. So, it would be better if we had training in mixed methodology, survey, and soft quantitative methodology (interview recordings, 10 March 2024).

Training gets transferred if the trainee has deliberately taken the training to fill a gap in their professional journey of teaching (Carter, 2019). If trainees point out the areas where significant gaps are identified and receive the training as per their needs, it will be a meaningful professional investment in training. Likewise, participant Shyam shared:

I do not believe that training does not transfer because training does transfer. To transfer the training, how do you take the training (in different areas) to your classroom? I am not saying that training is transferred everywhere, but training should be based on need. Does that participant need that training? If the participant has really taken the training to fill the gap, the person will transfer that training to the students. If they wanted training, it would have been fun if they had assessed the need, made it into a package, and delivered it (interview recordings, 11 March 2024).

Remembering a quantitative research method training, Ram emphasized that trainees at different levels of understanding need other types of training; for example, a beginner might find an introductory level of valuable training, while another trainee with some level of experience might need a customized training package, but that was not the case. Training curricula must be adjusted to accommodate learners with different levels of expertise and comprehension. This guarantees that each trainee receives training at the proper level to optimize learning and real-world application (Kraiger et al., 1993).

In Ram's words:

But for some beginners, that training is very wonderful. That training is wonderful for people with Quantitative Alignment. But for the people who have already taken that training, they have reached a level above, and now they should start from here. Differentiated training was not delivered (interview recordings, 15 March 2024).

Sometimes, the trainees figure out that a particular training course was or was not relevant to them only after taking the training. An empirical test of the impact of trainee choice on subsequent motivation and learning is presented in this study. Three circumstances were given to 207 trainees at random: (a) no choice in training, (b) choice in training but no choice received, and (c) choice in training but choice received (Garavaglia, 1993). Likewise, Pallavi shared two of her contrasting experiences:

I was sent to participate in a training. After spending some time in the training, I realized that the training was not suitable for me. I came from a qualitative research background and was unaware of field research for quantitative studies. The training I attended was of SPSS. The next training, however, was eyeopening, meaningful, and more systematic. It was a training course on needs assessment, which I apply even today at work (interview recordings, 17 March 2024).

Some professionals learned from their past experiences and decided to actively look for, pursue, and attend training in areas they feel they are lacking. As per constructivist learning theory, knowledge is created by experiences and reflections. Hence, training should be adjusted to the learner's present comprehension level (Vygotsky, 1978). In the case of such selection at an individual level, the professionals found the training to be more effective and being transferred into their work. Such selections meant going beyond the training available in or offered by the university, indicating a mismatch between the training needs of the university's faculty and what was being offered. Sumi added that:

Nowadays, I do my own needs analysis and choose training from experts who are very helpful to me. For my professional development, I do not depend on the university alone. Whenever I feel I lack certain skills, I invest in myself by participating in those trainings. The training I took during my career's initial phase was more lecture-based. But recently, I have taken training from the experts of abroad. They were more practical, engaging, and intense types of research training. Nowadays, I am more selective toward my needs before going to any training session, which is why they were more practical, functional, and fruitful for my professional development (interview recordings, 20 March 2024).

This can also be interpreted as a different perspective in need analysis. The trainees themselves can be cognizant of what training needs they individually have. And does the provided training meet those individual needs? However, not everyone arrives at such an understanding right at the beginning of the professional journey.

6.2 Problem related to training delivery

The training delivery method for research methods was expected to be delivered in a more practical modality, for instance, a workshop, but most were lecture-based. The content of the training also did not align with the topic. The focus was on aspects of academic writing more than on approaching research methods. Such lack of alignment led to ineffective learning then desired. A more focused approach in a practical problem-solving style that is closer to the real scenario could have made the training transferrable to the trainee's professional work. According to experiential learning theory, gaining practical skills requires both active engagement and experiential learning. This theory is better supported by workshops and interactive sessions, which help with knowledge retention and application (Kolb, 1984). Hari highlighted how actual problem-solving over an extended period of time made him more competent in research methods than the lecture-based training of a few days. Hari said:

