

Connecting the dots: Teachers' reflective practices for developing self-efficacy, emancipation, and empowerment

Babita Maharjan, Pushpa Kumari Sunar, Niroj Dahal, Binod Prasad Pant, Netra Kumar Manandhar

Kathmandu University School of Education, Nepal

ABSTRACT

Reflective practice enables teachers to examine their personal and professional actions and learn from their lived experiences. The study explores teachers' conceptualizations of reflective practice, its applications, challenges, and opportunities for being and becoming professionals. The overarching research question guides this article—how do teachers' reflective practices contribute to their development of self-efficacy, emancipation, and empowerment? Grounded on the lenses of transformative learning theory, this study narrates the experiences of three teachers (two females and one male) from different schools and colleges in Kathmandu, Nepal. We have subscribed to the narrative inquiry as a research method to explore and understand teachers' reflective practices that contribute to their self-efficacy, emancipation, and empowerment development. Data was collected through in-depth interviews and analyzed using themes aligned to self-efficacy, emancipation, and empowerment. The findings reflect that reflective practice fosters professional development by helping teachers find and address their weaknesses, thereby improving their professional practices. For boosting teachers' self-efficacy, emancipation, and empowerment, the study concluded that reflective practice significantly enhances teachers' professional development by enabling them to analyze and address their weaknesses.

Keywords: emancipation, empowerment, lived experiences, narrative inquiry, professional development, reflective practice, self-efficacy

INTRODUCTION

The world is changing rapidly and demanding a paradigm shift in the global education system. This shift makes teaching one of the most challenging professions worldwide. However, despite these global changes, research indicates that conventional pedagogical practices, such as the lecture-based banking-model (Dahal et al., 2019; Lamichhane & Luitel, 2022), have dominated teaching in Nepal for decades. These traditional methods have led to teacher-centric practices and disengaged learning. In this regard, Mainali and Heck (2017) observed that Nepali school teachers rely heavily on textbooks to impart knowledge, encouraging students to memorize facts, definitions, and formulas. As a result, summative assessments are primarily used to evaluate students' cognitive abilities, focusing on lower-order thinking (LOT) skills that align with technical interests (Habermas, 1972). However, these traditional methods do not equip learners with the skills needed to thrive in the 21st century, where the demand is for skills rather than mere content knowledge (Devkota et al., 2017). The government and non-government organizations have put much effort in to uplift the quality of education in Nepal. In 2019, the government implemented integrated learning in primary grades to provide a holistic and interdisciplinary learning experience, thereby developing required interdisciplinary and life skills. So, the focus of current education has shifted to skill-based learning rather than rote memorization, which has challenged teachers to adapt innovative pedagogies to make learning more engaging and meaningful for learners (Nocetti-De-la Barra et al., 2024). Ham (2022) highlighted the critical need to transform teachers' pedagogical practices and their underlying ideologies. Professional development training is essential for this transformation. However, such training proves ineffective if teachers are unwilling to embrace change.

With the above, for embracing the change, reflective practice has become popular among professionals, including teachers of any grade level in many countries. Dewey (1910) remarked, "Active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it, and the further conclusions to which it tends, constitute reflective thoughts." (p. 6). Further, Dewey (1910) also emphasized that learners learn from reflecting on their experiences. The actions, beliefs, and thoughts are evaluated precisely. Likewise, Boud (2001) defined reflective practice as "a device for working with events and experiences to extract meaning from them." (p. 9). Reflective practice fosters professional development by helping teachers find and address their weaknesses, thereby improving their professional practices. Reflective practice encourages us to learn from the practices and experiences for betterment. Adding on, Schön (1987) considered two types of reflection, i.e., 'reflection on action' and

'reflection in action,' giving more emphasis on 'reflection in action' where the teacher tends to reflect the practice or action as it occurs. Reflection is done either after the action is taken or during the action's implementation (Pham et al., 2024; Sunar et al., 2024). We, as professionals, usually reflect after completing the action to make further improvements in the following action; sometimes, we reflect while the action is being carried out and change the plan as needed. Furthermore, Mohamed et al. (2022) claim that reflective practice is a charismatic, collaborative, and iterative process that contributes to educators' professional and personal development and growth. In this context, reflective practice is a continuous process of knowing self, practice, and context. Reflective practitioners think critically about their actions and reflections (Sunar et al., 2024). However, reflective practice also provides a space to amplify the understanding of others, not limiting only self-consciousness (Karnieli-Miller, 2020; Pant, 2017), but it allows the practitioner to understand others, going beyond self to grow oneself and the institution. Farrell (2018) claimed that teachers' engagement in reflective practice enhances the in-depth understanding of their teaching, evaluates their professional development, and turns farsighted and optimistic in their profession. So, Kheirzadeh and Sistani (2018) added that reflective practice assists teachers in developing their creativity, critical thinking, observation, planning, and organizational skills. In the same alignment, Impedovo and Malik (2016) also explained that reflective practice provides space for significant and accurate comprehension of the event and puts forward productive and pragmatic steps for improving the output. Thus, reflective practice outcomes can be achieved through quality work through modification of actions, reflections, and practices. Loughran (2002) claimed that "Reflection is indeed at the heart of the matter and equally valuable regardless of the profession." (p. 34). So, reflective practice is equally important not only in the teaching profession but also in other professions.

Aligned with the above, reflective practice tends to enhance an individual's self-efficacy, leading oneself to emancipation and empowerment. Self-efficacy is one's belief in the capacity to reach the goal. Mahidzir (2014) claimed that teachers' self-efficacy is crucial in carving reflective practice. When teachers are determined and have self-efficacy, they reexamine their performance for further betterment, ultimately leading to teacher empowerment. Osmanović et al. (2022) advocated that reflective practitioners empower themselves to re-evaluate their performance for positive professional transformation. Loughland and Alonzo (2019) also claimed that teachers reflect on their teaching practices and improve their performance to enhance their professional competencies. Thus, the enhancement of their professional competencies helps teachers to empower themselves.

Similarly, Knowles and Gilbourne (2010) claimed that the reflective practice enhances the feeling of emancipation and provides space for growth. Growth is possible when one is emancipated, and reflection gives an individual freedom to reflect on their performance (Mouraz & Ferreira, 2021) and serve for

the betterment. In a global scenario, reflective practice is a gateway for transformation, and it helps achieve the desired goal or transformation for a better self. However, much is still needed to be explored in the context of Nepal. Hence, the study explores teachers' conceptualizations of reflective practice, its applications, challenges, and opportunities for being and becoming professionals, subscribing to transformative learning as a theoretical referent. This article aims to address the overarching research question—how do teachers' reflective practices contribute to their development of self-efficacy, emancipation, and empowerment?

