

Schooling beyond the school: workplace learning in Nepal

Prakash Kumar Paudel and Mahesh Nath Parajuli
*Department of Development Education,
Kathmandu University School of Education, Lalitpur, Nepal*

Received 19 March 2022
Revised 29 July 2022
28 December 2022
Accepted 12 January 2023

Abstract

Purpose – The purpose of this paper is to discuss the formal workplace learning situation in Nepal and argue that workplace learning is not in priority in Nepali Technical and Vocational Education and Training (TVET) despite a regular policy emphasis.

Design/methodology/approach – Data were gathered using both desk-based review of pre-diploma and diploma-level curricula and semi-structured interviews with eight employers and six technical school principals. Coded themes were interpreted in the meaning-making process.

Findings – Workplace skills learning in Nepal has remained a neglected agenda. Despite some successful implementation practices and policy recognition, it is stagnated. Employers expect skills in graduates relevant to their demands. However, unfortunately, there needs to be more trust for a culture of shared responsibilities among employers and TVET providers for arranging the provisions so that the learners can acquire the skills that the employers need. There is a blaming game between them, which has ultimately resulted in the poor arrangement of workplace learning.

Practical implications – TVET providers' and employers' engaged participation in recognizing and developing workplace learning for making the learning as per the needs of the world of work could benefit them and also support students to upgrade and acquire employability skills.

Originality/value – This paper is based on empirical data and contributes new knowledge in academia which is still rare in the context of Nepal.

Keywords Skills, TVET, Workplace learning, Shared responsibilities

Paper type Research paper

Introduction

Enhancement of skills is one of the key components of education. There is a continuous debate on whether an individual learns skills better inside or outside the school premises (Billett, 2001; Bolli and Renold, 2017; Holt, 2005). On this account, the importance of learning inside and outside the school can be considered equal. Interconnection between these two learning settings in Technical and Vocational Education and Training (TVET) is crucial. Lindell and Stenström (2005) suggest considering the complexity of their collaborative arrangement for learning.

In the context of Nepal, before the advent of modern schooling, few religious institutions provided religious and some practical education to few people. There was also a home-schooling tradition where a teacher would teach some practical aspects like literacy and numeracy to



For their helpful feedback on an earlier draft, authors thank Prof. Ursula Renold, Chair of Education ETH Zurich, research committee KUSOED, and Dr Durga Prasad Baral. Authors also thank LELAM-TVET4INCOME – an r4d research project jointly funded by the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF) for financing the research.

This article draws from the PhD study of the first author on the relationship between education and employment.

some children from privileged families. Apart from these practices, the parents/grandparents or community members used to educate their younger generation, mostly in their clan, with occupational and other skills associated with their family (Shrestha, 1991). The occupational skills were also associated with a person of a particular group with their social status.

Though the first modern school was established towards the end of the 19th century, its meaningful expansion and development began only during the second half of the 20th century. The expansion of modern education resulted in the shift of home and community functions of educating children in schools. This also resulted in the confinement of most of the learning activities within the school premises. These early schools basically focused on the general type of schooling. There were, however, few schools focusing on some occupational or technical education. Only after 1951, particularly after the political transition that brought social and political openness in the country, technical stream of education was introduced with the aim of raising the country's production, increasing employment and enhancing livelihood by introducing programs like Village Worker Training Schools (National Planning Commission [NPC], 1956). These schools later paved the way for establishing modern TVET. This was also an opening for practical learning in which a part of schooling focused on specific occupations inside and outside of school. With the objective of expanding technical and vocational education in the country, the Council for Technical Education and Vocational Education and Training (CTEVT) was established in 1989.

At present, the formal TVET in Nepal is implemented as a technical stream at the secondary level and offered only at the selected schools. The technical stream education is offered at specialized technical schools (such as Technical Education in Community School [TECS] and Technical Stream in General School [TSGS]) and polytechnics (both constituents and affiliated private institutions of CTEVT). The constitution of the country, promulgated in 2015, declared that basic education (Grades 1–8) should be free and compulsory and secondary education (Grades 9–12) free (Nepal Law Commission [NLC], 2015). The basic level of education is provided in general schools such as community, institutional and religious. However, students can choose either the stream general or technical at the secondary level. Currently, out of the total students, only about 16% enrol in TVET stream (in both specialized TVET schools and TSGSs run programmes) for secondary and upper secondary (Grades 9–12) education (Centre for Education and Human Resource Development [CEHRD], 2019; Council for Technical Education and Vocational Training [CTEVT], 2019). It can thus be said that the general stream dominates the education system in Nepal; however, it is also true that the enrolment in formal TVET programmes has been increasing at a growing pace; for example, the annual enrolment of the students in degree-oriented programs increased roughly from 1,000 in 1994 to 50,000 in 2019 (Council for Technical and Vocational Education and Training [CTEVT], 1994, 2019) in recent years. Although CTEVT has passed over three decades, which was also expected to attract and skill early school leavers, the achievements are not yet at the level of satisfaction. For example, a significant number of adolescents (41.6%) leave school before they reach Grade 10 (CEHRD, 2019). A survey among the employed working-age population also showed that almost 8 in 10 (79.3%) were with qualifications below secondary education (Central Bureau of Statistics [CBS], 2019). This shows that many young people enter the world of work either with low education qualifications or without necessary occupational skills.