The training that I took was a little more than just lectures. The best training should be done in workshop modality, issues should be discussed in the classroom, and what can be the methodology of that issue after discussing it? That philosophical orientation is needed but not the details of how to write a research question, what a statement of purpose is, and what a literature review is. My training sessions were mostly lectures. Research method is one thing. Academic writing is one thing. How to write a proposal? How do you structure the academic part? How do I write different sections? These are more focused on academic writing. Methodology is a broad terminology. Within Methodology, philosophy comes, method comes, tools come, and data analysis all falls within that, depending on what method aligns all that work. And what are the compatible tools that come with that method? How does that paradigm influence the theory I have taken? According to the paradigm, how to select the theory, the idea of a broader level did not come from the training. I did not find the training to be as effective as I learned in MPhil and PhD. I took the training at that time, but it did not apply immediately because I did not teach research in class, but it helped me to some extent when I developed my proposal for my PhD. A little bit, but the index did not support as much as I learned as a student in MPhil class. I don't think that two- to four-day workshops will support training specifically for research training (interview recordings, 10 March 2024).

The duration of training was too short to complete all the assignments and gain the practical experiences required to grasp the training content fully. One of the most critical aspects of learning programs' efficiency is their duration. When training sessions are too brief, it can be difficult for participants to finish assignments and obtain the practical experiences needed to understand the material (Knowles et al., 2011). Shyam briefed that it was a kind of workshop. Time was short, and we did not have much time to do it practically. Facilitators were giving some assignments. But we have very short time for practical experience. Emphasizing that project-based learning would have been more effective. Practical experiences are vital for grasping and remembering new skills. When training sessions are too brief, they don't provide sufficient time for hands-on practice, which is essential for firmly establishing new skills and knowledge (Kolb, 1984). Shyam recounted:

The training was a little bit difficult. It was supported by UGC. It dealt with collecting data and on how to analyze it. It was about how to do an interview and the different dimensions of research. However, the initial research was a bit more lecture based. The second one, which focused on data collection, also became lecture based. In the third one, which was about how to do data analysis interpretation and SPSS, we had expected–like in the previous research method training–that we would go to the field and collect a mini data set, prepare a small dummy report, and submit it (interview recordings, 11 March 2024).

Another problem with training delivery was a focus on delivering everything to the learners as decided to be necessary by the trainer without regard for the prior knowledge level of the participants. Salas and Cannon-Bowers (2001) suggest that effective training should incorporate the trainees' previous experiences and knowledge to optimize learning outcomes. Overlooking these factors can result in disengagement and lower retention of the material. Ram recalled:

The content was loaded. SPSS was taught in a very hurried way, as if it was familiar to everyone. It was rushed to cover all the content. It would have been very good if it had been made participant-centric instead of trainer-centric. So, research methodology training was not that effective (interview recordings, 15 March 2024).

Different learners have different learning readiness and learning styles. This aspect of training delivery also plays a role in knowledge transfer. Learners possess different levels of readiness and unique learning styles, both of which are essential for effective knowledge transfer. Kolb (1984) suggests that recognizing and adapting to these individual differences in educational settings can greatly improve learning experiences and outcomes. Pallavi said:

It is not possible to transfer all the knowledge that we have. It depends on the learning readiness. We used to say that the interactive one learns a lot, but we found that was wrong. We found that the silent person is also learning. The one who is out of the class also learns by asking friends and implementing (interview recordings, 17 March 2024).

The ideal training method that would have better chances of training transfer would be group or peer-based learning, interaction with real data, and feedback mechanisms. Sumi (F) highlighted the difference in the training delivery methods between the training she used to attend at the university and the trainings she attends these days at her own initiative. Experiential learning emphasizes learning through experience and reflection, which aligns well with group or peer-based learning and interaction with real data (Kolb, 1984). Sumi said:

One of the trainings, I have taken recently from the experts abroad after I started pursuing training at my initiative outside the university were good. They were not lecture-based. We were divided into groups, worked with real data, and discussed the same data about the outcomes of that data. This provided me with new perspectives on article writing. They were more practical, engaging, and intense types of research training. Our method was more engaging, with peer and group working, and feedback giving. The training I took in the university's initial phase was more lecture-based (interview recordings, 20 March 2024).

