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Informal skills learning

A case study of small-sized enterprises in Nepal

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INFORMAL SKILLS LEARNING: A CASE STUDY OF

SMALL-SIZED ENTERPRISES IN NEPAL

Durga Prasad Baral

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This thesis entitled *Informal Skills Learning: A Case Study of Small-Sized Enterprises in Nepal* was presented by Durga Prasad Baral on 29 November 2022.

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I understand that my dissertation will become part of the permanent collection of

Kathmandu University Library. My signature below authorizes the release of my

dissertation to any reader upon request for scholarly purposes.

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DEDICATION

To my late father Sitaram Baral

(who was a role-model innovative informal skills learner)

***

To my mother Ambika Devi Baral

(who is an icon of informal skills learning facilitator)

&

all informal skills learners across the world-

(who create their workplace a learning center)

DECLARATION

I hereby declare that this thesis has not been submitted for the candidature for any other degree.

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ABSTRACT

An abstract of the thesis of Durga Prasad Baral for the degree of *Doctor of Philosophy in Education (Development Studies)* presented on 29 November 2022

Title: *Informal Skills Learning: A Case Study of Small-Sized Enterprises in Nepal*

Abstract Approved

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Prof. Mahesh Nath Parajuli, PhD   Prof. Ursula Renold, PhD

Thesis Supervisor   Thesis Supervisor

In the context of underdeveloped countries, where the informal economy prevails, dimensions of informal skills learners—workers with relatively low educational qualifications and working in informal work-settings—are enormous in the total national employment. However, this is a scantly researched area. This qualitative case study explores how such learners learn and develop skills and progress in their occupational life in Nepal. The study explores the following questions: 1) How do informal skills learners acquire their skills? 2) How do informal skills learners experience the drivers and barriers in skills learning? and 3) How do informal skills learners develop occupational skills at the workplace?

Following Robert Yin's qualitative case study approach, I designed the research. I observed small-sized enterprises of four different occupations—pottery, metalcraft, two-wheeler mechanics, and fast food—located in the Kathmandu Valley of Nepal. The study had 17 informal skills learners from those occupations as the research participants. I interpreted the information obtained from the field based on learning theories, particularly the workplace learning theory of Knud Illeris.

The study concluded that the primary process of skills learning is the *herne/sunne-sochne-garne-saparne* [see/listen-think-do-improve], but not as a linear process that relies on some specific skills learning approaches. The study explored that informal skills learners use mainly two learning approaches. The first is reflection and action, including observation, memorization, imitation, and performing trial and error. The second is social interaction, including feedback. The research also found that informal skills learners face multiple drivers and barriers to skills learning, mainly related to the organization or their personal characteristics and situation.

Overall, the study concluded that informal skills learning is a gradual process of skills development and occupational progression that passes through different learning phases—*entry or orienting, skilling, improving, and mastering*. Finally, the study presents a dynamic model of informal skills learning and development as a primary knowledge contribution of the research.

Keywords: informal skills learning, learning drivers and barriers, TVET

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LIST OF ACRONYMS

ADB	Asian Development Bank
CAQDAS	Computer-Assisted Qualitative Data Analysis Software
CBS	Central Bureau of Statistics
CTEVT	Council for Technical Education and Vocational Training
GoN	Government of Nepal
ILO	International Labor Organization
ICT	Information and Communication Technology
KUSOED	Kathmandu University School of Education
LELAM	The Research Project (Linking Education and Labour Market: Under What Conditions Can TVET Improve the Income of Youth?)
MoEST	Ministry of Education, Science and Technology
NGO	Non-Governmental Organization
NOSS	National Occupational Skill Standard
NSTB	National Skill Testing Board
NVQF	National Vocational Qualifications Framework
RPL	Recognition of Prior Learning
SLC	School Leaving Certificate
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training

CHAPTER I

INTRODUCTION

Learning to climb on an indoor climbing wall is not the same as learning to climb on a dark, wind-swept, ice-covered mountainside.

- David Hamilton

(*Learning about education- An unfinished curriculum, 1990*)

In countries like Nepal, where the informal economy prevails, children and adolescents drop school earlier and join to work what they find. They generally enter informal jobs, which later become their primary occupation. They also learn occupational skills during their work. Such informal workplace learning—learning informally at the workplace— has been one of the crucial aspects of skills learning in Nepal, showing the socio-cultural, political, and economic dimensions of Nepali society. By ignoring all these aspects, we have been neglecting our context and realities; knowing about informal skills learning is also essential to ensure the rights of those people. Their lack of access to opportunities indicates the socio-economic divide– the privileged go to formal education, and the discriminated go to informal workplace learning.

Scholars have tried to differentiate learning with different learning venues, learning intentions, and learning outcomes. One ubiquitous classification is formal, non-formal, and informal ways of learning, defined with the initiation of grand institutions such as UNESCO and the European Union (UNESCO Institute for Lifelong Learning [UIL], 2012). According to the definition, formal learning occurs at formal education and training institutions, leading to a particular qualification. Formal

learning is "structured according to educational arrangements such as curricula, qualifications, and teaching-learning requirements" (UIL, 2012, p. 10). Contrary to formal learning, informal ways of learning can happen everywhere, such as in daily life, family work, or other social and community activities. Such learning can be visible and incorporated into the qualifications "through the recognition, validation, and accreditation process" (UIL, 2012, p. 10). These definitions inform that informal and experiential learning are sometimes used interchangeably, although they are not the same. Non-formal way of learning is learning that has intermediary characteristics. It occurs "in addition or alternatively to formal learning" (p. 10). Depending on the context and objectives, it can be flexible and structured, generally conducted in workplaces and community-based organizations. Like informal learning, non-formal learning can be recognized, validated, accredited, and associated with formal qualifications.

Due to the domination of formal education and training, informal workplace learning is less recognized and incorporated into the national system. Moreover, we know very little about how those people—informal skills learners— learn those skills. Realizing that such learning is important and should be part of the Technical Vocational Education and Training (TVET) system, I explore the process and dynamics of such skills learning in this qualitative case study. Primarily, I engage in the workplace learning theory of Illeris (2007), which sees a person's learning as a result of two interactions— internal psychological acquisition as a process of learning within a person and the external interaction among the people and the socio-cultural environment. The knowledge generated from this study offers new insights into the education and training arena, particularly into TVET policy and practice.

I begin this chapter by sharing two of my life stories from childhood and adolescence with my educational and career journey, which shaped my beliefs and assumptions that have primarily influenced this research. I then problematize my research issue and set my research purpose and questions. I will then try to establish the rationale of my study. I also share one conversation with my relative regarding the research field and topic, which helps the readers understand my study's focus more precisely. Finally, I briefly mention the major parts included in different chapters.

My Career: Along the Path of Lifelong Learning

As Seidman (2006) believes, I am convinced that human life is a collection of learning and stories. Like all people, I have piles of life stories. I like to share two such stories—one from childhood and another from adolescence. But, before presenting these stories, I want to mention how my childhood and adolescence went on.

I was born in one of the mid-hill settlements of the country, Nepal. Despite the proximity to the capital city, Kathmandu, it was connected to the road networks just a decade ago. Being born and brought up in a middle-class peasant family, I had the opportunity to learn about diverse rural communities' socio-cultural activities. I have learned a lot from the stories transferred from my elders and learned different things from my own experiences. These two are among those experiential stories of my life.

Story One

Traditional religious festivals bore great importance in my community. Particularly, when the rainy season would conclude and Autumn started, we, as children, would become excited, welcoming a great festival *Dashain*[1]. One of the

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[1] Dashain is one of the greatest Hindu festivals celebrated by large majority of Nepalis.

reasons for becoming excited was that we would get new garments during this festival.

There were neither formally trained tailors nor organized tailoring enterprises in the locality for making our garments. *Damai* families who are scheduled as Dalit Caste (Parajuli, 2012) and traditionally practising tailoring occupation (and are still practising in different places) from their ancestry had to provide their service for preparing garments.

There was a primary school (up to grade five). I was in grade two. On the eve of *Dashain* festival*,* our family's turn came to prepare the festival garments. *Sante Damai* (used pseudonyms in both stories), a mature traditional tailor, came to our home with the hand-operated sewing machine at his back wrapped in a veil, which was later stationed outer yard. His small son of my age, *Birkhe*, was together with him. Birkhe also sat on the *Gundri* (straw-mat). The hand-drawn sewing machine started to operate with a peculiar sound pleasing us. After a while, Birkhe opened a tiny tin box and picked a needle adjoined with a long thread. Then, he took a garment item and started to stitch the clothes.

My elder sister, nine, and I observed all the duo-Damai's activities standing outside the yard's skirt. But I did not realize when the sister moved, so I was alone. "What are you watching there *Babu* [my dear]?" my father's screaming voice interrupted my attention.

I had already become curious. Multiple queries were emerging in my mind. However, I was uncomfortable asking the seniors questions because I was a shy child. So, I silently stood and watched as if I had not listened to my father. Seeing my deep concentration, my father probably felt empathy for me; he lovingly asked a second time, "What are you thinking, *Babu*? Please tell me."

"How he [Birkhe] learned sewing garments, *Buba* [Papa]?" I hesitatingly asked. Probably, my question did not bear meaning to him. He entered the house chanting, "what a silly question he asks!". However, I was delving into this question— "How can Birkhe stitch garments?"

Story Two

After completing the fifth grade at my local school, I moved to a higher-grade school for further study. I self-learned for one year at my home under the guidance of one teacher. Then, my parents decided to enrol me in grade seven at a high school. There were two options. The first option was to go to my district headquarters, a distance of a one-day walk. The next option was to go to the neighbouring district headquarter, which was nearer, about two to three hours of walk from my village. My parents decided to send me to the neighbouring district headquarters, and I was enrolled in a high school in grade seven.

I did not watch television in my childhood and adolescence because we did not have that. But our family listened to a radio transistor. One day, the transistor broke down. My father brought the broken transistor to the town where I studied to get it fixed. We, my father and I, visited one of the radio repair shops. Two men were busy repairing transistors in the shop—one mature adult and a young boy. We gave the broken transistor to the boy and requested him to fix it. The boy asked my father questions, then took a screwdriver and dismantled the transistor. Then, he took a needle-like device and joined it with a thin wire. He repeatedly adjusted the transistor's battery cells and touched upon the different bright knot-like points on the plate. The radio started to produce a noisy sound. After a while, a popular song by *Dharma Raj Thapa*, one of the famous folk singers of that time, broadcasted: "*Haha*

Tare' Haha…Haha Male' Haha….". I became very excited because that was one of my favourite folk songs.

Meanwhile, I smilingly peered at my father's face. He was also smiling. The boy mechanic resembled the transistor back. My father settled the bill, and we accomplished our mission.

I was feeling inquisitive. "What is your name *Daju* [elder brother]?" I asked the boy who repaired the radio. "My name is *Santosh*!" he answered. "How did you learn to repair such transistors?" I added the question. The boy pulled another broken transistor from the side rack, started unscrewing the nails, and answered— "Where to say! Just I learned this [skill] here while working".

I still wanted to ask other questions but did not want to disturb him. Extending the following question to myself, I followed my father. The question inside me was— "How did he learn to fix a radio if he did not have teachers like our school?" Later on, growing up, I realized that schools do not teach all learnings. My career as a lifelong learner supported deepening this particular issue.

My study outside of the home has been continuing to date. Over time, I also understood that learnings from experience outside formal educational programmes are also valuable. So, I briefly present my academic, professional, and personal experiences in the following paragraphs.

In search of quality education, after two years of studying at the neighbouring district headquarters, my father sent me to the capital city, Kathmandu, for further secondary-level education and enrolled me in one of the reputed public schools. I passed the national examination named School Leaving Certificate (SLC). Then, my parents admitted me to the Certificate in Civil Engineering (CCE) course at the only engineering college in the capital city. I entered the national labour market as an

aspirant job-seeker when I completed this course. As a result, I got a job as a Civil Overseer in the Ministry of Local Development. Under the Ministry, I worked on two different construction-related projects.

My first duty station was in a rural development project working in some districts of eastern Tarai[2]. I got the responsibility of the Site In-charge of one mule-track construction work. I led and managed different jobs, such as fixing alignment, surveying, preparing cost estimates, and supervising construction activities. After about two years, the Administration transferred me to a mid-hill district. I visited different rural settlements and led rural construction such as community building construction, water supply, reservoir tank construction, river training work, etc.

I have learned a lot while working on these two projects under the then Ministry of Local Development. Most technicians and workers working on rural construction projects under my supervision either lacked or had a significantly low level of school education and formal training certificates. But, the quality of their work was of an acceptable level with minor exceptional cases. I would frequently think, "how efficient would they [crafts persons and workers] be if they got the opportunity of formal training in their field?"

After three years of government service as a construction technician, I pursued higher education in my educational field. After six years of scholarship abroad, I returned with a Master's Degree in Civil Engineering. And again, I entered the national labour market as a Civil Engineer with some additional capacity.

During about two decades of my work in a leading TVET institution in the country in different positions, I got the opportunity of working and interacting not

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[2] Among the three major ecological region, Tarai is the southern plane of Nepal which constitutes 23 percent of the total area of the country but dwells more than 50 percent of the total population (CBS, 2011).

only with people from formal institutions but also from informal sectors, private businesses, industries, employers as well as the guardians of trainees of technical schools.

One of my learnings was that the country's formal working and employment sector is significantly lesser than the overall size. The informal and private sector is the dominating sector contributing to developing occupational skills in their enterprises required for the business and industry. Mainly, I acquired these experiences and learning during supervision field visits, interaction with stakeholders, and facilitating community support activities as a part of my work.

During my eight-year work tenure in United Nations and Swiss projects working in TVET, peace, and development, I also had the opportunity to understand more about the people with low economic conditions. While working on these projects, I learned that the business and industry community suffered from the unavailability of trained human resources and had to rely on an informally trained workforce (Asian Development Bank [ADB], 2015). In contrast, graduates of TVET programmes were not getting suitable jobs because employers were not hiring them due to their skills deficiency.

My work experience has shaped my perspectives and assumptions. Learning should be valued and recognized, not considering the means and ways. As informal skills learners are the people who obtain skills during their work relevant to their occupation, the national TVET system should value such learnings and should incorporate them into the national system. I have three primary premises shaping this study. First, informal skills learners have to work in comparatively tough work situations. Second, informal skills learners face more barriers than drivers, which demotivate them from their work and learning. Finally, the third premise is that

through informal skills learning, together with the execution of work, a person without or with a very low level of occupational skills can become skilled and capable. These beliefs and premises supported me in stating the research problem.

Statement of the Problem

The informal sector in the South Asian Region is a giant employment sector that employs more than 80 percent of the total working population (World Bank, 2019). Nepal is a multi-caste and multi-ethnic country. Although the recent census of Nepal is silent about the total ethnic groups in the country (Central Bureau of Statistics [CBS], 2022), according to the previous census, there are more than 125 different caste groups (CBS, 2012). Many of those caste groups have traditional occupational skills and practices transmitted from generation to generation. The country's informal sector employs more than 70 percent of the economically active population in traditional or other occupational sectors (International Labour Organization [ILO], 2020). However, the TVET sector of Nepal poorly incorporates such skills development efforts (Renold & Caves, 2017).

Linking TVET with informal sector work practice is vital as it offers "much for TVET" (Billett, 2013, p. 141). In Nepal, such learners acquiring skills in their workplace are everywhere, not only in the informal sector—from the government to private informal type organization, and from micro to big-sized enterprises (Baral, 2020a). However, those people are not getting the opportunity of having formal training (Adhikary, 2012). Notably, the inclusion of informal skills is more demanding in the changed federalized context of Nepal (Renold & Caves, 2017).

Furthermore, a lifelong learning opportunity is the right of an individual citizen of the country (UIL, 2012). So, it is urgent to increase the access of real, needy people (including informal skills learners) to the TVET system, as envisioned by the

recent TVET Policy (Government of Nepal [GoN], 2012; Regmi, 2020). Besides, it is necessary to streamline this considerable mass of people who learned occupational skills in their effort to the TVET system through RPL (Sweet, 2013). Furthermore, Dhungel (2014) concluded that the TEVT system of Nepal is still in the "infant stage" (p. ii) regarding access to higher education for people with experiential learning. So, the first and foremost necessity of the national TVET system is to know how such informal skills learners learn and develop occupational skills. Based on this knowledge, the system could design TVET programmes accordingly.

Colley et al. (2003) pointed out the need and recommended research on "learning in a number of significant workplace environments" (p. 71). Similarly, Singh (2015) also indicated the need for further study in the sector of skills development in the informal and workplace learning context to "assist with educational mobility and social and economic development" (p. 190). Considering the case of Nepal, it is natural that the TVET system had to have much information on the skills and occupations directly related to the country's socio-cultural aspects. Particularly, the TVET system should have information on how the massive population of informal workers learn skills. In which conditions do they learn such skills? What types of support and obstacles do they feel in learning occupational skills? And, how do those workers cum learners progress in their occupational life? Unfortunately, the situation is not such. In this study, I explore the occurrence of such informal skills learning and development primarily premised on the workplace learning theory of Illeris (2011).

Research Purpose

The overall purpose of this case study is to explore the process and dynamics of informal skills learning and development. In particular, it aims to understand the

process of learning skills, the motivations and obstacles that exist during the learning process, and the experiences of informal skills learners on occupational skill development and progression.

Research Questions

As the research's central phenomenon is informal skills learning dynamics and the mentioned purposes, the main research question is:

- How are the process and dynamics of informal skills learning and development?

Accordingly, the subsidiary research questions are:

RQ1. How do informal skills learners acquire their skills?

RQ2. How do informal skills learners experience the drivers and barriers in skills learning?

RQ3. How do informal skills learners develop occupational skills at the workplace?

Rationale of the Research

Upgrading diverse work-related informal practices is one of the contemporary global TVET agendas (Bahl et al., 2019, p. 15). Unfortunately, TVET organizations and institutions in Nepal focus on providing formal and non-formal TVET programmes in which youth participation is less than expected. Those considerable masses who lack sellable skills (ADB, 2015) either could not attend school or dropped out the mid-way and started a job rather than opting for non-formal training. They directly enter the labour market, generally getting access to small-sized enterprises. Recognition of skills obtained by these workers— informal skills learners— is inevitable.

The study has two major rationales. The first rationale is the growing importance of informal workplace learning in global TVET research, particularly in a few decades (Sawchuk, 2009). However, such increased research in the field is

concentrated in the developed part of the world (Boud & Middleton, 2003; Manuti et al., 2015; Rogers, 2014). Despite realizing the inevitability of workplace learning in developing countries, including Nepal (Cuinen et al., 2015), the research is minimal (Barber, 2004; Mehrotra & Biggeri, 2007; Noe et al., 2013; Regel & Pilz, 2019). Furthermore, one of the characteristics of developing countries is their huge dimension of the informal economy, where most workers learn occupational skills through their work in the enterprise of informal sectors. Nevertheless, such skills are rarely researched and information of occurrence of such skills are scarce. Due to this scarcity, policy formulation and programme designing are affected. This study contributes to the TVET sectors of developing context through knowledge generation in the field of informal skills learning.

The next rationale for this research is my intrinsic motivation for studying in this area. Because I grew up in a rural Nepali community, I got enough opportunity to understand its socio-cultural aspects and was curious to learn more. Besides, as I spent most of my career in the TVET sector, I had ample motivation to learn more in the sector. Therefore, my desire to contribute to the field is also a reason for pursuing this study. I expect that the findings and conclusions of this research will undoubtedly contribute to the TVET sector of Nepal and other countries with similar socio-cultural contexts.

Understanding the Research Topic and Key Terminologies

The three research questions' main essence is acquiring skills, learning, and acquisition. Although these three terminologies, learning, acquisition, and acquiring, bear specific meanings, they are common processes and outcomes of ability within the human. Learning results from conscious effort, whereas acquisition happens unintentionally while performing activities. For instance, learning a language as a

mother tongue is understood as an acquisition because it happens mostly unknowingly. Whereas knowing a foreign language is learning which learned through dedicated effort. So, Zaščerinska (2010) sees learning as an 'external' process, whereas acquisition is 'internal' (p. 1). However, learning is a more prevalent word in all—formal, non-formal, and informal learning fields.

Acquiring implies both processes of acquisition and learning. In this thesis, I have used learning and acquisition synonymously in some cases. However, specific context is considered to make it more clear.

Besides learning and acquisition, it is essential to precisely understand informal skills learners and their features, such as their education, family background, work setting, or their 'practice setting' (Billett, 2013). Workplace learning occurs either in a formal work setting or in a less organized informal setting. However, workplace learning in an informal work-setting is understood as informal workplace learning. Informal skills learning—the focus of this study— is understood as learning occupational skills by those who start their job in an informal work setting with/without minimal educational qualification and progress their career. Though informal skills learning can happen in all types of organizations, such as size and formality (Baral, 2020a), the learning happens mostly in small-sized occupational enterprises of the informal sector. Therefore, informal skills learning provides both meanings —an acquisition process and skills content. Informal skills learners are youth and adults in different stages of occupational skills development and progression.

I have provided a conversation (Box 1) with one of my relatives, a retired professor while informing him of my research topic. This conversation might help readers understand informal skills learners, mainly their unique features.

Among the different life phases of a human—childhood, youth, adulthood, and mature adulthood (Illeris, 2007)—in this study, I have not looked into childhood learning. Instead, I have focused on learning at the youth and adult stages, including mature adulthood.

Box 1

A Conversation with My Relative Academician

Relative (R): About what are you doing for your PhD?

Durga (I): This is about learning.

R: Oh, interesting! I think this is a broad matter, isn't it?

I: Yes, but I will not be involved in the whole learning of human beings. There is a notion that a person learns knowledge, skills, and attitude through different means. My part is not concentrating on knowledge and attitude. My focus will be on skills learning. I will be focussing on how a person learns skills.

R: Fine. Even regarding skills, there might be multiple sources of it. Are you selecting any particular field or, let's say, sector?

I: You are very right. I will be exploring how a person learns skills while performing the job.

R: You mean learning through work experience?

I: I will not research formal or non-formal workplace learning, even among workplace learning. My concentration will be on exploring workplace skills and learning informally.

R: Do you mean that your research field is the informal sector? And you are going to meet workers from that sector?

I: You see, it is a bit tricky to conceptualize this. Informal skills learning does not mean it happens only in informal sector jobs. It can also occur in other formal jobs and work settings. However, you are also right because informal skills learning happens mostly in informal sector jobs in small-sized enterprises.

R: It means informal skills learners are everywhere—in formal and informal organizations; in public and private organizations; family-run to micro and giant organizations. Is it so?

I: Yes, that is so. Although informal skills learning can happen in diverse organizations, its main venues are informal enterprises. Of course, we can also say that such learning might also occur in formal enterprises (because they fulfill a few minimum mandatory conditions like registration). Still, in practice, they are informal.

R: As I understood, your research participants will be those people who generally have lower educational qualifications and work in an informal setting. Am I right?

I: You correctly understood my research focus. Such workplaces can be of traditional occupation where skills transfer from the former generation to the latter or the so-called 'modern occupation' that are not run since ancestry and emerged later.

R: OK! That's fine. Now it is clear to me. Could you please repeat the title of your research?

I: "Informal skills learning: A case study of small-sized enterprises in Nepal."

R: Thanks a lot! I wish you the timely completion of the research project. Please don't hesitate to ask for any support you feel instrumental.

I: Thank you very much for your eagerness to learn about my research topic and your promise of support.

Structure of the Thesis

I have organized the thesis into eight different chapters. After this first chapter, I have presented the literature review in the second chapter. Beginning with an introduction to the chapter, I have offered concepts and theories of workplace learning and then moved to discuss workplace learning as a research field. While doing so, I summarized different empirical studies in the field and then moved to locate the field of informal skills learning within informal workplace learning, under which I have also presented the conceptual framework guiding this research project. Likewise, I have dedicated the third chapter to a case study as my methodological approach for this study. I began by discussing aspects like designing, performing preparatory activities, and collecting and compiling case study evidence and then moved to describe analysis and reporting, quality concerns, and ethical considerations adopted in the research process.

The subsequent three thematic chapters (IV-VI) present the analysis and findings based on the field's information, answering the three research questions. In the fourth chapter, I have focused on how learners learn informal skills. Divided into

three sections, the first section of this chapter focuses on the general skill learning process and stresses that *improvement* is the central activity in this process. Similarly, in the second section of the chapter, I have presented the research result on the approaches that informal skills learners use while learning skills. In the third section, I have presented the general understanding of skills learning, considering the approaches and processes together.

The fifth chapter provides information on drivers and barriers that informal skills learners experience. Mainly, I have analyzed and discussed what encourages a person to learn skills informally and what discourages or demotivates them. Based on the analysis, I have presented the skills learning process with the metaphor of a unicycle ride in the third section. Similarly, in the sixth chapter, I have presented the findings related to the third research question regarding informal occupational skills development as a life journey for informal skills learners. In the first section, I have presented informal skills learners' changing roles and responsibilities with increased skill levels. Likewise, in the second and third sections, I have presented the socio-cultural environment for skills development and occupational progression and the phases of skills development and occupational progression.

The seventh chapter is the synthesis chapter, where I have provided my understanding drawn from this research. I have presented the central knowledge claim of my study in this chapter, offering a dynamic model of informal skills learning and development. Finally, in the eighth chapter, I have provided the conclusions, implications, and limitations of the research and my reflection on PhD research journey.

CHAPTER II

INFORMAL WORKPLACE LEARNING AS A RESEARCH FIELD

The previous chapter introduced the overall research project, including the problem, rationale, purpose, and research questions. These aspects demanded a rigorous and continuous literature review to achieve the stipulated aims of my thesis. In this chapter, I have facilitated the readers for arriving at the major field of the research—informal workplace learning— from the overall concept of learning and workplace learning and locating the position of informal skills learning research gap.

For the conduction of the literature review, the initial grounded theory approach considered that early literature review could pollute the open nature of qualitative research. So a researcher should initiate the research without a literature review (Thornberg, 2012). However, I concurred with the contemporary scholars who believe that the literature review from the beginning of the research process supports conceptualizing the field and sketching the roadmap for the conduction of the research (Merriam, 2009; Rossman & Rallis, 2017).

I began my work by developing a "literature map" (Creswell, 2016, p. 138), as illustrated in Appendix B, which supported me in scrutinizing the literature selection. Then I followed the process recommended by the other two scholars. Based on Cooper (1988), I decided on the characteristics of my literature review. I performed an audit trail (see Appendix F), defining the review's focus, searching relevant literature, classifying the documents, and creating the summary (Randolph, 2009). Although the primary field of literature was workplace learning and informal workplace learning, these mainly represented TVET or HRD research field. Such literature covers both organizations and programmes—public, private and other types

such as academia, not considering the organization's size. However, among the typology of learning based on formality, most selected literature was from the informal learning domain. These processes yielded some themes, which I have presented in different sections and sub-sections.

The whole chapter has been divided into six sections. After introducing the chapter, the following section has clarified learning and workplace learning. In the third section, I have discussed the general informal workplace learning research area in two main themes—evolution and research trend and empirical research in the field. Further, empirical research in the field has been presented under six different sub-themes—nature of informal workplace learning, the general antecedent for informal workplace learning, learner's and organization's characteristics in the learning process, learning environment and conditions, motivations, and inhibitions to learning, and skills development as a life-journey. In the fourth section, I have explored the research scenario of informal skills learning. For this, I have provided information on the TVET system of Nepal, particularly regarding recognizing informal workplace learning, highlighted the research gap in this field, and presented a conceptual framework of the research. Finally, I have provided the essence of the chapter.

Workplace Learning: Concepts and Theories

Since learning is a complex phenomenon, scholars widely agree that the learning process is challenging to understand (Hamilton, 1990; Jarvis, 2007; Rogers, 2014; Sawchuk, 2015). What a person learns in the course of the work is also complex. In addition, conceptualizing education is a challenge. Scholars have presented different ideas on understanding education (Carliner, 2013). An informal skills learner, during the work, learns not only occupational skills but also additional

diverse knowledge and attitude. It is impossible to differentiate between learning types— knowledge, skills, and attitude. However, it is necessary to understand their characteristics conceptually. Learning theories explain how such learning happens (UNESCO, 2020).

Learning knowledge means acquiring new information. It is associated with the cognitive process of the human mind. As the scope of knowledge is broader, diverse definitions exist but not a well-accepted definition of knowledge (Biggam, 2001). Though this research focuses on the skills learned by a worker, it is understandable that the person also learns knowledge and attitude during work.

Likewise, the concept of skills is not well clarified in the international learning discourse (King, 2012, p. 1). However, learning a skill is more associated with 'doing' as knowledge provides the connotation of knowing or getting information. From the beginning of learning research, skill is understood as "any combination, useful to industry, of mental and physical qualities which require considerable training to acquire" (Renold, 1928, as cited in Winterton et al., 2006; p. 26). These skills mentioned in this definition were the so-called "hard skills" necessary to perform specific technical tasks. But, besides these skills, there are other types of soft skills associated with the behavioural part of a person, including interpersonal relationships and other job-related value-adding skills (Vijayalakshmi, 2016). Informal skills learners acquire diverse skills, including hard and soft skills, and develop "human capability" during their work (Bryson, 2010, p. 1).

Besides knowledge and skills, attitude is another part of learning associated with an individual's behaviour. It is also an essential component of overall learning, without which it is impossible to utilize learning for a meaningful life. As for knowledge and skill, the definition of attitude also varies considerably. One of the old

literature on learning mentions that attitude involves three things- "an attitude object, a set of beliefs, and a tendency to behave" (Kulbertson, 1968, p. 79). In fact, as Dexbury (1975) stressed, a learner needs a robust attitude part so that learning can happen efficiently (as cited in Miller, 1984). A person can develop a work-related attitude by acquiring soft or life skills. Therefore, attitude is equally vital in skills learning at the workplace besides skills and knowledge.

Work and Skills Learning

Work is an inevitable part of human evolution, even from the gathering and hunting era (Billett, 2013; Volti, 2012). Domestic and agricultural managements were the preliminary work of civilized humans travelling through different ages. With the change in society, work and occupations also became specialized. The main area of present TVET research is guided basically by this notion of work and learning, which ranges from a continuum of education and learning to work, employment, and the economy (Grollman & Hayward, 2008). Learning has been one crucial activity of humans enhanced through work experience (Guile & Griffiths, 2001). It is instrumental in a country's human and economic development. Informal skills learners are the people who do learn occupational or life skills while performing the work. Together with skills, informal skills learners also learn knowledge and attitude.

During work, people learn multiple skills—both hard and soft skills. However, most authors emphasize workers learn soft skills while working. The reason is that hard skills are trade-specific learning, but soft skills are diverse life skills contributing to successful progression in a career. In reality, workplaces are better places for learning soft skills than formal educational settings (Bolli & Renold, 2015). Although scholars debate conceptualizing and defining soft skills, they agree they are essential. For example, Hayes (2002) argues that subordinate and managers need soft skills. It

makes a person capable of tackling general day-to-day circumstances and problematic situations such as the pandemic of Covid-19 (Watkins & Marsick, 2020).

Among the terminologies under soft skills are behavioral, interactive, personal, face-to-face, people, social, and social competence (Hayes, 2002; Mehrotra & Singh, 2019). Regarding the acquisition of soft skills, Mehrotra and Biggeri (2007) insisted that specialized work better provides soft skills than generic ones. However, I do not entirely agree with this conclusion. Although it can be the case in some circumstances, workers learn more soft skills when they have to work of diverse nature and have to be engaged in the generic tasks. However, learning of such skills certainly vary because it also depends on the diverse characteristics of workplaces which can be explained through the constructivist theory of learning.

Constructivism: Roots of Workplace Learning

Learning theories explain the process of how learning takes place. As learning is vague and complicated (Illeris, 2018), the coverage and diversity of learning theories are intensive, which is not within the scope of this literature review. UNESCO (2020) mentions that the foundational learning theories include multiple other theories. Such theories include behaviourism, cognitive psychology, constructivism, and social learning theory. Similarly, socio-constructivism, situated learning, multiple intelligence, experiential learning theory, and other related learning theories are mentioned in the literature.

However, this research's leading learning and workplace learning theories are grounded on constructivism—the primary root of experiential learning (Illeris, 2018). The definition of constructivism is not identical among the theorists and scholars (Amineh & Asl, 2015). However, it deals with learning constructed through a person's

activities. Such activities are either personal (or psychological) or interpersonal (or social).

My theoretical position on exploring the process and dynamics of informal skills learning, particularly in a workplace of informal nature, is based on the blend of two learning perspectives—constructivism and experiential learning theory. The constructivist orientation of learning theories has two branches (Merriam et al., 2007). The first theory is cognitive constructivism, pioneered by Piaget and later acknowledged by Dewey. According to the workplace learning theory premised on Piaget, learning (as products) occurs through four different types of learning (as processes). These learning types are cumulative, assimilative, accommodative, and transformative (Illeris, 2007). The next is social constructivism, advocated by Vygotsky, which supports learning as the product of the mediation of a learner with other people, communities, and cultures (Amineh & Asl, 2015). Workplace learning theories are rooted in the idea of these constructivists.

Workplace Learning Theories and Some Critiques

There is a plethora of literature on learning associated with work. However, here, I will only briefly mention two of such theories—the workplace learning theory of Illeris, and the situated learning theory of Lave and Wenger (1991), which I found nearer to explaining the phenomena of learning in an informal work setting, although scholars also see the possibility of using situated learning theory in a formal educational setting (Besar, 2018). I also provide the strengths and weaknesses of these theories and the rationale for selecting the Illeris theory as the major analytical lens.

Before mentioning these two theories, it is important to discuss how skills learning occurs while working is being treated by scholars. It is largely accepted that most workplace learning is informal learning. However, some scholars are not

convinced about treating workplace learning as 'informal' or 'formal'. Among such scholars, Billett (2002) is among the most influential thinkers who advocate that workplace-related learning should be understood as 'participatory practices' (p. 56), which comprises learning and workplace pedagogy. According to him, learning happens as a tension between social needs and individual development, which has interdependent characteristics rather than deterministic characteristics.

According to Billett (2002), different activities occurred in the workplace are determined by historical, cultural, and situational factors. These elements also determine the extent and dimension of learning. Different exercises at workplaces determine how much learners get opportunities for learning. Furthermore, the structure of workplace learning provides a basis for the sustainability of learning. Thus, according to Billett (2002), workplace learning is "often inherently pedagogical" (p. 59). He argues that workplace learning is also guided by intentions, aims, and interactions like learning in formal educational institutions. So, the classification of workplace learning onto 'formal' and 'informal' contributes to obstructing the constructive process of learning of human agency.

Although the analysis and idea of Billett (2002) are thought-provoking, I am with those scholars who see workplace learning as formal and informal. The main rationale for this classification, I believe, is that it helps to understand the nature of learning and the organization of such learning in the TVET system. At least, the informality of the learning setting and process should be considered.

Workplace Learning Theory of Knud Illeris

Knud Illeris—Danish professor of lifelong learning and theorist—study includes how people learn in general with low skills. According to his theory (Illeris, 2007), learning occurs basically with two types of interactions— 1) psychological

interaction between learning content and learning motivation (within the human brain), and 2) interaction of the learner with society (Figure 1). Overall, learning theory is instrumental in explaining the informal skills learning dynamics. However, the *"Holistic Workplace Learning Theory of Working Life* (Illeris, 2004) provides certain specificities of workplace learning for youth or adults. This model depicts two learning aspects— 1) general learning of a person (shown by the upper downward triangle in Figure 1) and learning through work practice (illustrated by the lower upward triangle in Figure 1).

Figure 1

Holistic Learning in Working Life

Learner

Individual Level →

Learning Content
(Knowledge, Skills,
Attitude)

Learning
Motivations and
Inhibitions

Skills Development
and Identity Formation

Learning
Environment at
Working
Enterprise

Work-
Practice

Learning
Environment at
the Society

Social Level →
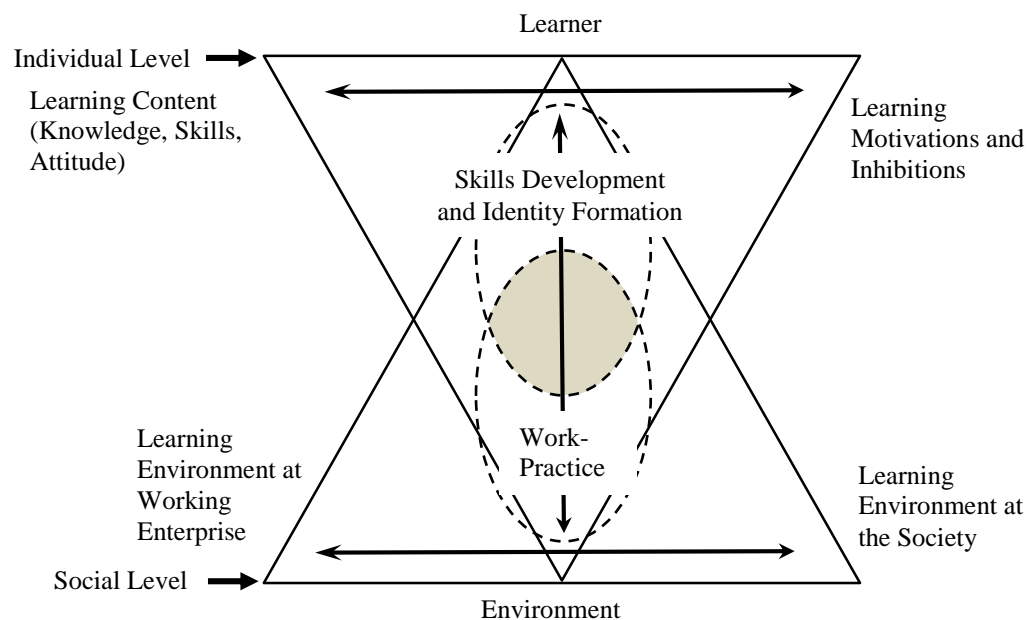
Environment

(Adapted from Illeris, 2004)

According to the first part of the Illeris theory, internal psychological interaction occurs in the learner's mind, which is also influenced by the environment or the learning setting. During this process, a learner learns knowledge, skills, and behavior based on the learning motivations and inhibitions obtained by the learner. With learning occurring in social participation, learners shape their identity (shown in the upper ellipse in Figure 1).