Scholars (Bonvin, 2019; Maclean and Wilson, 2009) argue that education, particularly TVET, usually integrates both in-school and out-school learning, enhances specific occupational skills and prepares an individual for the world of work. It helps to match skills according to demand in the existing employment and supports students to transit from the

world of education to the world of work (Pilz and Li, 2020). However, the studies conducted in Nepal have revealed that the employers' participation in implementing a curriculum is weak (Bolli *et al.*, 2018; Caves *et al.*, 2021). Employers were also found complaining about a lack of skills (both soft and hard skills) according to their demand for fresh graduates (Acharya, 2011). Considering the workplace learning opportunity as one of the prerequisites for reducing this gap of skills among employees, particularly TVET graduates, this paper explores the workplace learning situation in the formal TVET programme in Nepal. It argues that this could be a viable alternative for youth to update hard skills and acquire soft skills. However, despite some provisions for workplace learning, this approach has not worked well in Nepal.

The notion of workplace learning is not new in Nepal. The family-based apprenticeship has been run informally for a long and even now. In many cases, occupational skills were learned within the family for generations (Shrestha, 1991). The establishment of the Mechanical Training Center in Balaju in 1962, followed by the Butawal Training Institute in 1963, is considered the beginning of formal workplace learning (Council for Technical and Vocational Education and Training [CTEVT], 1994). These schools, also the pioneer for a formal apprenticeship programme, allowed students to learn in the industry for some specific period through on-the-job training and internships. Despite these early initiations of workplace learning, it did not flourish. Shrestha (1991) argued that constraints such as a lack of professionals to manage programmes, the readiness of employers and low standing of TVET could not produce the result to the expected extent. TVET learning activities remain within the school, although policies (such as CTEVT Act 1989, TVET Policy 2012 and Education Policy 2019) constantly provide space for workplace-based learning. This situation simply illustrates the policy practice gap in making workplace learning an integral part of the Nepali TVET system. In this context, this study, aiming to understand underlying problems, delves into learning arrangements for students outside of the school in workplace settings. School in this study refers to technical schools running pre-diploma and diploma programmes, and outside school denotes workplace learning.

In the following sections, drawing from literature, we discuss dimensions of skills and how important soft skills, along with hard skills, are for employment and are acquired in the workplace. In the finding section, we examine the course hours allocated for workplace learning in CTEVT offered Hospitality, Agriculture, Engineering, Humanities and Nursing curricula at pre-diploma and diploma levels. This is for assessing how the TVET curriculum has created the opportunity for students to be in the workplace and thus get a chance to learn skills. Likewise, based on primary data, we have also discussed the importance given by employers towards practically oriented skills learning, particularly in their employees. Low emphasis on workplace learning in Nepal that would obstruct students from enhancing relevant skills in a lively environment is also discussed. Finally, in the discussion section, we argue how workplace learning in Nepal has become a neglected agenda.

Dimensions of skills: hard and soft

The rationale for investment in education is that education, along with training and work experience, enables youth to live better lives (Renold *et al.*, 2016). Such investment also supports businesses to be more productive and efficient, broadly generating prosperity of action (Pilz and Li, 2020). An individual develops the capability with her/his knowledge, skills, abilities and other characteristics, which are formed throughout her/his lifetime through formal education or informal learning. For an individual, skill is a valuable resource that enables her/him to use other resources effectively and efficiently (Ployhart and

Moliterno, 2011). Furthermore, it helps the individual achieve economic success (Krasniqi and Topxhiu, 2016).

The skills are an individual's "endowment of capabilities for performing various tasks" (Acemoglu and Autor, 2011, p. 1045). These skills are acquired through various sources and are described dichotomously, assuming that general education provides general skills and that vocational education provides specific skills (Hanushek *et al.*, 2017). Commonly, skills are divided into cognitive and non-cognitive (Green, 2011). The cognitive skills include mental abilities such as reading, writing and numeracy that support performing activities effectively (Pierre *et al.*, 2014). In comparison, non-cognitive skills are related to social and personal traits, patterns of thought, attitudes and behaviours (Borghans *et al.*, 2008) which differentiate a person from others. According to Holmberg-Wright and Hribar (2016), cognitive skills have always been a basic requirement for entering the world of work. However, these scholars also agree that cognitive skills have limitations, as they would not consider other individual competencies such as personality, behaviour and other non-cognitive aspects. These skills with personality traits, motivations and preferences, at present, are equally emphasized in the labour market (Fazekas, 2018). According to Nusrat and Sultana (2019), non-cognitive skills (soft skills), in contrast to cognitive skills (hard skills), are not occupation-specific but are important in multiple situations. As such, these become crucial for gaining employment. However, compared to hard skills, soft skills are subjective; in this sense, they are difficult to measure.

Soft skills were traditionally considered to be riskier for investment (Eggenberger *et al.*, 2018) by economists, as there was no immediate outcome. But today's work world shows that cognitive skills alone are insufficient to keep individuals employed (Khalid *et al.*, 2014). The notion changed when empirical studies showed that soft skills contribute to generating a high return and increasing productivity in the long run. A study by Bolli and Renold (2017) revealed that many soft skills are better learned in the workplace than in school settings. In this regard, along with school-based learning for hard skills, the opportunity for workplace learning would support students to enhance soft skills.