Training delivery methods that the participants sought, like working with real data in a more organized form, were lacking in the training offered by the university but were not completely absent. In one of the trainings, Ram experienced good group work, mentoring, effective fieldwork, and result-oriented learning tasks. Situated learning theory proposes that learning happens within genuine settings and communities where practice is key. Effective fieldwork and tasks focused on achieving tangible outcomes are typical features of these environments, fostering engagement in real-world activities (Lave and Wenger, 1991). Ram recalled:

We learned how to collect and present data during the research methodology training. Some approaches were quantitative, some qualitative, and some mixed. Three facilitators-one qualitative, one quantitative, and one mixed—were assigned to three different groups to assist with how to analyze that data. We learned to analyze our own data. Then, everyone sat together for an hour and a half on how to write a report, and in the remaining time, we brought our report to the group and prepared it. The next day, we presented that report. We worked on a real-world scenario in the field for two hours (interview recordings, 15 March 2024).

6.3 Problem related to practical scenario

After receiving the training, trainees have some problems applying the knowledge and skills in real life. In the context of Nepal, learners have limited access to the reading materials, and most of them are behind in their research project schedules. In this scenario, the faculty finds it difficult to guide learners confidently in their chosen study method. As per resource dependency theory, organizations or individuals rely on critical resources (such as reading materials, access to technology, etc.) to achieve their goals. In Nepal, limited access to reading materials could hinder learners' ability to apply knowledge effectively, affecting their research project schedules and faculty guidance (Pfeffer and Salancik, 1978). Shyam shared his experience:

We have a lot of challenges, especially in the context of the Third World. Because we do not get access to literature, which literature is right and which one is wrong? Who is contributing to the paradigm shift? Within our university, the human resources specialized in such a subject are very less. Second, textbook online resources are not easily accessible to us. Students need readymade and easily available literature. We cannot do mixed methods in a short period of time. Students come to meet me at last due to time constraints and their readiness. Maybe I'm also lacking somewhere and cannot motivate my students. They drop the mixed-method approach and go with the single-method approach (interview recordings, 11 March 2024).

Sometimes, a training package is full of all the elements that might be required for a trainee. However, they become flustered when all that content is delivered without helping the participants achieve competence and confidence. Research in adult learning theory highlights the significance of incorporating practical application and relevance into training programs to boost learners' confidence and competence (Merriam et al., 2007). Ram gave an example of SPSS along this line:

I still can't use SPSS. SPSS was taught to us, but it was taught as if we already knew about SPSS. As if it could be learned in one sitting. Not all people have learned the basics. The training of SPSS was very complete. It was done in a hurry (interview recordings, 15 March 2024). On the other hand, some training or aspects of training were transferred into practical teaching scenarios. Kolb's (1984) theory highlights learning through direct experience, reflection, conceptualization, and active experimentation, which complements hands-on activities like using real data and effective fieldwork. Ram said:

Actual training was transferred. Regarding the Research Methodology Training, which was taught to us, we followed the same way while teaching Research and Research Methodology classes later (interview recordings, 15 March 2024).

6.4 Problem related to following up

Follow-up helps assess if the learners have acquired the knowledge, skills, and attitude as intended by the training. This also becomes a guide for what is next. However, UGC has not suggested or developed post-training activities. Pallavi shared:

People have ideas, knowledge, or skills but may lack the necessary teaching skills. The same can happen with experts who offer training. Follow-up and post-training activities are necessary immediately. Post-training activities need to be developed by UGC, which is lacking (interview recordings, 20 March 2024).

Such research training packages offered by the university often get funded by the UGC after an open call for training proposals. These proposals do not comprise follow-up elements by the university or the UGC requirements. Also, UGC does not explicitly mention budget allotment for monitoring/follow-up. In the absence of this, the training designers are not obliged to conduct those activities. Completing training within the available budget somehow becomes the prime concern.