TRANSFORMATIVE LEARNING AS A THEORETICAL REFERENT

Both reflective practice and transformative learning are self-directed learning. So, this article is aligned with Mezirow's transformative learning theory, where Mezirow (2008) has identified ten steps for the transformation. With the introduction of new ideas and concepts, one will be in a disorienting dilemma as it will deviate from their pre-set assumptions and hypotheses; one will evaluate oneself in terms of one's emotions, then examine one's beliefs and assumptions critically, become dissatisfied with what one has been doing and realize the need of transformation, then search for different alternatives and responsibilities or change one's roles, plan for the various intervention to be undertaken, gain information and capacities accordingly to initiate the planning, try for the new roles, enhance one's capabilities and self-assure one's different roles and finally adjusting oneself as per the new standpoint. Mezirow's theory advocated that reflecting on critical incidents changes one's frame of reference, hypothesis, and perception (Kennedy & Wyrick, 1995). Reflective practice is an effective tool to bring transformation in an individual and the organization as a whole. Kennedy and Wyrick (1995) explained that transformative learning includes thoughtful evaluation of one's frame of reference. It also evaluates the emotion one holds on, as an individual's emotion determines the action. In this regard, Ghaye (2010) explained, "Reflective practices also help us understand the links between feeling, thinking and doing. How we feel affects how we think. This affects what we actually do." (p. 1). Thus, through reflective practice, teachers, educators, and educational professionals assess their pre-set frame of reference and emotion to bring transformation.

NARRATIVE INQUIRY AS RESEARCH METHOD

For this study, we employed narrative inquiry as our research method. As Clandinin (2018) articulated, "Narrative inquiry is the study of experience" (p. 19). Dwyer et al. (2017) observed, "The stories people live and tell are rich sources of knowing and meaning making" (p. 1). Aligned with Clandinin (2018) and Dwyer et al. (2017), the first author derived profound insights by exploring the expertise

of professionals in her reflective practices. Hence, the narratives of the participants' experiences helped the authors to make meaning of their reflective practice. Carless and Douglas (2017) further stated that the narrative inquiry method empowers researchers to construct knowledge from participants, positioning them as the masters of their lives and interpreting and co-constructing meaning through dialectical discourse. Taylor and Medina (2011) claimed that the interpretive paradigm allows researchers to build a contextual understanding of the real-life experience of the participants and the culture they live in. Aligning with Taylor and Medina's claim, this article interprets the participants' narratives on their experience of reflective practices, understanding and conceptualization, and their application in their profession by subscribing to an interpretive paradigm. Different participants construct their knowledge differently, and their experience varies from each other as they belong to various backgrounds and contexts. They perceive realities in multiple ways. Their experiences regarding their reflective practice are also different, and their different experiences are equally valued. Table 1 below shows the information about the study participants.

Table 1: Participant information

Participant	Gender	Teaching Experience	Current Role	Additional Information
Narrator 1	Female	Over 15 years	Teacher Educator at an NGO	Started as a teacher, now works to uplift education quality in Nepal
Narrator 2	Male	17 years	High School Teacher	-
Narrator 3	Female	Over 20 years	University Faculty Member	Started as an English teacher

The participants of this study consist of three teachers (two females and one male) who were purposefully selected based on specific criteria and were actively teaching in schools or colleges in Kathmandu, Nepal. All the participants have been teaching for over one and a half decades. We named the participants Narrator 1, Narrator 2, and Narrator 3. The first participant, Narrator 1, is a female. She started her career as a teacher and is currently working as a teacher educator in one of the NGOs to uplift the quality of education in Nepal. The second participant, Narrator 2, is male. He has been teaching for 17 years in one of the high schools. The third participant, Narrator 3, is a female who also started her career as an English teacher and works as a university faculty member. She has

been working in the education sector for over two decades. At the very beginning, the first author shared our research project and purpose and requested six teachers, then five teachers. Finally, three teachers participated in the study by sharing their experiences regarding their reflections on their personal and professional lives. Table 2 below shows the study's data collection process.

Table 2: Data collection process

Step	Description
Initial contact	The first author shared the research project and purpose with six teachers, then five, and finally, three agreed to participate.
Consent and anonymity	Participants' consent was obtained, and they were assured of anonymity using pseudonyms.
Interviews	Conducted in-depth interviews for 1.5 hours with each participant using open-ended questions. Multiple rounds of follow-up interviews and discussions were held.
Data recording and transcription	Interviews were recorded and transcribed. Notes were taken to ensure explicit interviews.
Data Analysis	Data was coded, highlighting crucial words and phrases to generate themes.

Table 3: Identified and generated themes

Theme	Description
Reflective Practice as a Tool for Self-Efficacy	How reflective practice helps in building self-efficacy.
Reflection as/for Managing Stress	The role of reflection in stress management.
Reflection as a way to Emancipation	How reflection contributes to emancipation.
Reflective Practice Paving the Way to Empowerment	The impact of reflective practice on empowerment.
Challenges in Reflective Practice	The difficulties faced in implementing reflective practices.

Table 3 shows the identified and generated themes of the study.

We obtained their consent and fixed the time for the interview. Participants were assured that their identities would not be revealed and pseudonyms would be used instead. After getting consent and appointment from the participants, data was collected through in-depth interviews for one and a half hours with each participant

using open-ended questions aligning with the research questions and multiple rounds of follow-up interviews and discussions with the participants.

Notes were jotted down to give space for explicit interviews, and interviews were recorded to facilitate data transcription, considering that participants narrated their experiences as data (Dwyer et al., 2017). We listened to the recorded data carefully and transcribed the interview. Then, we coded the data, highlighting the crucial words and phrases that helped generate suitable themes.

It was then categorized into suitable identified and generated themes: (1) reflective practice as a tool for self-efficacy, (2) reflection as/for managing stress, (3) reflection as a way to emancipation, (4) reflective practice paving the way to empowerment, and (5) challenges in reflective practice and presented with theoretical and literature support. We worked together in different phases of the article development process, from the beginning of problem identification to drafting the proposal, then fieldwork with the second to the fifth author in different roles and responsibilities as co-authors, supervisors, and critical friends. Based on the co-authors' input, the first author incorporated constructive feedback and suggestions to refine this article and make it publishable. Table 4 below shows the roles and responsibilities of the authors.