Similarly, in the second part of the learning theory of working life, the work practice (shown by the lower ellipse in Figure 1) of a learner takes place in a tension field of three elements—learner, work-setting, and the outer society. Such practice depends on the nature of the learner's characteristics, the appropriateness of the workplace setting, and the overall guiding environment where the workplace is located. The two central overlapping ellipses show how the formation of the work identity of a learner and the work practice are interrelated. The overlapped part of the ellipses shows the actual workplace learning situation. Similarly, the two triangles' upper and lower horizontal lines depict learning levels. The upper line represents personal-level learning, and the lower line shows social-level learning, which includes both within and outside the organization.

The model, as Illeris (2004) characterizes it, can be taken "like a map" or "a kind of checklist" that supports understanding and analyzing "important elements, features, and relations" in the workplace learning field (pp. 440-441). Three double arrows depict different interactions: the interaction of individual and social level learning (seen by the vertical double arrow), the interaction between the content dimension of learning (left corner of the upper triangle)—which includes knowledge, skills, and attitude— and the emotional or motivational dimension of learning (right corner of the upper triangle), and interaction between the workplace learning environment (left corner of the lower triangle) and the overall social learning environment (right corner of the lower triangle).

As one of the more relevant theories of workplace learning, it seems necessary to present briefly the situated learning theory of Lave and Wenger (1991), which provides the basis for selecting the major theory for this study.

Situated Learning Theory of Lave and Wenger

Situated Learning Theory emphasizes the situated nature of human learning, theorized by duo-scholars—Lave and Wenger (1991). The theory is based on case studies of enterprises from different cultural settings, including tailoring apprentices in Liberia. The theory advocates learning through participation rather than in people's minds. The theory has some unique rooted concepts. Legitimate peripheral participation (LPP) is the central concept that explains how a newcomer worker or learner develops skills and becomes a full member of a community of practice (CoP)—the transforming work setting where the path of a learner starts from a periphery and gradually moves towards the center obtaining more legitimacy, means more roles and responsibilities in the workplace.

The situated learning theory of Lave and Wenger (1991) created a universal wave in workplace learning. An extensive discourse on the concepts and terminologies used in this theory took place in subsequent years and is still ongoing. Scholars also realized that there is no uniform understanding of these concepts and terminologies among researchers (Zheng, 2020). In this context, the research of Fuller et al. (2005) can be taken as one of the influential studies substantiating situated learning and its ideas.

Among the four authors and co-authors of the research article *Learning as peripheral participation in communities of practice: a reassessment of key concepts in workplace learning* (Fuller et al., 2005), Fuller and Unwin performed a study of a modern apprenticeship program in the steel industry in the UK. Similarly, two other scholars—Hodkinson and Hodkinson, had performed a study of secondary school teachers in the UK about how they learned knowledge and skills at their workplace.

Thus, this synthesized study of the workplace learning process highlighted the strong and weak aspects of the situated learning theory of Lave and Wenger (1991).

The simplicity of the concept of legitimate peripheral participation (LPP); instrumentality of the production and reproduction cycle; a simple process of conversion of a newcomer learner to a full participant skilled person through LPP; and clarity of learning that takes place when a skilled person changes the job is clearer through the process of LPP are taken as strengths of the theory. However, scholars are not convinced that the theory is suitable for analyzing all workplace-based learning through LPP. Next, the theory overlooks the importance of the instruction process during learning. Although Lave and Wenger (1991) mention a learner's identity formation, the theory cannot fully explain this. Furthermore, the situated learning theory assumes a new entrant is an unskilled worker, as "tabula rasa" (Fuller et al., 2005, p. 66) is also taken as a weak aspect of the theory. Finally, not explaining the power balance in a workplace and its political dynamics is also a weakness of the theory.

Thus, scholars have concluded that despite the multiple strengths and instrumentality of the theory, workplace learning researchers have to consider different weak aspects of situated learning theory. Realizing the mentioned weak aspects of the situated learning theory of Lave and Wenger (1991), and also my understanding that in addition to the situated nature of social learning, there is also the role of internal psychological aspects of overall learning, I have premised on the workplace learning theory of Illeris (2004). However, I have also used the idea of Lave and Wenger (1991) concerning how a person moves from a stage of a new learner to a skilled master.

Learning Motivation Theories

 A human being naturally needs a driving element to make an effort in certain activities. For instance, why do a group of mountaineers successfully strive to expedite on top of any mountain? They might have multiple reasons for making an effort in this activity. Those reasons or the elements include the motivation of those mountaineers. Defining motivation is not easy, but it is both complex and subjective. However, a definition provided by Schunk et al. (2014) provides a more precise understanding of motivation which states motivation is "the process whereby goal-directed activities are instigated and sustained" (p. 5). It means motivation is primarily related to a process rather than a product. There are different motivational theories about such a process of instigating and sustaining goal-directed activities, which are primarily rooted in psychology (Csikszentmihalyi, 1990; Deci & Ryan, 1985; Maslow, 1997).

 One kind of motivation for learning is fulfilling needs and aspirations. Maslow's motivational theory of needs is one of the most influential theories in the educational field (Schunk et al., 2014), although with plenty of critiques. However, it is equally prevalent in workplace learning (Illeris, 2007; Merriam et al., 2007). Maslow argued that people become motivated when they can fulfil their needs (Mcleod, 2018). Such needs are in a specific hierarchy: psychological needs, safety needs, love and belongingness need, esteem need, and self-actualization needs. According to Maslow, people must fulfil lower-level needs before addressing the next level.

 The critiques of Maslow's theory of needs posit that lower-level needs may not be fulfilled to achieve higher-level needs. Von Kotze (2013) argued that people could be motivated differently as their life goals and dreams differ. For instance,

scholars agree that such needs and motivations are not general to all people and vary from person to person and culture (Tay & Diener, 2011), not limited to fulfilling basic needs (McCrae & Costa, 2003). Although Illeris (2007) characterizes Maslow's theory as "being individualistic and without roots in society" (p. 71), my conviction regarding the appropriateness of this theory is that despite the limitations, it provides a sound premise for analyzing why and how informal skills learners become motivated despite their challenging work and learning environment. I suppose that informal skills learners fulfill basic needs and develop occupational identity through fulfilling the needs.

Improvement in life and occupational identity can also be a motivation for learning. A person develops a work identity in working life. It affects the individual's social identity development whether they work as a blue-collar worker or change their occupational career to other types of work (Lucas & Buzzanell, 2004; Pérez-Ahumada, 2017). Such identity development is one motivator for a learner's learning skills with enhanced life quality and social prestige (Bernadette van Rijn et al., 2013; O'Leary & Levinson, 1991). Moreover, the workplace is significant for the worker to learn the skills well.

Work teams and resources available are other causes of learning motivation. At the dawn of the twenty-first century, Gallagher (2003) wrote the book *The soul of an organization*, discussing organizations' success. He argued that a significant component of becoming an organization successful is the composition of the organization's workforce. An organization, and employees need efficient human resources (Nagele & Stalder, 2019). One of the encouraging organizational cultures is providing feedback that can also stimulate learning, as Bandura (1977) observed. I

concur with the author that there will be no motivation for work and learning without a good work team and appropriate organizational culture.

Self-determination theory (Deci & Ryan, 1985) and Flow Theory (Csikszentmihalyi, 1990) are other motivational learning theories. Self-determination theory states that people become motivated and self-determined when they can fulfil their competency, connection, and autonomy needs. It is a popular contemporary learning theory in the workplace learning field (Cerasoli, Alliger, et al., 2014; Tannenbaum et al., 2010). Duo-proponents of this theory—Deci and Ryan (2017) argued that an autonomous work environment motivates learners and enhances work quality.

Deci et al. (2017) presented "The basic self-determination theory model in the workplace," which explains how employees work with higher motivation. Naturally, learning is more viable when a person works with higher motivation. The model depicts how independent variables (context of the workplace and individual differences) produce dependent variables (e.g., work behaviours and health and wellness) through mediators such as fulfilling basic psychological needs of autonomy, competence, and relatedness. The theory also incorporates the view of Harter (1978) that when a person obtains one competence, it motivates the person for additional learning. It means learning itself is the motivation for learning.

Another theory of motivation is the Flow Theory proposed by Csikszentmihalyi (1990). A flow occurs when a person concentrates on the work and does not care about the time and surrounding environment. Such deep concentration certainly increases workers' productivity, quality, and motivation. In other words, such love or passion for the work attracts the person even in a challenging work setting. The theory states that motivation is based on fulfilling basic and

psychological needs and internal qualities. This theory is also one of the prevailing

motivational theories highly cited by scholars (Cross, 2007; Ilies et al., 2016; Schunk,

2012; Tay & Diener, 2011). Intrinsic motivation is the foundation of the flow theory.

It substantially overlaps with the self-determination theory that workers (and learners)

become motivated to learn only when intrinsically motivated.

All aspects of antecedents of learning have not been fully explored yet.

However, scholars agree that individual characteristics of a person towards a

particular type of work and learning determine how the person enjoys that work and

learning. Drawing upon two motivation theories—self-determination theory (Deci &

Ryan, 1985) and flow theory (Csikszentmihalyi, 1975)— Ilies et al. (2016) proposed

two concepts. These concepts are "experiential well-being,"—which is created

through the introspection of the self during the work, and "declarative well-being,"

which is expressed through public interaction (p. 2).

Among the motivation theories, some theories stress extrinsic motivation—

externally induced motivations in fulfilling basic needs—such as "pay for

performance" (Gerhart & Fang, 2015, p. 1). In contrast, others emphasize fulfilling

psychological needs, including the need for flow. Thus, the primary motivation

theories related to informal skills learning are the self-determination theory (Deci et

al., 2017), the theory of need (Maslow, 1987), and the theory of flow

(Csikszentmihalyi, 1990). The conclusion from the analysis of the different mentioned

theories is that the creation of intrinsic motivation is the ultimate aim that supports

learning (see Appendix D). Furthermore, Gopalan et al. (2017) emphasized that

intrinsic motivation creates positivity and is necessary for sustaining learning for a

long time.

Informal Workplace Learning: Empirical Research in the Field

Although we can find some differences in understanding and defining informal learning, there is almost an entire agreement on covering a massive part of the total learning by informal learning in human life (Cross, 2007; Scott & Ferguson, 2016). As the discourse is not within the scope of this research, I only want to reemphasize here that informal learning, which is primarily understood as "non-curricular development of knowledge, skills, and wisdom" (Cerasoli, Alliger, et al., 2014, p. 6), is highly important in enhancing our understanding and perspectives. Among the diverse field of informal learning research, some focus on exploring the importance of such learning.

Le Clus (2011) scrutinized different forms of informal learning that can be occurred in the workplace, particularly differentiating informal and incidental learning. Characterizing informal learning, he highlighted that work and skills learning are synonyms for the workers that can be planned but primarily occurs incidentally, let us say unknowingly, during the work. Most informal learning is obtained from workplace experience; it means learning by doing. Although the research field of informal workplace learning is relatively new— which started in the mid-twentieth century— the history of informal workplace learning is associated with human evolution.

Scholars have grouped different research themes on informal workplace learning. For example, Tynjala (2013) outlined six diverse lines of workplace research. I claim that informal workplace learning can be seen from two perspectives: learning as a process and learning as an output that would enhance life quality, such as skills development and life progression. Within this broader field of informal workplace learning, we can find various empirical studies covering different aspects.

Although these aspects are interrelated and overlapped, I have presented these studies, based on my literature review, under the following six distinct areas— 1) the nature of informal workplace learning and its complementarity with formal learning, 2) General antecedent of learning participation and engagement, 3) Organizational and personal characteristics influencing informal workplace learning, 4) Informal workplace learning environment and context, 5) Motivations and inhibitions to informal workplace learning, and 6) Skills development as a life-Journey. I start the discussion by presenting the empirical research on the nature of informal workplace learning, which includes its relationship with formal learning.

Nature of Informal Workplace Learning

Previously, informal workplace learning research was primarily taken separately from formal learning research. However, with the evolution of research in the sector, such thinking started to change among scholars. According to Marsick et al. (2017), informal and incidental learning is contextual and is part of formal learning. Manuti et al. (2015) stressed that formal and informal learning should be complementary because of the fast-growing pace of technological change, and skills and knowledge obtained once in the formal setting become outdated very fast. Based on the human resource perspectives, they performed a recent literature review in the field and concluded that the workplace learning concept had diverse meanings in recent decades.

One of the areas of informal workplace learning research is learning analytics which is related to understanding the learning process, its dynamics, and its measurement. This practice is popular in the formal learning field. However, it is scarce in the field of informal learning. One of the characteristics of informal learning is that it is not simple to measure like formal learning. About two decades ago, Skule

(2004) argued that the informal workplace learning measurement indicators were underdeveloped at that time. Although the situation is not improved much in the sector, we can observe higher effort in this area in the latter decades (Jeong, McLean, et al., 2018; Kyndt & Baert, 2013). Cuinen et al. (2015) studied learning analytics in informal learning with some questions about the ways and viability of measuring informal learning's efficiency and whether the research recommends it. They found that although informal learning is complex to measure and convert the result into figures, it is now getting proper attention in the research than expected. Due to the complex nature of informal learning, a diverse facilitation method is necessary (Moore & Klein, 2020).

The mentioned importance of informal workplace learning, its relationship with formal learning, and the measurement of such learning supports locating the studied research field among the overall informal workplace learning and making conclusions of the study. Besides the importance and nature, the general concerns in the research field are the antecedents of informal workplace learning that contribute to engagement and participation in informal workplace learning.

General Antecedents for Informal Workplace Learning

What makes a person engaged in informal workplace learning has been one of the major research areas in the field. For example, Coetzer and Perry (2008), based on their qualitative study among 27 managers from small manufacturing and service firms, found that the critical elements for workers' learning include the business environment, the learning potential of the job, workers' learning potential, and their learning orientations. Similarly, Jeon and Kim (2012) examined the relationship between organizational and task factors and the effectiveness of peer learning and learning by doing. Their quantitative study was based on secondary data from the

Korean Research Institute of Vocational Education and Training (KRIVET). It found that learning effectiveness increases when workers feel the importance of the task.

Kyndt and Baert (2013) argue that a person's involvement in work-related learning (both formal and informal) is more complex than in other general training and education, as multiple factors can affect such involvement. To understand such deciding factors (antecedents), she performed a systematic literature review in the field. They concluded that there is a positive relationship between the intention of learning and participation in work-related learning. The study also indicated the attitude and subjective norms, self-efficacy, and other career-related variables defining the learning intention of a learner.

Based on the meta-analysis of the published literature in the field through 2015, Cerasoli et al. (2017) studied informal learning behavior (ILB). Their findings showed that personal antecedents (individual predispositions and demographics) and situational antecedents (job-task characteristics, support, and learning opportunities) predict informal learning behavior. Based on the findings, they proposed organizations for developing informal learning behaviors of the learners.

Jeong, McLean, et al. (2018) recently performed a literature review relying on Lewin's field theory of person and environment fit to identify factors influencing informal workplace learning. They explored the antecedents of informal learning at work in three levels—personal, group, and organizational and developed a conceptual framework that supports understanding informal learning activities. According to the model, learning competence, intentionality, and developmental relatedness were the three major dimensions for understanding informal workplace learning.

Based on the information just presented, we can draw two major conclusions. First, scholars agree that people participate in informal workplace learning for

personal and organizational reasons. At the same time, we can notice that the research participants of most studies are not from the category that progresses their careers through workplace learning in the informal setting. Thus, although we can take sufficient insights from these studies, the urgent need for understanding the antecedents of informal skills learners (with their specific circumstances) seems vital. In the following paragraphs, I present and discuss the research on organizational and personal characteristics influencing informal workplace learning.

Individual and Organizational Characteristics in Learning Process

It is agreed among the research scholars that both individual learners' and organizations' characteristics affect overall informal learning. Some studies particularly focused on the individual characteristics of the learner or the organization, but some focus on both types of characteristics affecting informal learning at the workplace. The findings of such studies are sometimes not compatible with one another. In the following paragraphs, I present some studies and their results chronologically.

Boud and Middleton (2003) studied the work involvement, and learning of workers under the various work units of a large organization. Their study included tile fitter trainers, educational planners, human resource staff, and staff engaged in outreach activities. They found that workers maintained many informal external contacts and relationships. They scrutinized the fourteen different indicators of the community of practice (pp. 125-26). They concluded that other workplace learning concepts besides the community of practice need further research.

Skule (2004) developed a framework based on quantitative research in the Norwegian private sector. The developed model has seven learning conditions significantly influencing informal workplace learning—higher degree change

exposure, higher degree change demand, managers' responsibilities, professional contacts, effective feedback, managerial support for learning, and proficiency reward.

Based on their qualitative study with nine police officers, Doornbos and Krak (2006) found that direction and controlling are significant parts of the informal learning process. In addition, they found technical-occupational, learning competencies, and social communication as outputs of the workplace learning process. Similarly, Ellinger and Cseh (2007) performed a qualitative case study at a large manufacturing company in the Eastern Region of The United States to explore the organizational contextual factors influencing informal learning through other employees' support. They found mainly two types of catalysts—external (the changing context of the industry) and internal (influx of new technology and processes in the organization)— for facilitating the learning of other employees; that means instructing informal skills to other organization colleagues.

Le Clus and Volet (2008) studied the informal learning process of new and experienced workers in Australian public organizations with socio-cultural perspectives based on a phenomenological qualitative study. Although they obtained multiple insights regarding informal workplace learning, the study's major finding is that the relationship among co-workers is crucial in affording or constraining informal learning. Despite the different study contexts, the insights obtained through this qualitative study provide a sound basis for analyzing informal skills learning.

One area of informal workplace learning research is how a person's educational background influences informal learning. Through a quantitative study among 203 mid-level bank managers in Korea, Choi and Jacobs (2011) found that formal learning and the learning orientation of individual impacts informal learning positively and significantly. However, their study did not find a direct relationship

between the learning environment in informal learning, such as providing continuous learning opportunities and learning occurred. This finding (about the relationship between the learning environment and informal learning) seems strange as it is hard to believe, as numerous scholars in the field (Cerasoli et al., 2017; Coetzer & Perry, 2008) have mentioned that learning depends on the environment. Nevertheless, my personal TVET work experience of working with small-sized informal sector enterprises supports me in accepting this finding. There is evidence that in a very adverse learning environment with scarce resources, informal skills learners can successfully learn occupational skills (Choi & Jacobs, 2011).

Berg and Chyung (2008) studied 125 learning and development professionals and explored what influences informal workplace learning engagement. Mainly, their quantitative research focused on exploring relations between informal workplace learning and the organization's learning culture. They found that informal workplace learning engagement is unrelated to the organization's learning culture. They also found that a learner's educational background and age do not influence informal workplace learning engagement. However, their findings revealed that older people comparatively engage more in informal workplace learning. Although the study was conducted among highly qualified professionals, the results appear to be equally crucial for informal skills learners. According to the same study, informal workplace learning involvement does not depend on an individual's educational background.

Contrary to the findings of Berg and Chyung (2008), in their quantitative study, Schulz and Stamov Robnagel (2010) found that the learning competence of an individual affects informal learning, and it does not depend on the age of the individual. The study was performed through an online survey of 470 German mail-order employees, showing that memory self-efficacy partially influences informal

learning. Furthermore, the role of social media is crucial in informal learning in the contemporary technological age, as CARA (2010) highlighted.

Cunningham and Hillier (2013) performed a qualitative study on the informal learning experiences of 40 supervisory staff from public organizations to describe features and processes that improve informal learning. They identified seven broad themes associated with learning activities and processes. "Planning processes; active learning and modelling; relationship dynamics; and tying learning to applications" were the four major themes they found for describing processes for facilitating informal learning at work (p. 37). In another study of the same period, Noe et al. (2013) found that among the individual characteristic of employees, zest was the significant predictor for informal learning.

Jeong, Han, et al. (2018) performed a qualitative study interviewing 18 full-time workers to understand Korean small-scale enterprises' informal workplace learning characteristics. They found four main attributes of informal workplace learning in Korean small-sized firms—absolute reliance on informal learning, immediate application of learned skills and knowledge, learning based on client needs and relationships, and extensive learning through trial and error. In addition, the unique cultural context of Korean firms, such as the family-like work environment, the performance of multiple tasks by a worker, and negligible investment in the training and development of the worker, were other crucial observations made by the scholars during the study.

Based on these paragraphs, we can conclude that informal skills learning is one of the contemporary research fields. The value obtained by informal workplace learning seems higher. However, informal learning as part of formal training and education is the prevailing way of research. Furthermore, small and micro enterprises

are less researched areas in which particular socio-cultural context highly affects the overall learning process. These minute characteristics indicate the acute need for focused research on small enterprises with informal workers working in informal settings and conditions.

Informal Workplace Learning: Environment and Conditions

Many scholars have studied and written about the relationship between workplace learning and the work environment. They emphasize that a learner must be motivated to learn for effective learning. The effectiveness of learning increases when a learner works happily and with fun (Hirsch, 2004; Tews et al., 2017). Observation of Brown (2012) is one example of such a condition. She noted among the traditional metal artists' work that the art item's desired output is not possible without artisans' relaxed feeling. According to Illeris (2007), learning at the workplace essentially depends on the two primary criteria—learning environment and learning potential—resulting from other multiple elements. Ellström et al. (2008) also observed similar to Illeris, who also found learning at the workplace depends on the work environment, either enabling or constraining.

The learning environment and conditions for informal workplace learning are highly researched. Ellinger (2005) performed a qualitative case study at a large manufacturing company in the Eastern Region of the United States, exploring the organizational contextual factors influencing informal learning and how they support or hinder learning. She enlisted different positive and negative organizational contextual factors and indicated broader aspects of future research in the field. The major positive organizational factor she found was the committed learning role of management and leadership of the organization. Likewise, the internal work culture of the organization, availability of work tools and resources, and the mutual relationship

with other people for learning were other factors contributing positively to learning skills during the work. Among the negatively influencing organizational aspects, the study found ineffective leadership and management, slow-changing internal work culture, scarce work tools and resources, people interrupting relationships, and structural inhibitors. Similarly, quick change and "not learning from learning" were other factors negatively influencing informal learning at work (Ellinger, 2005, p. 404). Although the studied context was not a small organization and the workers were not from the vulnerable group of people such as those less educated and a poor economic background, the methodological approach and some research findings seem relevant to this study.

Similarly, Ellström et al. (2008) studied 31 care workers from four different care units under two departments based on a qualitative case study. The primary two objectives of their study included providing a conceptual understanding of the learning environment and exploring how such learning environments may differ among the different work units or even the same organization. Their findings included work patterns and conditions and practices that acted as enabling and constraining elements for workplace learning. The different aspects they explored were task orientation, the content of the work, planning and organization, leadership and management, and organizational and personal readiness for learning.

Kyndt et al. (2009) performed a quantitative study investigating learning conditions for employees and labor organizations for informal and non-formal learning. First, they identified the employee's personal and professional characteristics and organization regarding size and type. Next, the study explored the five learning conditions: feedback and knowledge attainment, new learning methods and

communication tools, provision of receiving and providing coaching, and gaining information.

The skills learning environment is highly dependent on the particular society's culture. It also is one of the determining factors for informal learning. Regarding this, Susan Lynn Stowe (2012) performed her PhD research at the University of Toronto to explore the equity concerns to different phases of lifelong learning, including initial formal education, continuing education, and other work-related informal learning. Her major problem was determining whether the parents' social background of a person affects the initial education and continues to affect the other learning phases, including informal learning at the workplace. She found that the parents' social background affects the attainment of the initial education and the acquisition of further adult education and informal learning at the workplace.

Similarly, Kim and McLean (2014), based on an extensive literature review, studied how cultural difference affects informal workplace learning. Their finding indicated that workplace learning factors depend on the culture of particular workers. So, they urged learning facilitators to consider such aspects during their facilitation. They also recommended being mindful of foreign theories and practices and suggested "indigenization" of such theories and practices (p. 39). I have taken this "indigenization" as localization in the case of informal skills learning.

Despite the broader research, some workplace learning researchers also note that specific features of small businesses and enterprises are not considered while studying such organizations. For example, Coetzer et al. (2017) indicated that the prevalent studies of workplace learning do not consider the general characteristics of small businesses. The literature review examined workplace-related factors influencing workplace learning in general, characteristics of small businesses, and

factors influencing informal learning with a particular focus on small businesses. The two main workplace factors affecting learning they identified, like most others, were job and relational and organizational characteristics. They examined both of these categories concerning small business characteristics.

On the one hand, environments and learning conditions are very important for learning certain skills. On the other hand, the environments and contexts depend on the nature and size of the organization. Therefore, the information provided in the above paragraphs also indicates considering the organization's unique features. Thus, in the case of this research, the types of occupational enterprises, their location, and their size are the prominent related concerns. On the one hand, the environment and learning conditions are essential for learning skills. Still, on the other hand, the learning environment and context also depend on the organization's nature and size. Furthermore, the information presented in the above paragraphs also indicates that the type of business enterprises, location, and size play a role in research.

Motivations and Inhibitions to Informal Workplace Learning

As informal workplace learning is affected by various contextual and personal features of a learner, its motivational elements are also the primary concern of informal learning researchers. But the terminologies used for denoting encouraging and inhibiting elements for workplace learning also differ among the scholars. For instance, facilitators and barriers are the terminologies used by Crouse et al. (2011).

One of the studies in this motivational field is by Cerasoli, Alliger, et al. (2014). They performed a quantitative meta-analysis and qualitative literature review to explore predecessors and the outcome of informal learning at the workplace. They concluded that there are two major types of drivers for learning—personal and organizational. Their study showed that work-related factors contributing to learning

comprise work demands and resources, managerial support, and available learning opportunities. Likewise, the personal features of learners, such as positive learning attitude, ability, geographical conditions, and upbringing environment, are other individual factors for informal learning.

The following study by Cerasoli, Nicklin, et al. (2014) was four-decade-long research to explore the motivation for learning. Their particular focus was on how extrinsic motivations (incentives) and intrinsic motivations are interrelated. Although extrinsic motivation is crucial, it is less important when directly associated with performance. Their study also showed that intrinsic motivation was more influential in work quality. In contrast, the incentives as extrinsic motivation were more associated with the production quantity. Nevertheless, they indicated that we should not take these two forms of motivations as opposite and should take both as accompanying each other. Although the study was related to workers' performance, Cerasoli, Nicklin, et al. (2014) highly support increasing different ways of intrinsic motivation of informal skills learners as they have to compromise the extrinsic incentives considerably at work life.

Other researches on workplace learning motivation and inhibitions are from around the globe. For example, Wahab et al. (2014) surveyed Malaysian accountants to explore their informal learning activities and environmental inhibitors for such learning. They found that time scarcity, absence of a reward system for the excellent performer, lack of funds, limited opportunity for influencing the firm's operation, and lack of cooperation for learning were some of the inhibitors in the work environment.

Similarly, Bernadette van Rijn et al. (2013) performed a quantitative study based on online responses from 323 employees from four Dutch TVET institutions. The study focussed on exploring how employees' career motivation and self-construal

influence informal learning activities. Remarkably, they investigated the effect of these two learners' attributes to keep them up-to-date, seek feedback from others, and share knowledge. They found a positive association between career motivation and learning activities. Similarly, another qualitative study by Schurmann and Beausaert (2016), also from Germany, with twenty human resources and marketing employees from a machinery manufacturing company, explored three categories—organizational drivers, work and task-related drivers, and personal drivers— influencing informal learning of employees. Among the identified drivers, they found commitment to learning and feedback as the major drivers for informal learning.

Brown and Bimrose (2018) studied the motivating elements of 105 lower-skilled employees between the ages of 25 and 40 in seven different countries in Western and Eastern Europe in a qualitative study (using a narrative interview method) based on the biographies of research participants. They found different motivational elements: self-confidence in work, market-oriented education, inspiration from other influential people, and work-related practices. Most workers in the study found that practical education was more important and preferred.

There is no debate that fun at the workplace increases the learning potential of the learner. Tews et al. (2017) investigated this issue following the quantitative approach by surveying 206 managers to know how managers' support and fun activities contribute to the informal learning of employees. Their findings revealed a relationship between fun and informal learning at work, but manager support for fun was unrelated to overall informal learning.

Findings from some of the literature quoted above support us in understanding that motivational learning is relevant to employers and employees. Because, in the absence of motivational elements, neither quality and quantity of production or

service are possible, nor can a worker learn effectively. Furthermore, encouraging and discouraging elements in different levels of learning also affect a learner's skills development, ultimately affecting occupational progression in life.

Skills Development as a Life-Journey

Occupation, work, and career development are crucial in the human life journey. Looking at life progression, people build their identity through learning, business choice, development, work practice, etc. Different terminologies are in practice, such as skills development (Walther, 2012), occupational competence development (Ellström, 1997; Illeris, 2007; Mulder, 2001), occupational expertise development (Billett et al., 2018), capability development (Katusiime, 2014), identity building (Wenger, 1998) to describe this developmental process. How an individual shapes the work-related life journey through the combination of all these processes is the subject matter of the third research question of this study.

A human is a lifelong learning creature. Assimilating this fact, a system of lifelong learning developed, according to which knowledge and skills learned in any means and type should be recognized (Jarvis, 2007). In particular, the concept equally values informal learning and connects with formal education and training. Anyone forced to work either lacking or with very little formal education and has built competencies while working is also a lifelong learner. With this in mind and earnestly, at the dawn of the millennium, Singh (2000) warned that the nation's TVET systems should bring together those youth and adults who have become skilled through various traditional or informal apprenticeships.

Although the number of people with such informal skills and capacity building worldwide is massive, their socio-cultural environments are different on which learning depends (Kim & McLean, 2014). For centuries, informal apprenticeships

have been practiced in various parts of the world (especially in West African and Sub-Saharan Africa). This system of informal skills development gives adolescents and young people, even in the unorganized sector, the opportunity to learn skills (Alla-Mensah & McGrath, 2021; Blaka & Filstad, 2007). In such training, the skilled master accepts the apprentices based on certain conditions (oral or sometimes general written) to teach the skills. In some countries where young people and adults learn on the job, they may not have the opportunity to learn skills properly due to not having a general contract between a master and a skills learner. However, the skills they learn on the job determine their occupation. Such informal skills learners seem significant in developing countries of the global south (for instance, countries in the Indian Sub-continent) (Alla-Mensah & McGrath, 2021).

Koops and Pliz (2019) conducted qualitative research with workers in the mechanical field in two cities in southern India. They found that workers learn various skills during their work and are equally happy with their job. The study also found that families play an important role in choosing an occupation and learning skills, and receiving support from a network of relatives. Similarly, Regel and Pilz (2019) conducted another study with tailors working in the informal sector, which showed that tailor-masters could acquire a high level of tailoring skills even without formal training. Moreover, those tailors also developed other business-related skills successfully besides these occupational skills while working. Similarly, a recent study by Alla-Mensah and McGrath (2021) among workers working in the automobile sector in Ghana showed that through informal training, apprentices could travel from a low-skilled journeyperson to a skilled master while building capacity in their life journey.

In brief, there is no debate on enhancing ability and shaping life conditions through learned skills and knowledge. However, certain peculiarities exist for learners who learn skills without a dedicated learning endeavour. Therefore, locating informal skills learning research among the overall informal workplace learning looks essential. Furthermore, the national system of recognizing prior learning is important to understand this situation.

Locating Informal Skills Learning Research Field

On one side, informal workers have to work in a different challenging situation, whereas on the other hand, they get less attention from the state system (Livingstone & Sawchuk, 2004). For them getting a formal job is a challenge. Particularly in the developing country context, such a situation is more prevalent. In such contexts, people use their social network or the support of formal or informal intermediaries— individuals or institutions to get a job (Von Kotze, 2013; Walther, 2007; Yunus, 2020). Naturally, they cope with poverty, during which they struggle to fulfill their basic needs without sufficient attention for learning (World Bank, 2018). Therefore, it is necessary first to provide the information and evolution of the policy provisions related to workplace learning and the TVET system of Nepal and then search for the location of informal skills learners within this system to understand their situation in the overall TVET system.

Informal Skills Learning Related Policy Provisions in Nepal

Nepal has been practising formal periodic planning efforts for six decades. Therefore, it is appropriate to mention how informal skills learning has been treated in all fifteen periodic national plans since its initiation. A review of these planning documents reveals that informal skills learning has been getting significant attention directly or indirectly in all periodic planning, but the present result is unsatisfactory.

Nepal's first five-year Periodic Plan (1956-61) emphasized identifying

different occupational groups, training, and linking them to public and private sectors

for employment (National Planning Commission [NPC], 2019; Pandey, K. C., &

Wood, 1956). Similarly, after establishing the *Panchayat* System in the country, the

Second Three-Year National Plan (1962-1965) provisioned the integration of general

and vocational education by establishing "multipurpose schools." Similarly, the

preservation and promotion of traditional arts and crafts; the conduction of village

industry programs; use of local human resources were some of the pertinent

programmes incorporated by the Third (1965-1970), Fourth (1970-1975), and Fifth

(1975-80) periodic plans respectively (NPC, 2019).

Other periodic plans also laid similar emphasis on local-level skills and

occupations. The Sixth Periodic Plan (1980-85) emphasized self-employment training

for youth and training for lead farmers and stressed the revival of traditional cottage

industries. The Seventh Periodic Plan (1985-1990), during which the Council for

Technical Education and Vocational Training (CTEVT) was established, provided the

mandate for integrating formal and informal training. Cottage and rural industries

were emphasized by this plan, too (NPC, 2019).

Similarly, the democratic government, established after the reinstatement of

the democratic political system in the country in 1991, introduced the Eighth Periodic

Plan (1992-1997). The plan stressed promoting traditional construction skills and

jewellery art and skills. The CTEVT Rule 2051 [1994] was enacted to classify

occupations, tests, and skills certification through the National Skill Testing Board

(NSTB). The Rule also provisioned for the Industrial Trainee Training Committee and

opened the door for establishing apprenticeship training in the country (Government

of Nepal [GoN], 1994). The Ninth Periodic Plan (1997-2002) emphasized preserving

traditional skills and the environment. The Tenth Periodic Plan (2002-2007) emphasized literacy and informal education programmes and technical and vocational education and training linking with employment (NPC, 2019). The Non-Formal Education Policy 2007, formulated during this period, aimed at literacy and awareness-raising programmes targeting illiterate people below the poverty line. It also mentioned providing occupational skills and lifelong learning opportunities to illiterate and school dropouts (Ministry of Education [MoE], 2007). Similarly, the TVET Policy-2007 formulated during this period aimed for "firm integration of various TVET modes and pathways" together with other contemporary TVET agendas for "inclusion of and access for all citizens who need TVET programs" (Lamichhane, 2013, p. 19).

After the People's Movement in 2006, Nepal saw many changes politically. The Eleventh Periodic Plan (2007-2010) promulgated after this movement has tried to address people's aspirations. One of the emphases of this plan was on the preservation, promotion, and certification of traditional skills of Dalit (occupational castes) people. Similarly, the Twelfth Periodic Plan (2010-13) has taken the "lacking employment-oriented education and nationally skill certifying system" as a problem and stressed ensuring inclusive and equitable access to TVET opportunities. During this period, TVET Policy-2012 was enacted, which continued the focus of TVET on left-behind people.

Similarly, the Thirteenth Periodic Plan (2013-16) emphasized an efficient documentation system, testing, and certification of occupational skills. It also envisioned developing Vocational Qualification Framework for providing lifelong opportunities based on recognizing prior learning acquired through all modes and providing an opportunity for progressing the learner to higher education. The plan

also continued the direction taken by the previous Twelfth Periodic Plan on providing inclusive and equitable access to TVET (NPC, 2019). The Strategic Plan of CTEVT was formulated during this planning period which has prioritized awareness-raising as one of the major activities under NSTB (CTEVT, 2014).

The Constitution of the Federal Democratic Republic of Nepal came into act in 2015 and also, albeit not directly, has made different provisions related to informal skills learning. Under the "Right to Freedom" clause, the Constitution has ensured every citizen's right to operate occupations and enterprises within the country. It also provisioned for the utilization, preservation, and development of traditional occupational skills. The Constitution also ensures the priority to Dalits for modernizing their occupations (Government of Nepal [GoN], 2015).

Thus, it is evident that sufficient emphasis is given to informal skills learning in policy documents, from the Constitution and periodic national plans to TVET-related policy papers. However, achievements are not as encouraging as envisioned and stressed by these policies. The fact that less than 500 thousand people tested skills during more than forty years of the operation of the skill-testing system shows a discouraging picture (CTEVT, 2020). Nevertheless, it is a topic of research to identify the portion of participation of real, needy people; for instance, occupational caste groups, rural communities, and disadvantaged groups of people among this figure. The latest statistics show that in the Fiscal Year 2017-18, the participation of people under the category of "Individual Applicants" was less than 17 percent of the total applicants. The remaining 83 percent were the non-formal vocational skill training graduates of the programs conducted by different donor-supported projects (Ministry of Education Science and Technology [MoEST], 2018). So, a pertinent question arises

about why planned goals could not be achieved in reality and how the overall TVET

system of the country is functioning.