Workplace learning: a viable place for learning skills

The learning aspect of a human being, particularly how a student effectively learns, is a long-time debate that continues to the present day. Richardson (2003) posits that an individual develops an understanding of a phenomenon based on the interaction of knowledge that is already acquired and confronted with. In this regard, learning is also a social activity (Vygotsky, 1980) in which individual learns collectively. Conventionally, formal learning takes place in schools; however, scholars (Dewey, 1916; Prosser and Allen, 1925; Snedden, 1914) urged to connect learning with socio-economic realities. More specifically, these scholars saw that occupation-based learning is a means for enhancing students' knowledge.

Workplace learning is an "ever-present practice that occurs through customary work systems and is acquired through work-related interactions" (Collin *et al.*, 2011, p. 303). In the workplace, learning is interconnected with work, and it provides the opportunity for acquiring and upgrading up-to-date knowledge. Guile and Griffiths (2001) talk about five learning models; traditional, experimental, generic, work process and connective for work experience. In the traditional model, learning occurs automatically; thus, the role of a supervisor is minimal. Reflection on work experience is important in the experimental model, and the supervisor only briefs on the work experience. However, supervisors facilitate students in their learning process in the generic model. The work process model provides students with both theoretical and practical learning opportunities to develop an

overall understanding of work. Finally, in the connective model, students' concepts and competencies developed in collaboration with the school and workplace. These models, however, are abstract and analytical and hardly fit into a specific workplace learning model (Tynjälä, 2008). With the country's specific system, apprenticeship, internship, job shadowing and service-learning are common practices for workplace learning (Organization for Economic Co-operation and Development [OECD], 2010) in vocational education.

Tremblay and Le Bot (2003) assess the German apprenticeship model and found it governed by three principles: duality, the primacy of occupation and consensus. Duality is shared responsibilities, the primacy of occupation is focused on skills and the consensus is an agreement in developing the content of the curriculum, implementing it through both classroom and workplace learning and ensuring quality with continuous and collective supervision. Apprentices learn theoretical knowledge in school and gain occupation-specific skills in business or industry. At the core, an apprenticeship provides favourable conditions for developing the competencies of trainee employees and improving their ability to perform in the workplace (Poulsen and Eberhardt, 2016). Internships and other forms of workplace learning models, however, differ from apprenticeship modality in providing students with classroom and workplace learning opportunities concurrently. Renganathan *et al.* (2012) explored the internship programme in Malayasia and found it a requirement to complete undergraduate study. Students would go for an eight-month industry internship programme and gain work-related experiences. A unit in the university takes a major role in managing internship opportunities, and industry people supervise and evaluate students in coordination with the university. Concluding workplace learning practices, apprenticeships and other types such as internships are designed to provide a learning environment for students that support transitioning from school to work (Organization for Economic Co-operation and Development [OECD], 2010). Nevertheless, scholars (Collin *et al.*, 2011; Fuller *et al.*, 2005) also suggest considering the limitations of workplace learning. Power inequalities, informal networks and the unorganized environment in the organization might obstruct learning.

Study method

In the study, we collected data from both secondary and primary sources. The secondary data includes the diploma and pre-diploma-level curriculum of CTEVT. The CTEVT is the largest TVET-implementing body in Nepal. The curricula of the six programmes, plant science, civil engineering, hotel management, nursing, entrepreneurship development and social mobilization, under five streams agriculture, engineering, hospitality, nursing and humanities, were reviewed in detail. The selected programmes consist of the highest enrolment trend in the last two years among other existing curricula (including both diploma and pre-diploma) under CTEVT.

Furthermore, based on the insights from the literature, we inquired qualitatively (Creswell, 2014) about TVET graduates' skills and workplace learning with the employers and school principals. Initial interactions were made with about 48 persons, including employers and school principals, who were directly or indirectly engaged in the curriculum process of CTEVT. These interactions included group discussions and individual interactions, which the first author carried out from February to June 2020. The objective of these interactions was to share the findings derived from the curricula review and prepare for individual interviews. Kvale (2007) argues that such interactions help to identify the flaws or support to make necessary preparation for major study. Drawing from those interactions, eight (three, three and two employers from the hospitality, construction and

manufacturing industry, respectively) were interviewed in the study. All these employers had experience supervising trainee students in workplace learning.