Hari added:

Those types of training are conducted after receiving a certain budget from UGC. The money received from UGC must be spent, it is said that the training has been done. In the training conducted with such a small amount of money, there is no time to follow up the experts and no follow-up mechanism in the university. There were no such follow-ups (interview recordings, 10 March 2024).

Inquiry related to the utility and relevance of training is important as a trainee can only apply the learning in a real scenario after the training. However, after the training, the faculty missed any support. Ram recalled:

Nobody came back to follow up and try to understand, but nothing was done. Where are our participants, what are they doing, what are they missing, and how should we help them? (interview recordings, 15 March 2024).

About the gap between trainings, Shyam shared:

There should be continuity in training. The last such training was held 5 years ago (interview recordings, 11 March 2024).

Likewise, Sumi argued that the expert trainers cannot follow up on the trainees. The trainees must use the clues from the training and apply them in the practical scenario to the best of their abilities. Sumi said that a highly renowned person does not follow up due to lack of *time*. She added that because she believes that trainees should not always depend upon a trainer, and if we understand the clue, we should also try our best to read, practice, and apply.

7 Discussion

We analyzed the data based on themes: (1) training delivered without a needs analysis, (2) problems related to training delivery, (3) issues with practical sessions, and (4) challenges related to follow-up, taking the support of the relevant literature and theoretical perspectives of constructivist learning theory (Vygotsky, 1978), experiential learning theory (Kolb, 1984), and situated learning theory (Lave and Wenger, 1991). The study highlights the interplay between institutional training frameworks, faculty needs, and contextual barriers that influence the effectiveness of professional development programs in higher education. This discussion elucidates how systemic deficiencies in training design, delivery, and follow-up impede the conversion of knowledge into practice by contextualizing the results within the theoretical paradigms of constructivist, experiential, and situated learning theories alongside Baldwin and Ford's (1988) model of training transfer,

The absence of comprehensive needs analysis emerged as a primary barrier to effective training transfer, aligning with constructivist learning theory that emphasis on constructing knowledge through contextually pertinent experiences (Vygotsky, 1978). Participants identified discrepancies between training content and their professional needs, exemplified by Hari's inability to guide students in mixed-methods research due to gaps in his training. This misalignment signifies a failure to address the "zone of proximal development," where training should bridge existing competencies and desired outcomes (Vygotsky, 1978). Similar findings by Pandey et al. (2021) and Karki and Adhikari (2018) in South Asian contexts underline that training programs disconnected from faculty realities lead to disengagement and superficial application. The study thus reinforces the necessity of participatory needs assessments, wherein faculty co-design training agendas to ensure relevance—a principle congruent with adult learning theories (Knowles et al., 2011). The predominance of lecture-based training methods conflicted with Kolb's (1984) experiential learning theory, which prioritizes active experimentation and reflection. Participants like Sumi contrasted ineffective institutional workshops with externally sourced training that employed group work, real-world data, and iterative feedback-elements critical for deep learning (Salas et al., 2012). This disparity underlines Baldwin and Ford's (1988) assertion that training design directly impacts transfer outcomes. The hurried delivery of technical skills (e.g., SPSS training) further exacerbated gaps, as procedural knowledge necessitates hands-on practice (Sitzmann and Ely, 2011). These findings align with Cho and Wang (2023) argument that active learning methodologies and peer collaboration enhance self-efficacy and motivation, both vital for sustained application. Situated learning theory (Lave and Wenger, 1991) posits that knowledge transfer depends on authentic contexts and communities of practice. However, participants encountered systemic barriers such as limited access to literature, time constraints, and inadequate institutional support—factors echoing Raut (2014) observations in Nepali schools and the same procedure in the university. Shyam struggles to implement mixed-methods research due to resource shortages exemplifies how environmental constraints stifle situated learning.