Informal Skills Learning in the TVET System of Nepal

TVET has been considered one of the inevitable means of national

development. The TVET system of Nepal already has a long history. After

establishing the CTEVT as a leading national TVET institution, different institutions

began to run formal and non-formal TVET programmes under the Council. Similarly,

the system of skills testing and certification—under the National Skill Testing

Authority (NSTA) since 1983 and the NSTB since 1991— exists, and recognition of

prior informal and non-formal learning is in implementation (CTEVT, 2020).

However, different programmes through multiple federal ministries and public,

private, and non-governmental institutions (MoEST, 2018) are not adequately

addressing the country's TVET sector problems. The system has failed to attract many

informal skills learners to the RPL system and other formal TVET interventions. I do

not intend to introduce these systems and institutions in this brief literature review.

Instead, I attempt to characterize the system from the lifelong learning perspective.

Despite the plethora of policy provisions, the TVET system of Nepal is

generally not targeted at needy people (Baral, 2021). On the one side, the majority of

the country's working population comprises informal workers (ADB, 2015; ILO,

2020), whereas on the other side, linking TVET interventions with the emerging need

of the country is lacking (Sharma, 2013). Furthermore, there are very scarce research

activities in the sector, so scholars urge to accelerate such activities (Singh, 2015).

On the other side, the higher value provided by society to general education

and formal qualifications produces mainly two categories of people—haves and haves

not. Those who can afford higher education generally select that educational path.

However, those adolescents and youth who cannot afford their formal educational path for different reasons select, willingly or unwillingly, informal or non-formal skills learning paths. Besides, the Nepali TVET system does not target its programs to traditional occupations and skills. Hundreds of traditional trades and crafts practiced by more than 125 different caste groups (CBS, 2012)—which have been running since ancestry—are neglected (Adhikary, 2005, 2012; Bonapace & Sestini, 2003). National TVET curriculums very rarely include those occupational skills. One of the multiple reasons the present young generation prefers to divert their occupation to other non-traditional trades is the high status associated with *Jagir* (wage employment) (ADB, 2009; Bista, 1991; Teague, 1995). The duo-scholars Livingstone and Sawchuk (2004) linked the phenomena of giving less attention to needy and poor people in TVET research to the countries' politics. It indicates the scenario of the developing contexts. Besides, as de Zapata (2013) mentioned about the South American skills development context in the informal sector, the state should take proper initiatives to preserve traditional skills. In reality, this is also a prerequisite for effectively implementing the provisions related to lifelong learning.

In reality, due to lifelong learning being rhetoric, massive changes in this sector seem necessary. The principles and practices of TVET provide direction to the policymakers for putting people (or learners) at the centre while preparing policies and programs (Miller, 1984). The literature review provided me with the basis for understanding primarily two things regarding lifelong learning practices in the TVET system of Nepal. First, as a signatory of UNESCO for implementing lifelong learning (Regmi, 2020), Nepal has also had to widen the opportunity for recognizing prior experiential learning. The existing provisions for the skill test are in alignment with this policy. However, lifelong learning is becoming rhetoric rather than reality

(Bennett et al., 2013; Laksamba, 2005) because a very negligible portion of skilled people is informed and attracted to skill tests (Baral et al., 2019).

Policymakers felt the need for change in the TVET sector even in the early 2000s (Adhikary, 2005). Presently, there is a realization among the policymakers in the TVET sector of Nepal for an utmost need for a massive change in the system, particularly in the present changed federalized context. Those policymakers see the change's utmost need for "developing a well-functioning, market-relevant, high quality and unified" TVET system (Sharma et al., 2019, p. 14). Such change seems vital to address the gap that policies envisioned regarding increasing access to TVET programs, increasing relevancy, and making the TVET funding system efficient. For this, it is inevitable to incorporate skills learned in the informal sector workplace in TVET programs (Adhikary, 2012; Billett, 2013) and ensure lifelong learning opportunities for workers and skills learners (Dhungel, 2014; GoN, 2012; Regmi, 2020; Singh, 2015; Sweet, 2013).

Status of Informal Skills Learning Research: A Gap

Based on the information and discussion presented in the sections and sub-sections above in this chapter, I confidently conclude that there is a huge gap in the research on informal skills learning in the global context, including Nepal. For decades, research activities in workplace learning have been increasing enormously. Nevertheless, such studies are primarily concentrated on programmes and activities of a more formal nature, for instance, in formal organizations and as part of formal learning. Among the informal workers, which occupy a significant portion of the total working population of the world, informal apprenticeship is getting some emphasis in the research. However, those youth and adults who enter the informal job as novice workers are rarely researched.

Furthermore, among the research activities conducted, albeit sparsely, in the informal skills learning area, these are aimed at exploring diverse components of informal skills learning rather than the overall process and dynamics of skills learning and development (Barber, 2004; Koops & Pilz, 2019). In the acute need to understand such dynamics for the national TVET system, there is a considerable gap in the research in the field that this study aims to address based on the following conceptual framework.

Conceptual Framework

The research gap indicated by the literature review's conclusion demands research on understanding the skills learning process and the occupational competence development of such learners. Guided by constructivism overall and obtaining insights from the workplace learning theory of Illeris (2011), I have sketched the conceptual framework, as provided in Figure 2, which guides the overall conduction of this research process.

Putting informal skills learning as a central phenomenon (shown by the circle at the centre), I have presented the whole research area within a field comprised of three major areas through the interrelated arms of a triangle (see Figure 2). One of the three major components of the whole research process is the process and approaches of informal skills learning (indicated by the circle at the upper left corner of the triangle), representing the subject matter of the first research question of the study. The next component (shown in the circle at the upper right corner of the triangle) is related to the second research question— exploring motivations and barriers to informal skills learning. Similarly, the subject matter of research question 3 — informal skills learner's skills development in the occupational field— is shown with the lower circle of the triangle.

Figure 2

Conceptual Framework
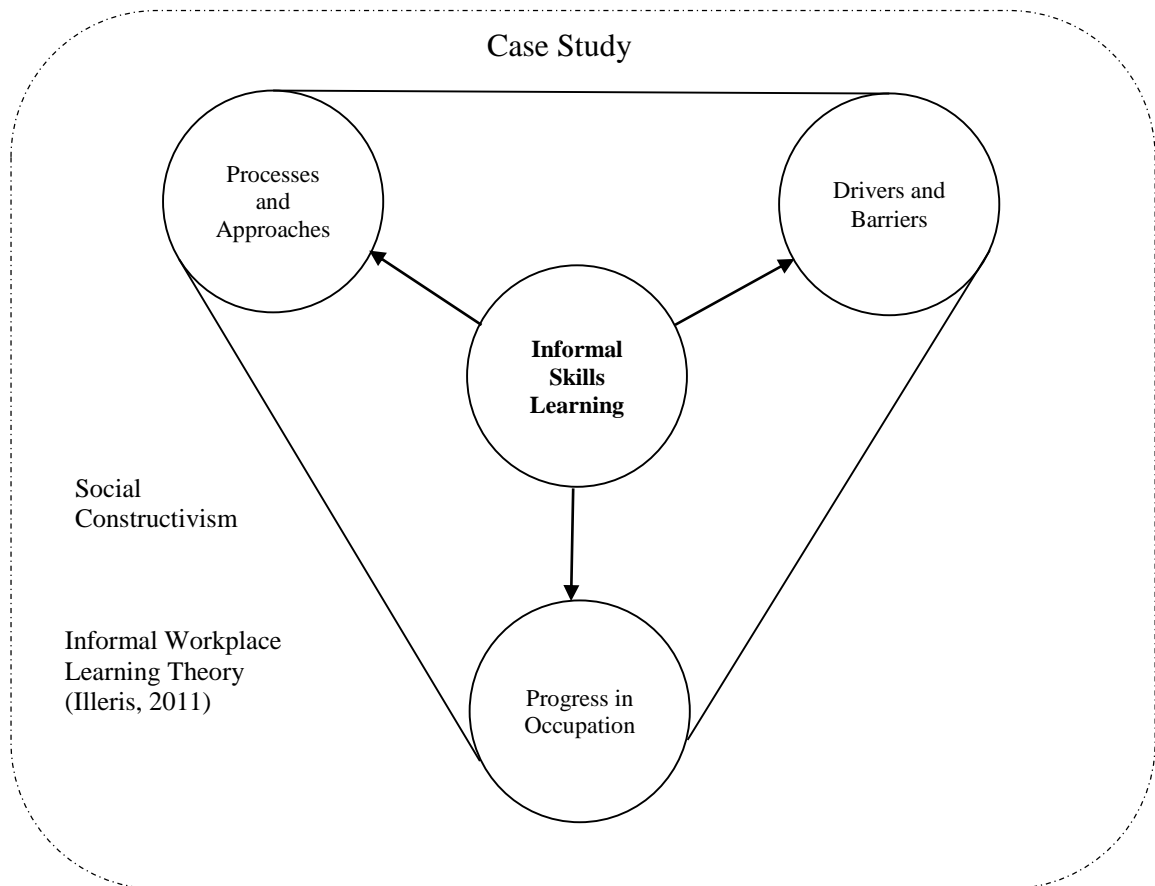
(Source: Author's own depiction)

Primarily guided by social constructivism and influenced by the workplace learning theory of Illeris (2011), the whole research process is conceptualized with the case study approach of Yin (2018). Through the literature review process, besides presenting the major thematic areas of empirical research in the field, I also gained insight into the study's theoretical framework.

Visualizing Theoretical Framework as an 'Umbrella'

Taking the overall research process as an umbrella, I have framed the conceptual mapping for my general theoretical understanding of the central

phenomenon based on the literature review. Appendix C displays the theoretical

framework as a diagram of the 'umbrella' (in which I have taken the workplace

learning theory (Illeris, 2011) as a guiding theory and shown by the covering sheet

(A) of the umbrella). I have shown three major components of the workplace learning

theory—acquisition, motivation, and interaction (shown as B, C, and D in the

diagram)—as the wire-frame of the umbrella. Similarly, the structure of the entire

umbrella is assumed to stand on the support of the handle (shown by E). Here, the

handle is the metaphor for the concept of small enterprises. I have also shown the

various concerned theories as to the main parts of the theory (B, C, D, and E). Finally,

the conceptual framework of research (see Figure 2) incorporates the logic presented

in this theoretical concept.

Essence of the Chapter

In this chapter, I have presented the outcome of the literature review I

performed during this research. While doing so, I put the key phenomenon of the

study—informal skills learning— in the centre. Notably, in this chapter, I attempted

to present the evolution of the major research field of this research—informal

workplace learning, explored different critical themes during the literature review, and

clarified the gap intended by this study. Furthermore, aiming to design the research,

collect and analyze the information, and draw conclusions, I sketched the study's

conceptual framework.

The chronological presentation of the major themes of the research based on

the literature review, on the one side, will support the readers in scrutinizing the

development of this research field. On the other side, the presentation of the concept

of learning and subsequent downing to workplace learning and informal workplace

learning certainly supports the readers in reaching the actual nucleus of the aimed

research. Similarly, information and discussion presented under the six different sub-themes of the third theme—*Informal Workplace Learning and Development: Empirical Research in the Field*—are related directly or indirectly to the subject matter concerned with this research area.

CHAPTER III

CASE STUDY AS RESEARCH METHOD

The research questions presented in Chapter I called for choosing a method of relativistic orientation rather than a realistic one. Although "no single theoretical model or methodological approach has yet established dominance" (Sawchuk, 2008, p. 1) in the adult and informal learning field, I realized that the best way to investigate the phenomenon, as illustrated in the conceptual framework (Figure 2), is the case study. Moreover, among the qualitative research approaches, case studies are the appropriate research methods to study the phenomena of complex nature in a specific context (Baxter & Jack, 2008; Sawchuk, 2009) that focus on answering 'why' and 'how' questions (Yin, 2018).

As this study's research questions focus on exploring how informal skills learners learn skills, how they become motivated or demotivated, and how they progress on the skills development path, the appropriateness of this method is apparent. Regarding the types of case study designs, Ridder (2017) categorizes four design types based on the theoretical orientation of each design. These categories are—no theory first, gaps and holes, the social construction of reality, and anomalies. In addition, each of these categories has its instrumentality and usage based on its objectives.

In educational research, three approaches of case study—advocated by Robert Yin, Rebert Stake, and Sharan Merriam (Yazan, 2015) are generally prevailing. These approaches also seem useful in the case of workplace learning and specifically in informal skills learning. Some of the features of these approaches are identical, but some other characteristics are different. For instance, according to Yin (2002), the

research design means "the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions" (as cited in Yazan, 2015, p. 20). However, according to Stake and Merriam (Stake, 1995; Yazan, 2015), a case study design is more flexible than a predefined logical sequence. Stake takes research questions as a crucial guiding element for the case study design (Stake, 1995), whereas Merriam stresses the theoretical frameworks developed based on the literature review (Yazan, 2015). Yin and Merriam propose five stages of case study design. Still, Stake opines that the design of a particular case study cannot be predefined, and it develops together with proceeding with the case study research implementation (Yazan, 2015). Likewise, regarding the collection of case study information, Yin insists that both quantitative and qualitative information can be instrumental in the case study. Nevertheless, Stake and Merriam claim that case study research is based entirely on qualitative data. Although there are some similarities between the data collection tools proposed by these two scholars, Yin has mentioned more sources of data collection tools (Yazan, 2015).

Scrutinizing the characteristics of case study research proposed by the above-mentioned prominent scholars, I could follow either Stake or Merriam. They propose a comparatively more flexible research design than Yin. However, I knowingly decided to follow Yin's case study design and implementation approach premised on certain rationales. The first rationale is that having an engineering educational background, I felt more assured that I could successfully execute and manage a research project that follows a predefined framework. On the other hand, I realized that it is appropriate to follow a "clear methodological path" to explore a complex phenomenon such as informal skills learning dynamics (Yin, 2018, p. 3) to accomplish my study journey with a meaningful outcome.

According to Yin (2018), there are six major reiterative phases of case study research—planning, designing, performing preparatory works, collecting information, analyzing information, and finally, composing and reporting. As this chapter fully explains the methodological decisions and implementation, I present different sections tentatively in this sequence. In the following section, I present the case study design. Then, in the third section, I mention the preparatory works performed. In the fourth and fifth sections, I describe the collection of case study evidence and its analysis. I briefly mention the composition and reporting activities in the sixth section. Finally, in the seventh and eighth sections, I describe quality concerns and about addressing ethical dilemmas. The Chapter concludes by providing the essence of the Chapter.

Designing Case Study

The role of case study design is significant as it sets the whole research process. Yin (2018) mentions five major elements of case study design— formulation of case study questions, developing theoretical propositions, the definition of the case(s), analysis of the case evidence, and setting criteria for testing the research design. As I already presented the research questions and propositions in the first Chapter, I mention the remaining three elements of the case study design under different sections and sub-sections of the Chapter.

A qualitative researcher can commence fieldwork without having pre-considered theoretical perspectives. However, Yin (2018) alarms about not starting the fieldwork without having a certain "implicit theoretical orientation" (p. 34) in mind so that a researcher can make an appropriate decision in the selection of research sites and participants and will not get lost in the preliminary fieldwork. Inspired by this notion, from the beginning of the research process, I searched for the appropriate socio-cultural learning theory that could be instrumental in explaining the phenomena

of informal skills learning. Besides, I was also searching for a theory that matched my life experiences (Dwyer & Buckle, 2009; Moser, 2008; Muhammad et al., 2015). I found the contemporary learning theory of Illeris (2007) more appropriate (which I mentioned briefly in Chapter II).

Deciding Case Study Type

Defining and bounding the case are among the important activities of case study design. So, my case study design also included deciding which case study among the four probable case study types to select and the cases considered for collecting and analyzing the case study evidence. On the other side, I also had to avoid confusion between data collection and analysis units.

Although a case can be a person, organization, event, process, et cetera (Verleye, 2019), my major data collection units are the workers as informal skills learners in their different life stages. Similarly, I also needed to collect information from different workplaces or enterprises in four occupational sectors. To manage this multi-level data collection and analysis unit, I decided to take informal skills learning as a major case which is less distinct from the context but is a significant "phenomenon" (Merriam, 2009, p. 44). Thus, the main unit of analysis is the informal skills learning itself as the main case. However, there is another level of analysis as subunits (Yin, 2018) or "mini-cases" (Stake, 2006, p. 4). Occupations (metalcrafts, pottery, fast-food, and two-wheeler mechanics) are the level-2 unit of analysis.

Thus, as illustrated in Figure 3, the case study design I adopted is the "Type 2 single-case (embedded)" (Yin, 2018, p. 47), which is considered more suitable for exploring social processes. However, while selecting this single-embedded design, I was careful about its weakness. There is a possibility of concentration on analysis at the sub-unit level and less emphasis on the major case.

Figure 3

Case Study: Single Embedded Design
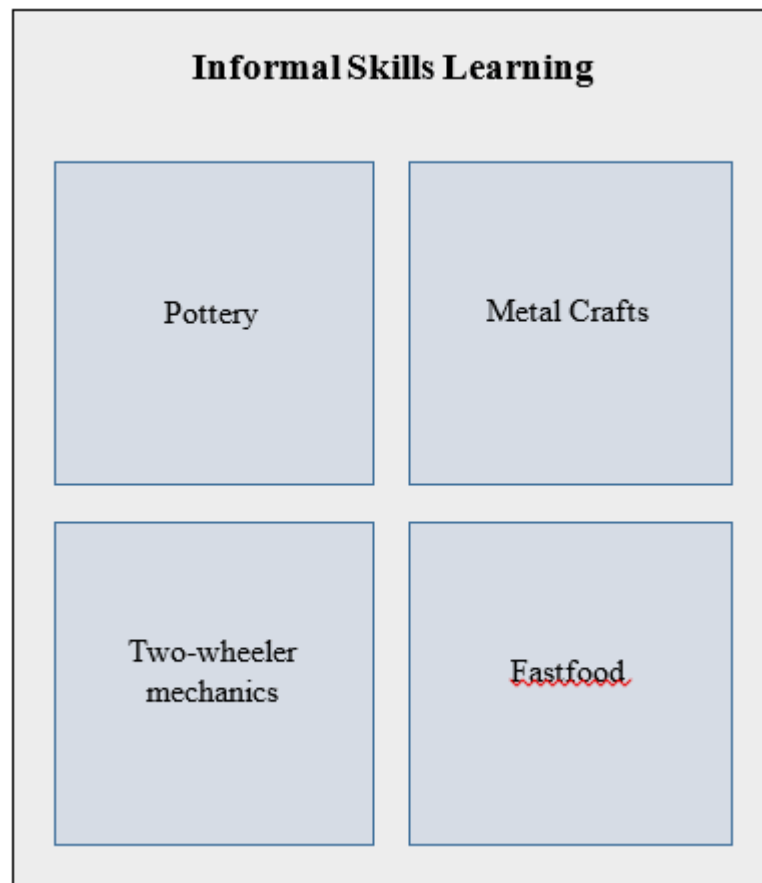
(Source: Prepared by the author based on Yin, 2018)

Where and With Whom? Selection of the Cases

Although some scholars use "purposive sampling" (Verleye, 2019, p. X) as an appropriate strategy for case study design, Yin (2018) advises not to use such a misleading term. Such use can create confusion with positivistic research. Instead, he treats them as "candidate cases" (Yin, 2018, p. 139), which are crucial parts of the case study design. Eisenhardt and Graebner (2007) also opine that selecting cases as samples is one of the challenges of case study research, as some researchers think about representative samples. However, the case study research includes the "theoretical sampling" (p. 27), which means selecting the cases based on their suitability for shedding light on relationships among different constructs. Considering

all these arguments, I have selected the occupations and participants as *theoretical cases* supporting the findings' generalisation.

After deciding on the case study as a research approach and its design, I concentrated on selecting the cases where I could choose the research participants. As the primary focus of the research was to explore and describe the process and dynamics of informal skills learning in the workplace, I preferred to select small-sized enterprises rather than big ones[3]. The rationale behind choosing small enterprises was the characteristics of those enterprises. Informal skills learners generally have access to such enterprises for getting initial work. Furthermore, I also had to decide which occupational sectors to select as the cases. Again, a long discussion and exploration took in this process. Finally, I decided to cover both the traditional and modern (non-traditional) occupational areas. I included the traditional sector because the national TVET system has emphasized this sector less (Adhikary, 2005). It is also a reality that there are very few research studies on this informal occupational sector despite the enormous contribution the sector has made in skills learning and employment and the livelihood of large groups of people. Similarly, the emergence of modern occupational sectors is increasing, so it is meaningful to include skills learning in this sector.

Altogether nine enterprises were selected. These enterprises included four from pottery, one from metalcrafts, three from two-wheeler workshops, and one from fast-food café. From the traditional occupational sector (operating since ancestry in which skills are transferred from upper generation to lower), pottery and metalcrafts were the cases. Pottery is an occupation on the verge of a survival crisis, whereas

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[3] In Nepal, enterprises are grouped in different categories such as micro, small, medium, and big based upon their sizes and type. In this research, I included micro and small enterprises and have used the term small-sized enterprises to denote both of them.

metalcrafts have high potential but have not yet flourished in the country, particularly

considering skills training activities. These occupations are mainly concentrated in the

Kathmandu Valley. However, they also exist in different parts of the country. In

Kathmandu, pottery is segregated primarily in Madhyapur Thimi and Bhaktapur

areas, and Prajapati families are the foremost practitioners of this occupation. On the

other hand, metalcrafts are practised mainly in Lalitpur Area, and traditionally,

Shakya and Bajracharya castes are the prominent practitioners of this occupation.

Therefore, I selected my study cases from these occupations from these two

locations—Madhyapur Thimi (for pottery) and Lalitpur (for metalcrafts).

Among the modern or non-traditional occupations, two-wheeler mechanics

and fast food were the selected cases. Motorcycles and scooters are becoming popular

among Nepali youth. With the extensive addition of road networks in urban and rural

locations of Nepal in recent years, such automobile density has been increasing fast.

Similarly, two-wheeler mechanical workshops are also being added rapidly in

different areas. School dropout youth get easy access to work and learning skills in

such workshops. Similarly, we can observe a changing trend of Nepali people,

particularly youth, having fast food in the café or restaurants for some decades.

Mushrooming of restaurants and fast-food cafés provides the opportunity to get

informal jobs for those youths who generally lack higher educational qualifications.

Initially, I planned to select 16 research participants (four from each of the

four occupational sectors) with some selection criteria. However, it could not achieve

the targeted number due to different contextual reasons, such as the unavailability of

enterprises and the learners/workers. The number was slightly changed later,

including insufficient workers in a single workshop. For instance, from the pottery

and two-wheeler occupations, I could not find a single workshop with four people

from which I could obtain the intended information. Therefore, I had to select more than one pottery workshop. Likewise, the initially visited metalcrafts enterprise (of Gajendra) did not continue after the first visit. However, it supported providing information for searching for the next enterprise (of Yuvaraj). Finally, I had to select only three research participants from the fast-food café as they had a work team of three females. Table 1 displays the research participants from enterprises in four selected occupational areas.

Table 1

Brief Information of the Research Participants[4]

S. No.	Research Participant (Pseudonym)	Gender	Age range	Position	Info at Appendix
1	Binayak	Male	45	Potter/ owner	E.11
2	Damodar	Male	35	Potter	E.5
3	Indralaxmi	Female	30	Potter	E.13
4	Lambodar	Male	55	Potter/ owner	E.1
5	Keshav	Male	50	Potter/ owner	E.2
6	Amod	Male	45	Senior artist/ manager	E.16
7	Gaurav	Male	30	Artist	E.8
8	Jiwa	Male	25	Artist	E.9
9	Yuvaraj	Male	50	Senior artist/ owner	E.10
10	Dinesh	Male	40	Senior mechanic/ owner	E.4
11	Kundan	Male	45	Senior mechanic/ owner	E.14
12	Ratna	Male	45	Senior mechanic/ owner	E.15
13	Sanju	Male	20	Mechanic	E.7
14	Suraj	Male	25	Mechanic	E.12
15	Chandrika	Female	25	Café-worker	E.6
16	Ramila	Female	40	Café-worker	E.3
17	Swarupa	Female	40	Café owner	E.17

I first selected one Prajapati potters' family, with the support of one friend of that locality, who had been running their family enterprise for a long history in

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[4] Please see detailed information of the individual research participant in Appendices E.1-E.17

Madhyapur Thimi. Based on the information I obtained from the first potter family (of Keshav), I selected three other pottery workshops run by the other three Prajapati families (of Lambodar, Damodar, and Binayak) in the nearby locations. Similarly, after obtaining information from one of the neighbouring friends working as a metal utensils shopkeeper in the Lalitpur area, I visited the first metalcraft workshop owner (Gajendra, who is not counted as the research participant but as a supporter to identify the cases). Although the workshop owner was unwilling to provide further discussion, he provided information about another workshop (of Yuvaraj), from which I selected four workers as research participants. Similarly, I selected three two-wheeler mechanical workshops—two in the Madhyapur Thimi area (of Kundan and Ratna) and the next one in the central area of Kathmandu City (of Dinesh) near Singhadarbar, the federal administrative complex of the country. Finally, under the fast-food café, I selected only one cafeteria (led by Swarupa and run by three females) in Kathmandu City near the International Airport. This way, I selected participants from nine workplaces, including four pottery makers, one metalcraft, three two-wheeler workshops, and a fast-food cafe.

The selection of enterprises as major theoretical cases guided the selection of research participants. Altogether I selected 17 research participants (Table 1). These included five from pottery, four from metalcrafts, five from two-wheeler mechanics, and three from the fast-food occupations.

Among 17 research participants selected, nine were in the leading positions. The other eight were working as supporting members of the enterprise. I had to compromise with other inclusive criteria, such as gender and age while selecting research participants from the occupations. The main reason was the socio-cultural context, with low female participation in the occupational sector. Likewise, the

research participants from the pottery occupation were comparatively aged, as the present generation is less attracted to this occupation (Shrestha, 2016). I intentionally selected the specific fast-food café because the female team solely ran the enterprise.

In this section, I have provided only a brief introduction of selected research participants but included more information with the related thematic information obtained from the particular research participants as provided in Appendix E (from Appendices E.1 to E.17).

Performing Preparatory Activities

Proper preparation is vital for the effective conduction of the research activities. Yin (2018) mentions five major aspects of the preparation. The first is becoming familiar with the case study tradition and obtaining "desired skills and values" as a case study researcher (p. 82). The next is the training for the particular case study research. Then the third aspect is the preparation of the case study protocol. Finally, the fourth and fifth aspects Yin recommends are "screening of the candidate cases" and conducting a pilot case study (p. 81).

Among these prescribed activities, I performed mainly three activities: familiarizing myself with case study tradition, preparing case study protocol, and selecting candidate cases. The other two activities—conducting training and performing pilot case studies- were not practical for me to adopt as a single student-researcher. However, I used the insights obtained from the initial fieldwork to improve the latter activities. Now I present the whole preparatory research activities under two major parts—enhancing the research skills and preparing the research protocol.

The preparatory phase is devoted to enhancing research skills, mainly focusing on the adopted case study approach. My major tasks in this phase included an in-

depth understanding of Robert Yin's case study approach. Similarly, studying learning theories helped me select the most appropriate learning theory for this research with socio-cultural aspects of skills learning (Illeris, 2007). As a case study researcher, I emphasized being a good listener, enhancing the ability to stay adaptive, conduct research ethically, and address dilemmas tactfully. I have mentioned how I tackled ethical dilemmas separately in the following section. But, first, I explain the case study protocol I prepared, which is a crucial document for performing the case study (Creswell, 2016; Yin, 2018).

Preparation of Case Study Protocol

The preparation of protocol is one of the steps in the preparation phase. However, different case study researchers give different emphases to it. For instance, Stake (1995) stresses the instrumentality of protocol but recommends the flexible structure of the protocol. Instead, together with the need, Yin (2018) advises structured protocols. Therefore, together with formulating the research propositions, I drafted a research protocol. I also continually shaped the protocols and the research questions as the research moved on. Interview questions or guides included in the protocol supported the systematic conduction of interviews and observations in the field. Initially, I designed the case study protocol, including guiding points in the form of questions. However, later on, I realized that rather than asking readymade questions (even in the form of open-ended), it is better to ask "a few topical areas jotted down in no particular order" (Merriam, 2009, p. 103). It supported ensuring subjectivity and considering the diversity in the response from the research participants. I also periodically revised the questioning technique and the guiding points themselves.

After presenting the research topic, I provided different information in four major parts of the case study protocol—a) an overview of the research, b) data collection procedures, c) protocol questions, and d) a tentative outline for the case study report. Under the overview of the research, I provided propositions, tentative theoretical frameworks to be used, and key readings. I have shaped the theoretical propositions presented in Chapter I based on the prominent issues in the field.

Similarly, under the next section of the protocol—data collection procedures—I have provided the information and plans describing what to cover, whom to meet and when to meet those research participants. The next section of the research protocol included the interview guide in the form of bullets. Finally, the fourth section of the protocol had a general case study report outline. I tentatively outlined the table of content of the research report. I included this outline in the case study protocol (see Appendix A), which was, as research progressed, revised and reshaped. The developed protocol with a tentative content of the research report supported me in collecting and compiling case study information or evidence.

Collecting and Compiling Case Study Evidence

I made specific strategies based on the information and insights I obtained during the preparatory phase of the research. It included preparing the schedules, establishing communication, securing access to the case study sites and research participants, preparing the required resources such as recording devices and transportation and foreseeing the potential unanticipated hindrances in the fieldwork.

According to Yin, case study researchers have to consider the four main principles of data collection, including using multiple case evidence, creating a case study database, keeping a chain of evidence, and exercising caution in using social media information. I have not used the information from social media, so the

remaining three were pertinent to this study. I have systematically developed and stored the case study database with different electronic folders, files, and hard copies of some crucial documents. I also emphasized linking my findings and conclusions with research questions, propositions, and analyses to maintain the chain of evidence. I used figures and diagrams to enhance the chain of evidence wherever possible.

Similarly, four sources were practical for this research among the six general case study evidence recommended— "documents, archival records, interviews, direct observations, participant observation, and physical artifacts" (Yin, 2018, p. 146). I gathered information from related academic literature and reports, interviews, occupation-related artifacts, and direct observations. Besides, I also used informal conversations (Uprety, 2010) to acquire information in the form of *Kurakani* (Dhakal, 2021), which is the culturally deepened chatting as Desjarlais (2003) coined the term "Kuragraphy" (p. 18). I used this conversation approach where formal interviews were not practical and not desired.

I followed the general procedure of conducting interviews as prescribed by Rubin and Rubin (2011), and I preferred conducting interviews as "guided conversations rather than structured queries" (as cited in Yin, 2018, p. 154). For this, I contacted the research participants, either visiting them on the field site or calling them using their mobile phone, and confirmed the date and time of the interview. Rather than taking the support of other people in contacting and fixing the time for the interview, I did it myself (Seidman, 2006). Furthermore, I arrived at the field site on time. However, most of the time, planned interviews could not happen as per the agreed time. I felt there were, basically, two reasons behind this. First, the owner or senior crafts parson, naturally, did not want to interrupt the work of the enterprise. Second, supervisors did not know what workflow to handle on a particular day and

time. So, even after waiting for a long time, there were multiple instances in which I had to abandon the fieldwork of the day and plan the next visit.

I recorded interviews wherever possible and when my participants agreed. I also had to rely only on note-taking when research participants refused or I noticed that the recording could cause discomfort to the research participants. I typed my notes and recorded them electronically later on in such conditions. I performed note-taking using different approaches such as time series (recording the events according to the time), description taking (with the elaborative description of the events, and in some cases, reflections.

Although I made an effort to make the interview a guided conversation, it was not always possible. Some research participants were limited to providing short answers and could not elaborate on their versions. In such cases, I probed out in-depth with further questions. Although the length and the frequency of interviews largely depended on the situation of the participants—and I had to compromise a lot in this regard, the interview duration generally went about one hour.

As the main objective of a case study includes obtaining evidence from the "real-world setting of the case" (Yin, 2018, p. 158), another major method I applied next to the interview was direct observation (Merriam, 2009). Besides, I understood that informal skills learners generally could not stay for extended interviews due to their working conditions, and thus participating in frequent interviews is impossible. Moreover, interruption in their work can make them more vulnerable as it can affect the quantity and quality of work. This situation ultimately puts them under pressure. Therefore, I adjusted the interview duration as needed. However, despite this shortened interview time, there were repeated interruptions due to their unavoidable urgent tasks.

I applied observation methods to understand the work procedures and learning process features. Such observations also were instrumental in verifying the evidence obtained from other sources, such as interviews and secondary sources. According to my initial fieldwork experience, another strategy for studying informal skills learners was to visit their workplaces frequently. Whether it is possible or not to conduct a scheduled interview, a targeted workplace visit for the interview provides a lot of information. In addition, when I had to cancel the planned interview session abruptly, I used this time to perform the observation and *kurakani* (informal conversation) in some instances.

I conducted all interviews in Nepali and transcribed and translated them into English. Such translation was necessary because Atlas ti, the data analysis software I used, does not support Nepali. While transcribing in a language other than the interview language, I have made an effort not to lose the meaning expressed by the research participants. In those places where translation was impossible, I kept the research participant's words and "symbol systems" in a Romanized way (Rossman & Rallis, 2017, p. 327). It supported me in not missing and capturing the essence of the conversation. Before transcribing the interviews, I listened to the records multiple times to grasp the meaning rather than limit the words expressed. I understand that transcribing field data is important, and not only a technical job. So, I captured the field reality in the transcription and analyzed the data.

Analysis and Reporting of the Case Study Evidence

Analysis of the data or the case study evidence is one of the crucial phases of the case study. Generally, qualitative data analysis consists of three general steps—condensing, displaying and concluding, and verifying the information (Miles et al., 2014). According to Yin (2018), the process of data analysis involves "linking data to

propositions" (p. 33). Among the four general strategies for analyzing case study evidence Yin proposed, I primarily relied upon two initial strategies— considering the propositions in the analysis and working inductively in the data. In addition, I used to "play" with the obtained information by putting it in different arrays and on matrices and logic models (Miles & Huberman, 1994, as cited in Yin, 2018). In doing so, I generalized findings not from the different levels of cases (occupational sectors, occupations, and research participants). Rather, as alarmed by Yin, I have made generalizations "from case studies" (p. 37) for which I used the contemporary learning and workplace learning theories (Illeris, 2007, 2011).

There is no prescribed procedure for analysing data in a case study, but it "depends on a researcher's style of rigorous empirical thinking" (Yin, 2018, p. 165). Scholars have expressed strong caution about using the software (e.g., Patton, 2015). Therefore, despite using Atlas ti (version 9) as a Computer-Assisted Qualitative Data Analysis Software (CAQDAS), I also utilized my analytical thinking to analyze the case study evidence (which I have mentioned in detail in the following sub-section).

Three research questions I developed for this study and the comprehensive learning theory (Illeris, 2007) supported me in preparing the data analysis framework. It consisted of three parts of the analysis: 1) acquisition of learning, 2) motivation for learning, and 3) skills development and progression (see Appendix G). I analyzed the 'how' and 'with whom' parts of the acquisition. Similarly, the motivation part includes drivers and barriers to learning acquisition. The third part, skills development, supports understanding of the overall skills learning environment. I have positioned the three main research questions among the three major data analysis components. The first research question is between acquisition and motivation, and the second is situated between motivation and social environment. I placed the third

research question between acquisition and social environment (as illustrated in
Appendix G). Relying tentatively on this analytic framework, I have composed the
dissertation's case study report.

My writing was the major component of the research journey as it is a major
component of a qualitative case study (Verleye, 2019). As writing a case study report
and sharing the findings run parallel, the case study itself is a "significant
communication device" (Yin, 2018, p. 27). Realizing this fact, besides the textual
presentation of the findings, I have also used non-textual styles of reporting, such as
tables, charts, and figures during the different sharing and presentations.

Similarly, reporting the findings—sharing the insights and ideas—during
different fora, such as weekly PhD meetings, regular meetings with supervisors, and
participation in the workshops and seminars, were among the reporting activities.
Writing is both a skill and an art, so I learned from each writing exercise and made the
presentation better. I referred to the number of writing-related literature that supported
me in framing the research report and presenting its contents (Bloomberg & Volpe,
2019; Randolph, 2009). From the beginning of the research process to the concluding
phase of composing and sharing, I attempted to maintain the rigour and quality of the
research.

Use of Atlas ti as CAQDAS

As mentioned earlier, I used Atlas ti as supporting data analysis software. I
uploaded 45 MS Word files to analyze the case study evidence to the Atlas ti project
named "Dissertation Data Analysis Phase-I." These files included seven from pottery,
ten from metalcrafts, 17 from two-wheeler mechanics, and 11 from fast food. I used
basic features like adding documents, creating quotations, developing and assigning
codes, writing memos, and grouping documents which made my analysis process

easier (Friese, 2012; Rossman & Rallis, 2017). Similarly, I used the 'network' features
of the software, which helped me analyze and interpret the data.

After loading the documents onto the Atlas ti project, I made their groupings.
First, I grouped the documents based on the type of occupational sector (traditional
and non-traditional), individual cases of occupations, and gender—male and female.
This grouping allowed me to observe the segregated data and their trends and
enhanced my understanding of those groups. The next step in the analysis phase was
making a codebook based on the collected data. Based on insight obtained after
multiple readings and rereading, I initially prepared a codebook with 48 codes related
to the research questions. Then I started making quotations and providing codes based
on the prepared and loaded codes. After that, however, I had to revise some of the
codes (either by adding, merging, or revising). Finally, there remained 56 codes (see
Appendix H) in the project.