Similarly, six school principals from both affiliated and constituent schools of CTEVT were interviewed, considering at least two years of experience as a principal (see [Appendix](#) for detail). [Lincoln and Guba \(2000\)](#) posited that the selection of participants in qualitative research is related to transferability, and the goal is to apply the conclusions to other individuals or contexts. In this case, the sample in a qualitative study depends more on careful selection rather than its size ([Mooi et al., 2018](#)). [Lohr \(2021\)](#) pointed to the challenges of biases the researcher faces in selecting a sample purposefully. The researcher was somewhat biased in setting criteria, however, flexible in selecting the participants. [Miles and Crisp \(2014\)](#) recommend selecting participants randomly to address the issues. The researcher did not select participants, instead, included them with their interests upon the researcher's request randomly. The initial interaction with the employers and principals was made virtually; however, the individual interview with employers and principals was conducted in person. We followed the protocol suggested by [Yin \(2018\)](#) for collecting information from the field. The first is setting the study issue. The objective of conducting interviews in this study was to explore workplace learning situations. The second was the data collection procedure. The individual participants were requested before the interview, and the interview was scheduled at their favourable time. The third protocol was questions for the interview. The overall design for the questions used in the protocols is to gain information that helped in exploring the phenomena ([Yin, 2009](#)). We set interview themes to keep concentrated on the research objectives. However, subjective prompt questions were also asked in between the interview time. And the final protocol was reporting the interviews. The author used a diary and wrote a brief note about the conversation. Upon the participants' consent, a few interviews were also recorded. The researcher transcribed the data after each interview and detailed the interaction. [Creswell \(2014\)](#) suggests a researcher also can use audio media and keep detailed notes on each interview in a journal. The researcher used field notes from journals taken during the interviews. The interviews were further transcribed, and themes were generated from the provided information for the meaning-making process. For this, transcribed texts were coded and produced a summary report of coded themes (see [Appendix](#)). [Cornish et al. \(2013\)](#) show the strength of the collaborative qualitative study that helps the researcher from an unreasonable jump. However, they also suggest considering possible practical, identity and open debate challenges. The first author conducted all interviews and data collection as a part of his study; hence, there was no such practical confusion for field engagement. The co-author also contributed to preparing the fieldwork, such as developing a checklist for interviews and analysing both secondary and primary data; however, the engagement was made with the first author's generated output. The study's findings were shared among research participants, TVET experts and academicians, which also supported us in making open debate.

Technical and Vocational Education and Training curriculum and workplace learning in Nepal

To see how this workplace learning is in practice at present, we examined the allocated course hours for workplace learning out of the total course hours incorporated in the curriculum of five different programmes of CTEVT and presented them in [Table 1](#).

According to the annual report of [Council for Technical and Vocational Education and Training \(CTEVT\) \(2019\)](#), there are 202 curricula, of which 48 are diploma and proficiency of certificate level (PCL) and 22 in pre-diploma level. This study includes the curriculum of

Streams	Programme	TCH	Diploma		TCH	Pre-diploma	
			SBL (%)	WL* (%)		SBL (%)	WPL (%)
Agriculture	Plant science	3,537	87	14	2520	62	38
Engineering	Civil engineering	3,370	100	–	2520	62	38
Health**	Nursing	4,633	38	62	–	–	–
Hospitality	Hotel management	3,873	73	27	2520	62	38
Humanity	Entrepreneurship development and social mobilization	3,873	73	27	2520	62	38

Table 1.
Allocated course hours for workplace learning in the curriculum of CTEVT

Notes: TCH: total course hour; SBL: school-based learning; WL: workplace learning; *The workplace learning hours do not include school-based practical learning because they are not performed in real workplaces. **The PCL is equivalent to the diploma level. Pre-diploma-level curriculum under health is excluded because all such programmes are phased out
Source: Author’s compilation and calculation based on the existing CTEVT curriculum available in <http://ctevt.org.np/>

plant science (both diploma and pre-diploma) in agriculture, civil (both diploma and pre-diploma) in engineering, nursing (PCL) in health/nursing, hotel management (both diploma and pre-diploma) in hospitality and diploma in entrepreneurship development and pre-diploma in social mobilization in humanities considering the highest trend of students’ enrolment.

Workplace learning is found integrated into studied programmes, except diploma in civil engineering. Nevertheless, school-based learning is dominant, except for nursing, among other programmes. The PCL in nursing has the highest (62%) compared to the diploma in plant science, in which workplace learning time is allocated the least (14%). Compared to the diploma-level programmes, workplace learning time is consistent at the pre-diploma-level allocation. One of the reasons can be that the curricula of pre-diploma are recently revised, and workplace learning has become ubiquitous in the curriculum, as it has gained continuous policy attention in the last few years. In the following sub-sections, based on field engagement, we present employers’ say on required skills in the employment and then detail employers and school principals’ experience in arranging workplace learning opportunities for the students.

Employers equally value hard and soft skills in an employee

In the interview, one of the participants (*Employer 4*) said he preferred to hire employees from the neighbouring country India. He further said, “I find a lack of dedication among Nepali employees. They hardly take the work seriously”. He gave an example, “once I had a contract of constructing a building. And it was a supervisor (technical graduate) taking charge of work. He could not employ the labour force for timely construction. I had a great loss”. Acharya (2011, p. 47) also found that employers were reluctant to hire new employees “because of a lack of disciplined workers”. The other employer (*Employer 6*) in the construction sector said, “I hire a technical person for their certificate as it increases points while bidding. I rarely assign them any important responsibility since it is very difficult to make them understand the work”. The contractor added that he continues only with the technical graduates if get ready to learn and get integrated easily into the working environment.

Soft skills were equally important criteria for hiring new employees in the hospitality sector. One of the hotel industry's human resource managers (*Employer 3*) in the interview shared his incidents:

I often take trainee students from a nearby technical school in occasional festive. Once, I had overbooking ceremonies. I was enchanted with the presentation skills of two trainee students whom I requested the principal to send. I immediately recruited them.

The presented narratives show that the graduates' enhanced skills, particularly soft skills, have been in priority of the employers. In this case, soft skills in Nepali graduates become an asset for getting employed. It also indicated that an arrangement for workplace learning for the TVET graduates in Nepal would add value on the part of both employers who get competent employees and the students who get the opportunity to develop their occupational skills.