Table 4: Roles and responsibilities of authors

Author	Role	Responsibilities
First Author	MPhil scholar	Conducted the study as part of her research project, incorporated feedback, and refined the article.
Second Author	Critical friend and classmate	Motivated the first author, shared ideas, helped with the literature review, and provided constructive feedback.
Third Author	Corresponding author and course facilitator	Critically reviewed the article, contributed observations, and guided in framing and reframing the overall structure of the article.
Fourth Author	Supervisor	Provided guidance, constructive feedback, and support.
Fifth Author	Course facilitator	Helped and guided the research through critical observations and comments.

Regarding different roles and responsibilities, the first author is an MPhil scholar in education at one of the universities in Nepal. This study is a part of her research project. She has also been working as an educator for over one decade now. Next, the second author is the critical friend and classmate of the first author, who had been watching and supporting this study evolved from scratch to the article's final version. She kept the first author constantly motivated, shared ideas,

helped with a rigorous literature review, and gave constructive feedback and critical comments to refine the manuscript. Similarly, the third and corresponding author critically reviewed the article, contributed observations, and provided guidance in framing and reframing the overall structure of the article. The fourth author is her supervisor, under whose guidance this study was conducted. He gave constructive feedback and supported her with remarks and suggestions. The fifth author is her course facilitator during her MPhil study, who helped and guided this research through critical observations and comments.

ANALYSIS AND INTERPRETATION

In this section, the authors have identified and generated five themes, as shown in Table 3, from the participant's narratives after carefully analyzing the data, which reveal their perception, opportunities, and challenges of reflective practice: reflection as a tool for self-efficacy, reflection as/for stress management, reflection as a way to emancipation, reflective practice paving the way for empowerment, and challenges in reflective practice.

Reflective practice as a tool for self-efficacy

Narrator 1: Every individual has their way of self-reflection. As per my understanding, reflection means returning to oneself. It is improving oneself and building confidence and motivation to perform better. I still have been able to teach young learners even at this age of my life because I reflect. Reflection does not allow me to be outdated. That is why I can be with them. I enjoy being with them, and they, too, can enjoy being with me. Through reflection, I have updated myself, and reflection has been the guiding path for me to improve my pedagogical practices. This motivates me to reflect further on my actions and improve in many possible ways in the following actions. Therefore, reflection helps me build competencies within myself and encourages me to keep reflecting.

Looking closely into the experience of Narrator 1 regarding reflective practice, we connected it to self-efficacy. She mentioned that it allowed her to evaluate her actions, which helped her improve her pedagogical practices and kept her updated. It also motivates her to continue reflecting on her actions to be more competent. So, reflection helps to bring improvement, thereby expanding one's horizon through learning from reflection. Thus, Slade et al. (2019) claimed that reflective practice may guide the assertion, improvement, or transformation in the professional area. Teachers reflect on pedagogical practices to improve their practices further. Mathew et al. (2017) advocated that reflective practice is an effective technique where rather than learning from the approved learning setting,

teachers learn from their own teaching experiences. Narrator 1 realized that every time she engages in some action, she reflects and learns from the experiences that are more authentic and applies that learning in the following practice, making that learning more authentic. Hence, Slade et al. (2019) argued that reflection must be reiterated over time to ensure advancement and arrive at the highest and most enlightened extent of the practice. The outcome that brings her through self-reflection is inbuilt self-efficacy. Bandura (1986) contemplated self-reflection as one's prominent trait, leading to one's proficiency to bring positive change in one's thoughts and actions. Slade et al. (2019) further considered reflective practice a developmental process. Therefore, the development of an individual as a result of self-reflective practice leads to the enhancement of self-efficacy.

Narrator 2: In the educational sector, if you want to learn, develop, and grow, reflective practice is a must. It is essential for your professional as well as personal growth. Reflection helps in the development of a teacher, educator, and administrator. This is not only true in the educational field but also in every sector. To conduct any activities, we plan and go according to the plan. After the execution of the plan, we reflect on its success and failure, as well as the tasks we missed out on. Reflection helps to identify the strengths and weaknesses of our plan being implemented. Therefore, reflection is a way of improving ourselves in the future, and we learn and grow from it. I do self-reflection to learn and develop myself. It re-energizes me for further improvement. I get motivated by my reflection. Similarly, as learning is a continuous process, we should reflect, and we will find room for improvement in our every reflection.

According to Narrator 2, reflection is considered an essential aspect of enhancing one's development and growth, and he believed that in the educational field, to grow oneself to meet the needs of a dynamic world, it is crucial to reflect in practice. Hence, reflection in practice is inevitable for the development of a teacher, educator, or administrator. In this regard, Koukpaki and Adams (2020) claimed reflective practice to be well-ingrained in educational settings. In the educational setting, reflecting on every activity helps show the way to the next steps. Thus, Kuit et al. (2001) explained reflective practice is not only an assessment of the teaching or how we teach; instead, it is about the process of teaching and providing the reason behind the undertaking activities. Narrator 2 strongly advocates that learning occurs through reflective practice and is a continuous process. In this regard, Kuit et al. (2001) further explained, "This is a continual reiterative process, which can be visualized as an infinite line of connected loops with each loop representing a cycle of reflection" (p. 131). Hence, reflective practice is a continuous process where reflection occurs in every action taken, digging out strengths or weaknesses, learning from them, and modifying

through reflection to execute the upcoming action. This additionally brings confidence in him as a reflective practitioner to initiate the action further. The higher level of self-assurance has a pragmatic impact on enhancing self-efficacy (Yost, 2006). Thus, reflective practice helps to build self-confidence, leading to the enhancement of self-efficacy.

Reflection as/for managing stress

Narrator 2: Most of the time, I talk to myself while doing the reflection, and I believe self-reflection helps in stress management. Having worked at the administrative level, I have so much stress. I might be stressed because of unnecessary things, too. So, whenever I have stress, I will first cool down and then reflect on what makes me so stressed, what has happened, why it happened, what were my instant reactions, and if I had not given an instant response, what would have happened then? Reflecting on these helped me avoid repeating the same activity again and also avoided unnecessary stress. So, my self-reflective practice enabled me to manage my stress.

Stress and anxiety are part of human life. Narrator 2 also has his levels of stress and anxiety in his profession. However, it is necessary to avoid such stress, anxiety, and tension. Thus, he reflects on his practice as to how and why such stress occurs to address challenging circumstances. In this regard, Niemi (n. d.) claimed that people can make sense of challenging environments through reflective practice, which further helps in an individual's professional development (as cited in Siden et al., 2021). Additionally, unnecessary stress may harm the personal and professional life of the institution. Newell (1992) suggested that the reflective practitioner must ignore traumatic circumstances. Hence, reflective practice helps to avoid unnecessarily stressful situations.