Making quotations and generating codes took a prolonged duration. After
completing this process, I developed a large report volume based on codes and
quotations. I provided the name of this report as "Preliminary Findings" and recorded
it in the assigned folder. This report provided the individual information obtained
from each research participant under a particular code. However, to further analyze
and generate the major themes and sub-themes, I had to work on this initial volume of
the report. Based on this extensive report, I prepared a brief report on the research
questions and the codes under those questions to further identify and analyze the
themes. I assigned the file name for this report as "Preliminary Findings_Clustered."
Thus, at this stage, I had the preliminary findings of the research and had to work
further on this. After presenting the preliminary findings and shaping the tentative
table of content of the research report, I started the higher level of analysis for the data

categorization and interpretation. Based on the Atlas.ti reports generated from this analysis, I performed further work on data synthesis and integration based on the network diagrams produced and generated meaning beyond the specifics of the data. Thus, based on the findings generated with the help of Atlas ti, and my analytical thinking, I have composed the thematic Chapters IV, V, and VI.

Quality Concerns in Case Study Design and Implementation

Incorporating quality concerns in the case study design and maintaining these concerns during different phases is challenging for a case study researcher. For example, does the research report picture the phenomena of the study? Are the findings of the research applicable in similar situations? Can the approach and methods in this research be appropriate for future similar studies? Are the findings emerging from the actual data and not from other sources? These are the pertinent questions that a case study researcher has to provide evidence for maintaining the quality of the research project. In other words, by fulfilling these criteria, the research becomes trustworthy (Shenton, 2004).

There are two main perspectives on the quality of research work, primarily depending on the researcher's ontology and epistemology. These two perspectives generally dominate case studies as well. Just as Stake's and Merriam's perspectives are based on constructivism, the truth is inherent in human experience and understanding. But on the contrary, Yin's understanding is more post-positivist. However, the common understanding of these three researchers is that case study research should be premised on a specific method, and its basis for conclusions should be robust (Yazan, 2015).

Although I respect the constructivist approach to research, I have followed the approach indicated by Yin. I understand that as every unit of conduction of research

has its unique way, the quality concerns also have some peculiarities. Therefore, from conceptualizing and finalizing the research topic to conducting the research activities and making conclusions, the quality concerns are also based on this research approach. Although such concerns are more or less common, scholars use different terminologies regarding such quality concerns (Creswell, 2016; Rossman & Rallis, 2017; Shenton, 2004).

According to Creswell (2016), qualitative researchers must maintain four essential criteria—credibility, transferability, dependability, and confirmability. According to Yin (2018), the four major criteria for testing the quality of research designs include construct validity, internal validity, external validity, and reliability. As this case study is exploratory, the second criterion (internal validity) is inappropriate. Internal validity is considered only in the explanatory type of case study research.

Construct validity mainly concerns identifying and using appropriate "operational measures for the concept being studied" (Yin, 2018, p. 42). To achieve these criteria, Yin proposes three strategies for using multiple sources of information, providing a chain of evidence, and record-keeping the drafts of findings reviewed by the research participants. Among these strategies, only the first two were practical in this study. I was aware of the importance of multiple data sources, so I used interviews and observations (as provided in the following section). Similarly, I have sketched the case study design in such a manner so that the findings are linked with the research questions, propositions, evidence citations, and case study databases. However, obtaining a written review of the draft findings was not practical due to the communication barrier with informal skills learners.

The next quality criteria are external validity or transferability (Shenton, 2004), which means whether the findings of the particular case study apply to other contexts. However, as already mentioned, the case study is not based on sampling techniques; the direct generalization of the findings is not possible; rather, only analytical generalization is possible. Its meaning is that this study's insight into the skills-learning process and its progression can be instrumental in understanding the phenomenon in a similar context with participants of similar characteristics. Being informed by the recommendation of Yin as a strategy for maintaining construct validity, I have rigorously reviewed, analyzed, and used the contemporary learning theory and workplace learning theory of Knud Illeris (2007). Besides, I have provided "sufficient detail of the context of the fieldwork" (Shenton, 2004, p. 4)

Finally, the fourth criterion for the quality test of a case study design, as Yin proposes, is reliability which means whether the process and operations followed by a particular study can be repeated and that it obtains the same result. Although qualitative research makes this feature challenging, I have seriously considered the recommended tactics. I put my best effort into making procedures explicit through the different units of the research report. I have used the case study protocol, organized and maintained the case study database, and maintained the chain of evidence, as I have explained above. Besides, I attempted to characterize the informal skills learners carefully as they differ from other general informal workplace learners, particularly with their multiple informalities, including work setting and learning. I captured their work environment, production and service-related activities, and communication among the workers/learners. I presented the scenario descriptively and used metaphors and examples as necessary. Furthermore, I maintained a daily logbook of

the activities from day one of the PhD-journey and continued till the end of the journey.

I maintained the mentioned quality criteria from the beginning of the research, including shaping research questions and developing the case study protocol. In the following section, I describe how I addressed ethical dilemmas.

Addressing Ethical Dilemmas

Qualitative researchers face many challenges at different stages of research. Some of these challenges can put them in a dilemma. Some dilemmas are technical or thematic, but some research may be related to morals. Such dilemmas are ethical dilemmas. Protecting the rights of research participants, maintaining their confidentiality, minimizing biases, and paying special attention to the safety of vulnerable individuals are some of the challenges that researchers face during the research process. Some measures to address ethical dilemmas are obtaining informed consent, taking special care to avoid any harm and fraud, considering the privacy and confidentiality of research participants, and selecting research participants impartially (Yin, 2018). At the same time, taking special care for the safety of at-risk people is very important. At different stages of my research, I encountered challenges and ethical dilemmas, and I addressed them tactfully.

During the preparatory phase of the research, together with acquiring insights from reviewing related literature on research methods, I studied the Ethical Guidelines of the Kathmandu University School of Education (KUSOED). I expressed my commitment by signing the Ethical Forms. In addition to what I learned from the literature, the ethical guidelines of KUSOED jerked me to be cautious about conducting research activities ethically.

The research participants I selected are based on the pre-considered criteria. While selecting, I was fully neutral in their features, such as gender, caste, age, location of residence, and educational level. Before finalizing the list of the research participants, I obtained their consent, either written or verbal, based on their willingness. Furthermore, before sitting with them for the interview, I assured them that they could not provide their response if they did not want to. I also assured them that they could abandon the interview without mentioning any reason.

All three research participants from fast-food cafés voluntarily signed the informed consent. However, signing the informed consent from the other three occupations was impossible. When I first met one elderly research participant from the pottery, he found it suspicious to sign informed consent. He did not refuse verbally, but his face reflected his suspicion and confusion (rubbing the hair on his head). He was not ready even after the repeated explanation of the rationale for signing the consent form. Then, I decided not to force him on this and continued the conversation because it was usual that working-class people could "feel uncomfortable and set a suspicious tone to the interview" (Charmaz, 1983, as cited in Seidman, 2006, p. 75).

My work experience working with labourers in different construction projects was such that those who are 'less educated'—or having difficulties understanding the necessity of the signature and its rationale—do not wish to make any signature or fingerprint in the legal papers. This experience was similar to my third field visit to the two-wheeler workshop. When I requested Ratna (see Appendix E.15), a senior mechanic and owner, to sign on the consent form, he refused and said, "please ask anything. I will reply, but don't ask for making a signature." He indirectly expressed that signing the paper can create undesirable consequences later. Nevertheless, I did

not want to compromise in obtaining desired information from the participants. So, I decided not to request them to sign the paper. Instead, I informed the provision of informed consent before each interview.

I understand that researchers should value the socio-cultural rules and norms while visiting the places and meeting with the research participants. Therefore, I always obtained approval before visiting the research participants, primarily by calling them. Furthermore, I was alert for not adding the vulnerability of informal skills learners by interrupting their work. For example, in the fast-food café, I mostly interviewed the research participants later afternoon (after finishing busy lunch hours). Still, I performed observations during busy hours (approximately 10 AM to 2 PM). In the other occupations, also I fixed the interview time as per the availability of the research participants' time.

Essence of the Chapter

I followed the case study approach proposed by Yin. I performed different stages of the research as reiterative processes. I had to strive to shape the research and present its findings continuously. The overall research journey was full of challenges and dilemmas, which I tackled with care.

Notably, prominent features of data analysis software, such as quoting the texts, coding, grouping, and multiple other diagrammatical and analytical tools, support efficient data organization. However, there is a chance of being a more technical and mechanical analytic process which is not a feature of qualitative research. I was aware of this possibility and emphasized making the analysis more "value-laden" (Creswell & Poth, 2018, p. 55) of the researcher than merely relying on the tools.

CHAPTER IV

HOW DO INFORMAL SKILLS LEARNERS LEARN?

While sitting to write this chapter, I reflect on the day of my first field visit to the traditional pottery workshop of Keshav Prajapati (all research participants' names are pseudonyms). I was curious how Keshav would respond to my queries about the first research question: 'How do informal skills learners acquire their skills?' But, strangely, I could obtain more occupational information than the learning process. Furthermore, I was so restless when I learned that their occupation (traditional pottery) is facing the crisis of extinction, and the present generation is not attracted to the trade (see Appendix E.2).

At the time of the field visit to Keshav, I assumed that this phenomenon (of talking less about skills learning and more about occupational work) was problematic for me. However, later on, I realized that it was natural because the main concentration of the owner and supervisor of the enterprise was increasing production and profit (Illeris, 2011, p. 67). Besides, informal learning is "largely invisible because much of it is either taken for granted or not recognized as learning" (Eraut, 2004, p. 249). Therefore, despite the challenge (of getting more information on occupation and less about learning from the research participants), I explored the information required to respond to the research questions, making more observations. This chapter is devoted to understanding how informal skills learners learn skills. In other words, the chapter is based on the acquisition part (upper left corner) of the conceptual framework (Figure 2) presented in chapter I.

I have divided the whole chapter into five sections. In the first section, I have presented and discussed the general skills learning process. Similarly, I have

presented the skills learning approaches in the second section. In the third section, I discuss skills instruction in the learning process. Similarly, in the fourth section, I present how skills learning approaches and processes work together. Finally, in the fifth section, I have presented the essence of the chapter.

<div align="center">

A General Process of Skills Learning: Improvement at the Core

</div>

During this study, I learned about the learning process of interacting with my research participants and observing their workplaces. Although they were expressing differently, they all had the common learning process as expressed by Dinesh, a two-wheeler workshop owner. According to him, they first have to work for *hat basaune* [set hands to work (learn basic skills)] and then gradually learn complex skills. Once, he expressed how skills learning occurs in the workplace (see Appendix E.4). His expression about the skills learning process was *garne-herne/sunne-sochne-saparne* [doing-seeing/listening-thinking-improving], which I took as a representative statement about how informal skills learning occurs. During an interview, when I asked Chandrika, a young café worker, how she learned the skills and what she learned to date, she said:

> *In the beginning, I saw how my sister [Swarupa, the owner] prepared the food items. She also explained to me while working. I listened to her, and later I did what she instructed me. By doing so, I am now able to cook anything. I know how to prepare Roti, Tarakari, Aluparatha, Momo, Chawmin, Chawchaw fry, Chawchaw Jhol, Roll, Chops, Samosa, and Tarakari. I improved these skills, including tea and coffee preparation skills. I was so happy when I learned to prepare Momo. I used to think about how it would be prepared. So, when I came here and learned, it made me so happy* (Interview, 2019/04/17).

Chandrika had the privilege that she received direct instruction from her Boss. However, the situation in two-wheeler mechanics was a bit different. Ratna, a two-wheeler workshop owner, differentiating their learning process with the formal training, said they first see what others have done and then practice more and improve. He said that the workers in his workshop could learn all kinds of skills and even how to open and assemble complex engines. An interview script shows:

> *Workers learn everything here. But they do not learn like in the training centre. Due to massive practice, they can do jasto kholyo tyastai jodne (successfully assemble engine parts after working on it). In training centres, they learn how to place the clutch plate, insert ring-piston, work with valves, etc., as per a teacher… In our (workshops) case, we must work on multiple problems by seeing, practising, and doing better. (Interview, 18/10/10)*

As Ratna from the two-wheeler mechanics expressed, learning skills were similar in the metalcrafts occupation, too, with minor differences. In the experience of Yuvaraj, the owner of an enterprise who has made a name for himself by learning metalcrafts through informal means, observation is the most prevailing way of skills learning in which the teaching role of senior workers is also essential. He said that they learn skills by visiting different places observing the artefacts, practicing accordingly, and taking the help of gurus where necessary. During one interview, Yuvaraj said:

> *Besides seniors, we have to learn by observing. We learn ways and methods from seniors [but for getting knowledge of traditional arts], we have to wander temple to temple to search ancient antique arts and see how these are prepared. We can say that our learning is "self-study" with certain support from gurus…We do learn techniques working together with a senior guru. But,*

even working with gurus, the (skill) product might not be of that desired

quality. So, to make these of higher quality, we repeatedly observe ancient arts

prepared by our ancestors and understand how they prepared those items.

Thus, we learn and improve continuously (Interview, 19/04/30).

This shows that although there is some specificity of learning skills among the

occupations, the general way is observation, practice, and improvement. In this

regard, we can understand the learning cycle as proposed by Kolb (2015) that which

comprises four different phases—concrete experience, reflective observations,

abstract conceptualization, and active experimentation. However, the learning process

was not cyclic; rather, it was based on the context or learning environment in which

process both psychological and social parts of the learning are included (Illeris, 2007).

Based on the different experiences of the research participants, I have

conceptualized the process of skills learning— *garne-herne-sochne-saparne* [doing-

seeing-thinking-improving]. Together with *herne* [seeing or observing], we have to

add *sunne* [listening] because "commitment-practice-reflection" is the major way of

skills learning (Illeris, 2011, p.61)., the skills learning process I depict is *herne/sunne-*

sochne-garne-saparne [see/listen-think-do-improve], which includes a commitment

from the side of the learner, practicing the learned skills during the process of

production or services, and reflecting on and improving the skills level. Thus, I have

concluded that the centre of the learning process is "improvement". Although this

"improvement" is related to better production or service, ultimately, it contributed to

enhancing skills levels. In the following sub-sections, I present the findings and

discussions on the approaches used by informal skills learners in the learning process.

Approaches Used in Skills Learning Process

It is necessary to understand the major learning techniques to understand the skills-learning process. Here, I have used the terminology "approaches" to understand such learning ways and techniques. Although I found different individual ways of learning, I clustered all these into four major approaches—social interaction, feedback, observation and imitation, and trial and error. Among these approaches, social interaction and feedback are the external processes, whereas observation, imitation, and trial and error are the internal individual ways of working and learning.

Social Interaction and Feedback in the Skills Learning Process

Social interaction and conversations are very effective means of learning. Cross (2007) has emphasized the importance of conversations and expressed that it is a "more effective teacher than school" (p. xiii). Gardner (2011) also argues that children learn a lot, even if they do not get an opportunity for formal or informal schooling. Thus, social interaction is one of the crucial approaches to human learning as a human is a social creature. Le Clus (2011) categorizes different forms of social interactions such as "conversation, social interaction, teamwork and mentoring" (p. 360).

While observing and interacting with informal skills learners during this study, I also found that they interact with diverse people during their work. Some have to deal with the customers massively, whereas some work in their internal work setting with limited interaction only with the work team. During such interactions, they do learn both hard and soft skills. A senior potter, Lambodar ([Appendix E.1](#)), expressed that their whole family works in the pottery most of the time and has very few interactions with outer people. He informed me that most external interactions happen while selling the pottery items approaching their doorsteps. Lambodar mentioned that

workers' social interaction with outer people was less than internal workplace interaction in the metal arts and crafts sector, particularly for junior workers. A young artist, Jiwa, said that although they have to discuss a lot within the team during learning, they have little chance to deal with outer people like customers and suppliers. This is because they are very much stubborn with their occupational work. *"There is only one day off a week; the day goes with maintaining personal cleanliness and other work. So, there is very little time for interaction with outer people"* [Interview, 9 November 2019], said Jiwa during one interview. It means their interaction is primarily with peers and seniors. Nevertheless, senior workers like Yuvaraj and Amod (Appendix E.16) reported extensive interaction with outside people, mainly the buyers, suppliers, contractors, learners, general visitors, media people, etc. As a result, they learn different skills for improving their product and services.

The difference between learning opportunities for senior artists and junior ones shows that informal skills learners can get massive social interaction with external people when they become more skillful and occupy higher positions in managerial roles. Moreover, it indicates that in the initial phase of the informal skills learners' journey, they learn occupational skills. In the latter phases, they get more opportunities to learn other interpersonal and soft skills.

In the cafeteria, operated by a team of three females, there was a high level of social interaction—both internal and external. Workers learned soft skills from customers and, in multiple cases, enhanced the quality of food items. Swarupa (see Appendix E.17), the owner of the café, felt their cafeteria was the family of workers and customers. Once, she expressed how customers support them. *"Sometimes, even customers advise for making items better. Such happens when we could not make*

something of that quality" [Interview, 2 October 2018], shared Swarupa once and added an example when *"Samosa [prepared by her] was not of that quality initially; some customers suggested and demonstrated the way for making it more delicious."*

I observed an almost similar situation in the two-wheeler motorcycle workshops where most workers have to communicate with service receivers. However, such interaction was found comparatively less in both traditional occupational enterprises—pottery and metal arts and crafts. In these enterprises, mostly senior people like managers and owners interacted more with the customers. From the observation visits to the motorcycle workshops, I have learned that most workers work in customers' presence, discussing problems and probable solutions. From such interactions with customers, they learn skills indirectly. For instance, I felt they understood how to satisfy customers. One of my observations notes provides a glimpse of such interacting events, which is part of the learning process for Sanju (see Appendix E.7), a young mechanic:

> Sanju opens the screws of the engine and talks with customers. He is confident about which parts of the engine are to be replaced. While working, Sanju also explains the benefits of using branded lubricants to customers near him. After a while, another worker came near Sanju and started talking. They discussed the problem with the bike. Like Sanju and his friend, two boys are talking on the southern side of the workshop while working with the bike under repair. The conversations among the small work teams were about sharing the idea of solving the issue associated with learning. [Observation Note, 1 July 2019]

During one of the field visits, I observed how Dinesh, the motorcycle workshop owner, performed multiple works in parallel. I also noticed how customers advise and physically support Dinesh's work activities. Such interactions are crucial in

learning knowledge and skills (Illeris, 2011). Although interactions are part of work performance, they are the means of learning too.

Thus, it is evident that though social interaction is a crucial constituent of occupational socialization and learning, different workers obtain different occupational socialization opportunities. Such socialization depends on the workplace environment's occupation and other job role elements (Volti, 2012). As I noted above, based on the nature of work, some workers (informal skills learners) have a higher degree of social interaction, and others have less chance for this. Nevertheless, interaction with internal workers was the primary social interaction with informal skills learners.

From the observations and expressions of the research participants, I concluded that whether the interaction occurs within the work team or with external people such as customers is the major basis of learning skills, as Illeris (2007) explains. It means learning skills can occur better when there is an opportunity of having more interaction and discussion. Such discussion also includes the comments and suggestions provided by the work team and external people associated with the work. As such comments and suggestions are massive in the skills learning process, I have presented such information under 'skills instruction' and 'feedback,' respectively.

Skills Instruction in the Learning Process

I have observed instances of interaction, feedback, and guidance during the work performance, although there was no dedicated instructional role. Performance of the work was associated with skills learning. Although the written records were not the practice, the workers have a certain standard of production or service, which dictates skills. During work performance, I reflect on multiple instances of how senior

and experienced workers taught—directly or indirectly—the skills to maintain a certain standard (Regel & Pilz, 2019). Occasional instructions from the owners to the staff in the motorcycle workshops, guidance and coaching from the senior metal artist to the juniors, and occasional interruption from the senior family member to the junior in the pottery workshops were common activities observed during the observation in the workplace. I generally found that in traditional occupations, learning skills mainly happens from elderly family members. In contrast, in modern or non-traditional occupations, such learning is generally from the senior workers of the enterprise. My field note excerpt of one of the visits to a couple (Damodar and Indralaxmi) potters' residential workshop provides information on how a senior (in this case, husband) teaches skills to a less skilled junior member of the family:

> I arrived at 6:55 at the location provided by Lambodar in Nikosera, Thimi. The workday of the Prajapati family was already started. Damodar was instructing her wife Indralaxmi on how the pattern in the pottery art item could be enhanced. He took a blade-like tool, minutely removed some fresh clay from the newly wheeled pot, and drew some patterns. After a while, Indralaxmi started doing it by herself. [Field Note, 28 May 2019]

In the next activity about instructing skills from more skilled to less skilled, I present the case of a motorcycle workshop where Kundan (Appendix E.14), the senior mechanic and the owner of a motorcycle workshop, taught skills to his novice worker.

> Kundan, a senior mechanic, was fixing a motorcycle with a dismantled engine. Suraj was cleaning and waxing the motorcycle hood at the side of the workshop. Amid, Kundan called Suraj, clarified the motorcycle engine problem, and shared how he fixed it. He also provided a tip on what cautiously should work while tightening the screw after fitting back. After a while, Suraj

attentively listened to his Boss and resumed cleaning the motorcycle. [Field note, 20 February 2019]

Instructing skills among the workers were also found to be practised in metalcrafts. However, it was not unilateral, from senior to junior. A young metal artist, Jiwa, experienced that learning skills did not always go unidirectional from seniors to juniors, but it could be two-way. "Even from the juniors, suggestions should be taken and learned" shared Jiwa once to me during the interview. Jiwa also accepted what was shared by Gaurav (see Appendix E.8), another senior artist of the same metal arts and crafts enterprise. He shared that even his father, the renowned artist, sometimes obtained suggestions and learned from other workers, too.

A similar practice was in the fast-food occupation. Swarupa once mentioned that although her worker Chandrika (see Appendix E.6) was relatively young, she sometimes learned from her. *"Previously, I taught her how to pack momo, but now she is making better designs than me"* (laughed Swarupa). Afterward, she added, "*But now, honestly speaking I am learning a lot from her"* [Interview, 2 October 2018].

Although the dominating teaching role is of the senior skilled person— whether from a family member or the staff—we can understand that informal skills learning-setting is operated by the prevalence of conversations and interactions among the work teams but "without an instructor or trainer" assigned purposefully (Kyndt & Baert, 2013, p. 274). It seems natural that in the case of informal skills learning, the process is not merely limited to the "expert-novice relationships" (Sawchuk, 2003). Still, it depends upon the interaction among workers in different stages of their expertise (Fuller & Unwin, 2004).

Feedback in the Skills Learning Process

I have observed in many instances that workers provided or received feedback during work and learning. Such feedback is sometimes seen as unidirectional from senior to junior, sometimes both ways, mutually sharing opinions and suggestions. I have observed the guardians instruct other family members in different work activities in the pottery occupation sector. One of my field notes depicts how Damodar, a young potter, advised his wife to make the product better:

> After completing the *Buttas* [patterns] in the art item (owl) as Damodar instructed, Indralaxmi observed the object. Then she called him (her husband, Damodar) to ask whether he was free to see how she prepared the patterns. Not responding to Indralaxmi's question, Damodar took the art item in his right hand and looked around it. It seems that he is satisfied with how Indralaxmi performed. After a while, Damodar mentioned that it was ok how she performed and suggested cleaning the surface by wiping the art item with a kerchief immediately after completing the pattern-making process. [Field note, 12 November 2019]

Providing skills from the upper generation to the lower one in pottery is primarily based on feedback (Ghimire, 2013; Shrestha, 2018). There is a certain element of monitoring juniors' work and providing feedback and suggestion mechanism. I also observed how workers inside the metalcrafts workshop shared feedback with their teammates, as Brown (2012) observed inside one sheet-metal workshop during her fieldwork in Lalitpur. He interestingly mentioned how those metal artisans communicated and provided feedback even in the noise of metallic blow-sound, enjoying the rhythm (Sennett, 2008).

Another observation was how Gajendra, owner of the metalcraft workshop, instructed his staff to correct the drawing of an idol he had prepared. *"Other parts seem ok, but you have to improve in the face part; You study the catalogue"* [Field note, 2 December 2018], he instructed his junior artist.

Similarly, obtaining feedback was also prevalent in the two-wheeler mechanics sector. During the multiple field observation visits, I observed that providing and receiving feedback from the workers and the owner was common. Obtaining feedback from customers was also found in practice. Ratna, a senior mechanic, insisted that feedback was necessary to improve occupational and other behavioural and entrepreneurial skills. He remembered the struggling days of learning new skills in adolescence and shared how he had to cope with even harsh feedback from owners that ultimately supported skills learning.

I also observed the extensive use of feedback in learning and upgrading skills in the fast-food sector. All three team members, the owner, and the duo-workers mentioned that they frequently discussed making the food item better. Furthermore, they collected feedback from the customers and ways of preparing food items. According to Swarupa, *"even customers advise for making items better"* [Interview, 2 October 2018].

As obtained from the research participants from all four occupational sectors, feedback—received both directly and indirectly—plays a vital role in learning skills (Cuinen et al., 2015; Schurmann & Beausaert, 2016). Furthermore, feedback can also motivate further learning, supporting a learner in correcting mistakes (Bandura, 1977; Ryan & Deci, 2017). When learners get accurate feedback, learning can be more effective. Visual feedbacks ease the learning process (Schunk, 2012). Illeris (2011) recommends different types of "sparring and support schemes" (p. 90), such as

coaching, mentoring, and other employee development activities for effective workplace learning, which is more than general feedback in practice in the case of informal skills learning. Similarly, seniors' observation of learners' work is also the prevailing way of providing feedback, as Dale and Bell (1999) noted. However, I observed such observational instances very little. Another learning approach that can also be a part of the feedback process is learning through observation, memorization, and imitation as intra-personal learning activity of a learner.

Trial and Error with Observation, Memorization, and Imitation

In small-sized enterprises, learning is mainly premises on trial and error learning (Jeong, Han, et al., 2018). The learning we acquire and try to use does not always work because "errors are unavoidable" (Harteis & Bauer, 2014, p. 711). Even in the formal and more organized learning setting, repeated application of learned skills seems necessary. This approach is more prevalent in informal work because instructional activities are not explicit and dedicated. Learning skills is related to establishing successful responses and abandoning unsuccessful ones (Schunk, 2012). During the observation visits to different occupational enterprises and conversations with the research participants, it was clear that learning happened in the workplace by performing particular tasks in a particular context (Ellinger & Cseh, 2007). In other words, the workers learned skills on a trial and error basis in most cases.

During one of the conversations, Keshav, an adult potter, explained how they perform pottery works, from collecting raw materials to selling the produced items at the market. As he informed, a trial and error approach prevailed almost in all such processes until the individual worker obtained the minimum acceptable standard skills. Once I asked how they would decide the required size of clay ball for the particular item, he mentioned the process and said, *"We have to repeat the process*

when it becomes fine. Then, when we become experienced, we can make the clay

ball's actual size" [Interview, 22 September 2018]. The version of Keshav was about

the trial and error process of learning skills until achieving perfection.

Trial and error were also prevalent in metal arts and crafts. Jiwa (see Appendix

E.9), a young artist, explained how they repeatedly worked on the same sculpture

until producing the required shape and size and learned from that process. According

to the senior artist, Yuvaraj (see Appendix E.10), most of their trade skills acquired

through practice meant workers had to work repeatedly until the desired shape was

formed. Gajendra, a senior metal artist and the workshop owner mentioned in a

similar tone during my visit to their workshop. My field note denotes:

> When I asked Gajendra how their workers learn skills, he mentioned they
>
> don't have separate training periods. Different work units operate
>
> independently and learn the skills through their work in those units. They
>
> watch the senior's work and perform accordingly with their trial and error
>
> effort. They improve their skills by correcting their mistakes and repeating the
>
> work. [Field Note, 2 December 2018]

As Gajendra mentioned the skills learning approach of trial and error, I

observed how metal workers frequently used this approach in the latter days.

Similarly, trial and error were viable approaches to skills learning in the other two

occupational enterprises—two-wheeler mechanics and the fast-food sector. I

repeatedly observed how mechanics at the two-wheeler workshops worked for a

particular problem. One field note about how a young mechanic, Sanju, worked

provides a picture of learning through trial and error:

> Sanju continued working with a motorcycle, *White Apache*. At first, he opened
>
> the mirror and then removed the seat. Then unscrewed a nut. He checked the

plug, returned the seat, and started the motorcycle's engine. The motorcycle's

movement was not good. It suddenly accelerated without control. Then he

took the motorcycle to the corner of the workshop and performed some

additional work. After a while, again, he started the motorcycle. It produced a

normal sound. The problem is seen solved. [Observation note, 5 June 2019]

Dinesh and Ratna, duo-owners of two separate motorcycle workshops, also

expressed trial and error as a general approach to work and learning. According to

Dinesh, most renowned *Ostads* [skilled masters] have learned by following the trial-

and-error approaches. Workers from the cafeteria also used trial and error as a general

approach to work and learning. They learned basic skills such as estimating raw

materials, guessing the steam's degree, and proportionating ingredients for the food

item while working.

Errors can also yield learning if managed carefully (Harteis & Bauer, 2014).

Similarly, several studies reported trial and error as one of the most commonly used

informal skills learning methods (Deakins & Freel, 1998; Eraut, 2004). As most

informal workers apply this approach, the version of Thorndike (1931) seems very

convincing that actually, the approach is not trial and error but "trial and success" (p.

132) because it can be the way to making success in work completion and learning

acquisition. However, to achieve such "success," informal skills learners use the

approach of observation, memorization, and imitation in the learning process. In the

following paragraphs, I present information on such learning approaches.

Observation, Memorization, and Imitation in Skills Learning Process

One learning approach that informal skills learners followed was observation,

memorization, and imitation. Learners used this approach as a general process of

skills learning of *herne/sunne-sochne-garne-saparne* [see/listen-think-do-improve], as

mentioned in this Chapter's initial paragraphs. Though this approach existed in all the occupational enterprises studied, it was more prevalent in pottery and metalcrafts. While I was curious how they learned the skills, a potter guardian, Lambodar, mentioned that their traditional pottery skills transmit from generation to generation. *"Forefather taught these skills to the father. We also obeyed what the father told us. Truly, nobody taught us. We tried to do how they did."* [interview, 9 October 2018], Lambodar responded briefly and then explained how skills transfer occurred without any written records. I observed the skills learning transmitted from the upper generation to the lower during the work, memorizing the procedures and imitating what was observed and remembered.

Another potter, Damodar, the elder son of Lambodar, also shared in his father's tone. He mentioned that the primary approach to their learning is through *"observation and experience."* Indicating his father as an instructor, he said, *"father did perform a demonstration, and we followed him."* Surprisingly, even pottery art items—which required special abilities for the preparation— were also found to be transferred in the same way that other general utensil preparing skills transferred from generation to generation. Damodar used the metaphor of a picture to capture the skills. *"We have to store a picture of the [pottery art] item in our mind,"* expressed Damodar. He also added that *"to date, we have not used any paper"* [Interview, 9 October 2019], which meant that they did not have any written record of the skills (see Appendix E.5). When I asked a similar question to a young lady potter, Indralaxmi, she also told me that memorization after the observation was the leading way of learning. *"You had to memorize the steps and procedures,"* shared Indralaxmi during the interview. Ghimire (2013) and Nakamura and Nagayoshi (2019) reported that traditional tacit knowledge and skills were passed from a higher generation to a

lower one through demonstration, observation, and copying. Schunk (2012) notes that learning through observations includes different steps, such as attention, retention, production, and motivation. According to this notion, first, a learner perceives and then stores it in the memory. The second step is production, where a learner converts visual models to practice. Based on these three steps, the learner either becomes motivated or demotivated for learning depending upon its importance during the previous steps.

Learning skills through observing, memorizing, and imitating was one of the prevailing approaches in metalcrafts. Like the pottery occupation, the written record was scarce in this sector. Yuvaraj, a senior craftsperson, shared that this was the primary way of learning skills. *"First you have to look and then try to make that way"* [Interview, 30 April 2019]. He clarified the skills learning approach and added that the artists searched the items from different museums and temples. Another senior artist, Amod, also provided such information. He told me, *"whenever I visited the sites, I did snap the object and drew that I like"* [Interview, 19 September 2019].

As Bue (2002), Furger (2017), and Slusser et al. (1999) observed, as in other traditional occupations, *Shakya* families do pass their skills from the higher generation to the lower one. According to him, those craftspeople' bringing up and learning skills run parallel. Today, there is already the practice of entering people from other castes. Such learning modality might slowly change from father to son or senior craftsperson to novice. However, whatever the changes occur, the skills-learning approach of observing, memorizing, and imitating seems prevalent. Mainly metal arts and crafts enterprises—particularly the repousse technology-based works (shaping sheet metals with hammers)— are being operated in the Kathmandu Valley, which very few Shakya families have practiced since history (Bue, 2002; Slusser et al., 1999).

Informal skills learners from café and motorcycle mechanics also used observation, memorization, and copying approach for learning skills. Dinesh, a senior mechanic and entrepreneur, explained how observation was a practical learning approach in their trade. He mentioned that their workshop was not a training centre, and therefore *"no one instructs workers how to perform the job."* Afterward, he clarified the process of skills learning that *"as the senior [workers] work with them, they observe the work and imitate and grasp in mind"* [Interview, 1 July 2019]. Like Dinesh, Chandrika, a young café worker, shared that she did not know how to prepare the items to be sold in the cafeteria as she did not get any dedicated training in the sector. She mentioned using internet sources for learning using observation, memorization, and imitation approaches. She told:

> *I used to refer to the internet and YouTube and observe how other people prepare different food items. I frequently tried to remember those preparation processes and tried to remember and apply them to work. If I feel confused, I again refer to that video and make corrections. Such a facility on our mobile phone is helping in our work. [Interview, 17 April 2019]*

As expressed by the research participants, observation, memorization, and imitation learning approaches were prevalent in these occupational sectors. One research performed by professionals in the United Kingdom supports the massive use of observation, imitation, and copying for learning skills in the informal setting (Cheetham & Chivers, 2001). This learning approach is so extensive within the informal sector that other sectors, such as construction, agriculture, and handicrafts, also use this approach (ADB, 2015). The study of Barber (2004) in India's informal automobile sector also supports that observation, imitation, and copying are prevalent approaches to skills learning in the trade. The cyclical learning process of concrete

experience, reflective observation, abstract conceptualization, active experimentation (Kolb, 2015), and imitation as the vital learning modes of apprenticeship training (Illeris, 2011) supports this learning approach in informal skills learning. Although dedicated instructors are not assigned, a certain instructional role remains in the skills learning process used by these learning approaches.

In the previous part of the chapter, I presented the approaches to skills learning and the instructional role in the learning process separately. However, all these learning approaches and instructions come together and are inseparable. So, in the following paragraphs, I present how all these skills learning approaches work together in skills learning.

Understanding Skills Learning Approaches and Processes Together

I have mentioned above in various sections and subsections about approaches and processes of informal skills learning. Now, I present how learning happens through all these processes and approaches. As shown in Figure 4, learning skills in the workplace occur through the activities of seeing or listening, thinking, and doing. However, conversations with the research participants and observation of their workplaces revealed that such activities do not occur in the defined series as Kolb (2015) proposed.

A series of activities of seeing or listening, thinking, and doing could be seen in various other possible sets. Other possible processes maybe: 1) see or listen, do, and think, 2) do, see or listen, and think 3) do, think, and see or listen, 4) think, see or listen, and do, 5) think, do, and see or listen.

Figure 4

Informal Skills Learning Process

Work-Setting
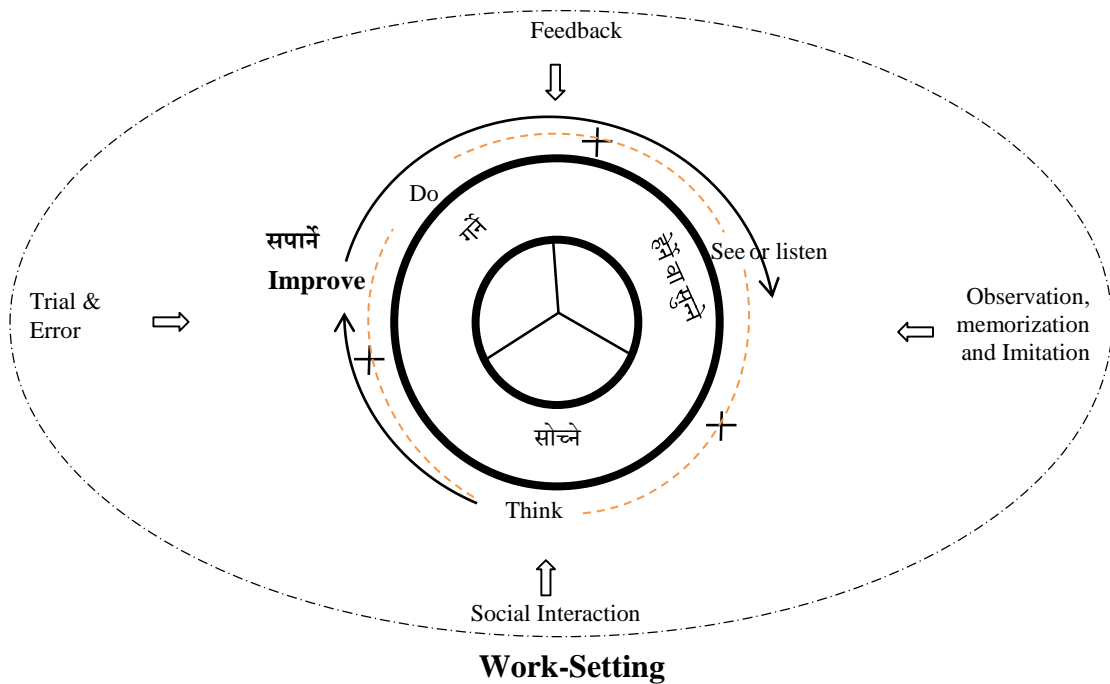
Source: Developed by the Author based on the field information

No matter how the learning process is, the ultimate goal is to improve the skills. So instead of putting the cycle of activities that occur in the learning process in a specific order in the picture, I have shown them by broken lines and stretched out the "improving" activity out of the initial learning circle as the beginning of the next learning cycle. I have stressed this (improving) activity with bold fonts.