Lack of a culture of shared responsibilities for workplace learning

One of the themes explored in the qualitative interview with employers was that they were dissatisfied with graduates with no workplace learning experience. One of the employers (*Employer 8*) expressed, "I have got a costly machine, and I need to make sure with my employees that s/he has seen and learned to handle it". In the interview, most employers emphasized the importance of learning in the workplace; however, they could not find readiness in the students for learning. A participant (*Employer 5*) said that TVET graduates were theoretically sound but in real work situations, they get puzzled as they rarely had an engagement in the workplace during their learning period. He further added that students must learn what works in real situations with other colleagues. Likewise, an employer (*Employer 7*) in the manufacturing industry claimed that students visit the industry but do not get engaged in real work. Employers' claim that fresh graduates lack practical workplace skills is supported by no opportunity for workplace learning for students, as in a diploma in civil engineering (see [Table 1](#)) or poorly managed workplace learning opportunities.

In contrast to employers, technical school principals (*Principals 3, 4 and 5*) shared that only some employers get interested in receiving trainee students and providing relevant working places. The principals also shared that he usually gets complaints from students that they are not provided with the opportunity to learn in their relevant work. In such a situation, according to him (*Principal 4*), the "workplace sometimes becomes harassing to the student". He also informed that the trainee students in the industry are sometimes exploited by the workload, which also can result in the dropout of the students. The principals (*Principals 2 and 6*) pointed out the importance of workplace learning opportunities. One of them (*Principal 2*) claimed it was learning and earning opportunities. However, a principal from a government school (*Principal 6*) shared the challenges of finding relevant workplaces for students. In such a situation, a principal from a constituent school of CTEVT (*Principal 1*) said, "we send students to industrial learning based on our contact, and there are selective industries where we often send our students".

The contrasting picture is that the graduated students neither know the context nor gain experience and skill. They are not provided with enough support and care and are even harassed. Although the employers got an opportunity to hire competent employees, they viewed it as more important to the students. Employers (1 and 2) argued that they had provided an important platform for students to get first-hand experience. The situation shows a lack of trust between employers and TVET schools and a lack of interest in collaborating for better student learning and enhanced productivity. Such a gap is neither in

favour of students nor employers or schools; instead, it is a critical problem of the Nepali TVET system. There is thus no alternative to strengthen collaboration between employers and TVET providers for better workplace learning for students and, eventually, for enhanced productivity and an effective TVET system in the country. In the following section, we discuss the study's findings in the broad aspect of workplace learning that shows actors of it yet to internalize ownership in making workplace learning an integral part of Nepali TVET.

Workplace learning – a neglected area in Nepal

This study assessed workplace learning opportunities in the TVET curricula of six programmes implemented under CTEVT. The result indicated that most programmes include workplace learning as part of the study; however, the allocated course hours are inconsistent. Pre-diploma programmes, compared to Diploma, provide workplace learning opportunities more consistently. Overall, classroom learning has become a dominant mode of learning even though workplace learning could be a viable place for learning many soft skills (Bolli and Renold, 2017). Similarly, this study also revealed that employers value both soft and hard skills. In some specific cases, soft skills, such as presentation, interpersonal and learning aptitudes, were more advantageous for the graduates to get employed. Nevertheless, a workplace that provides opportunities for learning soft skills and updating hard skills becomes a neglected agenda for both TVET providers and employers.

Two distinct reasons, among others, stood out, resulting current workplace learning situation. The first is that policies are not internalized in practice, and the second is a lack of shared responsibilities among TVET providers and employers, making workplace learning more effective. This study found that workplace learning in Nepal has remained part and parcel of policy for a long, but in practice, it stagnated. Employers perceived trainee students as visitors sent to the workplace only to complete course hours. A study by Bolli *et al.* (2020) found that employers make net benefit in their involvement in workplace learning; however, in this study, employers emphasized the benefit only on the part of students. As employers did not perceive the benefit on their part, students' learning became less priority.

This does not mean that employers do not see the importance of workplace learning. Employers expect intensive engagement in the workplace, even during students' short visits. Unfortunately, they do not find readiness in the students for real work engagement. Students' insufficient engagement in real work during workplace learning makes it difficult for employers to trust them even after graduation. The students are sent to the workplace and assigned a supervisor to facilitate their learning. However, the lack of shared responsibilities between TVET providers and employers managing workplace learning resulted in poor student learning outcomes.

TVET providers, particularly school principals, also pointed out challenges such as a lack of relevant employers in the locality and employers' disinterest in providing students opportunities for learning relevant skills. School principals used informal channels to explore workplace opportunities for their students when it was difficult to approach employers formally in the local market. However, such an informal, personalized relationship affects the formalized structure (Haaland, 2010). Given the limited support and assigning trainee students irrelevant work during their workplace learning, as claimed by school principals, it even resulted in students' dropout from learning. In this case, how the TVET providers and employers share the responsibilities of arranging workplace learning is more important (Tremblay and Le Bot, 2003). Rabeth and Renold (2019) argue that equal power-sharing between TVET providers and employers encourages them to share their

responsibilities. Nevertheless, both the principals and employers were found yet to define their responsibilities and make a consensus among them. Renold *et al.* (2018) urge a solid regulative system to minimize the gap and promote partnerships between these actors of education (school principals) and employment (employers). Nepal lacks such workplace learning governing policies in the federal context; thus, the initiatives remain fragmented.