Narrator 3: In my personal and professional life, I have experienced different kinds of discomfort, such as feeling overwhelmed, panicking, and stressed. Sometimes, I feel angry, and different kinds of negative thoughts are evoked. I feel like, what is this, and why is it happening? Whenever I felt like this, I used to share it with my friends and interact with them. It took me time to start observing myself, and when I did so, it made me thoughtful and settled those issues on my own, whether personal or professional. These stresses arise within me, but sometimes the situation might not be in my hands as the stress and anxiety might be because of others; then, in such situations, I write down or jot down in my notes randomly about the issues. In writing, I dig out the solutions that help me

develop new insight, give me a better way out, and move ahead accordingly.

Narrator 3 experienced different kinds of uncomfortable situations, which led her to stress. This could be due to overthinking other unwilling conditions and actions we take. We would want to change the situation, thinking if I had not done that, it might not happen, or if I did that, the result might be different. Larrivee (2000) claimed that questioning a specific behavior like frustration, stress, or denial, whether that behavior or action is leading to the outcome we desire and being aware of the criterion of our action and questioning the outlay of that behavior or the practice. Whenever Narrator 3 finds herself in an uncomfortable situation, she writes about discomfort, frustration, being overwhelmed, panic, or stress, which helps identify the patterns of such behavior that occurred in her personal or professional life. In this regard, Lutz et al. (2013) also claimed that reflective practice reduces stress and promotes professional development. Likewise, Nugent et al. (2011) also supported the idea that reflective practice helps relieve stress. Furthermore, Holt (1994) comprehends that those teachers who maintain journals regularly review them to acknowledge their perception and analyze how they change their thinking over time. Thus, writing a reflective journal helps to be aware of negative thought patterns and minimize them in the following process.

Reflection as a way to emancipation

Narrator 3: I also take reflective practice as a way of emancipation because when I am engaged in reflection, I feel like I am liberated. I can reflect without any boundaries and limitations, being free from coercion, and tend to go beyond the pre-set limits. I reflect on my hindrances, lapses, weaknesses, and strengths. I reflect on what I am doing, how I am doing, and how I can address issues, obstacles, or hindrances. I go on learning through these reflective practices, and in doing so, it leads to emancipation. A feeling of freedom is developed.

When an individual engages in reflective practice, one is thoughtful of the action. Narrator 3 finds herself emancipated when she engages in reflection, as it helps her think about other possible alternatives to achieve the goal or bring improvement in further action. Day (1999) stated that reflective practice often goes hand in hand with the willingness to accomplish social equity, liberation, or advancement. Hence, reflective practice transforms individuals and institutions and liberates the individual to question the status quo, assumptions, and hypotheses to create a just and inclusive society going beyond the boundaries. Mendoza (2020) advocates maintaining reflective minutes of an individual providing proof of

transformative learning and emancipation, including their role as a change agent, with enhanced feelings of obligation and liability. The reflection focuses on transformation and emancipation (Ng, 2012; Manandhar, 2022). Thus, reflection leads to emancipation, empowering professionals to transform the practice.

Narrator 1: If you want to take any educational or non-educational organization, the one holding administration or managerial position must provide the space for reflective practice. Reflective practice leads an individual to examine one's performance and emancipate one to think beyond the boundaries to transform one's performance. Emancipation is necessary when one is engaged in reflective practice. Let's be clear that reflective practice is not possible within boundaries; one should be set free from all the boundaries. Then the magic happens.

Narrator 1 also claimed that reflective practice helps one be emancipated to reflect beyond boundaries. In this regard, Habermas (1972) explained that emancipatory cognitive interest determines self-reflection. Thus, engaging oneself in reflective practice needs emancipation. Similarly, Narrator 1 also explained that the one upholding the managerial position should facilitate emancipation to self-reflect on their performance to bring positive change. West (2013) suggested that a standardized way of dealing with staff incorporating the aspect of emancipation helps energize and embody transformation in culture. Therefore, an organization must emancipate its staff to self-reflect on their performance, freeing themselves from boundaries.

Reflective practice paving the way to empowerment

Narrator 1: I again say that self-reflection is a must. If I don't reflect on what I did and perform, I don't think I can improve and grow. Even my knowledge and skills will be limited. I won't be able to expand my horizons and my learning. I constantly reflect on whether the pedagogical approach I applied in the educational setting is okay and whether I can create compatibility between me and my students. It is not enough to make them understand the content, as they have to bring their learning experience into their classroom practice. Hence, through reflection on my pedagogical practice, I will modify the planning of pedagogical practice to analyze whether the desired outcome is achieved. I am always willing to learn from my own experience and reflection. It is self-initiated learning. This helps me solve the issues existing in my practices, which empowers me to change my pedagogical practices to bring transformation to my students' learning.

Teachers practicing their teaching without reflection can never learn from the teaching experience. Kramer (2018) explained that reflective practice tends to positively impact the teachers' agency, broaden the horizon of their actions, and provide opportunities for professional development. Hence, according to narrator 1, reflective practice is the self-initiated or self-guided learning of the teacher as she reflects on her pedagogical practice and learns from it to modify her pedagogical practices further. It is the responsibility of any teacher to be engaged in such learning practices to enhance one's learning and empower one to expand the horizon by constructing new knowledge and being willing to practice it (Bütün Ikwuegbu & Harris, 2024). In this regard, Horton-Deutsch and Sherwood (2017) advocated, "Self-directed learning is the foundation for transformative learning" (p. 18) because self-directed learning gives opportunity to reflect on their hypotheses and assumptions and construction of their knowledge and explore new potentials thereby challenging the status quo which leads to transformation (Dahal, 2024). For instance, narrator 3 reflects on the actions and practices as follows:

Narrator 3: Reflective practice empowered me to change my thoughts and actions by questioning my beliefs and thoughts and developing new insights that I can apply in similar or new situations for better outcomes. It also gives me a way to minimize or avoid different issues in my personal and professional life. So, I believe just reflecting in my mind or writing a reflective journal will not give me a way out. Instead, learning from those reflections, reflective journals, and experiences should be brought into action to be applied in different or similar contexts, and it will lead to the path of change for betterment.