Both the learner's psychological learning process and social interaction play a significant role in overall skills learning, as Illeris (2007) explained. Learners, in particular, use observation, memorization, and imitation when learning through trial and error. I have shown the means of learning by trial and error with observation, memorization, and imitation in the picture with the arrows facing left and right. Similarly, obtaining feedback plays a central role in social interaction. I have shown this process to be in harmony with the learning process between the upper and lower

side of the picture. Thus, the process depicted in Figure 4 provides the overall skills learning process, including its approaches. I discuss further on this aspect in Chapter VII.

Essence of the Chapter

The main purpose of this chapter was to discuss how informal skills learners learn skills. First, I discussed the specific process of learning skills with the prevailing approaches of interaction and reflection (observation, memorization, and imitation). I concluded that although informal skills learners perform various activities, such as seeing or listening, thinking, and doing, in the learning process, these activities do not take place in a specific order. For instance, in the sequence of concrete experience, reflective observation, abstract conceptualization, and active experimentation, as Kolb (2015) observed. However, the learning process is seen as a combination of social interaction and personal acquisition, as contemporary learning theory suggests (Illeris, 2007). Also, no matter the sequence of activities in the skills learning process, the intention to improve skills is always at the centre of work and learning. Finally, I presented a model capturing the whole skills learning process in an informal context. This model helps to clarify the approaches and process of learning skills together.

CHAPTER V

DRIVERS AND BARRIERS TO INFORMAL SKILLS LEARNING

My assumption that informal skills learners have to work in a comparatively difficult situation and face multiple barriers prompted me to explore the information further. Therefore, I devote this chapter to discussing what facilitates or hinders the whole learning process of *herne/sunne-sochne-garne-saparne* [seeing or listening, thinking, doing, and improving]. As workplace learning "takes place in the intersection between the learning environment of the workplace (Cerasoli et al., 2017; Coetzer & Perry, 2008) and the workers' and employees' learning potentials" (Illeris, 2011, p. 3), I present my analysis under major two themes— 1) organizational drivers and barriers, and 2) personal drivers and barriers to skills learning. First, I present the information and analysis of organizational drivers and barriers to skills learning in the following section.

Organizational Drivers and Barriers to Informal Skills Learning

The work environment plays a vital role, which can be, both "resources for and limitation on" (p. 35) learning skills depending upon the situation (Illeris. 2011, p. 35). While talking with informal skills learners during the field visits and observing their workplaces, I noted many organization-related elements as drivers or barriers to learning skills. Drivers or motivation for learning is "what drives the learner to engage" (Merriam & Bierema, 2013, p. 69) in learning activities. This concept supports understanding "why people behave as they do" (Schunk, 2012, p. 346). On the other hand, barriers are those elements that hinder learning. Some scholars also use 'facilitators' and 'barriers' that support and hinder learning processes (Crouse et al., 2011).

Contrary to my assumptions, my research field indicated that the informal skills learners experienced fewer barriers than drivers despite the difficult working conditions and multiple challenges. Based on their nature, I have presented those drivers and barriers under three headings: workplace-related, work-team-related (including role-model), and work-benefit-related drivers and barriers to skills learning. I have illustrated these organizational drivers and barriers in Table 2.

Workplace-Related Drivers and Barriers

I observed that workplace-related aspects are crucial drivers and barriers to working and learning skills. As I discuss in this section, working conditions (such as available tools, equipment, and environment), skills instructors, and the work team are the key drivers and barriers for informal skills learners related to the workplace.

One of the workplace-related drivers and barriers I found is the working conditions of informal skills learners. While visiting various occupational enterprises and meeting informal skills learners, I noticed that their workplaces, including work facilities, equipment, tools, safety, and hygiene, were not conducive. But they were working there and were positive towards the working and learning environment available to them. Although the place environment for informal skills learners was not conducive, their support environment was encouraging.

Amod, a senior metal artist, expressed his satisfaction working in metalcraft enterprises. So, satisfied with his current role and the work environment, once Amod said that he was encouraged to learn more even at a mature age:

> *I can proudly say that a blue-coloured worker is now converted into a manager. I still am motivated to learn higher-level skills. There are so many possibilities in this firm. This could be one of the selected enterprises representing the country internationally. I proudly say now that I am working*

as a Senior Artist and Manager in [name of the enterprise]. My working

condition motivates me to learn more skills even in this mature age of my

fifties. I am thrilled (Laugh). [Interview, 19 September 2019]

Table 2

Organizational Drivers and Barriers to Informal Skills Learning

Occupations	Drivers	Barriers
Pottery	Assured some income (less risk) Freedom of work Family involvement as a tradition Feedback	Dirty workplace Lack of spacious area Seniors' domination
Metalcraft	Family support Separate work environment Income and benefit Instruction and mentoring Guru as a role model Feedback	Blue-colour nature of the work Sound pollution Exploitation Lack of learning resources
Two-wheeler mechanics	Salary and benefit Food and shelter Conducive work-environment Collective works Mutual support Festival and special days	The behaviour of the owner Exploitation Not enough instruction, guidance, and coaching
Fast-food	Family environment Customers' support Instant feedback Possibility of career progression Mentoring and coaching	Abusive behaviour of some customers

Source: Prepared by the Author based on the information obtained from the field

It was clear that the working condition and benefits Amod has been receiving

motivates him to learn more skills even in his mature age of fifties. The work

environment plays a vital role in encouraging or discouraging a person from making

more effort in other occupations, particularly in the workplace where the work and

learning skills are related to arts and culture. For example, Brown (2012) noted during

her research in the sheet metal repousse' workshop in Nepal that when a craftsperson feels good and relaxed, only in that situation can they produce art items as needed. Furthermore, learning skills informally does not depend on the age of a person (Schulz & Stamov Robnagel, 2010). Even they can seriously engage in activities, as Berg and Chyung (2008) studied among development professionals. Thus, the workplace environment is directly associated with informal skills learning, particularly in the traditional arts and crafts-related occupations where I have taken the enterprise.

A young metal artist, Jiwa, had a different experience with such learning opportunities at the workplace. During one of the interviews, he informed me that the present work is his third job. When he came to the capital city from his village, his *"first workplace was only for learning purposes"* [Interview, 9 November 2019]. But he could not meet this purpose, and he changed the place. Jiwa shared that the first work was limited to managing *"pocket expenses,"* which meant the work-earning was negligible. He was not satisfied with that job as he could not learn skills as expected because he primarily had to perform other domestic chores. *"When I moved to second place, it [the salary] was better"* [Interview, 9 November 2019], added Jiwa, how his learning opportunity in the present job was better than in the previous two jobs and how this (increased income) was motivating him. In a similar tone but with a different context, another metalcraft artist, Gaurav, mentioned how he was encouraged when he learned more advanced skills. His father, Yuvaraj, the enterprise owner, was also happy because Gaurav was making his hard work and effort as expected by his father. Providing the example of enhancing drawing skills in metal sculpture, Gaurav shared:

> *Obtaining new experiences is a continuous process (showing an art item on*
>
> *paper). For example, I prepared two-dimensional drawings. Later on, I got*

the opportunity to learn and prepare more complicated three-dimensional drawings. This improvement made me more interested in learning other advanced drawings. Although it is not always easy, the learning opportunity provides interest to further the learning process. [Field note, 23 May 2019]

However, the working conditions for informal skills learners from the other two occupations were not as favourable as Amod mentioned from the occupation of metalcraft. Despite the less organized work setting and the hard labour required, the work environment motivated Sanju, a young mechanic in the two-wheeler mechanics sector. He was inspired to learn due to the support he received from the owner, taking him as a role model. I noticed and verified that Sanju resided in the owner's residence and came to the workshop daily with the owner, Dinesh, from his home, located about eight kilometres. Sanju repeatedly told me he is motivated to work and learn more because of the owner's family-like treatment of him. Although the highly positive answer of Sanju was a bit suspicious to me whether the owner was using him as a domestic worker in the owner's home, I concluded that even with that possibility, he seemed highly motivated in his work and learning skills.

On the other hand, the experience of Dinesh, a senior motorcycle mechanic, is interesting. According to him, a learner becomes motivated when he gets an opportunity to practise and become confident in his performance. He takes learning as a continuous process. According to him,

In the learning phase, there are many stages. When you get the opportunity to learn one skill, it creates an interest in learning another skill. For instance, there are so many skills in motorcycle repair and maintenance. At first, you have to perform a (basic) skill. Then you have to initiate another skill based on the previous one. This process continues. When you are confident in doing one

thing, it encourages you to move for further learning of skills. [Interview, 1

July 2019]

Motivation literature supports that when a person develops particular skills, the eagerness to learn and improve skills increases (Harter, 1978). Besides, the work environment with a learning culture—where workers of different levels and age groups mutually learn the skills—supports increasing production and quality and motivates them for further learning (Ellinger, 2005).

Besides, I noticed that acknowledgement and recognition obtained from the seniors and supervisors also motivate learning skills. A young metal artist, Jiwa, thinks such recognition includes a letter from the working enterprises as proof of experience. According to him, such recognition is valuable because *"when a skilled person wants to work in any reputed company, it helps. Such possibility creates interest in learning."* [Interview, 9 November 2019]. Jiwa understands that the hiring companies *"want to see such experience letter in case of joining other organizations."* So, as Jiwa mentioned, acknowledgement and recognition from the working organization support career growth, ultimately associated with working and learning motivation, as Skule (2004) says, "rewarding of proficiency" (p. 14). A study conducted in the Korean VET sector also concluded that informal learning effectiveness increases when workers feel their current tasks are "useful to other organizations" (Jeon & Kim, 2012, p. 209).

The next element of workplace-related motivations of the informal skills learners is learning-related support such as guiding, coaching, and counselling to worker-learners by their supervisors. During the field visits, I explored whether workers get learning support from the organization's side. Although informal skills learners do not have any written course plan or curriculum, skilled workers frequently

provide coaching and support for less experienced workers. For example, Lambodar, a senior potter, said he coached and instructed his son [Damodar] to learn pottery skills. Similarly, Damodar teaches the same skills to his wife, Indralaxmi. Regarding how her husband supported in teaching and guided her rigorously in the initial learning days of pottery, she mentioned:

I was not skilful in making murti [idols]. My husband taught me how to perform different works, from preparing the clay to making Buttas [patterns] in the idol. Sometimes, he also guided me by catching my hands. I slowly started to make the items that we produce here. His teaching of skills added interest in doing more work. If I could learn these skills before, it would be easier for me. [Interview, 28 May 2019]

The couple potters, Damodar and Indralaxmi, were slightly different. While visiting other potters' places and observing their work style, I rarely noticed direct counselling and coaching from the senior potter to the junior learner. Instead, the instructional process relied on learners imitating experienced potters' work with little verbal communication and guidance.

The situation in the metalcrafts sector was a bit different. Counselling, coaching, and instruction were more prominent in this trade. During the multiple conversations, Yuvaraj, a reputed metal artist, shared that they must counsel youths and convince them to follow the occupation. "*Fakaera fulyaera pani uniharu lai akarshit garnu parchha* [We have to attract them even through persuasion and counselling]" [Interview, 30 April 2019], shared once Yuvaraj indicating the youth. I understood his word *akarshit*, which etymologically means to attract, as motivation to encourage learners to learn more.

Gaurav, son of Yuvaraj, working in the same enterprise led by his father, feels instruction and guidance are inevitable in encouraging learners. His father inspired him to learn metal arts and crafts-related skills. Jiwa, another metalcraft artist from the same enterprise, found its caring environment as one motivation for working and learning. The supervising style of his owner, Yuvaraj, motivated Jiwa. He shared that when some mistakes happen, and he reports the error to the owner with fear, he becomes so happy after getting the response from Yuvaraj. "*Hat le banaeko ho, ali ali ta eta uti bhai halchha ni !* (as it is hand-made, certainly there are the possibility of tiny errors)" [Field note, May 2019], shared Jiwa how the owner took his mistake comfortably and how Yuvaraj encouraged him to work harder, providing feedback on avoiding such errors. One recent study on Nepal's occupational sectors also indicates the importance of counselling activities (Pradhan et al., 2014).

Despite the unplanned and spontaneous occurrence, mentoring, coaching, and counselling were also found in the motorcycle workshops, although the way was different. I frequently noted how senior workers deal with junior workers or learners during the workshop. I found multiple examples from Dinesh, owner of a motorcycle workshop, and provided instructions and counselling. He feels that behavioural counselling is also necessary, together with workplace instruction. He suggested that his worker maintain personal hygiene, saving habits, punctuality, follow instructions, avoid smoking and drinking, etc. Once, during one field visit, I captured such instruction of Dinesh to a novice worker (who was not the research participant) who had just started his job for a few days and did not come to work on time:

> *You see, brother, this is not the way to work here. I don't care how the person*
> *looks like […]; I care about the work (attitude). I have also performed that*
> *stage like yours but never came to work late. I am your guru and never think*

badly of you. So, you listen carefully, if you come in the morning, you must

arrive here at seven. Otherwise, arriving here at nine is meaningless; I will

prepare food for you and serve it at ten. So, you either come earlier or after

taking a meal. [Field note, 4 June 2019]

Of course, how Dinesh expressed himself to his subordinate sounded not

pleasant. However, it seemed usual in the trade after understanding the context of the

initial informal training of skills learners. On the other hand, the boy's reaction did

not show that Dinesh's counselling style harassed him. I experienced from observing

the workshops that senior workers' and owners' behaviour gradually changes together

with the advancement of the skills the person gains in the enterprise as a community

of practice (Lave & Wenger, 1991).

Workplace-related features are vital in motivating learners for learning and

career progression. But, this is not so simple and similar to all the cases. For instance,

researches also show that workers and learners are more motivated by obtaining an

autonomous working environment. In such a situation, together with the motivation

level, the quality of work also increases (Ryan & Deci, 2017). Whether it be the

flexible work nature of the potters' couple (as Indralaxmi and Damodar mentioned),

or the work-role satisfaction expressed by Amod from the metalcraft occupation, the

situations create motivations for learners. Similarly, as Sanju described his employer

as helpful, the support of the manager of any working organization significantly

increases the motivation of the workers to work and learn (Ellinger, 2005).

Similarly, it was evident that the learning support and guidance from the

senior skilled people played a vital role in motivating the workers and learners.

Moreover, coaching and counselling are crucial for students' motivation in formal

education (Sachdeva & Malhotra, 2014; Schon, 1987); it seems not less critical for

informal skills learners, albeit in different ways. However, such diverse motivating elements can vary with different workplace-related situations.

Among the workplace-related barriers to learning skills, I noted that the learning interest decreases enormously when the produced items become spoiled. Although such a situation was in all the studied occupations, it was alarming in the pottery sector. Such a situation is also associated with failures in skills learning. Examples include massive losses in pottery production and improper shapes created in metalcrafts. Similarly, another example is untasty food prepared in fast food and unsolved problems even after repairing the bikes in two-wheeler workshops.

The significant discouraging situation they felt in pottery was when nearly completed pottery items were damaged. Such damages could occur during transportation or the drying or burning process. All the potters I met expressed their sorrow when the produced pot items were damaged in larger quantities, and they even thought about abandoning work in such a situation. One such experience was of Indralaxmi, the lady potter, who shared:

Do you know how much effort we use into different stages of producing the pot art items? But, we cannot preserve all the items. It makes us very hurt when it crashes during the burning. Seeing the pile of broken pot items after burning in the kiln, we sometimes think about why we do such risky jobs. Such a situation also decreases our interest in learning new skills. [Interview, 28 May 2019]

Of course, there can be multiple reasons for such pity as the inability to upgrade the kilns, inadequate working conditions, and other technological shortcomings. But, it is associated with the workplace situation where informal skills learners become demotivated.

In general, informal skills learners have to work with fewer resources, such as tools, equipment, and materials (Bankole & Nouatin, 2020). As was found in the pottery sector, the two-wheeler mechanic sector also found such a situation. However, they are used to working in such a situation. It is encouraging that they perform their best even in such a case. Dinesh, the owner of a motorcycle workshop, shared how motivation for learning would decrease in such a situation:

> *The frustrating situation among motorcycle mechanics in Nepal is that when a customer goes to the next mechanic for repair and maintenance, the mechanic (in the second workshop) can blame the previous mechanic did not correctly fix it. This is a very worrying fact. Such a situation decreases the interest in work and learning skills. [Interview, 1 July 2019]*

Essentially, Dinesh mentioned overall socio-cultural circumstances, such as unhealthy competition within the trade. However, this also was part of the day-to-day work of two-wheeler mechanics.

Whether it is associated with working tools or the workplace's overall conditions, it is evident that such a situation is related to the learning process, which can negatively affect it. For example, Barber (2004) studied an automobile workshop in an Indian city. He found that informal skills learners "cultivated skills to suit their limited tools and infrastructure, developed a high level of innovation, learned to work under tiring and difficult situations and acquired social skills to suit the workplace conditions." The situation in Nepal is similar to that of what Barber mentioned. Although the participants did not directly say it verbally, I noticed how the gap between senior and junior workers could discourage learning skills. Remarkably, such a gap is for putting their concerns unhesitatingly. It can prevent learners from learning

skills as Nepal can also be taken as a "large power distance society" (Hofstede et al., 2010, p. 76).

Thus, there are both workplace-related drivers and barriers among informal skills learners. However, as I discussed above, they perceived comparatively fewer barriers than drivers. The only question here is what drives those learners to become motivated even with difficult working conditions. I offer this discussion in Chapter VII. In the following paragraphs, I want to present the work-team-related drivers and barriers that informal skills learners did experience.

Work-Team Related Drivers and Barriers

We can see and feel the different parts of an organization, whether a formal corporate business house or a tiny informal micro-enterprise. But, one vital part we might not see overtly is the soul of an organization. As Gallagher (2003) argues, the work team is the soul of the organization because "teams attract strong people—and strong opinions" (p. 94). I also found work teams as the organizational motivation in my field visits. However, such work teams were also part of the workplace mentioned above. Cordial relations, teamwork, and family involvement in the work were drivers for working and learning. Although participants did not directly express, a higher intra-family association in the pottery occupation motivated the potters. I observed that the family members jointly performed all the working procedures with some exceptional cases. Most potters were motivated while working and learning skills in their family as a work team.

A couple of potters (Damodar and Indralaxmi) enjoyed working together. They shared tasks and discussed domestic issues while at work. I also observed how Lambodar, an elderly potter, and his family worked collectively despite the multiple challenges. One reason behind their satisfaction is that the whole family lives and

works together. He said they do not prefer hiring outside people and happily work with family members. He shared:

> *We could hire outside people, but there is no assurance of obtaining the required skills from them. Even if they have skills, their regularity cannot be assured. So, we prefer working by ourselves and enjoying this. When we work together, I feel happy, and my siblings work happily, although many boys are changing their occupations. [Interview, 9 October 2018]*

What the elderly potter mentioned was the mixture of both encouraging and discouraging elements considering skills learning. However, collective work as work motivation was highly notable there. Such joint work motivated them to work and learn skills. As Kasten (2012) observed, collaborative work is the working approach of potters in Thimi. They distributed different work among the family members and helped each other when needed. I observed that my research participants, potters, were working with full concentration with mud and immersed in it while working, supporting other people's learning at the workplace.

Cordial relation among the team members was also a crucial aspect of learning motivation, as research participants from the metalcraft expressed. When I asked Jiwa, a young metalcrafts artisan, about their work team, he clarified their workplace structure. He shared how the cooperative team provided an environment for learning. He mentioned:

> *We are working in teams. We have such working teams in different units. Generally, there are two or three people in a team. Our team is assigned to do certain sculptures and decorations. We fulfil those assignments. Most of my friends in our workplace are supportive. We have a good relationship and a*

willingness to cooperate. I feel very happy working with these people. It gives

interest in work and learning too. [Interview, 9 November 2019]

Teamwork and harmony existed in fast-food and two-wheeler mechanics. There was a good understanding among the small team in the cafeteria. I never noticed any conflict between the three ladies, even during the busy hours of the cafe. *"We all can do every task. Among us, who is available, she prepares,"* once expressed Chandrika in the question of how they manage diverse activities of the café during such busy hours. As a result, she was satisfied and motivated when she got released from work during her final examination for grade 12. Chandrika's mother, Ramila (see Appendix E.3), also worked enthusiastically in the team as a family. In the motorcycle workshops, mutual understanding and teamwork prevailed, encouraging workers to perform their tasks and ultimately learn skills. I often observed senior and junior boys working together under their supervisor's minimal guidance.

During one of the conversations with Dinesh, the owner of a motorcycle workshop, I asked whether individual or group learning is effective. He said, *"Of course, group learning is more effective; because discussion happens in the group,"* he answered and said that the workers also enjoy working. Dinesh feels that enjoying and working together are the characteristics of their work that create motivation for learning. Scholars accept that group learning is a more effective means of promoting learning through competition (Lucas et al., 2012).

Although it was also a part of teamwork, family members' involvement was another driving force for working and learning. This driver was found prevalent, particularly in pottery and metalcrafts. Even among these two occupational fields, it was more ubiquitous in pottery. During my multiple observations and conversations, I

felt that family involvement and harmonious working culture were critical elements of their work. Once I asked Damodar and her wife, Indralaxmi, about their feeling about working together. Damodar said, *"if only one person works in this [the particular pottery item production], it will take too much time. So, joint work is an effective way of producing such items"* [Field note, 12 November 2019]. Later on, he added how they enjoy working together.

Lambodar, the father of Damodar, has also mentioned how the whole family works together. *"Among five sons, four are being engaged in this occupation,"* said Lambodar and added that not only sons but also *"all four daughters-in-law are engaged in this work."* Smilingly, Lambodar said they were lucky because they could work together with their siblings. *"None of the five sons are separated. [Though] They are performing their business and running their livelihood separately but not yet disjointed. We organize Bhoj [ritual party] together. We enjoy working together and eating together"* [Interview, 9 October 2018], Lambodar mentioned with a laugh of satisfaction.

The expression of this Prajapati family's guardian showed the actual scenario of the occupational caste. Although the present generation is much more affected by modernization (Kasten, 2012), the community still practises its traditional lifestyle. Such practice is favourable for implicitly motivating their family members to learn pottery skills.

Gajendra, the younger brother of Yuvaraj, who is also the owner of a metalcraft enterprise, provided similar information regarding the family involvement in the occupation. He informed that three are in metalcrafts occupation among the five brothers who learned skills from their father in childhood and elder brother Yuvaraj in the later years. Two sons of Yuvaraj also work in the same occupation as their father

and support the same enterprise. When I asked about his enterprise and the family involvement in the business, Yuvaraj expressed the participation of his two sons in the business but mentioned the elder son only:

> *Regarding my enterprise, both of my sons are working in this occupation. The elder one completed his bachelor's course and aligned with this occupation to learn occupational skills. I have clarified to both of them the importance of the traditional occupational work that we are doing. They were convinced by my persuasion and decided to continue the occupation that started with our ancestors. [Interview, 30 April 2019]*

Among the two sons, Yuvaraj talked about only one. His main intention in saying the elder son was his educational qualification. Generally, people with that education level do not prefer to follow an occupational path and join other employment fields such as government service (ADB, 2009; Bista, 1991). But, Yuvaraj's effort was effectively working to motivate his sons. Information received from the research participants, too, proved this. Workplace peer learning is always prevalent in different forms, such as asking questions and providing feedback.

Furthermore, the owner and leader's role as the enterprise manager is the facilitator for learning (Ellinger et al., 1999), vital in guiding, coaching, and mentoring (Cuinen et al., 2015), albeit in a less organized way. The family members' involvement and family-like management in small traditional occupations positively influence the work environment in such workplaces (Char Fei Ho et al., 2013; Jeong, Han, et al., 2018; Restubog & Bordia, 2006). Thus, it seems clear that the work-team composition is an essential component of the enterprises I obtained in the field.

Like drivers, I also noticed the work-team-related barriers of informal skills learners though not to a higher degree. One such barrier is the improper treatment of

guardians, which can cause hindrance to skills learning. A potter, Keshav, mentioned one such situation. He shared that two of his brothers were dissatisfied with their parents' treatment. So, they separated from their family and changed their occupation to tailoring. Like Keshav, Jiwa, a young metalcraft artist, also shared that he had to change his work due to exploitation and frequent reprimand in his first job.

Although I could learn certain skills, it was difficult for me to cope with domestic work. Besides, the frequent reprimand of the owner was hurting me. I had a very minimal salary, just as a pocket expense. On top of that, certain cloth items they provided during the Dashain festival. The main reason I left that job was the behaviour of the owner's family. [Interview, 9 November 2019]

I assume that what Jiwa experienced is a common phenomenon that most informal skills learners have to bear in the initial period of their careers. However, the situation gradually improves when they acquire skills and the ability to perform work. Jiwa also shared that learning and earning were better when he moved to second place. The present job of Jiwa was the third place where he found himself highly motivated to learn. One of his motivations in his present job was good relations and behaviour among the work team. Remarkably, the role of senior artisans is higher as their support is necessary to promote the learning attitudes of junior workers by minimizing their anxieties. Such anxieties result from negative aspects such as "failure, public humiliation, disrespectful interpersonal dynamics, or inadequate feedback (Wlodkowski, 2008, as cited in Merriam & Bierema, 2013, p. 143).

In the two-wheeler mechanic sector, I noticed work-team as also a barrier. The version of one of the two-wheeler workshop owners, Ratna, indicated that an owner could dismiss the person from the job even with workers' minor deviating behaviour.

For example, during one of the interviews, Ratna mentioned how he was not satisfied with the conduct of a boy and dismissed him from the job:

> *In our time, we did hard work. But the situation is not similar these days. For the present youngsters, the only concern is how to avoid work and how to collect money. If someone comes and whispers, topping up one or two thousand (Rupees) a month, they immediately leave. These boys never live in one workshop. I have expelled many such boys. [Field note, 21 May 2019]*

From the version of Ratna, one can easily guess how workshop owners treat novice workers and how they care less about youth workers' concerns. There can be shortcomings from both sides—owners and workers. Moreover, such gaps in understanding workers' problems from the managers and owners, information about one peculiar phenomenon obtained from the metalcrafts occupation. Amod, a senior metal artist, worried not only about the attitude of present ordinary youth for less valuing traditional skills but also hesitation to instruct traditional skills. Once Amod shared that some people still have a mentality of *"why teach the skills I learned with such hard work and difficulties to others?"* [Interview, 19 September 2019]. Although such practice among community people is not common, we can take this (hesitation of skills transfer to others) as one of the barriers to skills learning in some occupational sectors.

As the working team is the major component of the overall working environment, it directly affects general skills learning (Illeris, 2011). The information presented in the paragraphs above shows that informal skills learners experience both work-team-related drivers and barriers (Le Clus & Volet, 2008). Still, drivers are more prevalent than the barriers despite multiple difficulties. This perception probably contributes to excelling the learners in the gradual path of competence development,

as Alla-Mensah and McGrath (2021) observed. After presenting workplace-related and work-team-related drivers and barriers, I present work-benefit related drivers and barriers in the following paragraphs.

Work-Benefit Related Drivers and Barriers

Although there is a notion that "learning is only indirectly dependent on the economy" (Illeris, 2011, p. 45), my understanding is different. Income and earning-related matters such as wages, salary, and benefits play a more significant role in motivating people, as Gerhart and Fang (2015) expressed. I found such motivational elements were the most common in informal skills learning and contributed to learning. Such features were generally present in two-wheeler mechanics and fast-food café. While in the pottery and metalcrafts, such drivers were more associated with the survival and sustainability of the trade. However, most potters expressed that their field was facing multiple challenges and a crisis of existence. They had a common feeling that the occupation still supperted them. Binayak (see Appendix E.11) once mentioned that besides numerous challenges, *"the occupation is good for running livelihood, [albeit] earning money like in other occupation is impossible"* [Field note, 22 February 2019]. In a similar tone, Damodar and Indralaxmi's potter-couple expressed that they still hoped to flourish in their occupation. This hope motivated them to work and learn despite the shrinking market and potentiality.

In the sector of metalcrafts, I noticed a different scenario. Although the present youths were not massively attracted to the occupation, those who selected work after being counselled and convinced earned a comparatively better income. This possibility motivates workers to learn more. Being an experienced entrepreneur, Yuvaraj treats the worker accordingly. He also informed that they provided the needy family workers with residential facilities inside the workshop premises. Jiwa, a young

artist, and Amod, a senior artist, were also motivated by their occupational work. During one of the interviews with Jiwa, when I asked whether he feels that benefits received at the workplace motivate him in working and learning, he mentioned:

> *Of course, earnings also matter a lot. Moving ahead in both working and learning skills is impossible without good benefits. The main reason for my interest in working here is my income and other facilities. I like the behaviour of the owner. We also get support in difficult times. In the last earthquake [of 2015], we got additional financial support from the company. All such types of provisions create interest in work and learning. [Interview, 9 November 2019]*

From Jiwa, I also knew that one of the main reasons he moved from the first and second place to the present position was the inadequate benefit in the last workplaces and the owner's behaviour in the first job. Almost in the same tone as Jiwa, Dinesh, the owner of a motorcycle workshop, mentioned that good salary and benefits play crucial roles in workers' motivation and skills learning progress. Though there was no practice of the worker's written terms and conditions regarding compensation and benefits, I understood that workers' income level depends on their skills and experience. Both workshop owners, Dinesh and Ratna, provided the residential facility to their workers, albeit in a compromising situation. Though the living conditions I observed were not conducive, the workers generally found compromising with the facility because the living facility obtained saved those novices from renting a separate room. One of my field notes of the observation in a motorcycle workshop supports understanding the situation of how a novice worker's residential space looked:

> *He then told me to go to the inside room, where a small wooden bed with mismanaged clothing was lying. I guessed that this was Suraj's bed. Some*

helmets were also kept over the bedsheet. As Suraj indicated, I sat at the corner of the bed, and he sat on the other side, clearing the garment items lying over it. [Field note, 20 February 2019]

I could not visit the residential places of all the novice mechanics working in the motorcycle workshop. But I guess that the accommodation of Suraj (see Appendix E.12) shows the situation of these workers, which was significantly below the acceptable level, particularly considering the hygiene and the space adequacy. As Von Kotze (2013) noted, in the poor informal working conditions of South Africa, workers need "supportive measures, targeting in particular food, housing, and energy" (p. 97), even in the situation where they were offered devoted training opportunities.

I also found that earning and learning go together as a driver in the fast-food enterprise. Ramila, an adult lady, works not only in the cafeteria. But she also supports medical doctor students in their cleaning and food preparation work, spared from the main job at the café. She mentions that the cumulative earnings motivated her. When Sanju, a novice mechanic, left his workshop at Thimi and moved to the city centre of Kathmandu, I asked him why he had changed his workplace. Sanju mentioned that one of the reasons was the absence of the provision of fixed-wage. The salary Sanju received was dependent on the owner's wish. Work insecurity of the workers was clearer with the version of the workshop's owner. Once Kundan informed a very high turnover of workers in their occupational sector. He complained that the present youth are not much faithful and mostly pretend. Usually, when a worker is less skilful, the person is less productive, which affects the enterprise's income (de Grip, 2015). Though there was a different feeling from the side of workshop owners and the workers, it indicated insecurity, which is a barrier to pursuing work well and ultimately to informal skills learning.

Similarly, it is noticed that decreased market demand and the extreme scarcity of raw materials are also demotivating situations. Particularly for the potters, it is an alarming phenomenon within the trade. Such phenomena are directly affecting the business and ultimately discouraging informal skills learning. It is natural that when there are acute problems and declined earning potentiality, the attraction to that occupation naturally decreases. Surprisingly and sorrowful, all the research participants from the pottery shared that the trade faces a great scarcity of clay.

Another challenge is that other durable utensils are available in the market at a cheaper rate. A field note depicts this situation how Binayak, an adult potter, shared:

In the beginning, he mentioned the problems the pottery occupation is facing. He was anxious about the diminishing market of clay items as it is being substituted with other utensils such as plastic and metal. He also added that youth attraction to this occupation decreases, so they do not want to learn pottery skills. [Field note, 22 February 2019]

As a research participant, every potter expressed their concerns in the same light as Binayak mentioned. Besides, alarming problems for the potters of Thimi were the decreased demand and lack of clay sites. This problem probably appeared during the urbanization of Kathmandu Valley's suburbs, even from the eighties (Muller, 1981). This "shortage of raw materials" has become more acute today, among other challenges the pottery occupation faces (Shrestha, 2018, p. 147). It indicates that the trade can face extinction if this challenge persists. Moreover, it directly affects informal skills learning and transfer in the occupational sector.

Personal Drivers and Barriers of Informal Skills Learners

This section presents the personal drivers and barriers to skills learning based on the field's information. I have presented these drivers and barriers under two

categories— success and failures in skills learning and inherent abilities and interests. First, I have presented the findings on drivers for learning and then on barriers. Table 3 provides the synopsis of personal drivers and barriers.

Success and Failure as Drivers and Barriers

Obtained information supports that skills learning itself motivates other skills learning. For example, Damodar, a young potter, was happy after mastering pottery skills. This mastery of skills motivated him to work better and to learn further. Lambodar, a senior potter, also mentioned his motivation for more work when he acquired quarrying clay from the *"difficult and dangerous fields."* Another young lady-potter Indralaxmi (see Appendix E.13), also experienced similarly creating motivation by acquiring skills. *"Till the moment you learn, it seems like very difficult, but when you learn the skill, you feel encouraged with a feeling of easiness"* [Interview, 28 May 2019], Indralaxmi mentioned during one of the interviews.

A senior metal artist, Gaurav, shared the relation of skills learning with happiness. According to him, such success provides the worker with confidence "*yes, now I can do this!*" [Field note, 23 May 2019]. Yuvaraj, the renowned metal artist, also has such experience of motivation after acquiring skills. Sharing his experience of conducting the training in his field, he mentioned how successful graduates continued further learning of skills:

> *When a person obtains specific skills and gets success, the person becomes*
> *motivated to further learning. I have taught about 400 students; among them,*
> *about 200 are working in this occupation successfully, making a good amount*
> *of money. Graduates who are less skilled and cannot work well face*
> *difficulties and cannot progress. Such people cannot stay in their occupation*
> *and change to other fields. [Interview, 30 April 2019]*

Table 3

Personal Drivers and Barriers to Informal Skills Learning

	Drivers	Barriers
Pottery	Feeling of preservation Love towards traditions Flexibility in the work The future hope of flourishment	Loss created feeling Personal physical and mental conditions Inherent abilities
Metalcraft	Qualities of self-creativity Inspiration from religious practice Seeing big potential	Unsuccessful effort Personal physical and mental conditions Inherent abilities
Two-wheeler mechanics	Aspiration to be an entrepreneur The feeling of their own home Enjoyment with competence/*Magna*	Unsuccessful effort Personal physical and mental conditions
Fast-food	Pleasure in customer service The feeling of close relation The usefulness of home-learned skills Aspiration to get a higher education	Fear of misbehaving Personal physical and mental conditions

Source: Prepared by the Author based on the information obtained from the field

Dinesh, a senior mechanic, also experienced that learning one skill contributes to learning more. He shared, *"When you learn one skill, it creates interest in learning another skill"* [Interview, 1 July 2019], and added that this process of learning and motivation is like steps in the journey. Similarly, work success is a driver for learning other skills in the fast-food sector. Chandrika shared that she knew negligible skills until joining the work and learned essential skills while working. When she started to succeed, she was more motivated to learn other skills. *"When I learned to make beautiful Butta (pattern) on momo, I became so pleased. Later on, when this*

improved, I became happier" [Interview, 17 April 2019]; Chandrika shared how such happiness motivated her to enhance her skills.

Studies have proven that learning new skills motivates further learning (Cuinen et al., 2015). Mastering a particular competence also encourages the individual to additional learning. Furthermore, formal learning of a person and their learning orientation contributes considerably to informal learning (Choi & Jacobs, 2011). Thus, competence is the central element of intrinsic motivation (Harter, 1978), which ultimately creates enjoyment for the learner for further performance and learning (Csikszentmihalyi, 1990). This finding indicates that teaching learners one particular skill motivate them to further higher-level learning.

According to the research participants, success can motivate and become a driver for learning. Likewise, failures or hindrances in the work and learning process demotivate and prevent learning skills. For example, one of the potters' frustrating moments was losing their laboriously prepared items, particularly during burning. *"It makes very hurt when it crashes during the burning,"* [Interview, 28 May 2019], Indralaxmi, a young lady potter, shared once. She added that they feel for abandoning such work.

Similarly, the experience of Jiwa, a young metalcraft artist, coincides with the lady potter, Indralaxmi. Jiwa mentioned that it demotivates a skills learner when a learner cannot produce an art item successfully. *"It spoils the mood and creates willingness for leaving the particular work project"* [Field note, 23 May 2019], clarified Jiwa how any unsuccessful work could cause abandoning the job and, ultimately, the learning.