Furthermore, the lack of post-training communities (e.g., mentorship networks) hindered the sustained application of skills, a global challenge noted in resource-limited settings (Jaramillo-Baquerizo et al., 2019). This underlines the need for organizational policies that foster collaborative environments (Radoslavova, 2022). The near-total absence of follow-up mechanisms contravened Baldwin and Ford's (1988) emphasis on post-training support as a determinant of transfer success. Participants reported no institutional efforts to evaluate long-term impacts or address emergent needs, a gap also identified in public sector training in Nepali educational institutions (Pandey et al., 2021). For instance, Hari critique of UGC budget-driven, checkbox approach to training underlines the misalignment between policy goals and implementation. Effective follow-up necessitates structured feedback loops, resource allocation, and accountability measures-integral to holistic professional development frameworks (Jacobs and Jaseem Bu-Rahmah, 2012).

8 Conclusion and implications

Professional development programs are crucial for faculties to fulfill the changing demands of their role. Even though professional development is crucial, many faculty members are unhappy with the training they get and frequently believe that it is insufficient for their needs. Many faculties believed that the lessons learned from university during their MPhil and PhD programs were more helpful in teaching students than in training. However, the study highlights the critical role of effective training transfer in enhancing faculty professional development within higher educational institutions. While professional development programs are recognized as vital for adapting to evolving academic demands, significant gaps persist between faculty expectations and program outcomes. Findings highlighted in the study needed assessments of the training, reliance on lecture-based delivery methods with limited practical application, challenges in implementing skills due to resource constraints, and a lack of follow-up mechanisms to evaluate impact. These findings underline the disconnect between institutional training initiatives and faculty needs, emphasizing the necessity for tailored, contextsensitive approaches. The study revealed that training transfer is possible only when programs align with faculty needs, incorporate engaging methodologies, and offer ongoing organizational support for innovation and change-driven professional development. Thus, this study bridged the gap through its findings by highlighting the importance of conducting a needs analysis before training sessions. It emphasized designing training programs that align with faculty needs, incorporating engaged pedagogy, and providing ample practical applications and scenarios. Additionally, the study demonstrated the significance of follow-up mechanisms within universities and the broader educational sector. Thus, this study illuminates the dissonance between the aspirational goals of professional development programs and their grounded realities in Nepali higher education. Foregrounding faculty voices calls for reimagining training ecosystems that prioritize relevance, engagement, and sustainability.

The implications of the study highlight that universities should focus on understanding faculty needs and working together to design sessions. Workshops and peer collaboration can make the training more engaging and help faculty members remember skills better as active learning methods. In so doing, institutions could allocate resources, including time and tools, to facilitate the practical application of training content and establish follow-up protocols to monitor long-term impact. Similarly, universities and policymakers should develop structured post-training evaluations and follow-up activities to ensure the sustainability of concepts and ideas enhanced by the trainers for training sessions. Thus, encouraging faculty to self-identify training gaps and pursue targeted professional development can complement institutional efforts and foster a culture of lifelong learning.

9 Limitations of the study

In this study, five participants have limited the generalizability of the findings in the phenomenon. However, qualitative generalizations can be made not to the population but to the phenomenon being studied. As the goal of qualitative research is to understand a particular phenomenon in depth, the findings of such research can be applied to other similar phenomena, even if they are not generalizable to the population. So, the findings may not accurately reflect broader trends across different institutions or regions. However, we tried to select diverse participants from various parts of the country who are affiliated with the university. We neglected important challenges related to other aspects of professional development, such as teaching practices and technology integration, and focused on training in research methods. As a result, even with efforts to remain reflective, there may be potential bias stemming from the researchers past interactions with both the participants and the institution. Thus, the study captures immediate perceptions of training transfer but does not evaluate long-term outcomes or institutional changes.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by the Faculty of the Kathmandu University School of Education granted ethical approval for the study on 20 June 2023. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

AG: Formal Analysis, Methodology, Writing – original draft, Writing – review and editing. ND: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review and editing. MH: Funding acquisition, Writing – original draft, Writing – review and editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2025. 1553377/full#supplementary-material

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