Reflective practice provides an opportunity for empowerment. Magalhães and Celani (2005) also considered reflective practice to be the instrument for the empowerment of the teachers. O'Loughlin and Campbell (1988) also claimed that teachers benefit from empowerment with reflective practice. Narrator 3 reflects on the actions and practices she has conducted and empowers her to question her values and beliefs, transform her attitude, values, beliefs, and practices, and apply the transformed attitude and practice in real-life situations. Pellerin and Paukner Nogués (2015) comprehend that teachers are empowered to develop themselves as professionals and change agents in their teaching and learning when they know the positive aspects of reflective practice. Hence, teachers are empowered through self-reflection.

Challenges in reflective practice

Narrator 1: In the process of reflective practice, I believe there is an institutional challenge. However, as professionals, when trying to reflect

on our practices and work accordingly, the management or institutional head sometimes does not understand and compels us to stick to the rules and regulations of the institutes. This will lead to the waste of our hard work, and we are bound to align with their norms and values as some institutions keep themselves and staff the barrier. Once, I went to one of the remote areas to accomplish the task that I had been assigned. I completed the task, and while returning due to snowfall, I had to face difficulties. I reflected on the whole process and shared it with the management; the management ignored it and answered, "It's not a big deal."

Narrator 1 faced the challenge in her reflective practice due to autocratic management as she was reserved within the boundaries of 'dos and don'ts'. Institutions have their structure and don't want their employees to deviate from what they have been doing. Rushton and Suter (2012) claimed that when the institution imposes control, it impacts the process of reflective practice. The institution's culture also influences the staff's engagement in reflective practice. In this regard, Rushton and Suter (2012) further stated that the organization's culture limits the effective practice of reflection.

Narrator 2: We document from the reflection of the event regarding its weaknesses and strength of the big event. However, I tend to take reflection for granted for small events. I don't try to make any notes and document those events, thinking I don't need to write them as I will incorporate them in the next event. But sometimes, what happens is that I fail to include them in the next event. My main challenge is that I take reflection for granted for small events. However, now I realize the importance of making reflective notes even for small events because it helps to improve my practice for the next time and even record the improvement process.

For Narrator 2, his habit of taking reflection for granted is the major challenge for his reflective practice. It is necessary to be thoughtful and reflect on every action to improve one's daily practice. Larrivee (2000) explained, "Engaging in systematic reflection means making it an integral part of daily practice" (p. 296). In the process of reflective practice, journal writing, jotting down, or documenting the reflection is vital for any profession, including teachers, because Bain et al. (1999) explained that writing a journal motivates teachers to commence their professional reflective practice that is related to the experience of their field focusing on the feedback which helps in the developing reflective skills. Thus, Narrator 2 realized the need to write reflective journals to help keep track of his

actions, as Plack and Greenberg (2005) emphasize maintaining reflective journals to operate on essential events after their occurrence.

DISCUSSION

This article reveals that reflection and learning go hand in hand. Being reflective means not only being aware of one's actions and thoughts but also one should learn from reflection. According to Rushton and Suter (2012), being more reflective, contemplative, and thoughtful of every event, moment, and conversation throughout the day while being insightful of whatever is being carried out is the way of being reflective. Hence, being reflective means being aware of one's actions, interactions, thinking, perceptions, beliefs, and values and learning from them. Brookfield (2017) claimed that reflection is convenient for completing the task efficiently and obtaining the desired goal. In contrast, reflective practices are about evaluating one's experience to enhance performance, learning from one's own experience, and bringing adequate change in one's practice.

This article finds that reflective practice is a tool to enhance the self-efficacy of different professionals, including teachers, because reflective practice builds competencies and confidence levels among teachers, strengthening teachers' self-efficacy. As Bandura (1982) explained, the effectiveness of how one implements the action that is crucial to engage with anticipated situations depends upon one's self-efficacy. Thus, teachers need to understand the contribution of reflective practice to their professional development (Gutierrez, 2015) and take time to reflect on their practices, thoughts, and beliefs to enhance their self-efficacy. Yost (2006) advocates that teachers should be aware of how to reflect and analyze their actions, enhancing competencies to solve problems and tackle challenges.

Reflective practice further helps individuals manage stress. Through reflection, professionals can even make meaning from difficult situations. Brooman and Stirk (2020) suggested that reflective practice in writing reflective journals and maintaining journals assists in coping with stress. Whenever one has to pass through such a challenging situation of stress, anxiety, and disappointment, writing a reflective journal can help one relieve from such conditions because dumping such a situation in notes or a journal can bring out the solutions through identifying issues, patterns of the behavior and its consequences developing new insights. Larrivee (2000) further stated that when an individual allots time to be thoughtful of their behavior or action, it causes stress or frustration, and critical investigation of the consequences of the behavior and action makes them observant of the influence of their behavior. This observation will lead to finding the solution to undesired behaviors like stress and anxiety, which will help develop new insights.

Further, this article finds out that reflective practice is a powerful tool for empowerment. Reflective practice empowers one to question one's values, beliefs,

actions, or weaknesses, work and learn from them to construct new knowledge, and apply them in other contexts. Msila (2013) claimed that teachers' critical reflection empowered teachers to commit to their profession. Therefore, reflective practice is inevitable in educational practice because it enhances the professional development of the teachers, which will further help strengthen the quality of education, thereby creating dynamic citizens. This article also finds out that the reflective practice ensures emancipation. Teachers are liberated to think freely without any boundaries and explore possible ways to develop innovative ideas and solutions. Harun (2020) stated, "Reflective practices can empower and emancipate student teachers towards self-directed learning" (p. 115).

Finally, this article reveals that when the institution's management practices a controlled environment for its teachers, it creates a barrier to reflective practice as the culture of the institution impacts their engagement in reflective practice because Mälkki and Lindblom-Ylänne (2011) explained that occasionally, the existence of dismay between reflective practice of teachers and the requirement of institution leading to hindrance of teachers' reflective practice. Similarly, most professionals take reflection for granted due to unawareness of its importance in professional development. Still, it is necessary to allow time for daily reflective practice for the actions and behavior being undertaken to learn from it. Larrivee (2000) stressed writing the journal as journal writing provides a space to sketch teachers' improvement and experiences.

CONCLUSIONS

In conclusion, we recommend that reflective practice is an effective tool for the professional development of teachers. The learning that occurs from reflection or after engaging in reflective practice is self-directed, and self-directed learning enhances self-efficacy, empowers oneself, and emancipates one from thinking within limitations. Reflective practice provides space for self-examination of one's actions, improving pedagogical practices, and updating oneself as continuous learning occurs through reflective practice. Similarly, engaging oneself in professional activities is not aloof from stressful situations; however, reflective practice helps avoid stressful situations by writing about such uncomfortable situations. Thus, reflective practice gives space for innovation and creativity, standing beyond the boundaries of status-quo beliefs and updating teachers to deal with the ever-changing needs of the global context. With the different opportunities, some challenges exist, like institutional barriers and taking reflective practices for granted.