The research participants' feelings from the two-wheeler mechanics regarding unsuccessful work as a cause for the demotivation were similar to pottery and

metalcraft occupations. Dinesh, a senior mechanic, shared that success motivates people to work and learn, and failure can demotivate them. Participants shared how unsuccessful work can create demotivation for working and learning skills in the fast-food occupation sector. Chandrika, a young lady, had experienced frustration when she could not prepare food items as desired by the customers, and she spoiled the food items. When I asked Chandrika about her demotivating experiences, she shared with me:

> *There are many instances of becoming demotivated in working and learning. Generally, I become very sad when food items become spoiled. For example, I have often put more salt onto food items. When I get a customer complaint, I feel sorry for my mistake. I even feel like abandoning the work because I might not make progress in the future. But I never gave up. [Interview, 17 April 2019]*

Chandrika shared both types of moments—frustration and courage. Besides failure, Chandrika also shared personal physical and mental conditions such as fatigue, worry, and anxiety as barriers to working and learning. *"When you are worried and anxious, there will not be effective learning,"* shared Chandrika during the same interview.

As Chandrika and other research participants mentioned, the learning competence of a person predicts "success in informal learning" (Schulz & Stamov Robnagel, 2010); it is evident that there is a possibility of both the cases—drivers or barriers—based on the individual learner's situation. However, the primary role of decreasing barriers and enhancing drivers for learning remains in managing the particular work organization. Learning skills well is impossible until the learners are not intrinsically motivated (Cerasoli, Nicklin, et al., 2014; Ryan & Deci, 2017).

Besides other reasons, the source of such motivation can also depend on the individual abilities and interests I found as the case evidence. The following section presents the findings related to such presence or absence of inherent abilities and interests as drivers and barriers in skills learning.

Presence or Absence of Inherent Abilities and Interests

Some can argue that personal characteristics and abilities can motivate or demotivate a person to learn skills. However, I believe that the potentiality for learning also depends on the personal aspects of an individual. Such inherent abilities and a person's interest motivated for informal skills learning as informed by the research participants. Interestingly, how pottery skills transferred from generation to generation was also associated with motivation. Lambodar, a potter guardian, once stated that someone who wants to learn pottery art items should also have the personal ability. He also informed me that those who cannot capture such skills in mind and use them could not be good instructors. Another potter, Binayak, sees the fundamental prerequisite for pursuing the occupation as a willingness. He mentioned that one *"just should be willing to continue the work that elders did"* [Interview, 22 February 2019]. When a person lacks personal interest, the person cannot be a good learner.

Another young lady potter, Indralaxmi, thinks her strength is her strong willingness to learn skills, which made her successful. *"In the initial days, I was anxious whether I could do it or not,"* [Interview, 28 May 2019], she stated and added that even starting at a later age (after the marriage), she could learn pottery arts skills.

From the metalcrafts occupation; also, I noticed that a person's ability and interest are crucial for learning and achieving occupational success. Jiwa, a young artist, gave me one example from his personal experience. Even with an elementary school education, he could learn and master complicated measuring and calculating

skills of metal sculptures. Associating his ability, he thinks that people also have inherent qualities for learning skills. This version of Jiwa was substantiated by the experience of his owner, Yuvaraj. During one of the interviews, he mentioned how one worker from his company could not progress in learning skills despite his full support. He mentioned:

> *Once, we had one employee who could not learn basic-level skills. With the similar input and support we provided among the work team, he could not make a minimum progress and repeated the same mistake frequently. Our efforts to help him impart skills and employ him as a permanent employee were futile. We terminated his contract after concluding he was not fit for the trade. (Laugh) [Interview, 9 September 2019]*

As Jiwa and Yuvaraj shared, we all might have such experiences that people have their unique ability to learn and perform particular works. Amod, a senior metal artist, also thought personal qualities were vital for learning skills. Providing his life experience to cultivate his talent of drawing-making and aligned in the occupational field, he insisted on a person's willingness and capability to succeed. Comparing occupational skills learning with music learning, Amod mentioned that *"Some can be singers even at 3-4 years. However, we can find examples that some cannot be a singer, even with rigorous hard work"* [Interview, 19 September 2019]. As an example of his work field, Amod added, *"Some [workers] are such that they already have learned the names of tools when they enter the workplace. But some, even after six months of the work, do not recognize [even] a wrench"* [Interview, 19 September 2019].

Dinesh, a senior mechanic and the owner of the workshop, once stated, *"The person who has the Tej Dimag [brilliant brain] learns fast, captures fast, and [a*

person] with slow memory learns slowly" [Interview, 1 July 2019]. His connotation

was that not all people have essential trade qualities. He insisted on the importance of

a person's inherent qualities for skills learning motivation. However, as Dinesh

experiences, such inherent qualities have no relation to a person's particular social

background. Whether one is from the *"higher or lower caste, from well-off family or*

marginalized family, it doesn't matter," Dinesh clarified his version during the same

interview. He added that his acute interest in the occupation was the primary driving

force of this learning.

Chandrika, a young café worker, also has the experience that different people

have different capacities. *"Every person can learn, but not all are the same. Some*

learn fast, and some learn slowly. It depends upon the mind" [Interview, 12

November 2019], once shared Chandrika when I asked her to share her experience

regarding the ability and willingness of a person in skills learning.

Thus, from the research participants' expressions, it is clear that one of the

major drivers for the attraction to a particular occupational field, and consequently to

the informal skills learning in the field, is the individual's learning opportunity and the

ability and interest, what Noe et al. (2013) expressed as 'zest' (p. 327). This may be

one of the reasons why informal skills learners in some professions change the

workplace so often, as observed in two-wheeler workshops during field visits.

Information obtained from the research participants indicates that both drivers

and barriers exist when youth work and learn skills informally. Drivers to skills

learning are more prone to barriers, whether in the organizational or personal

category. Thus, the overall picture of informal skills learning drivers is positive. As a

youth's strength, we understand that they seem to work hard with high-level

motivation even under challenging circumstances. As Merriam et al. (2007) insist,

informal learning recognizes these days as formal learning in those countries where NVQ is already functioning. However, informal skills learning is still not considered equivalent to formal in developing countries like Nepal, where informal is the dominant mode of employment (World Bank, 2019).

Furthermore, the different layers of society do not appropriately value informal skills learners. Of course, this is both injustice (Parajuli, 2014) and unacceptable. Learning motivation theories stress the importance of incrementing intrinsic motivation, which ultimately is the overall motivation for learning (Ryan & Deci, 2017). As mentioned in the above paragraphs, the source of such intrinsic motivation can be both organizational and personal.

Drivers and Barriers to Informal Skills Learning as a Unicycle Ride

From the discussion on the above findings, it is evident that informal skills learners have multiple learning drivers and barriers. As the learning process depends on a complex working environment, I understand learning drivers and barriers creating a resultant move. This resulting thrust depends on the prevalence of the drivers or barriers. So, this process is like a journey in a very challenging and tricky means of transport. There are multiple pushing and pulling activities, and the movement toward the destination is only possible when the driving forces are more significant than the barriers.

I thought of an appropriate metaphor for depicting the challenging learning journey through a unicycle ride. We all know a bicycle as a popular means of transportation and its functions. However, it is less known to the general people how a unicycle works and functions. Unicycles are single-wheel machines for transportation or recreation. People use such unicycles in different areas, such as sports, entertainment, and robotics. In the sports field, users can get injured during their

learning process, and the use can be painful but is geographically widespread, with both potential and problems (Kobayashi et al., 2020; Wang, 2013). However, the unicycle is a significantly less researched area.

Based on my understanding and the information obtained from the field visits, I concur with the renowned scholars in workplace learning that informal skills are the process of competence development (Illeris, 2007; Tynjala, 2013). Nevertheless, I argue that this process does not follow a balanced approach to competence development. So it is a confined competence development process due to its limitations and compromised learning conditions (Baral, 2021). My understanding regarding a unicycle based on different literature supported me in comparing unicycle-riding with informal skills learning. I found that the characteristics of a unicycle are compatible with my findings on the informal skills learning process.

Figure 5

Drivers and Barriers to Informal Skills Learning: A Unicycle Ride
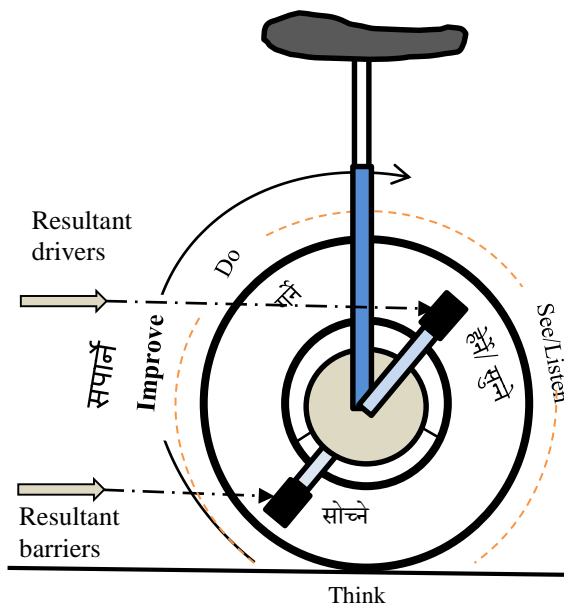
Source: Developed by the Author as a metaphor for informal skills learning

As learning skills are transferable and a gradual process (McDermott et al., 2002), it is "possible to learn to ride a motorcycle or a unicycle by adding extra experiences to the fundamental ones," such as a bicycle (p. 71). For comparing a unicycle ride with informal skills learning process, particularly I find the following points to mention here:

A unicycle is universal but significantly less known to the general people and less researched. It has significant use and bears high viability in the future. Its similarity to informal workplace learning is that the importance of informal learning has recently increased, with a high potential for the future.

A unicycle ride is challenging (e.g., compared to a bicycle ride) as it requires higher balance and extreme practice. In addition, as the informal skills learning process is highly unorganized, the learning process also bears a higher challenge.

1. As with other means of transportation, the unicycle requires energy to move ahead. It also has paddles on which power is necessary to apply. In informal skills learning, one of the drivers and barriers that prevail determines skills learning and development progress.

2. Even when the energy is insufficient for pushing a unicycle, it does not move back. The similarity of informal skills learning is that the learners do not lose skills abruptly if they face more barriers than drivers. It means the learned abilities remain in the same place.

Figure 5 displays a typical unicycle visually representing informal skills learning and competence development. The unicycle wheel represents the general process of skills learning based on the cycle of *herne/sunne-sochne-garne-saparne* (as mentioned in Chapter IV). It shows that the wheel moves while balancing and applying forces to the paddles. The prevalence of resultant drivers and barriers decide

the direction of the movement of the unicycle. It illustrates the path of progress of the informal skills learning process. A skills learner as a unicycle rider strives to make the direction to the goal, which means obtaining maximum skills learning. The unicycle movement path is taken as the informal skills learning path, as mentioned in Chapter VI.

Essence of the Chapter

This chapter discussed what motivates informal learners to learn skills and what causes obstacles. I categorized the motivational drivers and barriers based on the worker or learner's organizational context and personal characteristics. To make it easier to understand the motivation related to the organization, I divided the discussion into three types—related to the workplace, work team, and work benefit. I presented the motivation related to personal characteristics under two categories.

First, learning depends on success and failure in the skills learning of the learner. Similarly, in the second, I presented the drivers and barriers related to the innate characteristics of a learner. Furthermore, the drivers and barriers to learning are determined by fulfiling the learners' needs (Maslow, 1987). Besides, I also discussed how the skills enhancement of a learner, relationship with the member of a work team, and degree of autonomy at work affect motivational drivers and barriers, as Ryan and Deci (2017) observed.

CHAPTER VI

OCCUPATIONAL SKILLS DEVELOPMENT AS A LIFE JOURNEY

I focused my discussion in Chapter V on understanding drivers and barriers to skills learning. In this chapter, I present findings and discussions on how informal skills learners develop occupational skills at the workplace and progress in the occupational pathways, as illustrated in the lower corner of the Conceptual Framework (Figure 2). I present the whole chapter in four sections. The first section provides changes in roles and responsibilities of informal skills learners with increased skills levels. For this, first, I present field data and discuss the slow but steady nature of informal skills learners. Then, I discuss how skills development results in social status and identity change.

Similarly, in the second section, I describe the opportunities and challenges for informal skills learning and development. In the third section, based on the previous discussion, I present the skills development and occupational progression pathways of informal skills learners and phases of skills learning. Finally, in the fourth section, I present the essence of the chapter.

Changes in Roles and Responsibilities With Increased Skills Level

As informal skills learning connotes the absence of planned instructional activities, I present how informal skills learners learn their skills as slow but steady learners in the first section. Similarly, in the second sub-section, I present how a learner's increased skills and ability contribute to changing the particular person's social status and identity.

Informal Skills Learners as Slow but Steady Learners

Besides working in a multi-role work nature and under time scarcity and pressure, informal skills learners found that they are steady learners, and the informal learning process is gradual. Regarding such gradualness, different research participants have had different experiences. For example, Keshav, an adult potter in his fifties, was a school-going child when he commenced learning pottery without knowing that he was learning. How he started to learn pottery skills and progress career, he mentioned once:

> *In starting days, the task given to me was for mixing clay. At that time, this mixing was done with the feet. After mixing twice or thrice, the clay would become ready for putting on Chang (layers). After mixing and putting on layers, Gol (round ball) had to be prepared. All Gitti [pebbles] had to be removed from the clay. Later on, I gradually started obtaining other higher-level tasks. [Interview, 2018/09/22]*

For Keshav, learning started with fundamental trade skills at an early age. *"When I was fifteen, I already had learned how to make and hit pots,"* Keshav mentioned during an interview on how he progressed one step further in the skills acquisition. After performing clay preparation work, he hit the fresh pot from the flywheel. Then he learned the drying process. Finally, he mastered all pottery skills.

Like Keshav, Lambodar, a guardian of the potters' family, also mentioned that it took a long time before he started to operate the flywheel. *"It is impossible to work directly with the wheel,"* he mentioned. Similarly, regarding the skill learning path, another young potter, Damodar, mentioned how he started producing a simple pot named *Pala* and slowly *"started to make pottery art items such as small Gamala [flower pots], Machha [Fish], Khutrukke [coin pot], and then Hattiko Tauko [Elephant*

head], *and a whole Hatti* [Elephant]." As he is an experienced youth, Damodar knows all the required skills in pottery as he feels. *"Now I am thirty-five; it means I have 22-23 years of experience in the sector",* he described his slow and steady pottery skills learning journey.

Research participants from the metalcrafts also expressed that the skills learning process extends a long journey. The skills learning process was gradual, whether from a rural, economically weaker family or an urban traditional occupational caste family. Jiwa, a young artist, is presently working in his third workplace. In the last two places, he learned basic metal-related skills. He entered the present enterprise with those basic skills and worked for five years. Regarding the struggling journey of skills learning and progress, Jiwa mentioned during one of the interviews how he learned to make different sheet metal shapes and how to satisfy customers:

> *People can think that we [crafts person] have only to operate a hammer. But it is not limited to operating hammers; we must understand the occupational environment… Further, our work should be as per the requirements of Lamas[5]. We need to make sculptures according to their deities, Buddha. How a sculpture should be and how it should be positioned is determined according to their tradition. Those things also should be understood. Thus, we have to learn diverse skills in our working life. [Interview, 2019/11/09]*

For a simple villager, obtaining the opportunity to work in a reputed company under the team of a national figure such as Yuvaraj, Jiwa supposes it as an achievement made through his long skills-learning journey.

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[5] Lama is the people practicing Buddhism. Generally, Lamas stay in Gumbas (monasteries) and perform religious rituals.

The experience of another senior artist, Amod, was also similar to what Jiwa mentioned. *"Initially, I learned working with Dhaleko Murti* [casted sculpture], which needed *Katan Jya* [grinding work]", said Amod during an interview. Then he supplemented, *"when a sculpture is prepared; it is not well-shaped in the beginning. So, first, I learned to give shape to it."* He clarified the skills acquisition and occupational progression journey of his life. He also shared how previously he worked in his tiny home workshop, and later the workshop owner of this enterprise invited him to work.

Research participants from the sector of two-wheeler mechanics were also in the different stages of skills acquisition. For instance, Ratna, Dinesh, and Kundan are three senior mechanics who run their enterprises and work there as a manager. They shared how they started their skills acquisition journey and gradually made progress. Similarly, Suraj and Sanju are youths in the early stage of their skills-learning path.

As Ratna mentioned during one of the interviews, he became an entrepreneur relatively in a shorter period, but he feels learning is a continuous process. *"I worked there for a few years and learned the skills. Kam sikna lai jati dukha pani garnu pardo rahechha* [Everything is necessary for learning skills]," Ratna told how he initially worked and learned skills in another workshop before establishing his workshop. The version of Ratna regarding *jati dukha pani* [every kind of hard work] indicated that they did not have to care about luxury and comfort in acquiring skills.

Dinesh also has a struggling journey of learning skills. He feels *"when you are confident in doing one part, it is only appropriate to move to another."* It means the speed of mastering skills depends on the person's pace. *"You will not be allowed to learn all skills at once"* Dinesh clarified their process of assigning work and learning

by a worker. He also added a prerequisite for skills learning, stating *"the only thing [necessary] is that the person should work hard."*

Two novice mechanics, Sanju and Suraj, also mentioned how they started the work in the sector of two-wheeler workshops and learned skills; and in which position they are at present. *"Initially, I only worked in cleaning, transporting, supporting the mistri [crafts person] for collecting the tools et cetera,"* told Suraj. Then he added that *"slowly mistri started to allow for fixing the screws and nuts"* he mentioned how he made progress on learning higher-level skills. *"Now I know almost everything except some difficult tasks,"* proudly said Suraj, stating his aspiration, *"at first, I want to become good mechanic knowing everything,"* he added.

In the case of research participants from the fast-food enterprise, the situation regarding the skills-learning process is slightly different. Before entering the work, all three people knew basic food preparation skills such as preparing *Dal-Bhat*, tea, and coffee. However, afterward, they learned more items supporting different means, such as obtaining customer feedback and referring to other sources, such as YouTube. *"Initially, I did not know how to make all the food items that I know now,"* mentioned Chandrika, a young lady worker at the café. But, as she said, she has learned to date every skill needed for the café and *"can handle [the café] confidently, no matter how many customers have to serve at once."*

Although the nature of the work is different among occupational enterprises, the common feature of informal skills learners is the slow and steady nature of their skills development journey. Informal skills learners pass various struggles and adapt to learning, which is their "process of creativity and personal development" (Kolb, 2015, p.42). As Chandrika mentioned, the role of social media is increasing in the skills learning of contemporary youth (CARA, 2010). Even in challenging working

conditions, informal skills learners can sink into the work enjoying it (Cross, 2007; Kolb, 2015). Without enjoyment at work, learning is not possible. In the case of informal skills learners, it is evident that those workers who create the flow of work (Csikszentmihalyi, 1990; Ilies et al., 2016) can become good learners. In such a situation, learners can develop skills and change their social status and identity (Illeris, 2007).

Resulting Change in Social Status and Identity

The information from the research indicates that when informal skills learners can earn a livelihood, it creates positive changes for individuals and families. Furthermore, with such changes in informal skills, learners and their families noticed an increment in income, health conditions, educational opportunities, and social identity and prestige. Such positive changes in the status motivate a learner to learn skills further. The following paragraphs present some examples I observed and research participants revealed during the fieldwork.

In the metalcraft occupation, I noticed that skills learning causes a change in life. This life change ultimately motivates an individual's informal skills learning. This life change ultimately motivates individual informal skills learning. For example, a senior artist, Amod, shared how he experienced a remarkable difference in his life through learning occupational skills and still wanted to learn further.

> *An example from my life can be relevant for explaining how a simple metal worker could achieve a prestigious position in such a renowned enterprise in sheet metal technology and be established in society. I can proudly say that a blue-coloured worker has now become a manager. I still am motivated to learn higher-level skills. [Interview, 19 September 2019]*

The version of a young artist, Jiwa, also aligned with Amod. *"My life is changed through skills learning; I am satisfied with this occupation and still working hard to learn other important skills,"* said Jiwa. He also mentioned how his work and learning helped the family's livelihood expenses, including educating the brother and performing the father's medical treatment. Moreover, his alignment in the occupation enabled him to link his younger brother to a job in the same occupational field. Such a remarkable change in Jiwa's family is one source of motivation for further skills learning.

Research participants from the two-wheeler mechanics occupation expressed differently about the change in status through learning skills. However, they all had a positive feeling toward skills learning and the change in their life created through the skills learning. The experienced mechanics shared how they became skilful and successful entrepreneurs through informal skills learning and were motivated to learn skills further. Sanju and Suraj were two novice mechanics as research participants in the two-wheeler mechanical trade. They mentioned that despite earning less, they are satisfied because they could contribute to family expenses. Such ability to contribute was inspiring these youths to further occupational progress. Once Suraj shared how his interest in further learning increased after learning some basic occupational skills and motivated him to fulfil his aspiration. Regarding this, my field note depicts:

> *Now I know how to repair a motorcycle. I have repairing skills except for complex engine fixing works. I am interested to learn more. I want to become a good mechanic knowing all the necessary skills in the field. Afterward, I will open a small workshop myself if I can collect some money. I want to become the owner of the workshop and not always work in the place of others.* [Field note, 20 February 2019]

Furthermore, during my frequent field visits, I observed visible improvement in their health conditions, clothing attire, and communication skills. Similarly, the other two senior mechanics and entrepreneurs—Ratna and Dinesh—also progressed considerably in their life. Ratna had an inspiring life story of how he, a simple farmer with a weak economic background, aligned in the occupation, struggled to become a skilled mechanic and converted himself into a successful entrepreneur. Interestingly, Dinesh followed the automobile occupation even born and raised in a civil servant's family. Initially, he was not encouraged by his family and society, but when he started to earn a reasonable sum of money through learned skills, the whole aspect of his life began to change. *"Our society is different. When I started to earn good money, when I could enter into the network of renowned people of the country, and when my lifestyle changed, people started to honour me"* [Field note, 4 June 2019], shared Dinesh. Later, he added that he now has a higher social identity as people address him with *"Ostad, Gurujee"* [Master/Teacher].

In the fast-food occupation, all three research participants had increased status and life change examples through informal skills learning, further encouraging them to follow the occupational path. The story of Swarupa, owner of the cafeteria, was associated with how she struggled with the family's traditional conservative mentality for not initiating the cafe. She improved her social identity by obtaining management skills through experience and started making more income and progress. However, the situation of Ramila and Chandrika, the mother and daughter, was different. Ramila's life was considerably changed through learning skills when she entered the capital city from her village and struggled there. Running the family's livelihood, performing health treatment for the disabled husband, and affording siblings'

education were all on the shoulder of Ramila, which was possible due to skills learning. When Chandrika completed her school education, she entered the cafeteria and learned different food preparation skills. As a result, she felt that she was much more confident and realized that her *"social identity has increased,"* particularly after handling the cafeteria confidently, providing her with further motivation for learning.

The potential for positive change in the quality of life is essential for learning skills informally. Such positive change is achieved primarily by fulfilling one's desires and improving one's self-identity (Bernadette van Rijn et al., 2013). Although wellbeing is subjective, motivation is created only when basic needs are met by learning informal skills in occupational fields (Maslow, 1987; Mcleod, 2018; Tay & Diener, 2011). Achieving social status and prestige depends on one's education, skills, and occupation (O'Leary & Levinson, 1991). Also, success in the professional field is associated with happiness (Hirsch, 2004). When a person can achieve social status and satisfaction at work, it creates a situation where they entirely focus on learning occupational skills (Csikszentmihalyi, 1990). As a result, a person becomes internally motivated to learn more skills, as Deci et al. (2017) advocate.

Environment for Skills Development and Occupational Progression

Informal skills learners have both opportunities and challenges in developing skills and progressing their occupational journey. Notably, a skills learner's socio-cultural environment creates opportunities and challenges for the person. In Chapter IV, I discussed how informal skills learners acquire their skills. Similarly, in Chapter V, I discussed the drivers and barriers to learning, particularly related to their organization and personal characteristics. Taking this case further, I explore such encouraging and discouraging socio-cultural elements in this section. Still, these are more concerned with skills development and occupational progression than learning.

Mainly, I concentrate on understanding the socio-cultural reasons which drive or bar informal skills learners from progression in their occupational careers. As Illeris (2011) considers, workplace learning "takes place in the encounter between the learning environment of the workplace and the workers' and employees' learning potentials" (p.3). Based on the information provided by the research participants, I have prepared a summary (Table 4) of such supporting and hindering environments for occupational progression. Although I presented the information in the sub-sections under some general classifications, I presented this information occupation-wise in the table.

Table 4

Supporting and Hindering Socio-Cultural Environment for Skills Development

	Supporting	Hindering
Pottery	Family occupational background Linked with culture and religion	Reduced market Perception of society Education dominant society
Metalcraft	Wide coverage of skills Linked with culture and tradition Occupational change in some ethnic communities Family occupational background	General education mentality Unavailability of skills development opportunities The craze for foreign employment
Two-wheeler mechanics	Social network Economic background of the family School dropout	Less social prestige (White-collar mentality) Lack of legal regularization framework
Fast-food	The increasing trend of using fast food Prestige in the tourism sector	Government's indifference Gender perception

Source: Prepared by the Author based on the information obtained from the field

Supportive Environment for Skills Development and Occupational Progression

Under the supportive environments for a person to develop occupational skills, I found some distinctive features. Such information included various socio-cultural

environments such as acknowledgement and recognition of the society towards the occupation, social identity obtained by a person, family tradition and condition of a person, and brought-up environment of a person. Similarly, other such environments include school dropout, social capital, increased market demand of the occupation, earning potentiality, and occupational change context. All such information I have presented under three major categories: (1) social value, (2) family tradition and condition, and (3) brought-up environment.

Social Values

I observed that the social value towards a particular occupation contributes to a person selecting and continuing that occupation. Examples of supportive environments for creating opportunities for informal skills learners are cultural values and customs, acknowledgement and recognition from society, and social identity in particular occupations. Research participants perceived social value as supporting the environment differently. Pottery and metalcrafts occupations were more guided by occupational practice and customs, whereas fast-food and two-wheeler mechanics were by the recognition and identity obtained from society.

Potters expressed their occupation as their religion and culture. During one of the conversations, Lambodar, the Prajapati family's guardian, mentioned that their community's religious and cultural practices are associated with their work. Such tradition is connected with love for the occupation too. He shared some remarkable information about their work. According to him though they are hard workers, their occupation has much more freedom. "*Man pare garryo, napare nagarryo* [If you want, you work; and if not want, do not work]" Of course, Lambodar's expression seems less dedicated towards work. However, his expression was more on the flexible nature of their job, where they do not have to work under pressure. In a similar tone,

another adult potter, Binayak, expressed that there is comparatively more freedom in their occupation. Thus attracting and retaining them in pottery is likely due to the close connection of the occupation with their social and cultural life.

Cultural elements were also rooted in the metalcraft sector that contributed to aligning in the occupation. For example, Amod, a senior craftsperson, based on his life experience, expressed that *"religion, culture, and lifestyle"* also encouraged him to learn arts and skills." Similarly, Yuvaraj, the metalcraft enterprise owner, informed me that though the alignment of certain traditional occupational castes, such as *Shakya* and *Tamrakar,* decreases, other castes, such as *Bishwakarma* (blacksmith) and *Sunar* (goldsmith), are increasing in occupation. Such involvement was because of their ancestry's alignment in the metal tools and utensils preparation for a long history.

The social value of the customers treating the service provider as honoured people also encourages workers to develop skills and progress in the occupation. The work experience of a lady owner of the cafeteria proves this phenomenon. Once Swarupa, owner of the café, mentioned:

> *I am happy working in this cafe. Besides other things, those customers who visit us regularly are familiar. We never think that the customers are for one or two days. They do call Bhauju, aunty etc. Kasle kasari saino launu hunchha, tyasari nai maya garnu hunchha (how they express their relations express love). What I felt is that feeding is something different from other things. The love of people for those who prepare food and serve is special. Such behaviour helps move ahead in work. [Interview, 02 November 2018]*

In small food enterprises such as their cafeteria, workers receive "love" from customers. According to Swarupa, this type of customer culture motivates them and

creates an opportunity for making progress in the occupation. The expression of Swarupa supports concluding that customers' behaviour and overall culture also play a vital role in occupational performance.

Likewise, during the conversation with the research participants from two-wheeler mechanics, I noticed that the novice workers also enjoyed their customers' courteous behaviour. Notably, they were pleased when customers thanked them after receiving maintenance services.

Thus, it is seen that society's cultural value plays a vital role in attracting the person to a particular work (or skills learning) and progress in this occupation. Such attraction is more noticeable in pottery and metalcrafts. The customs and behaviour of other stakeholders (including customers) also seem to motivate a person to work and learn skills, particularly in modern occupations. As recognized by Hickey (1997) and Goodnow (1992), it seems justifiable as the "social world and the world of the individual are interdependent" (as cited in Walker et al., 2010, p. 3)

Another observed supporting environment for informal skills learners related to social value was acknowledging and recognizing the particular occupation by the society. In the pottery occupation, recognition, acknowledgement, and social identity aspects were not prevalent in the broader social field; however, they feel acknowledged and recognized within their community. In the metalcraft, research participants shared that social recognition, acknowledgement, and identity are vital in creating workers' motivation to strive for further work and learning. Yuvaraj, a senior sheet metal artist, followed a traditional family occupation. Furthermore, he was more innovative in producing typical sketches and drawings and building big-sized monuments. He has received many awards in his life. He shared that he recently received the national award named *Dhatu Pravidhi Puraskar* [Metal Technology

Award]. He feels that such recognitions make him strive more for innovation and preservation of traditional skills. Amod, another senior artist working in the same enterprise, shared that despite his talent in making sketches and drawings from his childhood, he was more encouraged to follow this occupation only after the event when he "*started to receive awards in preparing drawings.*" Jiwa, a young artist, thinks that though less recognition of their works from the formal education channel, they receive *"too much recognition from the occupational community."* Jiwa feels that the social identity he receives from his community encourages more to do better in the occupation. Once, he shared how his villagers provided his life success as an example to other youth villagers:

> *Most village friends are engaged in mistri and labourer, and some are drunkards spending time in futile activities. When I go to town, they see me. Elderly villagers express to those youth that Sangai ko sathi kaha pugi sakyo, timiharu chahi..! [your contemporary friend has made such progress in his life, but you people are..]. So they do talk about me. (Interview, 19 November 2019).*

The workers' expression from all the enterprises shows that social recognition is one of the dominant driving forces in any particular occupation. Moreover, although the social recognition expressed by the research participants was not in the broader social sense, the recognition obtained from the closest family and friends circle also was supportive for informal skills learners. Therefore, we can conclude that youth will undoubtedly be attracted more to these occupations when a system of widely recognizing occupational skills exists.

Regarding social recognition, a similar situation occurred in two-wheeler mechanics occupations. Dinesh, the owner of a motorcycle workshop, expressed how

his family and relatives circle initially was not satisfied with him when he selected this occupation and how honourably they treat him presently. Credit for all this success Dinesh provided to his occupation and shared that this situation offers more energy for hard work. *"When I could construct a modern building in the capital city and also could purchase a luxurious motorcycle, the perspectives of people towards me started to be different,"* Dinesh shared once during the conversation. Dinesh and other informal skills learners' working approach shows the influence of learners from the traditional Kautilya philosophy that states, "no one can get education and comfort simultaneously" (Kauṭalya, 2007, p. 60). Furthermore, social recognition is also associated with occupational progress, as experienced by Dinesh.

In a similar tone but in a different context, Swarupa, the cafeteria owner, shared how she was less believed in and obtained less support from the family in the initial days of running her enterprise. However, later on, she felt that the family's perception improved, and the whole community started mentioning her name as a successful entrepreneur. According to her, societal recognition and the family's trust provided her with energy for further hard work and learning. Her feeling supported the notion of Volti (2012) that "the honour and respect that come from supporting one's family can be a powerful stimulus for hard work" (p.37).

Social recognition of learning has specific and broader meanings concerning skills and competence. On the one side, it is associated with the respect provided by society. On the other side, it is also related to the "recognition of non-formal and informal learning" notion by the national TVET system (Singh, 2015). In the case of informal skills learners, attraction towards working and learning is found to be associated with such recognition, in other words—the social value given to the particular occupation.

Family Tradition and Condition

One of the major attractions to occupation and informal learning I explored is a family tradition, condition, and the brought-up environment of the person. Generally, informal skills learners come from a weak economic background and have to drop school earlier in such situations. Mainly, the practice of a particular occupation as a family business is running since ancestry provides an option for selecting the occupational path. This tradition was dominant in pottery and metalcraft. In contrast, the family's weak economic condition encouraged selecting and pursuing the occupation in two-wheeler mechanics and fast-food occupations.

Even in the present situation, while the occupation is facing the challenge of extinction, Indralaxmi, a young lady potter, is willing to teach their son pottery skills, hoping that the occupation will obtain rhythm one day. *"Who knows? Probably, he [the son] might follow that work [occupation]"*, mentioned Indralaxmi regarding her son's future alignment in the pottery occupation. However, the situation in the sector of metalcraft was found to be a bit different. In addition to the family tradition, the family's economic condition was seen as a dominant element in encouraging informal skills learners in this occupation.

On the one hand, those occupational caste groups practising the pottery occupation and located in urban cities such as Shakya and Tamrakar were changing occupations more. On the other hand, rural occupational caste groups practising metal works followed this trade. For example, Jiwa, a young craftsperson from a rural village, was motivated to learn these occupational skills. Firstly, his family's economic condition was not sound, and he had to leave school earlier. Next, he was attracted to this occupation because of his acquaintance with the trade as his family occupation. The family *"has been performing similar occupational works"* such as

blacksmithing for a long past, once shared Jiwa. Besides, desires for change, attraction towards non-traditional occupations, and social uplifting can also be some of the other reasons some occupational castes are abandoning the traditional occupation, and others (who feel more progressed) can select these occupations.

Rapid urbanization is one of the challenges facing developing countries, including Nepal. Such a situation is mainly due to the massive labour migration from the rural part of the country to the urban locations, including municipalities and metropolitan cities (Soriano, 2013). As a result, there might be a high volume of adolescents and youth whose family's traditional occupation was related to metalwork among such youth. However, at present, they have already been abandoned due to different reasons.

In the two-wheeler mechanics sector, workers' parents' occupation was not encouraging informal skills learning. Instead, a particular community's general practice was an opportunity for those youth. Duo-owners of two separate motorcycle workshops, Dinesh and Ratna, mentioned that most youth coming for a job in their enterprises are from the Tarai Area. Ratna admitted that he opted for this occupation due to his family's weak economic condition and his acute interest in the occupation. Providing a rough estimation of the educational level of those youth coming to them for work, he shared, *"among those youths, only about 25 percent might be Padheko* [with minimal schooling]". He further added that *"Youth from Tarai has more interest to work in this sector than from Pahadiya* [the Hill Community]." Thus, in this occupational sector, not only the economic condition of the family but the selection of the occupation as the social practice seems prevailing. Unfortunately, there is scarce literature supporting these duo-entrepreneurs' experience regarding Madhesi youth's participation in the two-wheeler mechanic occupation. Probably, those youths who do

migrate to urban locations for work at their younger age and align in the two-wheeler mechanical sector are from those marginalized Madhesi people. It seems a separate topic for the research.

Brought-up Environment

In addition to family tradition and economic conditions, the environment where one grew up also facilitates a person to select a particular occupation. Primarily, research participants from the pottery and metalcrafts expressed in that way. During the interview, most potters-research participants said that their family environment helped them choose the occupation and develop pottery skills. They were aligned in pottery occupation from childhood, even their playing age. Lambodar remembers how he carried pots from Thimi to Kathmandu, about ten kilometers, with his senior family members, unknowingly aligned in the occupation and learned skills.

Similarly, Amod, a senior metalcraft artist, feels that one of his motivating factors for selecting the occupation is the surrounding environment where he was born and brought up. *"The place where we live, there is continuous sound (of working with metal) coming from different homes. We are used to listening to those sounds from our childhood,"* he mentioned. Of course, a person's family background, social class, gender, and other individual features affect the pursuit of formal adult learning (Merriam et al., 2007). But, it is also evident in selecting informal skills learning path, as research participants expressed. As traditional occupations are associated with the history of the particular community, religion, and culture of the society, the environment where a person grew up indeed contributes to alignment in the occupation practiced by the previous generation.

On the other hand, social network was also found to be one of the deciding factors for selecting a particular occupation and informal skills learning. I did not

directly notice such social networks as the influencing aspects of pottery. However, in the sector of metalcraft, rural youth found themselves aligned with this occupation with their family networks' support as "informal labour intermediaries" (Yunus, 2020, p. 7). Yuvaraj once informed the *"general tendency is such that if they [rural people] send their children for such work together with any relative who knows and can support facilitating the initial informal job, they can earn some money."* Using a social network to enter the occupational field was more prevalent in modern occupations. Such inspiration is more apparent in the pottery and metalcrafts trade, as family activities excessively influence the workplace (Char Fei Ho et al., 2013). Though such a network plays a vital role in both occupational sectors, this is more acute in the modern occupational sectors for obtaining a job. So, it is evident that those youths are more vulnerable in selecting an occupation whose families are not practising an occupation since their ancestry.

Hindering Environment for Skills Development and Occupational Progression

The environment available to a person was also a hindering element for informal skills development and occupational progression. I analyzed and clustered such hindering environments into 1) social environment and family tradition, 2) lack of raw materials and shrinking market demand, 3) white-collar mentality, and 4) foreign employment craze, although some overlapped.