The interviews with the employers and school principals showed a blaming game between them (see Appendix). This could also be taken as one of the reasons for persisting problems in realizing the workplace as an important skill-learning place in Nepal. These actors of two systems (education and employment) typically run with different objectives and governing structures. The school holds the government power, and employers are just individuals or agencies. There always remains a power struggle; however, the state power that schools possess legitimizes over the employers (Bourdieu, 1989). This possible power struggle between TVET providers and employers is also a constraint in implementing workplace learning effectively. This could also be taken as one of the reasons for persisting problems in realizing the workplace as an important skill-learning place in Nepal. Similarly, TVET gains low social value among employers, as they do not find a relevant workforce; thus, it becomes a neglected area despite continuous attempts being made at the policy level.

Conclusion

Schooling beyond the school has become pertinent to enhance relevant skills in youth. The need for learning in the workplace has long been felt and is in practice in Nepal. However, so far, it has remained sporadic, carried out in an unorganized manner and thus gone unrecognized. Little effort has been done to systematize, recognize and expand it. This study has shown that both key actors, employers and TVET providers, have yet to work on building a culture of shared responsibilities for enhancing workplace learning. But the lack of trust between these two key actors has become a roadblock to the effective implementation of workplace learning.

On the one hand, employers see a lack of skills in the TVET graduates; on the other hand, school principals view employers are reluctant to provide learning opportunities to the students. This has ultimately resulted in poor arrangements for workplace learning. The strengthened collaboration will entrust them to making consensus on relevant occupational skills and support implementing curriculum in schools and the workplace. In this study, we concentrated only on the formal sector. Skills learning takes place in the informal sector as well. This is also an important research area where we need to focus.

References

- Acemoglu, D. and Autor, D. (2011), "Skills, tasks and technologies: implications for employment and earnings", in Card, D. and Ashenfelter, O. (Eds), *Handbook of Labor Economics*, Elsevier, Amsterdam, pp. 1043-1171.
- Acharya, T. (2011), "A study of technical education and vocational training programs in Nepal", General Federation of Nepalese Trade Unions.
- Billett, S. (2001), *Learning in the Workplace: Strategies for Effective Practice*, Allen and Unwin, Crows Nest.
- Bolli, T. and Renold, U. (2017), "Comparative advantages of school and workplace environment in skill acquisition: empirical evidence from a survey among professional tertiary education and training students in Switzerland", *Evidence-Based HRM: a Global Forum for Empirical Scholarship*, Vol. 5 No. 1, pp. 6-29.

- Bolli, T., Caves, K.M., Renold, U. and Buergi, J. (2018), "Beyond employer engagement: measuring education-employment linkage in vocational education and training programmes", *Journal of Vocational Education and Training*, Vol. 70 No. 4, pp. 524-563, doi: [10.1080/13636820.2018.1451911](https://doi.org/10.1080/13636820.2018.1451911).
- Bolli, T., Kemper, J., Parajuli, M.N., Renold, U. and Thapa, B.K. (2020), *Projection of Net Benefits for Companies in the Dual VET-Apprenticeship Programme in Nepal (No. 145)*, KOF Studien.
- Bonvin, J.M. (2019), "Vocational education and training beyond human capital: a capability approach", in Mulder, M. and Stuart, P. (Eds), *Handbook of Vocational Education and Training: Developments in the Changing World of Work*, Springer, Berlin, pp. 1-17.
- Borghans, L., Duckworth, A.L., Heckman, J.J. and TerWeel, B. (2008), "The economics and psychology of personality traits", *Journal of Human Resources*, Vol. 43 No. 4, pp. 972-1059.
- Bourdieu, P. (1989), "Social space and symbolic power", *Sociological Theory*, Vol. 7 No. 1, pp. 14-25.
- Caves, K.M., Ghisletta, A., Kemper, J.M., McDonald, P. and Renold, U. (2021), "Meeting in the Middle: TVET programs' education-employment linkage at different stages of development", *Social Sciences*, Vol. 10 No. 6, p. 220.
- Central Bureau of Statistics (CBS) (2019), "Report on the Nepal labor force survey 2017/18", available at: https://cbs.gov.np/wpcontent/uploads/2019/05/Nepal-Labour-Force-Survey-2017_18-Report.pdf
- Centre for Education and Human Resource Development (CEHRD) (2019), "Flash I report 2018/19", available at: www.doe.gov.np/assets/uploads/files/cbe2b2b1ae68bb5bdaa93299343e5c28.pdf
- Collin, K., Sintonen, T., Paloniemi, S. and Auvinen, T. (2011), "Work, power and learning in a risk filled occupation", *Management Learning*, Vol. 42 No. 3, pp. 301-318, doi: [10.1177/1350507610394411](https://doi.org/10.1177/1350507610394411).
- Cornish, F., Gillespie, A. and Zittoun, T. (2013), "Collaborative analysis of qualitative data", in Flick, U. (Ed.), *The SAGE Handbook of Qualitative Data Analysis*, Sage, London, pp. 79-93.
- Council for Technical and Vocational Education and Training (CTEVT) (1994), "CTEVT profile".
- Council for Technical and Vocational Education and Training (CTEVT) (2019), "Annual report 2074/75", available at: www.ctevt.org.np/files/2075-pubannual%20report%20final.pdf
- Creswell, J.W. (2014), *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed., Sage, London.
- Dewey, J. (1916), *Democracy and Education*, Macmillan, London.
- Eggenberger, C., Rinawi, M. and Backes-Gellner, U. (2018), "Occupational specificity: a new measurement based on training curricula and its effect on labor market outcomes", *Labour Economics*, Vol. 51, pp. 97-107.
- Fazekas, K. (2018), "What are the trend in demand? The appreciation of non-cognitive skills", in Fazekas, K. and Köllő, J. (Eds), *The Hungarian Labour Market 2017*, Institute of Economics, Centre for Economic and Regional Studies, pp. 149-57.
- Fuller, A., Hodkinson, H., Hodkinson, P. and Unwin, L. (2005), "Learning as peripheral participation in communities of practice: a reassessment of key concepts in workplace learning", *British Educational Research Journal*, Vol. 31 No. 1, pp. 49-68.
- Green, F. (2011), "What is skill? An inter-disciplinary synthesis", Centre for Learning and Life Chances in Knowledge Economies and Societies.
- Guile, D. and Griffiths, T. (2001), "Learning through work experience", *Journal of Education and Work*, Vol. 14 No. 1, pp. 113-131.
- Haaland, G. (2010), "Reflection on contrasting views on themes in Chinese civilization", *Dhaulagiri Journal of Sociology and Anthropology*, Vol. 4, pp. 1-20.
- Hanushek, E.A., Schwerdt, G., Woessmann, L. and Zhang, L. (2017), "General education, vocational education, and labor-market outcomes over the lifecycle", *Journal of Human Resources*, Vol. 52 No. 1, pp. 48-87.
- Holmberg-Wright, K. and Hribar, T. (2016), "Soft skills-the missing piece for entrepreneurs to grow a business", *American Journal of Management*, Vol. 16 No. 1, p. 11.