IMPLICATIONS

This article reveals that reflective practice empowers teachers to question their current practices and actions to bring improvement. This improvement leads to confidence in building self-efficacy among the teachers and emancipating teachers to think innovatively and creatively. Thus, this study benefits all teachers and practitioners in enhancing their professional skills by transforming their current practices. Similarly, in the different institutions of Nepal where reflective practice is taken for granted and institutions pose barriers to reflective practice, further study can be conducted to explore how various educational institutions empower their teachers for reflective practice and how reflective practice influences their professional growth and development.

REFERENCES

- Bain, J. D., Ballantyne, R., Packer, J., & Mills, C. (1999). Using journal writing to enhance student teachers' reflectivity during field experience placements. *Teachers and Teaching*, 5(1), 51-73. <https://doi.org/10.1080/1354060990050104>
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122. <https://psycnet.apa.org/doi/10.1037/0003-066X.37.2.122>
- Bandura, A., & Cervone, D. (1986). Differential engagement of self-reactive influences in cognitive motivation. *Organizational Behavior and Human Decision Processes*, 38(1), 92-113. [https://doi.org/10.1016/0749-5978\(86\)90028-2](https://doi.org/10.1016/0749-5978(86)90028-2)
- Boud, D. (2001). Using journal writing to enhance reflective practice. *New Directions for Adult and Continuing Education*, 2001(90), 9-18. <https://doi.org/10.1002/ace.16>
- Brookfield, S. D. (2017). *Becoming a critically reflective teacher*. John Wiley & Sons.
- Brooman, S., & Stirk, S. (2020). Who am I?: Using reflective practice and self-determination to redefine 'employability' in legal education. *Liverpool Law Review*, 41, 79-98. <https://doi.org/10.1007/s10991-020-09240-5>
- Bütün Ikwuegbu, Z., & Harris, R. (2024). Reflection and agency: The experiences of English language teachers in Türkiye. *Reflective Practice*, 25(2), 101-116. <https://doi.org/10.1080/14623943.2024.2304849>
- Carless, D., & Douglas, K. (2017). Narrative research. *The Journal of Positive Psychology: Dedicated to Furthering Research and Promoting Good Practice*, 12(3), 307-308. <https://doi.org/10.1080/17439760.2016.1262611>

- Clandinin, D. J. (2018). Reflections from a narrative inquiry researcher. *LEARNing Landscapes*, 11(2), 17-23. <https://doi.org/10.36510/learnland.v11i2.941>
- Dahal, N. (2024). Transformative visions of qualitative inquiry: Performative, philosophical, and artistic transformations. *The Qualitative Report*, 29(1), 312-318. <https://doi.org/10.46743/2160-3715/2024.6982>
- Dahal, N., Luitel, B. C., & Pant, B. P. (2019). Teacher-students relationship and its potential impact on mathematics learning. *Mathematics Education Forum Chitwan*, 4(4), 35-53. <https://doi.org/10.3126/mefc.v4i4.26357>
- Day, C. (1999). Professional development and reflective practice: Purposes, processes, and partnerships. *Pedagogy, Culture & Society*, 7(2), 221-233. <https://doi.org/10.1080/14681366.1999.11090864>
- Devkota, S. P., Giri, D. R., & Bagale, S. (2017). Developing 21st-century skills through project-based learning in EFL context: challenges and opportunities. *The Online Journal of New Horizons in Education*, 7(1), 33-57. <https://tojnih.net/journals/tojned/articles/v07i01/v07i01-07.pdf>
- Dewey, J. (1910). *How we think*. DC Health & Co. Publishers. <https://doi.org/10.1037/10903-000>
- Dwyer, R., Davis, I., & Emerald, E. (Eds.). (2017). *Narrative research in practice: Stories from the field*. Springer Singapore. https://doi.org/10.1007/978-981-10-1579-3_5
- Farrell, T. S. (2018). Reflective practice for language teachers. *The TESOL encyclopedia of English language teaching*, 1-6. <https://doi.org/10.1002/9781118784235.eelt0873>
- Ghaye, T. (2010). *Teaching and learning through reflective practice: A practical guide for positive action*. Routledge. <https://doi.org/10.4324/9780203833322>
- Gutierrez, S. B. (2015). Teachers' reflective practice in lesson study: A tool for improving instructional practice. *Alberta Journal of Educational Research*, 61(3), 314-328. <https://doi.org/10.55016/ojs/ajer.v61i3.56087>
- Habermas, J. (1972). Knowledge and human interests: A general perspective. *Continental Philosophy of Science*, 310. <https://doi.org/10.1002/9780470755501.ch23>
- Ham, M. (2022). Nepali primary school teachers' response to national educational reform. *Prospects*, 52(3-4), 365-385. <https://doi.org/10.1007/s11125-020-09463-4>
- Harun, R. N. S. R. (2020). 7 The 3E (engages, empowers, and emancipates): ESL teacher education curriculum in the development of future teachers. In *Localizing Global English* (pp. 104-124). Routledge. <https://doi.org/10.4324/9781003082705-8>
- Holt, S. (1994). Reflective journal writing and its effects on teaching adults. *The Year of the Review*, 3, 31-54. <https://files.eric.ed.gov/fulltext/ED375302.pdf>