Unfavourable Social Environment and Family Tradition

Information obtained from the fieldwork showed that the environment where one is brought up and the family tradition could support and hinder career development and occupational progression. It can be a reason for excluding a person from aligning on the informal skills learning path. This situation found more or less existed in all case occupations. However, from the pottery occupation, such a

situation was found to be existing indirectly. Indralaxmi, a lady potter, exemplifies how a family tradition hinders occupational skills development. Even born and raised in the potter's family, she could not learn pottery skills because her maternal family's tradition only permitted males to be aligned in the main occupational jobs. So, she started to learn pottery art skills only when she came to her in-law's home, where learning pottery was considered normal for a daughter-in-law. During one of the informal conversations, when I asked her the reason that prevented her from skills development and moving ahead, she elaborated:

When I saw my brothers working in the pottery workshop, I eagerly wanted to work and play with them. But, I used to be afraid of my parents because it was not allowed in our family. I do not know when such a tradition started, but If we [daughters] worked in the major pottery works, it was against the practice. My parents did not want to break the tradition. However, we [daughters too] supported the fathers, uncles, and brothers in other works. [Kurakani, 19 November 2019]

Another potter, Keshav, mentioned that people started to move from the core communal potter's city area to the outskirts, where people with various statuses and occupational backgrounds resided in the past decades. In such new localities, children's attraction to traditional occupations decreased because of the practice of other dominant groups of dwellers.

One of the recent studies indicated that the *"change in lifestyle and social value"* of the present generations of potters affected their families (Ghimire, 2013; p. 41). As a result, those families still practicing the occupation are not receiving full family support. Together with this, there can be multiple other reasons for abandoning learning traditional skills and diversion of occupation. Thus, an unfavourable social

environment and family traditions discourage the new generation from following the traditional occupational path.

In the sector of metalcraft, Amod, a senior metalcraft artist, shared how his brought-up environment (being a museum of living arts and cultures) encouraged him to follow this occupation and learn the skills. However, he mentioned how his friends were brought up in a different environment and were not attracted to this occupation. Providing an example of such a situation, Amod said that *"there [in the society] are different types of people such as civil servants and others; they might not like it."* The general mentality of the present young generation is that they prefer to learn and follow the occupational path where there is less need for doing physical labour, which is not possible in occupational jobs like metalcraft occupation (Baral, 2020b; Bista, 1991).

Similarly, Dinesh, an owner of the motorcycle workshop, provided similar information that supports what was mentioned by Amod from the metalcrafts occupation. Dinesh said that the situation he brought up was not favourable to him for developing automobile skills following that occupation. However, Dinesh selected the occupation despite the family and relatives' resistance, as his strong willingness and interest suppressed the other conditions. According to Dinesh, one of the fears of family and relatives was their feeling that *"people could say that the son of an officer is doing such [a blue-collar] job!"* A similar experience was with the owner of a cafeteria, Swarupa. She struggles to persuade her parents-in-law to initiate the enterprise. *"It took me about two years to convince him [to allow me to work],"* stated Swarupa, indicating her father-in-law's statement. According to her, the reason was that she was from a traditional *Kshetriya* family; this was not a usual decision that a female member of the family could run a café (and work outside the home).

The situation has changed a lot in the past few decades. Being a capital city, Kathmandu also has changed. Those occupational castes that were limited to practising their culturally assigned occupation are not confined. These people participate in civil services and *"enjoy a leading role in business and commerce"* (Slusser, 1982; p. 11). A similar situation is in the diverse ethnic groups who previously were not getting favourable access. Due to current political and constitutional changes, they can occupy a mentionable government service position under the "quota system." However, such a system mostly benefits society's "creamy layer" (Subedi, 2016). On the one hand, such a system empowers the people who previously not getting opportunities but simultaneously discourages people from being aligned in different occupational sectors.

Lack of Raw Materials and Shrinking Market Demand

Shrinkage of the need for any occupational production seemed a hindering element for selecting and practising occupational skills. Among the studied occupational sectors, scarcity of raw materials and shrinking market demand were alarming phenomena. Such phenomena directly affected the business and ultimately hindered occupational skills development. Remarkably, such kind of situation was in the pottery. It is natural that when there are acute problems and declined earning potentiality, the attraction to that occupation naturally decreases. Surprisingly and sorrowful, all the research participants from the pottery shared that the trade faces a big scarcity of clay. *"Most of the lands are already plotted and converted onto building sites,"* mentioned Lambodar, a potters' family guardian, during one of the interviews. Saying the consequences of importing clay from other places, Damodar, the son of Lambodar, mentioned during one interview how the acute scarcity of clay is affecting their business and overall skills development:

We are facing a crisis of clay in our locality. Of course, we could purchase clay from outside too. But, if we import clay from outside [Kathmandu Valley], the cost of such a flower pot (showing the item) increases drastically. Such a situation created the difficulty of competing for traditional pottery items with other utensils, such as metallic and plastic which are prevailing in the market these days. Due to such a situation, we must consider whether to continue or abandon the business seriously. When we abandon the occupation, what is the meaning of further learning skills? [Kurakani, 19 November 2019]

A similar worry was of another adult potter, Keshav. His main concern was the decreased pottery market demand due to the domination of other materials. He was very anxious because *"nowadays pots from other durable materials prevail in the market"* [Kurakani, 22 September 2018]. He expressed his worry that people started using other pots, such as plastic, metal, and even in cultural traditions. Due to such an unfavourable situation, Keshav's family does not want to transfer their traditional skills to their children despite their will. During the same interaction, he shared how their occupation is facing a challenging situation of market and space congestion for the occupational work:

The son wanted to learn the skills, but we didn't want to teach our skills to him. Teaching [pottery skills to] them is worthless because the pots are not in demand in the market, and require a lot of space. Lakhako Bhada halna karodko ghar chaahinchha [It is necessary to have a house worth Crore Rupees to manage Lakh Rupees' clay-pots]. This situation is the primary reason that many people left this occupation. [Interview, 22 September 2018]

From the information above, it is evident that lacking clay sites seems an alarming problem for the potters of Thimi. Such scarcity started with the Kathmandu-

Valley suburb's urbanization in 1970 (Muller, 1981). This "shortage of raw materials"

problem has become more acute today, among other challenges the pottery occupation

faces (Shrestha, 2018; p. 147). If this challenge is not addressed timely, the

occupation can face extinction, affecting the development of informal occupational

skills.

White-collar Mentality

The white-collar mentality and the social value associated with this were

hindering elements for occupational skills development and occupational progression.

Though the pottery occupation has been in practice for a long history, Binayak, an

adult potter, informed that there is no social value obtained in this occupation. During

one informal conversation, he told me that he wanted to divert his occupation once

due to the less value provided by the society created by the white-collar mentality.

> *When I was young, I felt we were not getting a proper social status due to our*
>
> *laborious work. So, I wanted to divert the job. So, I wanted to divert the job.*
>
> *But later, I returned to the same work after some months as I also had to do*
>
> *hard labour there. However, due to this reason, many young people*
>
> *abandoned the occupation and followed a different Laain [work path]. Two of*
>
> *my brothers also left our occupation and followed tailoring. [Kurakani, 12*
>
> *November 2019]*

Another adult potter, Lambodar, also accepts an increasing white-collar

mentality in society that is inappropriate for the occupation. Mentioning one of his

sons' stories about changing occupation to the motorcycle, Lambodar said he tried to

remain his son in the same occupation. So, he sent the son to get training in ceramic

production (improved pottery). But the son dropped the training, started learning

automobile skills, and worked in a motorcycle workshop. Though the automobile

sector is not the 'white-collar' one, his son found that sector better than pottery. It indicates that the mentality of abandoning traditional skills for 'easy work' is prevalent.

The present young generation of the potters' community is affected by the 'white-collar' mentality and moving to other occupations. However, this can be a subsidiary cause of this situation. The dominating reason seems, as already mentioned, a decreased possibility of earning and difficulty in running a livelihood (The Himalayan Times, 2017). So, what would happen if the pottery had more earning potential? Based on the response from the aged generation of potters, the answer can certainly be negative because there is a visible probability of having more earnings through changing the traditional pottery to improved ceramic production (Ghimire, 2013). Even with an increased possibility of income, the young generation is not enthusiastic about following their traditional occupation and developing those occupational skills.

Likewise, among the potters, there was a rampant perception of white-collar superiority in the sector of metalcraft. Ishwar, a metal utensils business person, mentioned, *"Not only the present youth and children [wants not to follow traditional occupation] but their guardians also are not willing that their siblings be aligned with this occupation."* Rather than sending their children to any occupational skills learning facility, *"each person wants to send their children to the boarding schools [which is considered better] and get a higher education, particularly making high professionals such as doctors and engineers,"* shared Ishwar. In a similar line, three senior artists—Yuvaraj, Gajendra, and Amod mentioned that despite the increasing attraction of other general people, youth craze from the traditional occupational communities of metalcrafts, i. e. Shakya, and Tamrakar, is decreasing, although some

are still practicing. Once Gajendra, a metalcraft workshop owner, shared how anxious he is due to his only son's hesitation—just completing school education— being aligned in the occupation and continuing the enterprise's running. If the son does not follow this occupational path, the fate of his company is uncertain. So, he was performing *"indirect family counselling"* on the son.

Though shifting the occupation from metalcraft to others started not only in recent days, it seems more prevalent at present. Remarkably, after the establishment of democracy in 1950, the Newar people's mentality of Kathmandu Valley changed, and they were not confined to their traditionally stipulated occupations. Such occupations were mainly created after getting educated at different educational institutions operating in the capital city (Nepali, 1959; Slusser, 1982). Therefore, it cannot be considered strange that the young generation is less willing to pursue their ancestors' occupation of metalcraft. The peculiar thing is why youth want to follow a different occupation and abandon learning traditional skills even if there is more possibility of earning a reasonable sum of money in their traditional occupation.

Research participants from the two-wheeler mechanics also expressed a higher degree of white-collar mentality in society, which provides less value to work requiring more labour. According to Ratna, some youths who initiate the occupational job in their workshop leave the employment earlier because they cannot cope with the work. During one of the visits to his workshop, he pointed out one of the boys organizing his long hair during the rush hour of the workshop. My field note depicts:

> *You know, Sir, today's boys are not like our times! They are a little more*
>
> *kaamachor [careless]. So when they have to do a little hard work, they are*
>
> *upset. Mailo dhailo ra kalo dhwaso ta bhai ta halchha ni kamama [of course,*
>
> *dirt and blue colour are typical in this trade]. Do you see [indicating one boy*

working inside the workshop] how that guy is combing the julfi [hair strings],

even under the pressure of work? People who don't like to work dirty and

sweaty are not fit in a workshop like ours. [Observation note, 21 May 2019]

From the version of Ratna, it was clear that only some youth learners can enjoy work of that laborious nature and are intrinsically motivated to do the job. Otherwise, they use working and learning as their "last resort" (Gunther & Launov, 2012, p. 95), as they have no other options.

Another workshop owner, Dinesh informed us that our society has a ubiquitous white-collar mentality. He firstly mentioned how he was discouraged by his family to align with the occupation and shared that many workers from India work in the automobile sector due to the Nepali youth's general attitude. *"There are more foreign Mistris than Nepali because Nepali (youth) are unwilling to work hard. They always want to have entertainment,"* Dinesh shared his grievances.

It is no harm that a person wants to pursue a white-collar job. Upadhyaya (1987) opines that people's alignment with blue-collar jobs is due to the compulsion of those who lack educational qualification rather than their will. When people are qualified and competent, it is a natural process that they want to opt for non-manual 'white-collar' jobs. Based on their research findings, some scholars argue that the debate about 'white-collar' and 'blue-collar' jobs no more bear the meaning as both have the equal possibility of career progression and satisfaction (Lucas & Buzzanell, 2004; Pérez-Ahumada, 2017). However, this sub-topic spirit is related to devaluing work and occupation because it requires more physical labour (Baral, 2020b), directly affecting occupational paths and skills development. Among the others, the white-collar mentality can be one of the reasons for the craze of youth for foreign

employment overall, particularly in two-wheeler mechanics, as I obtained from the field.

Phases of Skills Development and Occupational Progression

In this section, I draw some key points on how informal skills learners pass through four different phases of skills development (Figure 6). From the findings presented in this and previous chapters, I first mention some pertinent points about informal skills learners' occupational journey.

1. Joining any enterprise for work is intentional or coincidental; it means by choice or by chance (except in the case of pottery)

2. A novice worker or informal skills learner start work in their adolescence or early stage

3. Job does not start based on written terms and conditions

4. The possibility of changing the job is high (persistent change in the case of two-wheeler workshops)

5. A certain period is devoted to understanding novice workers and the enterprise mutually

6. This devoted period is full of suspicion and verification from both sides (employee and employer)

7. A system of job assessment and verification exists, but unwritten

8. Based on the informal evaluation and validation, establishes belief in the employee

9. Till the verification period, the novice worker performs only basic work such as cleaning and assisting

10. Only after acceptance starts assigning actual occupational tasks

11. After the verification completes, the worker gets genuine occupation-related skills. This period is a concentrated skill-learning period

12. After learning basic skills, starts *sharpening of hands* [improve skills level]

13. The process leads to the worker's change of work identity and conversion as a senior worker—craftsperson or artisan.

14. With a skilful hand, the person reaches the core managerial position of the enterprise

15. Together with mastering occupational skills, some can lead the enterprise, either in the capacity of senior staff or the owner

As Kolb (2015) theorized, a person moves primarily through three phases of the learning path— acquisition, specialization, and integration. According to this notion, the acquisition phase starts early when a person acquires basic knowledge and skills. The specialization phase extends from the stage when a person performs formal education and training as well as early experiences of working life. Similarly, integration is the phase where a person achieves a more secure life through specialized development.

Similarly, in the professional development sector, it is accepted that, in general, there are five stages of skills acquisition (Dreyfus, 2004)— novice, advanced beginner, competence, proficiency, and expertise. Similarly, in informal TVET, Walther (2007) observed three phases of traditional apprenticeship—introductory, instruction, and participation— prevailing mainly in the Sub-Saharan African countries where an apprentice gradually develops occupational competencies.

In the case of informal skills learners in Nepal, such phases are slightly different. Nevertheless, the aforementioned observational points provided me with the basis for separately sketching a general four-phased skills development and

occupational progression path, more similar to the process in how Lave and Wenger (1991) theorized the process as legitimate peripheral participation. In the skills development phases, I named the four phases *1) the entry and orienting phase, 2) the skilling phase, 3) the improving phase, and 4) the mastering phase.* Similarly, the four occupational progression phases acquired by informal skills learners are: *1) novice, 2) senior, 3) manager, and 4) leader,* respectively. I found both educated and comparatively less educated learners develop occupational skills. Nevertheless, how formal education helps to learn occupational skills is a subject of a separate study. Figure 6 provides these phases and their order.

In the following paragraphs, I briefly discuss the skills development phases, which are also related to the consequent occupational progression phases.

Entry and Orientating Phase

Generally, informal skills learners enter any occupational enterprise as novice workers with relatively lower-level school education. They obtain trade-related information and shape their attitudes and behaviour (Kulbertson, 1968). This period is the *Entry and Orientating Phase*. This phase starts from childhood in the pottery and metalcrafts occupations, where there is no practice of joining other community people's occupations. They begin their occupational exposure from an early age. However, the situation is different for those coming to metalcrafts occupations from other traditional caste groups. It is similar to other job aspirants in non-traditional occupations. The entry and orienting phase starts in adolescence or youth for those skills learners. Such people enter any occupational job with any person's help— generally from relatives' or friends' network—or mediators.

Figure 6

Skills Development and Occupational Progression Phases
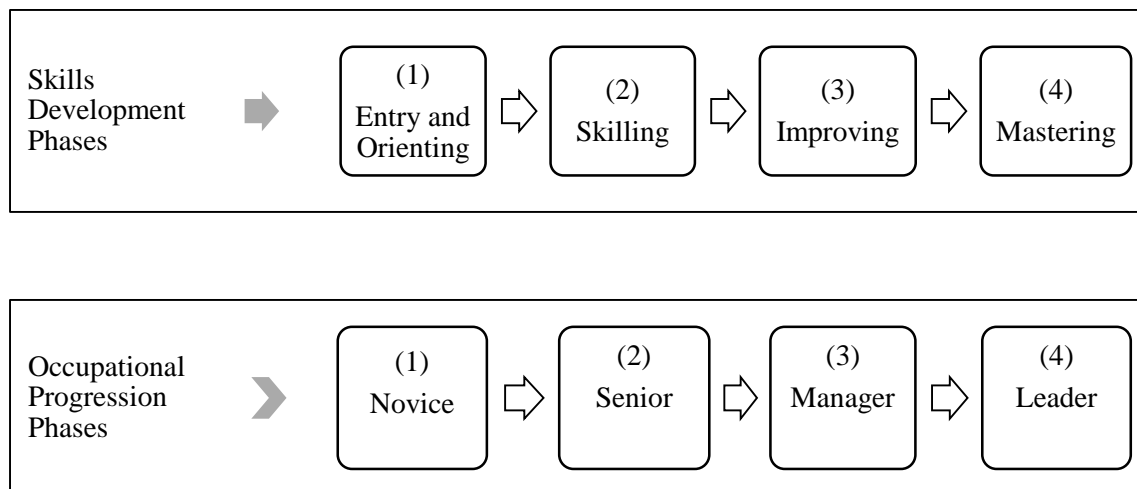
Source: Developed by the Author based on the information obtained from the field

During this phase of skills development, a learner works as a *novice* worker in the enterprise. The person performs preliminary jobs such as being acquainted with the trade, tools, and equipment and performing simple works such as cleaning, transporting, and helping seniors. They can also perform minor occupational jobs targeting learning based on the occupation's nature. Regarding the benefits an informal skills learner receives from the enterprise in this phase, it is not considered in traditional occupations as both learner and instructor are the same family members. However, in other occupations, certain terms and conditions regarding benefits can be agreed upon verbally. Work benefits may include food and shelter-related benefits and provision of pocket expenses. During the experiment phase, novice learners start to craft their work identity but are not yet shaped. Those novice learners are not yet considered the enterprise's full team members. So, those workers are more vulnerable and prone to be expelled at any time from work (except the family member in

traditional occupations). The actual skills-learning phase starts when a person effectively completes this phase.

Skilling Phase

After the orienting phase—as both employer and the novice worker accepts each other— the next phase starts, where the employee engages in acquiring essential occupational skills participating in the community of practice, and developing a work identity. The novice worker gradually becomes an insider and starts to participate in the conversations, acquire language-related knowledge and skills and learn implicit knowledge through practice with skilled colleagues (Blaka & Filstad, 2007). This phase starts at the age of adolescence of a person in the traditional family occupations considering the worker's age. The transition from the *Entry or Orientating* to the Skilling phase is generally not visible for those working in such family occupations. It is more visible in other non-traditional occupations and those from other occupational castes entering traditional occupations.

During this stage, fast progress in learning skills happens. As de Grip (2015) observed, "New hires have a steep performance increase in their first year of employment." If considering an orienting phase as six months, de Grip's finding seems satisfactory for this informal skills learning phase. At this phase, the worker already gains the trust of the management of the enterprise. On the other side, the administration hopes for more from the worker.

During this skilling phase, workers are assigned to work in significant occupational jobs where they learn skills and build competence under the supervision of senior family members or senior craftspeople and artisans. In traditional family occupations, benefits are insignificant, and all experienced and novice family members work together. In the case of wage employees, they can get a certain agreed

sum based on the prevailing labour market and negotiation between the employer and the employee. When a worker reaches this phase, s/he already gains a moderate level of work identity and status of a *senior* in the occupational career. The person is considered a responsible member of the work community of practice.

Improving Phase

The third phase in the skills development path of informal skills learners I named *Improving Phase.* This phase of skills learners starts when they have already learned basic occupational skills. It is generally in the youth or adult stage of the worker. In traditional family occupations, when a person reaches the *Improving* phase, the person starts to bear additional domestic responsibilities such as keeping accounts and managing markets. The skills learner in this phase obtains a manager role in the enterprise. This phase begins when a worker is ready to acquire enhanced technical competence, particularly in modern occupations.

During this phase, a worker performs occupational skills with less supervision from seniors. At this phase, the worker gets particular decision-making and crafts-related issues. The worker also starts certain customer dealings, particularly in modern occupations. Like in the previous *skilling* phase, the worker in this phase in the traditional occupation is treated as the family bread earner. In other occupations, a worker receives an agreeable but improved sum per the prevailing market. During this phase, the worker's work identity is higher and assumed as a critical member of the work community.

Mastering Phase

The informal skills development path's final phase begins when the person becomes an experienced artisan with a long occupational experience and solid occupational competence. Generally, it is in the adulthood of a worker. I named this

the *mastering Phase*. When a worker reaches this phase, the person is ready to lead the team, or the whole enterprise and can function as a *leader*. After getting particular experience in this phase, workers can also start separate enterprises. When a person reaches this phase in traditional family occupations, the person leads the family business as a guardian. In other occupations, they obtain enhanced technical and entrepreneurial competence.

While working in this phase, a worker takes responsibility for business-related decisions, quality assurance, and innovations-related matters. They perform additional duties such as business operations, quality assurance, and innovations. In addition, workers have to perform intensive customer dealing responsibility, particularly in crucial matters. As the person works as the enterprise's sole authority, its benefits depend upon its condition. They receive a decent sum per the prevailing market rate in traditional occupations. If the person is a sole proprietor, they are the sole deciders about the work benefit. During this phase of work, a person obtains the highest level of work identity. The four phases of informal skills learning are part of the overall dynamic process of skills learning and competence development.

Essence of the Chapter

In this chapter, I have discussed how an informal skills learner develops skills and makes occupational progress in life while learning at work. I could show that those who learn and improve their skills and competency during work gradually build their position and identity. Borrowing from the workplace learning theory (Illeris, 2011), I can now claim that workplace learning is a viable way and venue for learning skills and achieving competency. Competency here can be taken as the ability to problem-solve in a particular contextual situation. There are, however, many supportive and hindering socio-cultural environments for informal skills learners to

move forward in their occupational progress. While social values, family traditions and conditions, and upbringing provide a supportive environment, unfavourable social and family environments, lack of raw materials and shrinking market demand, and the white-collar mentality of youth are hindering the environment.

In the end, I also presented a four-phase model to illustrate the skill development and occupational progress of informal skills learners like *entry and orientation, skilling, improvement, and mastering*. Accordingly, the occupational career path goes in the manner of—*novice, senior, manager, and leader.* In the next chapter, I have synthesized the discussion I have made in this and two previous chapters (chapter IV, V, and VI) regarding the skills learning approaches and processes of informal skills learning, drivers and barriers to skills learning, and skills development path so that I could draw the key findings and conclusions of the study in a holistic and synergetic manner.

CHAPTER VII

RHETORIC OF INFORMAL SKILLS LEARNING IN NEPAL

The information and discussions presented in the previous three chapters help us to understand the various aspects of informal skills learning. The discussion also shows that informal skills learners learn essential skills in the occupational field even while working in a challenging workplace setting. Still, society has not offered full respect to informal skills learners and has a mixed view of them. On the one hand, there is a lot of demand and respect for them in the related occupational and industrial fields. But when it comes to formal work activities, they are not valued. Why does that happen? Can we not incorporate their skills learning processes and approaches into the national TVET system? After all, why are informal skills learners unable to live a fully dignified life? And how can we make their informal skills development path more respectable? These are some of the inherent questions related to the subject matter of this research. In this chapter, I discuss these quests synthesizing the study's findings. Then, drawing from the discussion made in the previous three chapters, I present a model of informal skills learning and development as a significant knowledge contribution from this research.

Utilizing Informal Skills Learning Processes and Approaches

There have been numerous studies on learning in a formal educational setting. Different phases of curriculum development and implementation incorporate the findings of such studies. It is natural that instructional activities are systematic and planned in the formal education setting. However, the graduates of such institutions are also not free from employers' complaints that they are less skilful and incompetent (Sharma, 2013). The gap between skills in need and imparted skills by educational

and training institutions is a problem for employers and graduates. The irony in such a situation is that those learners who learn the skills during their work that match the labour market do not get sufficient attention (Baral, 2020b; Langer, 2013). Neither the TVET system, in particular nor does society value such learning. In societies where families spend a large sum of money on the education of its member and where the certificate holders cannot easily get employment, informally learned skills that are largely relevant to the job market should be considered instrumental. However, the sarcasm is such that the TVET system of Nepal does not seem aligned in this direction. Although a system of testing and certification of informally learned skills seems existent, there are multiple hurdles for an informal skills learner to participate in the testing events (Baral et al., 2019). Some examples of such hurdles are the necessity of a certificate of work experience for the skill test applicants and the unavailability of testing centres at the local levels.

On the one side, more than four-fifths of the working population of Nepal learn skills through an informal path; on the other side, the TVET system has been neglecting the informal learning processes and methods (Baral, 2020b, World Bank, 2019). Rather, it has excluded thousands of those who informally acquire their skills. The system has thus failed to utilize available human and systemic resources in the development process.

Furthermore, drivers and barriers to skills learning affect the viability of skills learning. Interestingly, a common motivational element among the informal skills learners observed in this research was their patience and rigour, even in an unfavourable work situation. I found that informal skills learners were less concerned with the outer world and were comparatively self-satisfied with the limited recognition of their skills and ability. They were willing to perform any job in their

occupation that came across to them and thus were mostly busy even in the unorganized work setting and with limited resources. Whenever I observed them, I found them immersed in their work as if it was their only world. Observing such a situation, I tried to explore why they could remain so immersed in their work.

My observation and responses of informal skills learners were saying the same thing what makes them so immersed in their work – desire and commitment to progress and for a better future (Csikszentmihalyi, 1990). For this phenomenon, I prefer to express it through the Nepali word मग्न ,which is nearer to pleasant immersion in work (see Appendix I). It seems so natural to say that the one, who does not have such a quality of feeling pleasantly immersed (मग्न) during the work, cannot proceed in the path of informal skills learning and development.

Another reality is that informal skills learners generally represent a social class that either cannot join a school education or drop it in the lower grades, not completing secondary education and jumping to the informal labour market. The bitter truth is that the State is *cheating* such a class of people. The present Constitution of Nepal assures the right of the people to the minimum level of education and getting employment (GoN, 2015). However, the actual situation of people, particularly informal skills learners, does not match the constitution's spirit. Skills acquired by informal skills learners during their work are not getting meaningful recognition from the side of the State. However, we can find a positive result even amid such situations of ironic injustice. The barriers existing with those adolescents and youth getting formal education and training force them to go to the informal world of work despite all the problems and challenges they would face there. They can somehow earn and learn occupational skills needed by the local labour market. With this perspective, we can see that the barriers informal skills learners face in acquiring formal qualifications

have been contributing to learning occupational skills for them. But, it does not mean that the skills learned by informal skills learners in the workplace are the end of the learning process. As learning is an all-time process, learners must continuously involve informal skills. Here, I would like to stress that the TVET system needs to support informal skills learners to enhance their capabilities further. Thus, when the informal skills learning path is considered one of the acceptable ways of skills development and enhancement, it would open up new avenues for many of those who otherwise cannot access any such opportunity for skills learning.

Thus, informal skills learners have been using practical learning approaches with limited resources and challenging situations, immersing themselves in work but still getting less value from society. Further, I would also like to argue that informal skills learning has been a systemic developmental resource the state has been ignoring. Still, the individual learners have been utilizing and benefitting. In the following section, I discuss how the overall situation discourages informal skills learners and how this situation has affected the TVET system. I also will concentrate on why such a situation exists in Nepali society

Informal Skills Learners: Victim of Unfavourable Social Values

The overall social situation in Nepal is not in the interest of informal skills learners. Centuries of ethnic, linguistic, and gender divisions have distorted attitudes toward labor and skills. Skill development is linked to the socio-cultural environment of diverse castes, but its importance in the formal public sphere is seldom appreciated (Parajuli & Das, 2013). The state does not seem sensitive to the value of labor and skills. There seems to be ample space in the blueprints and speeches of the plan, but in practice, informal skills learning is not considered important (Baral, 2020). There is

also a kind of *burden* for development agencies working in Nepal's labor and skills sector to address the phenomenon of society giving less value to skills (ILO, 2016).

Nepali people launched numerous social and political movements to end societal inequality and discrimination (Dixit, 2006; Tamang, 2017). In particular, the democratic revolution of 1951, the movement for restoring democracy of 1990, popularly known as *Jana Andolan*, and the people's movement of 2006, known as *Lokatantra Andolan,* are among such major ones. The dream of the people engrossed in the movement dreaming of their class and ethnic identity is still not fulfilled. Although there has been some improvement in this area over the last few decades, discrimination and inequality are still prevalent in Nepali society (Chetri, 2018; Pyakurel, 2021; Subedi, 2016). The minimum reforms in the field of inequality in society have not yet found an important place in the field of TVET. The country's existing skill testing and certification system have not been able to attract young people to some occupational sectors.

On the one hand, their aim seems to be more in that direction as they value government jobs, which are lighter than the skills and labor of society. The contemporary generations and the guardians also want their children to have higher educational qualifications rather than occupational skills (ADB, 2009; Bista, 1991). Due to the prevalence of such thinking, the youth are now massively abandoning their ancestral occupations (Chapagain, 2000, Chetry, 2010).

Generally, only people in urban areas seem to have access to TVET programs (Bhattarai, 2017). No matter how projects are designed with the help of development partners, the beneficiaries are those who have robust access. Another compelling evidence that the state is not sensitive to the needs of a disadvantaged group is that the TVET system never implemented the Apprenticeship Act issued in 1988 (GoN,

1988). One of the reasons for this inaction was the lack of commitment of the state bureaucracy.

Policies are made, not enforced. People who work and learn skills have no respect. Those who acquire the skills required in the labor market are not valued. The irony is that the state is spending insignificant national resources on the skills development of more than three-quarters of the workers (informal skills learners). So, why does all this happen? My argument is that the roots of the answer to this question are far-reaching. But in essence, the root cause is the social structure of Nepal, which is stratified. Nepali occupational society, which has been a victim of the caste system and untouchability for centuries, still has not been able to improve the overall outlook of the society.

Some elites, especially the upper castes like the Brahmins, Chhetri, and some of the upper castes of the Newar like Shrestha, have access to the ruling power and resources of the state. They emphasize general school education because they can fulfill their vested interest to remain in power. Those in the top layer of the social hierarchy are not ready to accept that multiple forms of knowledge and skills exist. Those traditionally acquired knowledge and skills also have high importance (Parajuli, 2014). The gap in social perception towards occupational skills and the government service as Jagir is not reducing but increasing. One of the tremendous challenges in front of Nepali society in general and the Nepali TVET system, in particular, is this gap without addressing which informal skills learners will not obtain desired dignity.

Converting Informal Skills Development as a Dignified Learning Path

I have already mentioned that informal skills learners' skills development and occupational progression path have passed through the clamp of dignity and

disrespect. Those experienced people are called *Master, Guru, Ostad,* and so on with respect to the occupational and industrial field, cannot receive a reasonable, respectful address in other formal activities and fora. Those people are treated less respectfully and have an inferiority complex in society that they feel lacks formal educational qualifications.

Of course, understanding the informal workplace's learning environment is challenging, as it is a mixture of diverse elements (Illeris, 2004). Based on the scholarly work of duo-scholars Ellström et al. (2008) and Illeris (2004), who suggest analyzing the potential of workplace learning by understanding the work environment and learning viability of those centers, I developed a framework accordingly (presented in Appendix J (based on the information summarized in Appendix K)). Below, I present a brief description of this framework.

Although we cannot generalize all the informal workplace settings, the findings of this study support that such workplaces have learning viability. However, Choi and Jacobs (2011) concluded in their study that learning does not depend on the work environment. Workplace practice plays a significant role in the creation of a learning environment. It is the central component in workplace learning where workers perform work in producing goods or services. During the work practice, workers do learn related skills. How one obtains an opportunity for work practice affects how the person learns associated skills (Cunningham & Hillier, 2013). Similarly, how much importance is provided for the production or skills development (Noy et al., 2016) also affects such an environment for learning.

It is evident that workplace practice also differs in the studied occupations as their purpose and conditions are also different. Such difference is natural given the technological changes that occur with time in the social system (Rogers, 1983),

including the influence caused by the fourth industrial revolution (IR4) (Rajbhandari et al., 2020). Similarly, the next element affecting workplace practice and skills learning is the workplace's nature, whether its main focus is on production or service and whether there are concerns for skills development and innovations.

Workers work directly at the workplace, but other people, such as customers and suppliers, are indirectly related to the enterprise. Diverse activities among those people create a complex working environment. One of the primary motivations for working and learning is the encouraging elements within the working community. In the studied occupational enterprises, such work-team-related incentives were diverse. Similarly, the diverse nature of jobs among the four occupations, the role division, and work-task distribution differed. As new tasks and satisfaction associated with such tasks contribute to skills learning (Jeon & Kim, 2012), informal skills learners' job nature also affects the overall learning. However, the common element among all the occupations studied was that the workers were mainly busy and did not have spare time.

Division of work and the degree of freedom also determine the learning environment and motivation at a particular organization (Schurmann & Beausaert, 2016). It includes whether the work division is horizontal or vertical, how workers share the roles, and how the quality control mechanism functions to create a learning environment in a workplace. In addition to the division of work and degree of freedom, power dynamics and decision-making practice differed in the studied occupations. Although the work-team-related environment differed from occupation to occupation, their overall result was cordial. Despite the multiple challenges, including scarcity of resources as barriers (Coetzer et al., 2017), I did not observe conflict among the informal skills learners. It indicates that they have a satisfactory

level of the work-team-related learning environment. Their concentrated working style also provides evidence for making this conclusion.

Thus, I conclude that informal workplaces contain a learning environment and viability. Besides this, I also discussed in the previous chapter how informal skills learners can shape their identities and how such identities contribute to further skills learning. But, the question arises here: Can an informal skills learner's work identity and informal social identity remain in other formal activities? I believe that it is possible when the State recognizes the skills and competencies of those people. However, the irony is that the situation is not as expected in the country (Nepal). Even those skilful and experienced people live their lives filled with paradoxes of dignity and disrespect concerning employment, earning, and identity. For instance, those people (informal skills learners) can face the question of their educational qualification if they have to bear any formal responsibility in society (whether it is in private business and industry organization or public institutions. Or those who are competent in the particular occupational field and can work as an expert in that field, who can solve diverse problems and be admired by the occupational community but cannot get an appropriate place in society. Besides, social norms and values encourage people to be aligned in white-collar jobs and discourage youth from being aligned in informal type jobs through which there is a possibility of developing skills and competencies. Why does such incongruity happen?

I think there is no straightforward answer to this complex question. However, informal skills learners belong to the social class deprived of access to opportunities. In a society like Nepal, where speech providers are rewarded more than labour providers, it seems natural that informal skills learners cannot get appropriate dignity in all spheres of society. Therefore, the skill recognition system and the overall TVET

sector should also play an important role in helping people live this paradoxical life and giving them a proper place in society.

Now, in the next section, I see this model, putting it in the context of the country's TVET system.

Framing the Dynamic Model of Informal Skills Learning and Development

The model (Figure 7) shows that informal skills learners move through a gradual learning and skills development process, passing four phases: *entry or orientating, skilling, improving, and mastering*.

Figure 7

Dynamic Model of Informal Skills Learning and Development
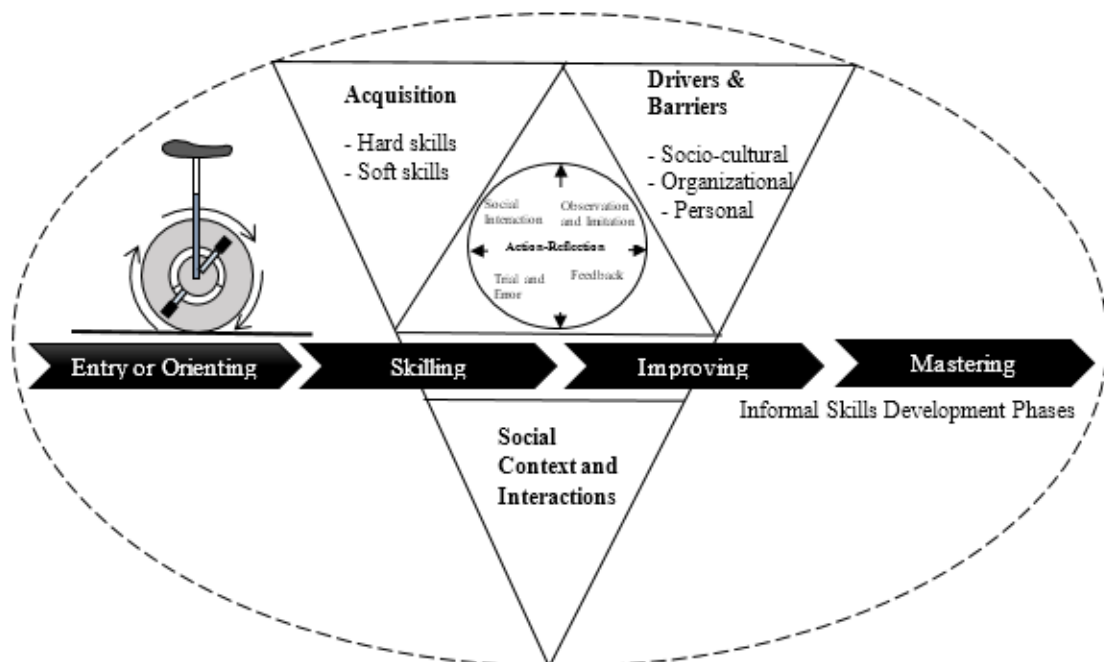
As mentioned in Chapter II, human learning occurs primarily based on two interactions—1) an internal thought process inside a learner and 2) external interaction that a learner maintains with the social world. Understanding human learning needs to proceed through the three dimensions of learning—acquisition, motivation, and social interaction—framed with two forms of interactions – internal and external (Illeris, 2007). Premised on this concept, I present informal skills

learning dynamics triangularly to indicate the three most important aspects of skills

learning: acquisition of learning, drivers and barriers, and social context and

interactions. Acquisition of learning answers the 'what' part of the learning dynamics.

Hard and soft skills are the main categories of informal skills that the learners learn

during their work (see Chapter IV). These skills incorporate all types of learning—

knowledge, skills, and attitude (KSA), although this research focuses on skills.