- Holt, J. (2005), "School is bad for children", in Gardner, J. (Ed.), *New Directions: Reading, Writing, and Critical Thinking*, Cambridge University Press, Cambridge, pp. 59-63.
- Khalid, N., Hamid, N.A.A., Sailin, R., Othman, N., Awang, A.H. and Nor, M.F.M. (2014), "Importance of soft skills for industrial training program: employers' perspective", *Asian Journal of Social Sciences and Humanities*, Vol. 3 No. 4, pp. 10-18.
- Krasniqi, F.X. and Topxhiu, R.M. (2016), "The importance of investment in human capital: Becker, Schultz and Heckman", *Journal of Knowledge Management, Economics and Information Technology*, Vol. 6 No. 4, pp. 1-18.
- Kvale, S. (2007), *Doing Interviews*, Sage, London.
- Lincoln, Y.S. and Guba, E. (2000), "Paradigmatic controversies, contradictions, and emerging confluences", in Denzin, N. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research*, 2nd ed., Sage, London, pp. 163-188.
- Lindell, M. and Stenström, M. (2005), "Between policy and practice: Structuring workplace learning in higher vocational education in Sweden and Finland", *Journal of Workplace Learning*, Vol. 17 No. 3, pp. 194-211, doi: <https://doi.org/10.1108/13665620510588707>.
- Lohr, S.L. (2021), *Sampling: Design and Analysis*, Chapman and Hall/CRC, Boca Raton.
- Maclean, R. and Wilson, D. (2009), *International handbook of Education for the Changing World of Work: Bridging Academic and Vocational Learning*, Springer Science and Business Media, Berlin, Vol. 1.
- Miles, E. and Crisp, R.J. (2014), "A meta-analytic test of the imagined contact hypothesis", *Group Processes and Intergroup Relations*, Vol. 17 No. 1, pp. 3-26.
- Mooi, E., Sarstedt, M. and Mooi-Reci, I. (2018), *Market Research: The Process, Data, and Methods Using Stata*, Springer, Singapore.
- National Planning Commission (NPC) (1956), "The first five year plan (1956-61)", available at: https://npc.gov.np/images/category/FirrstPlan_Eng.pdf
- Nepal Law Commission (NLC) (2015), "The constitution of Nepal 2015".
- Nusrat, M. and Sultana, N. (2019), "Soft skills for sustainable employment of business graduates of Bangladesh", *Higher Education, Skills and Work-Based Learning*, Vol. 9 No. 3, pp. 264-278, doi: <https://doi.org/10.1108/heswbl-01-2018-0002>.
- Organization for Economic Co-operation and Development (OECD) (2010), "Learning for jobs. Synthesis report of the OECD", Reviews of vocational education and training, doi: [10.1787/9789264087460-en](https://doi.org/10.1787/9789264087460-en)
- Pierre, G., Sanchez, P., Maria, L., Valerio, A. and Rajadel, T. (2014), "STEP skills measurement surveys: Innovative tools for assessing skills", Social protection and labor discussion paper, no. 1421, World Bank Group, available at: <http://hdl.handle.net/10986/19985>
- Pilz, M. and Li, J. (2020), *Comparative Vocational Education Research: Enduring Challenges and New Ways Forward*, Springer, Berlin.
- Ployhart, R.E. and Moliterno, T.P. (2011), "Emergence of the human capital resource: a multilevel model", *Academy of Management Review*, Vol. 36 No. 1, pp. 127-150.
- Poulsen, S.B. and Eberhardt, C. (2016), "Approaching apprenticeship systems from a European perspective (No. 171)". Wissenschaftliche Diskussionspapiere, urn:nbn:de:0035-0589-8.
- Prosser, C.A. and Allen, C.R. (1925), *Vocational Education in a Democracy*, Century Company.
- Rageth, L. and Renold, U. (2019), "The linkage between the education and employment systems: ideal types of vocational education and training programs", *Journal of Education Policy*, Vol. 35 No. 4, pp. 503-528, doi: <https://doi.org/10.1080/02680939.2019.1605541>.
- Renganathan, S., Ambri Bin Abdul Karim, Z. and Su Li, C. (2012), "Students' perception of industrial internship programme", *Education + Training*, Vol. 54 Nos 2/3, pp. 180-191, doi: <https://doi.org/10.1108/00400911211210288>