- Horton-Deutsch, S., & Sherwood, G. D. (2017). *Reflective practice: Transforming education and improving outcomes* (Vol. 2). Sigma Theta Tau.
- Impedovo, M. A., & Malik, S. K. (2016). Becoming a reflective in-service teacher: Role of research attitude. *Australian Journal of Teacher Education*, 41(1), 100-112. <https://doi.org/10.14221/ajte.2016v41n1.6>
- Karnieli-Miller, O. (2020). Reflective practice in the teaching of communication skills. *Patient Education and Counseling*, 103(10), 2166-2172. <https://doi.org/10.1016/j.pec.2020.06.021>
- Kennedy, R. L., & Wyrick, A. M. (1995). *Teaching as reflective practice*. <https://eric.ed.gov/?id=ED393850>
- Kheirzadeh, S., & Sistani, N. (2018). The effect of reflective teaching on Iranian EFL students' achievement: The case of teaching experience and level of education. *Australian Journal of Teacher Education*, 43(2), 143-156. <http://dx.doi.org/10.14221/ajte.2018v43n2.8>
- Knowles, Z., & Gilbourne, D. (2010). Aspiration, inspiration, and illustration: Initiating debate on reflective practice writing. *The Sport Psychologist*, 24(4), 504-520. <https://doi.org/10.1123/tsp.24.4.504>
- Koukaki, A. S. F., & Adams, K. (2020). Enhancing professional growth and the learning and development function through reflective practices: An autoethnographic narrative approach. *European Journal of Training and Development*. <https://doi.org/10.1108/EJTD-09-2019-0165>
- Kramer, M. (2018). Promoting teachers' agency: Reflective practice as transformative disposition. *Reflective Practice*, 19(2), 211-224. <https://doi.org/10.1080/14623943.2018.1437405>
- Kuit, J. A., Reay, G., & Freeman, R. (2001). Experiences of reflective teaching. *Active Learning in Higher Education*, 2(2), 128-142. <https://doi.org/10.1177/1469787401002002004>
- Lamichhane, B. R., & Luitel, B. C. (2022). Telling an untold story of pedagogical practices in mathematics education in Nepal: Envisioning an empowering pedagogy. *Saptagandaki Journal*, 13(1), 48-69. <https://doi.org/10.3126/sj.v13i1.54946>
- Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective Practice*, 1(3), 293-307. <https://doi.org/10.1080/713693162>
- Loughland, T., & Alonzo, D. (2019). Teacher adaptive practices: A key factor in teachers' implementation of assessment for learning. *Australian Journal of Teacher Education*, 44(7), 18-30. <https://doi.org/10.14221/ajte.2019v44n7.2>
- Loughran, J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33-43. <https://doi.org/10.1177/0022487102053001004>

- Lutz, G., Scheffer, C., Edelhaeuser, F., Tauschel, D., & Neumann, M. (2013). A reflective practice intervention for professional development reduced stress and improved patient care—A qualitative developmental evaluation. *Patient Education and Counseling*, 92(3), 337-345. <https://doi.org/10.1016/j.pec.2013.03.020>
- Magalhães, M. C. C., & Celani, M. A. (2005). Reflective sessions: A tool for teacher empowerment. *Revista Brasileira de Linguística Aplicada*, 5, 135-160. <https://doi.org/10.1590/S1984-63982005000100008>
- Mahidzir, N. S. (2014). *Self-efficacy Moulding Reflective Practice Among Teachers* [Doctoral dissertation, Universiti Teknologi Malaysia]. <https://core.ac.uk/download/pdf/42921049.pdf>
- Mainali, B. R., & Heck, A. (2017). Comparison of traditional instruction on reflection and rotation in a Nepalese high school with an ICT-rich, student-centered, investigative approach. *International Journal of Science and Mathematics Education*, 15, 487-507. <https://doi.org/10.1007/s10763-015-9701-y>
- Mälkki, K., & Lindblom-Ylänne, S. (2011). From reflection to action? Barriers and bridges between higher education teachers' thoughts and actions. *Studies in Higher Education*, 37(1), 33-50. <https://doi.org/10.1080/03075079.2010.492500>
- Manandhar, N. K. (2022). A brickworker becomes transformative STEAM educator: Journey of resistance, advocacy, and envisioning. *Journal of Transformative Praxis*, 3(1), 59-74. <https://doi.org/10.51474/jrtp.v3i1.580>
- Mathew, P., Mathew, P., & Peechattu, P. J. (2017). Reflective practices: A means to teacher development. *Asia Pacific Journal of Contemporary Education and Communication Technology*, 3(1), 126-131. https://apiar.org.au/wp-content/uploads/2017/02/13_APJCECT_Feb_BRR798_EDU-126-131.pdf
- Mendoza, J. J. N. (2020). Pre-service teachers' reflection logs: Pieces of evidence of transformative teaching and emancipation. *International Journal of Higher Education*, 9(6), 200-226. <https://doi.org/10.5430/ijhe.v9n6p200>
- Mezirow, J. (2008). An overview on transformative learning. *Lifelong Learning*, 40-54. <https://www.taylorfrancis.com/chapters/edit/10.4324/9780203936207-12/overview-transformative-learning-jack-mezirow>
- Mohamed, M., Rashid, R. A., & Alqaryouti, M. H. (2022). Conceptualizing the complexity of reflective practice in education. *Frontiers in Psychology*, 13, 1008234. <https://doi.org/10.3389/fpsyg.2022.1008234>
- Mouraz, A., & Ferreira, I. (2021). Contributions of multidisciplinary peer observation to lecturers' reflective practices. *Journal of Interdisciplinary Studies in Education*, 10(1), 41-58.

- Msila, V. (2013). Instructional leadership: Empowering teachers through critical reflection and journal writing. *Journal of Social Sciences*, 35(2), 81-88. <https://doi.org/10.1080/09718923.2013.11893149>
- Newell, R. (1992). Anxiety, accuracy, and reflection: the limits of professional development. *Journal of Advanced Nursing*, 17(11), 1326-1333. <https://doi.org/10.1111/j.1365-2648.1992.tb01855.x>
- Ng, S. L. (2012, May). Reflection and reflective practice: Creating knowledge through experience. In *Seminars in Hearing* (Vol. 33, No. 02, pp. 117-134). Thieme Medical Publishers. <https://doi.org/10.1055/s-0032-1311673>
- Nocetti-De-la Barra, A., Pérez-Villalobos, C., & Philominraj, A. (2024). Obstacles to a favorable attitude towards reflective practices in preservice teachers in training. *European Journal of Educational Research*, 13(1), 145–157. <https://doi.org/10.12973/eu-jer.13.1.145>
- Nugent, P., Moss, D., Barnes, R., & Wilks, J. (2011). Clear (ing) space: mindfulness-based reflective practice. *Reflective Practice*, 12(1), 1-13. <https://doi.org/10.1080/14623943.2011.541088>
- O'Loughlin, M., & Campbell, M. B. (1988). Teacher preparation, teacher empowerment, and reflective inquiry: A critical perspective. *Teacher Education Quarterly*, 25-53. <https://files.eric.ed.gov/fulltext/ED291699.pdf>
- Osmanović Zajić, J., Maksimović, J., & Milanović, N. (2022). Personal and professional empowerment of reflective practitioner teachers during the Covid-19 pandemic. *Problems of Education in the 21st Century*, 80(2), 371-385. <https://doi.org/10.33225/pec/22.80.371>
- Pant, B. P. (2017). Doing, teaching, learning, and thinking about mathematics – on becoming a transformative teacher. *Journal of Education and Research*, 7(1), 11-24. <https://doi.org/10.3126/jer.v7i1.21237>
- Pellerin, M., & Paukner Nogués, F. I. (2015). Becoming reflective and inquiring teachers: Collaborative action research for in-service Chilean teachers. *Revista Electrónica de Investigación Educativa*, 17(3), 46-60. https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1607-40412015000300004
- Pham, T. T., Le, T. T., Phuong, H. Y., Nguyen, A. T., Huynh, T. A. T., & Nguyen, H. T. (2024). Qualitative examination of Vietnamese EFL teachers' reflective teaching: Insights into in-on-for reflection methods at different stages in their career. *Reflective Practice*, 25(1), 87–100. <https://doi.org/10.1080/14623943.2023.2297675>
- Plack, M. M., & Greenberg, L. (2005). The reflective practitioner: reaching for excellence in practice. *Pediatrics*, 116(6), 1546-1552. <https://doi.org/10.1542/peds.2005-0209>