- Renold, U., Bolli, T. and Caves, K. (2018), "Constitutional reform and its impact on TVET governance in Nepal: second report in support of developing understanding and finding the way forward for federalising the TVET sector in Nepal (No. 114)", KOF Studien.
- Renold, U., Bolli, T., Bürgi, J., Caves, K., Egg, M.-E., Rageth, L. and Kemper, J. (2016), *Feasibility Study for a Curriculum Comparison in Vocational Education and Training: Intermediary Report II: Education-Employment Linkage Index*, ETH Zürich.
- Richardson, V. (2003), "Constructivist pedagogy", *Teachers College Record: The Voice of Scholarship in Education*, Vol. 105 No. 9, pp. 1623-1640.
- Shrestha, S.M. (1991), "Historical analysis of vocational education in Nepal", Doctoral dissertation, Virginia Tech, USA, available at: <https://vtechworks.lib.vt.edu/handle/10919/38618?show=full>
- Snedden, D. (1914), "Fundamental distinctions between liberal and vocational education", *Journal of Education*, Vol. 79 No. 11, pp. 299-300.
- Tremblay, D.G. and Le Bot, I. (2003), *The German Dual Apprenticeship System: An Analysis of Its Evolution and Present Challenges*, York University, Toronto, available at: <https://bit.ly/3EJ6TiC>
- Tynjälä, P. (2008), "Perspectives into learning at the workplace", *Educational Research Review*, Vol. 3 No. 2, pp. 130-154.
- Vygotsky, L.S. (1980), *Mind in Society: The Development of Higher Psychological Processes*, Harvard University Press, Boston.
- Yin, R.K. (2009), *Case Study Research: Design and Methods*, Sage, London, Vol. 5.
- Yin, R.K. (2018), *Case Study Research and Applications Design and Methods*, 6th ed., Sage, London.

Corresponding author

Prakash Kumar Paudel can be contacted at: prakashpaudel@kusoed.edu.np

Participant	Industry/ School	Type	Summary of view on required skills in TVET graduates	Coded theme	Summary of view on workplace learning	Coded theme
Employer 1	Hospitality	Private	It is more important how students present to customers than what they know	Presentation skills	An important platform for students, if they want to groom	Value WL but see the importance on part of students
Employer 2	Hospitality	Private	Students need to get ready for all situations	Dynamic	It is more important to the students because they get an opportunity for first-hand experience	Value WL but see the importance on part of students
Employer 3	Hospitality	Private	Students need to know the proper recipe but would be great if they present it with a smile	Both hard and soft skills	Place students every year in an internship and often hire among them	See benefits on the employer's part as well
Employer 4	Construction	Private	Students' dedication to work is required	Dedication	Students do not engage with commitment	Dissatisfaction with students' readiness to learn
Employer 5	Construction	Private	Students need technical knowledge; however, also need to know what works in a real situation	Both hard and soft skills	Learning in the workplace is important to knowing real work	Value WL
Employer 6	Construction	Private	Without practical work experience, hiring TVET graduates is just for a certificate	Working experience	If students learn with other colleagues on the site, they will learn to handle the work	Value WL but see the absence of readiness in students
Employer 7	Manufacture	Private	If students become ready to learn, we will teach them to work	Readiness	Students visit but do not learn	Dissatisfaction with poor management
Employer 8	Manufacture	Private	It becomes difficult to trust those who have never seen how a machine works	Working experience	It is difficult to handover the costly machine to freshers	Lack of trust
Principal 1	Constituent*	Government	—	—	We send students for workplace learning based on personal contact	Lack of guiding policy
Principal 2	Constituent	Government	—	—	Students also earn while learning in the workplace	Value WL but see the importance on part of students
Principal 3	Private**	Private	—	—	Employers do not want to place the trainee students	Blame on the other side/no consensus

(continued)

Table A1.
Participants and interview summary with coded themes

Table A1.

Participant	Industry/ School	Type	Summary of view on required skills in TVET graduates	Coded theme	Summary of view on workplace learning	Coded theme
Principal 4	Private	Private	-	-	Sometimes becomes a place of harassment for students if we do not coordinate properly	Lack of supervision/ coordination
Principal 5	TECS***	Government	-	-	Employers place students in irrelevant work	Lack of relevancy of the work
Principal 6	TECS	Government	-	-	Good opportunity for students but difficult to implement	Important but see challenges

Notes: *Constituent: technical schools, constituent of CTEVT, receive regular funds from the government, **Private: technical schools affiliated to CTEVT but do not receive government funds. They manage operation costs through tuition costs from the students, ***TECS: technical schools in community schools are government institutions providing general education and are affiliated to CTEVT for TVET programmes. They receive partial funds from the government to run the TVET programmes