- Rushton, I., & Suter, M. (2012). *Reflective practice for teaching in lifelong learning*. McGraw-Hill Education.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass. <https://psycnet.apa.org/record/1987-97655-000>
- Siden, J. Y., Murphy, J., & Wolff, M. (2021). Addressing learner anxiety via reflective practice. *The Clinical Teacher*, 18(6), 662-667. <https://doi.org/10.1111/tct.13432>
- Slade, M. L., Burnham, T. J., Catalana, S. M., & Waters, T. (2019). The impact of reflective practice on teacher candidates' learning. *International Journal for the Scholarship of Teaching and Learning*, 13(2), 15. <https://doi.org/10.3126/jer.v7i1.21237>
- Sunar, P. K., Pant, B. P., & Dahal, N. (2024). Knowing, doing, and becoming reflective practitioners: A narrative inquiry of STEAM educators. *Alberta Journal of Educational Research*, 70(1), 114–129. <https://doi.org/10.55016/ojs/ajer.v70i1.77719>
- Taylor, P. C., & Medina, M. (2011). Educational research paradigms: From positivism to pluralism. *College Research Journal*, 1(1), 1-16. <https://doi.org/10.13140/2.1.3542.0805>
- West, J. (2013). From being to becoming: the journey of becoming an organisational practice development facilitator through the stages of enlightenment, empowerment, and emancipation. *International Practice Development Journal*, 3. https://www.fons.org/wp-content/uploads/2024/03/IPDJ_03suppl_03.pdf
- Yost, D. S. (2006). Reflection and self-efficacy: Enhancing the retention of qualified teachers from a teacher education perspective. *Teacher Education Quarterly*, 33(4), 59-76. <https://files.eric.ed.gov/fulltext/EJ795226.pdf>

ANNEX: INTERVIEW GUIDELINES

1. Can you please tell me more about you and your profession?
2. How long have you been engaged in this profession, and what are your job responsibilities?
3. What is your understanding of reflective practice?
4. Do you practice reflection in your profession? If yes, how? If not, why?
5. Do you follow any specific guidelines for reflective practice?
6. Is reflective practice important? If yes, why?
7. Can reflective practice help improve your professional practice? Please explain.
8. Have you encouraged your teachers to implement reflective practice?

9. What are the challenges that you faced while implementing reflective practice?
10. How do you overcome those challenges?
11. What are the opportunities for reflective practices according to you?

BABITA MAHARJAN is a Research Fellow and Visiting Faculty at Kathmandu University School of Education. She has contributed significantly to Nepal's education field, focusing on participatory learning and place-based pedagogy. Her research explores integrating indigenous knowledge into modern pedagogical practices to promote sustainable living and contextual learning. Ms. Babita has co-authored several research articles and book chapters and actively participates in national and international conferences. She may be connected by e-mail babita_mpsteam22@kusoed.edu.np

PUSHPA KUMARI SUNAR is a Research Fellow and Visiting Faculty at the Kathmandu University School of Education. With 17 years of experience in the education sector of Nepal, she has been a leader and teacher educator, focusing on transformative education and art-based pedagogy. Coming from a marginalized community, Pushpa is deeply committed to using education to combat injustices. Her work includes research on innovative pedagogical approaches and participatory action research. She has co-authored several research articles and book chapters, contributing significantly to Nepal's education field. She may be connected by e-mail pushpa_mpsteam22@kusoed.edu.np

NIROJ DAHAL, PhD, is a lecturer in the Department of STEAM Education at Kathmandu University School of Education, Nepal. Dr. Dahal has been teaching both graduate and undergraduate students for over a decade. His research interests include ICT in education, qualitative research, transformative research, mathematics education, open, distance & e-learning, and STEAM education. Dr. Dahal has actively participated in and presented his research at over three dozen national and international conferences, workshops, and seminars. He has published editorials, articles, commentaries, book reviews, book chapters, and books in various national and international journals and publication presses. Dr. Dahal also serves as a managing editor for the [Journal of Transformative Praxis](#). He may be connected by e-mail niroj@kusoed.edu.np

BINOD PRASAD PANT, PhD is an Assistant Professor at the Department of STEAM Education, Kathmandu University, School of Education, Nepal. He earned M Ed and M Phil in Mathematics Education from Kathmandu University. He served as a visiting fellow at the University of Technology (UTS) Sydney after he received the Australian Award in 2017/18. He is a Ph.D. scholar in STEAM

Education. Binod has been working with several Nepali teachers and teacher educators who examine their lived experiences as students, teachers, and teacher educators. He speaks and writes about pedagogical innovations, uses of technology in education, child-friendly classrooms, authentic assessment, etc. His research interests are transformative educational research, participatory action research, mathematics education, STEAM Education, and research studies on reflective practices. He may be connected by e-mail binod@kusoed.edu.np.

NETRA KUMAR MANANDHAR, PhD scholar-STEAM Education, is lecturer at the Department of STEAM Education, Kathmandu University School of Education (KUSOED), Nepal. He has been teaching various courses of Master/MPhil levels and has been supervising the dissertations and research projects at KUSOED. He has presented some papers at national and international conferences and also published articles. His research interest is STEAM education, AI, science and technology in education, mathematics, and science education, transformative educational research, and research studies on reflective practices. He may be connected by e-mail netra@kusoed.edu.np.

Manuscript submitted: November 1, 2024

Manuscript revised: December 8, 2024

Accepted for publication: December 18, 2024