However, learning does not happen automatically. Different features either

support or hinder the process of learning. In the model, I depict these as drivers and

barriers to learning (see Chapter V for organizational and personal drivers and

barriers, and Chapter VI for supporting and hindering sociocultural environment).

Along with all drivers and barriers, the support one receives from others, and the

obstacles one faces, one must make a solo effort with a challenging balance of life,

depicted by a unicycle movement, for learning to move along the skills development

path comprising four different phases (see Chapter V). The concept is that when the

resulting drivers are prevalent, informal skills learners can move to the skills

development path and gradually reach the optimal stage of the *mastering phase,*

which enables the skills learners to be capable of bearing the position of a *leader* (see

Chapter VI).

An ellipse of the available social context within which the learners make all

social interactions shape a learner's learning progress. We also need to recognize that

learners, at times, can cross the limits of the social boundary and can achieve

additional success. I present the ellipse with a broken line in the model to indicate

this possibility. I have shown four major approaches to skills learning under reflection

and action and social interaction and feedback. Observation, imitation, and trial and

error are the internal approaches learners use with their mental exercises. Social

interactions and feedback are the external processes in which learners obtain help from others, either inside the workplace or outside.

This Dynamic Model of Informal Skills Learning and Development is the gist of this research and, I would say, is a unique contribution to the existing knowledge.

Essence of the Chapter

In this chapter, I have presented the extract of my whole thesis. The major argument was that informal skills learning in Nepal is not getting attention in the TVET system. The main reason for this situation is less valuing informal skills learning and learners, which is rooted in the social perception of Nepali society which is more hierarchical with enormous diversity and discrimination based on caste, ethnicity, and economic status. Though numerous periodic plans, including educational plans and policy documents, have been talking sufficiently in favor of informal skills learning and learners, I argue that all these priorities and provisions are just rhetoric. In practice, informal skills learning is still not getting overall attention and value. The further argument is that despite all the challenges and problems, informal workplace skills learning holds a high prospect of becoming a dignified learning path. This is, of course, difficult given our discriminatory social and political structures. Still, if all actors at all levels, mainly the political actors, are to show their commitment, not only in words but in action, this is not a difficult task.

In the final chapter, I present key findings and conclusions of the study and their implications. I also present my reflections on my whole PhD journey.

CHAPTER VIII

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND REFLECTIONS

In this chapter, I first summarise the study's research process, findings, and overall conclusions. I also discuss the implications for different stakeholders. Finally, I present the limitations of the research and overall reflections on the research journey. I conclude this section with epilogues.

Summarizing the Research

In most countries where an informal economy prevails, a huge segment of the working population learns occupational skills while working in the informal sector jobs. Nepal is among those countries where more than eighty percent of people work and learn their occupational skills informally. However, we know significantly less about different aspects of skills learning, which is essential for the country's TVET system.

Thus, in the first chapter, I set the whole context of the study. I established the overall purpose of the research as exploring the process and dynamics of informal skills learning and development. In particular, I aimed to understand the process of learning skills, the motivations and obstacles that exist during the learning process, and occupational skills development and progression. As such, I began with a broader research question: How are the process and dynamics of informal skills learning and development? I elaborated this broader overarching question into three associated questions: 1) How do informal skills learners acquire their skills? 2) How do informal skills learners experience the drivers and barriers in skills learning? And 3) How do informal skills learners develop occupational skills at the workplace?

Similarly, in chapter II, I presented the gist of my literature review. The review yielded three major themes. First, constructivism provides the key roots for understanding the idea of workplace learning and the different motivating aspects that play a role in learning. Second, the nature of informal workplace learning is more contextual and can be complementary to formal learning. Third, though informal skills learning in Nepal is much emphasized by the policy provisions, it is extremely lacking in its implementation.

In Chapter three, I explained my methodological approach. Staying within the interpretive research paradigm, I adopted the case study as my methodological approach. The reason for selecting this particular approach was that it allowed me to understand the complexity of skills-learning processes within their broader and immediate context. To understand the dynamics of informal skills learning in largely informal organizational settings, I visited nine enterprises (four potteries, three two-wheeler workshops, one metal craft workshop, and one fast-food café), observed the activities and processes there, and engaged in *kurakani* with learners (17 as main respondents). For the initial processing of the data, I used Atlas ti (data analysis software), and for analysis, looking at the propositions, I played with the data both inductively and theoretically. While doing all this, I constantly derived from informal skills learning theory.

In chapter IV, based on the field information, I presented the findings focusing on the first research question—how informal skills learners do learn skills? I presented three main themes in this chapter. The first theme presented the general process that informal skills learners follow in the learning process. Although the process includes activities such as seeing or listening, thinking and doing those activities took place not in any specified sequence, as Kolb (2015) observed. Instead,

the learning process combined social interaction and personal acquisition. Similarly, the chapter concluded that improving skills is the core of the learning process. Social interaction and feedback are primary learning approaches that informal skills learners use. Skills learning process included trial and error with observation, memorization, and imitation. It is the learner's self-activity. At the end of the chapter, I presented a model showing how these skills learning processes and approaches function together in an informal work setting.

In Chapter V, I discussed what motivates and demotivates informal learners for skills learning. Organizational context and personal characteristics were the major categories of such drivers and barriers and were related to aspects like workplace, work team, and work benefits. Similarly, I also found that motivation plays a vital role in skills learning. Motivation comes from personal characteristics under two categories—depending on success and failure in skills learning and the innate characteristics of the learner. Learning drivers and barriers are also determined by fulfilling the learners' needs, as Maslow (1987) stated. Besides, the chapter included how skills enhancement depends on the relationship with the member of the work team and the degree of autonomy at work, as Ryan and Deci (2017) observed. In addition, I also presented that an essential source of motivation for informal skills learners is concentration on work as flow (Csikszentmihalyi, 1990). Finally, I presented skills learning drivers and barriers with the metaphor of a unicycle ride which is much more challenging but has higher potential.

In the sixth chapter, I discussed how an informal skills learner develops skills and makes occupational progress in life while learning at work. Among the two major characteristics of informal skills learning and learners, the first is that informal skills learners are slow but steady learners. Furthermore, together with skills development,

informal skills learners develop social status and identities. For such developments, informal skills learners have both opportunities and challenges in the learning environment presented as supportive and hindering socio-cultural environments. The model I presented at the end shows how informal skills learners' skill development and occupational progression happen. It has four phases of skill development—*entry and orientation, skilling, improvement, and mastering*. Similarly, along with these skill development phases, the model shows four occupational ladders —*novice, senior, manager, and leader.*

In Chapter VII, I argued that informal skills learning processes and approaches are essential for the TVET system of the country and stressed the linkage between the TVET system and informal skills learning practices. In addition, I emphasized the important role of the TVET system in assisting informal skills learners and overcoming their barriers. I have also shown that informal skills learners' occupational life swings between respect and disrespect and why converting such swings into an entirely dignified occupational path is vital. In this chapter, I also presented the *Dynamic Model of Informal Skills Learning and Development* as a gist of the whole research comprised of all the models I presented as the outcome of the previous three chapters IV-VI. The model portrays how informal skills learning occurs, what learning processes and approaches work together, how skills learning drivers and barriers act, and the path of skills development that learners have to move during their occupational life.

Conclusions

Informal skills learners enter informal jobs with an elementary education qualification or without them. Although their multiple vulnerabilities, such as

uncertainties of the job and work nature, add challenges to learning skills, they learn essential skills during the work.

Informal skills learners learn knowingly or unknowingly different technical and behavioural skills during work. The primary way of their learning is the *herne/sunne-sochne-garne-saparne* [see/listen-think-do-improve]. However, this is not a linear process; a learner uses a combination of at least two of the initial steps. The final step *Saparne* is the central one for each learning activity that enhances skills.

During learning, informal skills learner uses mainly two approaches to learning. The first approach is the use of social interaction that includes feedback. Their second approach is personal reflection and action, including observation, memorization, imitation, and trial and error. These approaches support the learning ways of *herne/sunne-sochne-garne-saparne* of a learner.

Although informal skills learning results from work activities and is not a purposeful learning activity, the instructor's role is crucial. Such instructors are generally senior workers at different stages of their careers. However, in some instances, instructing skills also can happen from junior to senior. So, informal skills instruction also is a reciprocal activity.

Informal skills learners face multiple drivers and barriers related to socio-cultural context, organizational circumstance, and personal barriers such as physical and mental abilities. Despite the challenging work environment, numerous elements support intrinsic motivations, including मग्न (immersion), which create prevailing drivers for learning in comparison to the barriers.

Such intrinsically motivated informal skills learners progress in skills development and occupational path. The skills development phases include *entry and*

orienting, skilling, improving, and mastering. Similarly, informal skills learners step up on the different occupational ladders from *novice* to *senior*, *manager,* and finally to *leader* and progress through the skills development path.

Informal skills learners are people who generally come from weak economic conditions. Although they are victims of structurally created inequity in education and capacity building, informal work-setting in small enterprises provides them opportunities for acquiring occupational skills, albeit in challenging circumstances.

Implications

Based on the findings and conclusions of this research, I see multiple implications that could have a bearing in areas like the TVET policy arena, research field, theoretical contribution, and professional life. In the following paragraphs, I present these implications briefly.

Policy Related Implications

The findings and conclusions of this research would directly contribute to TVET policy formulation, particularly the roles and responsibilities of different tiers of the governments—federal, provincial, and local in the recently changed governance structure from centralized to federalized. The knowledge of how skills learning takes place in an informal enterprise could have an important bearing on recognizing the importance of the informal sector, which would contribute to the restructuring of the sector. Though carried out in the informal enterprise setting, the findings of this study, including drivers and barriers in skills learning and the available socio-cultural and cognitive contexts, could also be applicable in non-formal and formal settings. In the present situation, when the (Nepal) Government is trying to implement the newly developed National Vocational Qualification Framework (NVQF) (CTEVT, 2020), it is urgent to prepare assessment tools and evaluation frameworks and National

Occupational Skills Standards (NOSS). It is possible only by knowing how informal

skills learners learn in their workplaces. This research's findings and conclusions can

be instrumental in this. It can also contribute to the other country's TVET system,

similar to Nepal's socio-cultural context.

Besides, this research's findings also address the inclusion and equity aspects

of informal skills learners, one of the major pillars of the existing TVET Policy 2012

and Education Policy 2019. For instance, the study indicates the need for conducting

skills testing and certification activities at the work venue of informal skills learners.

Otherwise, the policy provisions remain only on the papers, and the mission of the

TVET system to reach real needy people exists as rhetoric. Furthermore, informal

skills learning site can also be a workplace learning site and skills assessment venue

for formal TVET. Of course, for all this to happen, further research is necessary.

Theoretical and Knowledge Implications

There are abundant research activities in the sector of informal learning.

However, research in the informal work setting are lacking. In this background, this

study explored two major approaches to skills learning. The first internal approach —

trial and error with observation, memorization, and imitation, and the second external

approach —social interaction and feedback as support for understanding skills

learning ways. Notably, the skills learning process *see/listen-think-do-improve*

provides knowledge of how informal skills learners do learn skills.

Similarly, the concept of resultant drivers and barriers explored in this study

supports researchers in understanding the level of motivation in skills learners in an

informal work setting. Besides, the skills development phases presented in this

research provide information on how skills learners work in complex working

conditions and develop occupational skills and competencies. Finally, the dynamic

model of informal skills learning, presented as a gist of the research, illustrates the dynamics of skills learning including processes, approaches, drivers and barriers, and occupational skills development path. Overall, this model supports understanding informal skills learning holistically.

Research Implications

The research has also pointed out other study areas and topics pertinent to understanding the dynamics of informal skills learning. Following are some of the questions that future research can focus on:

- Why is the young generation changing their occupations from traditional ones?

- Why are women getting fewer opportunities to select occupations and learn informal skills?

- How do mediators linking a person to an informal job provide an entry for informal skills learning paths?

- How do informal skills learners narrate their working and living conditions, particularly in the rapidly changed technological context of IR4?

- How can formal education and training programs be linked to informal skills learning practices, particularly using their work setting as workplace learning?

Besides the policy and research-related implications, this research also contributes to my professional career. Although I was in the TVET sector for an extended period, this research broadened my access to the global TVET Community of Practice. Furthermore, I am more concerned with those informal skills learners and am committed to raising their voices. For this, I have commitments, such as publishing at least one research paper a year advocating for massively including informal skills learners in TVET programs such as skills assessment and recognition

on their work venue. My research and writings will also focus on enhancing the social perception of occupational work.

In the following sections, I reflect on my research journey, challenges, limitations, and my broader feelings in the epilogues below.

From Enrolment to Exit: Reflecting on My PhD Research Journey

One of the primary reasons I applied for this PhD scholarship under the research project LELAM[6] was that I had spent my entire professional career in the TVET sector. The condition of the scholarship was that I carried out my research staying within the theme of the LELAM. Therefore, when applying for the research scholarship, I proposed research focusing on minimizing the gap between TVET policy and implementation. I selected this topic because the gap between policy and implementation has been one of the key challenges in the Nepali TVET system. However, after enrolling in the programme I started consulting literature, discussed with TVET colleagues and professionals, and held rounds of discussion with my PhD study supervisors. Then, I changed the research topic, developed the research proposal, and defended it. Thus, the current research topic resulted from my interest and the overarching research question of LELAM.

I performed the literature review as a continuous process during the research based on the criteria some scholars prescribed (Boote & Beile, 2005; Cooper, 1988; Randolph, 2009), including performing an audit trail. My career and professional field contributed to analyzing and presenting the literature. My previous knowledge in the sector supported my understanding of the field (of informal skills learning). My research during my MPhil study also contributed considerably to this exercise.

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[6] The LELAM-TVET4 INCOME research project is part of the Swiss Programme for Research on Global Issues for Development (r4d). It aims at understanding under what conditions TVET can improve the income of the youth. Further details at: https://r4d.tvet4income.ethz.ch/

I could deepen my prior understanding of informal skills learning with this research. Despite the increasing informal workplace learning studies in the last decades, those were mainly in the context of the formal setting. So, I had to spare more space in the dissertation for characterizing informal skills learners. Notably, it was challenging to describe and differentiate them from general workplace learners minutely.

During the selection process, I faced the dilemma of the justifiable research method. Initially, I thought of using phenomenology to help explore and understand the context. However, finally, I found the case study as an appropriate method for identifying the process and dynamics of informal skills learning. While deciding on the method, I had a dilemma of which of the prevailing case study approaches would be appropriate. After a rigorous literature review and consultation with the KUSOED and ETH Zurich scholars, I concluded that Robert Yin's case study approach would be more suitable for my research.

Before initiating the research, I knew that my potential participants would have low educational qualifications and work in an informal setting. However, I understood their degree of vulnerability only during the conduction of my fieldwork. I used the word *vulnerability* because they were mainly the people without their time. They were too busy or did not have the privilege of deciding their research participation. Therefore, one of the strategies I had to follow included not disturbing them, although I had to postpone multiple pre-set visits.

Similarly, the difference between my assumption and the practicality was how informal skills learners were comfortable mentioning their learning activities. I thought that they would express their learning practice overtly. However, it was not the case. Their expression was primarily associated with their work, production, and

services rather than learning. So, I had to concentrate more on the observations than the conversations.

While researching informal skills learning, I became an informal learner of Atlas ti's CAQDAS. Before initiating this research, I had little information about another CAQDAS software, NVIVO but was unaware of Atlas ti. As the LELAM research team agreed on using Atlas ti, I learned it through self-learning. Interestingly, I could learn a good qualitative data analysis technique through the dedicated websites and the official YouTube materials. Atlas ti helped me a lot in propelling the piles of information. However, I felt that the ultimate data analysis and interpretation depended on the researcher's brain.

Overall Academic Exercise: Challenges and Limitations

I enrolled at KUSOED in November 2017 for my PhD study. But my real study journey began in January 2018. During the past five years, besides the major research, I have fulfilled other prerequisites of KUSOED. I also performed other diverse scholarly exercises such as conducting a TVET case study, publishing research articles as working papers and journal articles, and publishing articles in Nepali. During this period, I also participated in international seminars and presented papers. Similarly, I attended different courses both at KUSOED and ETH Zurich. Appendix L displays the whole scholarly journey and its outcomes.

Furthermore, in addition to the prerequisites of KUSOED, I also lead preparing the TVET Case Study of Nepal with support from the LELAM colleagues of ETH Zurich (Baral et al., 2019). These academic exercises supported me in academic writing and research activities. I already mentioned some of the problems and challenges I faced while building rapport with the research participants and managing ethical dilemmas. Besides, I mention some other challenges below.

Challenges I Faced

As a qualitative researcher, I faced some challenges during the research (Creswell, 2016). Although I was highly motivated as a "learner and knower." The first challenge I encountered was the scarcity of my participants' time. Usually, the resource is generally scarce to people in this busy world. However, the situation with informal skills learners, senior craftspersons, and novice workers was different. On the one side, research participants with senior positions were extremely busy providing customer services. On the other side, assisting workers could not decide on their time. They had to obtain approval from their supervisors. Thus, in most cases (pottery was an exception among the four occupational enterprises), I had to either wait with the uncertainty of meeting them or postpone the appointment. In some cases, I had to wait for the off day and conduct an interview with the research participants in a separate venue. I also had to change my plan instantly and perform field observation instead of conducting an interview.

Even during the field observation, disturbances were a challenge for me. I understood that it was primarily impossible to talk with the participants (informal skills learners) without interrupting their work. For instance, in the fast-food café, I had to break the conversation multiple times when customers would come and order food. Also, in the two-wheeler automobile workshop, making conversation during the work was difficult.

Besides the possibility of having a conversation during the work, I felt another challenge, particularly in the metalcrafts and two-wheeler motorcycle workshop. The noisy environment of the workshop was a disturbing factor in obtaining onsite information from the research participants. In a less intense but similar situation, I

also tackled the fast-food café. The noise created by the customers made it difficult to capture the voice expressed by the research participants.

My PhD study period is nearly five years. But more than half of this period has been marked by the severe COVID-19 pandemic. This pandemic affected my extended family and me. The gradual spread of the virus affected the workflow. The death of one of the research participants due to COVID-19 made me even sadder. I faced this uncomfortable situation tactfully. However, in some cases, the planned face-to-face discussions with the research participants had to be changed, and instead, I had to perform telephone conversations because it was not possible to virtually communicate with my research participants, with one or two exceptions.

Limitations I Perceived

I wish to reiterate that I have performed the whole research journey honestly and rigorously. However, it is natural that I have experienced some limitations while carrying out this research. Therefore, I remained aware while discussing the overall findings, interpretation, and making conclusions. I strived to make the research design "better, not perfect" (Patton, 2015, p. 372) because I understood that it is not possible considering diverse situational reasons such as resources and the complexities of the studied field.

I found informal skills learning as a neglected area of research, particularly in Nepal. There is plenty of literature on workplace learning but very little about informal skills learning, mainly considering the unique features of informal skills learners. This scarcity of literature was among the limitations I faced during the research work. Notably, the workplace and informal learning literature I cited could be more related and representative if I could use eastern literature. However, most of the literature I cited is from the western world, where the work context is somehow

different. If I could access and study more contextual literature, I would be able to make a more meaningful analysis of the study findings.

As my research participants represented diverse cultural and caste backgrounds, some had no Nepali language as their mother tongue. For instance, research participants from the pottery and metalcrafts occupation used the Newari Language, their mother tongue and language of everyday use (the only exception was a Nepali speaker in the metalcraft enterprise). If I were able to use Newari while talking with them, they might be able to express themselves more explicitly.

I translated all my interviews and conversation texts into English (for using Atlas ti for analysis). I tried translating the text into English, retaining the meaning expressed in Nepali. Language translation requires lots of knowledge, skills, and experience, and neither I am trained nor experienced. Therefore, there might have remained some limitations in my translation. I might not have chosen the right words and not composed the sentences in the best possible way to capture the meaning my research participants expressed. However, I have made an honest effort to capture the essence they expressed.

However, based on what I could draw from what they shared with me, I am confident that I have presented a relatively satisfactory picture of informal skills learners. I might have missed some aspects to discuss with them that would help me bring a different perspective. For example, a question that often comes to me is whether those workers who are getting residential support (in two-wheeler workshops and cafes) allocated by the owner are free from being over-exploited.

Epilogues

At this thesis submission moment, I remember my relative, a retired Professor, who asked me some questions four years ago regarding my research topic. One of his

questions was about my purpose of doing a PhD in the declining career stage. I felt that I had an answer, but I could not tell him then. My simple hidden answer was that *I could not fulfil my acute willingness to pursue a PhD in my prime age due to various obstacles addressing life demands. Now, when the situation favoured, I grasped it.*

When I completed the PhD journey, my perception of the rationale for doing my PhD changed. Suppose someone asks me a similar question that my relative had asked four years back; I will tell them that I will devote my remaining life to advocating for those informal skills learners who are victims of the devaluation of their skills and learning by the nation. While expressing these words, I brightly remember all my research participants and those two skills learners from my life story, *Birkhe,* and *Santosh*, about whom I mentioned in the introductory part of this thesis. The situations of these two artisans I met during my adolescence and the research participants I met during this research do not differ, even though they represented a time gap of more than four decades. It means they are not getting the nation's attention, particularly from the national TVET system. However, I understand that getting less value from informal skills learners is not uncommon considering the power dynamics (Livingstone & Sawchuk, 2004), including in the research field. So, why are such informal skills learners not getting attention? In addition to what I mentioned in Chapter VII, there is a gap between the great institution, *State,* and informal skills learners. Who is losing in this gap? Informal skills learners or the state? My response is 'both.' However, the state is losing more because of not incorporating its human capability into the central system of TVET. So, to recover this loss, the State itself should make necessary efforts.

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Appendices

Appendix A: Case Study Protocol

The topic of the research: Informal skills learning: A case study of small-sized enterprises in Nepal

Section A. Overview of the Case Study

The research has the following objectives:

The overall objective of this case study is to explore the process and dynamics of informal skills learning. In particular, it aims to understand the process of learning skills, the motivations and obstacles that exist during the process of learning, and the skill development experience of the informal skills learner.

The research has put the following two research questions:

RQ1. How do informal skills learners acquire their skills?

RQ2. How do informal skills learners experience the drivers and barriers in skills learning?

RQ3. How do informal skills learners develop occupational skills at the workplace?

Values and Assumptions

I have taken the following significant propositions during the research:

1. Learning should be valued and recognized, not considering the means and ways
2. The national TVET system should value such learning and incorporate them into the national system.
3. Informal skills learners have to work in comparatively difficult work situations.
4. Informal skills learners have to face more barriers than drivers, which demotivate them from their work and learning.
5. Through informal skills learning together with the execution of work, a person without or with a very low level of occupational skills can be converted into a skilled and capable person.

Tentative Theoretical Frameworks

1. Comprehensive learning theory and workplace learning theory (Illeris, 2007, 2011)
2. Theories of motivation (Self-Determination theory and others)
3. Theory of competence development (Illeris, 2011)

Key Initial Readings

1. Illeris, 2007 How we Learn: Learning and non-learning in school and beyond
2. Illeris, 2011 The fundamentals of workplace learning: Understanding how people learn in working life
3. Yin, 2018 Case study research and applications: Design and methods
4. Scott, 2014 Social institutions
5. Yazan, 2011 Three approaches to case study methods in education: Yin, Merriam and Stake
6. Cresswell, 2009 Research design: Qualitative, quantitative and mixed approaches

This protocol will guide me in conducting fieldwork and planning for further research activities.

Section B. Data Collection Procedures

1. Name and address of the researcher:
   Durga Prasad Baral
   Kathmandu University School of Education, Hattiban, Lalitpur
   Mobile No. 9841415209
   Email: baraldurga@kusoed.edu.np
2. Data Collection Plan
a. What to cover
   i. Response to questions (in part C)
   ii. Observation (as per need emerged after an in-depth interview
   iii. Documents available
b. Whom to meet
   i. Worker as learner
   ii. Craftspersons or owner
c. When to meet (Date and time)
   i. Obtained prior appointment
   ii. The anticipation of a high chance of cancellation of appointment depending upon the customer flow and approval needed from the owner of the enterprise
   iii. Observation frequency and duration will be fixed as per need as well as availability

Section C. Protocol questions and Guiding points

Stories are to be obtained in three different sections

1. School to obtain work
2. Initial days of work (under who worked, how difficult the work was, the experience of learning, scolding or encouraging, any rewards)
3. When did you first time perform this job fully?
4. Who is helping in your work?
5. Were there any rules and customs for working, taking leisure, dealing with customers etc?
6. When was your happiest moment working in this place?
7. When was your saddest moment since working in this place?
8. What is the difference in confidence when you first entered here for work and now?

The above questions and guiding points will be in the periphery of the following learning aspects:

a. Content learning aspects
b. Motivational learning aspects
c. Skills development journey
d. Social aspects of learning
e. Social institutions, customs, rules, norms
f. Other aspects to be covered

Section D. Tentative outline for the case study report

The outline of the dissertation will be shaped during the different phases of data analysis

Appendix B: Literature Map

Informal workplace learning

Informal sector
Adhikary (2012) Role of TVET
Langer, (2013) TVSD in inf sector)
Jeong (2018) IFL in SME

Theoretical

Methodological

Thematic

Occupational info

Metalcrafts
Brown (2012) Repousse
Furger (2017) The gilded Buddha
Nepali (1959) The Newars of Nepal
Teague (1995) Metalcrafts of Nepal

Participation and acquisition: Process and approaches
Alla-Mensah (2021) Informal Apprenticeship
Berg (2008) Factors influencing informal learning
Blaka_2007 Newcomer's construction of identity
Brown (2017) Learning drivers for low skilled
CARA (2010) Informal learning transfer
Carliner (2013) Concept of informal learning
Cerasoli (2014) Informal learning antecedent
Cerasoli (2017) Antecedents and outcome of IL
Choi (2011) Influences of formal learning
Coetzer (2008) Learning in small business
Coetzer et al (2017) Small business characteristics
Coetzer et al (2019) Learning opportunities
Cuinen(2015) Informal learning guide
Cunningham (2013) Key activities and processes
Doombos (2006) Learning processes and outcomes
Ellinger (2005) Contextual factors
Ellinger (2007) performed
Ellstrom et al (2008) Learning environment
Eraut (2004) Informal learning in the workplace
Harteis (2014) Learning from errors at work
Jeon (2012) How do organizational and task
Kim (2014) National culture and informal learning
Koops (2019) Learning in informal economy
Kyndt (2013) Antecedents of employees' involvement
Le Clus (2011) Informal learning in the workplace
Manuti (2015) Formal and Informal learning
Moore (2020) Facilitating informal learning at work
Moraes (2015) Informal learning and development
Noe (2013) Individual differences and inf learning
Regel and Pliz (2019) conducted
Singh (2015) Global perspectives on recog I/NFL
Tannenbaum et al (2010) Informal learning and devel.

Qualitative research: overall
Boote (2005) Lit. review
Sawchuk (2008) IL Th & Pract
Creswell (2016) 30 Res kills)
Merriam (1998) Q Res and CS
Randolph (2009) Lit review
Bloomberg (2019) Writing diss

TVET/Workplace/learning theory
Illeris (2011) WPL
Illeris (2018) History of LT
Jarvis (2004) Ad Edi and LLL
Merriam (2013) Ad. LT
Marsick (2015) Informal & IL
Scott (2016) 70-20-10 Theory
Coetzer (2017) Small business
Kolb, 2015 (Experiential learning)
Marsick (2015Inf & incid learning

Fast-food
Rai (2019) Fast food_ Nepal
Thapa (2018) Restaurant_Nepal

Pottery
Foley (2013) Potter's life
Ghimire (2013) Pottery prosp
Muller (1981) Potter in Thimi
Shrestha (2018) Pottery/scope

Two-wheeler mechanics
Barber (2004) Skill upgrading

Learning Motivations and barriers
Cerasoli (2014) I & E Motivations)
Schürmann (2016) Drivers for IFL
Gopalan et al (2017) Review of motiv
Deci (2017) SDT in work org

Case study
Baxter (2008) CS methodol
Grollman (2008) TVET CS
Verleye (2019) Case study
Yin (2018) CS Res and appl
Stake (1995) The art of CS
Yazan (2015) CS three app

Need to study:
Process and dynamics of ISL

Note:
Names are not only indicative
Mentioned only the first author

Appendix C: Theoretical Mindmap

	Legends	
A	Guiding theory: Comprehensive Learning Theory (Illeris, 2007)	
B	Skill Acquisition	
B1	Workplace Learning Theory (Illeris, 2011)	
B2	Informal Learning at Work (Ellstrom, 2011)	
B3	(Dreyfus, 2004/Five stage model)	
C	Learning Motivation	
C1	Self-Determination Theory (Ryan & Deci, 2017)	
C2	Need (Maslow, 1987)	
C3	Flow (Csikszentmihalyi, 1990)	
D	**Social Interactions**	
D1	Formal/Informal and Visible/Invisible social practices	
D2	Supporting and hindering social institutions	
E	**Small Enterprise (SE)**	
E1	Distinctive characteristics of SE (Coetzer et al, 2017)	
E2	Researching SE (Curran, 2001)	

Appendix D: Intrinsic Motivation as a Key Driver to Skills Learning
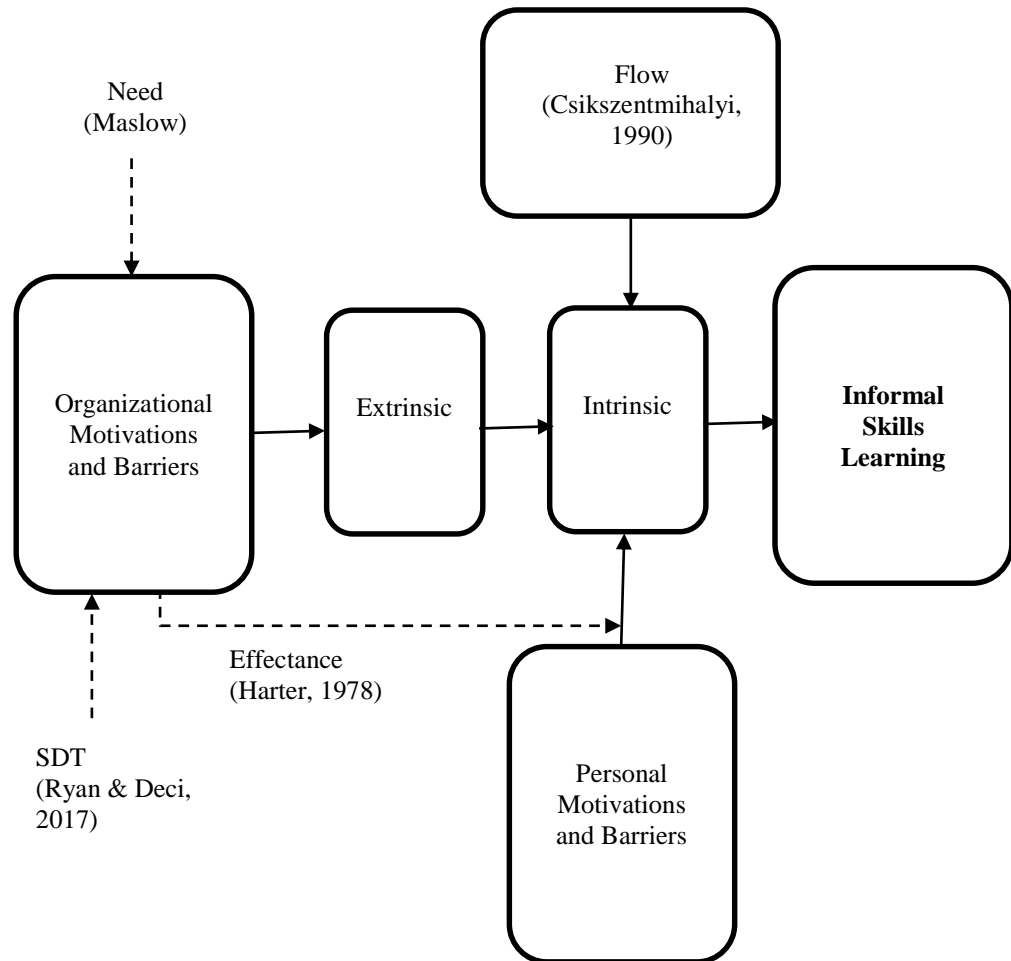
Appendix E: Introduction of the Research Participants (Appendix E.1 to E.17)

E.1 Lambodar: Ask Me What I Don't Know!

- *Lambodar, potter, Thimi*

Lambodar, approaching 55, is a senior Prajapati (Potters) family member. Lambodar was born in a traditional potter family at Nikosera, Thimi, a small historical town in Bhaktapur. He started to play and work together with mud and learn pottery skills at the age of twelve. At eighteen, he already knew preparing most of the available pottery utensil items. However, his specialization was in traditional pottery art items. Such pottery skills were transferred from generation to generation without any records.

Among the five sons of Lambodar, only three (first, second, and fourth) are aligned in pottery. The other two (third and fifth) have changed their occupations to motorcycle mechanics. Lambodar leads the joint family pottery enterprise. But his elder son's family has separately started to run an enterprise in the same locality for a decade. Lambodar never attended a school class. He acquired a general level of literacy and numeracy skills with self-study. Although Lambodar is anxious about their occupation's declining situation, he seems proud of his acquired occupational skills. In my question about the pottery skills he had learned to date, he smilingly answered in the typical Newari tone, "*ke jandachhau bhanda pani ke jandeinau bhanera sodha na!*" [It is better to ask what skills you don't know rather than what you know?].

E.2 Keshav: The Alerting Experience of First Field Visit

- Keshav, potter, Thimi

It was a clear morning in September. I had to conduct the first field visit of my research. I turned left towards the north from the main Chowk of Purano Thimi, Bhaktapur. One of my friends studying MTVET at my (Kathmandu) University was the local dweller representing the Newar community. He helped me in facilitating obtaining approval and approaching my research participant. Although the house was not plastered and finished, it was a kind of modern building different from what I know about the traditional style potters' houses. The shutter on the ground floor was filled with prepared pottery items. This room was the showroom cum store. My friend peered inside the house and shouted in Newari, saying (probably), "who is inside the house?" After a while, a thin middle-aged adult man in his traditional casual local Newari attire came smilingly and greeted us. We exchanged greetings.

Keshav, 50, is an adult of Prajapati ancestry born and raised in this locality. Among the five brothers, he is the third son. He is married, and the couple has one son and one daughter. He did not attend the school class but self-learned basic literacy and

numeracy skills. He was aligned in the occupation at the age of nine and started to learn specific occupational skills at fifteen.

Keshav invited us to the upper floor. We sat around a tiny room on Mudha. When we started our conversation, Keshav's wife served us the black tea, sat aside, and participated in the discussion. Keshav enthusiastically participated in the interview, which prolonged about one hour. However, one worrying phenomenon I experienced during the interview was that Keshav's response was very surfacial to the skills learning aspect and deepened the work and occupational problems and challenges. This situation has raised a question for me: "Is such a situation (of less talking about skills learning) only in the case of Keshav's family, or common to other potters too?"

E.3 Ramila: Multi-Tasking: No Panicking

-   Ramila, café worker, Kathmandu

Ramila was born in a village in a mid-hill district. Her family migrated to a town near an Inner-Tarai city in the country during her adolescence. There, she worked as a laborer for some years in a construction company. Later on, she got employment in a dot pen factory, where she worked for eight years. Meanwhile, she got married in the same city suburb. Once, she was admitted to one *Praudh Saksharata Karyakram* (Adult Literacy Program) of three-month duration but had to abandon not completing the course. She could not manage the work at the office and in-law's home. Ramila already had two children (one son and one daughter).

Amid, she decided to enter the capital city Kathmandu with her husband, thinking that "*Roi karai garera pani kam khojchhu ra garchhu*" [Will search a job pleading with the people and will work] for the sake of the children's future. The family was struggling for a livelihood. The responsibility on Ramila's shoulders for the family's livelihood increased enormously. Coincidently, Ramila's family got shelter in the house of Swarupa. Seeing the experience and the work attitude, Swarupa proposed to Ramila to work in her cafeteria. Ramila accepted the offer and started to work there as additional work to the previous ones. By that time, both families of Ramila and Swarupa had converted to a single family. Just stepping into her forties, Ramila is a hard-working lady whose work starts in the early morning and completes in the late evening. She never felt difficulty getting the job. She seems happy with her work, life progress, and the honour she received from the community. Appreciating Ramila's work performance, her owner once mentioned that *kahile kahi Ramila ka char wata hat chhan jasto lagchha. Uni sajilai dherai wata kam ekai patak garna sakchhin* [Sometimes, I feel that Ramila has four hands. She performs multiple works in parallel without any discomfort].

E.4 Dineh: We Are Not a Training Center!

- *Dinesh, motorcycle workshop owner, Kathmandu*

Dinesh is a young mechanic in his forties. He was born and brought up in Bharatpur, one of the commercial cities in the Mid-Tarai. His family was of good economic status. Both the grandfather and father of Dinesh were government officers. When Dinesh appeared on the SLC examination, his father enrolled him in a three-month skill training program in the automobile trade. When Dinesh performed training, he was attracted to the trade and decided to select this occupational field as his career. He initiated the job as a Junior Mechanic in the workshop, where he obtained his practical classes during the training. The family wanted that Dinesh followed a higher education path aligned with a *Jagir* [a government job]. So, they were not happy with Dinesh.

When Dinesh became a skilled mechanic after working in Bharatpur for three years, he decided to go to the capital city. Thus, he entered Kathmandu in his twenties. He worked in a motorcycle workshop for five years. Then he decided to start his own business separately. Therefore, he initiated a workshop in the centre location of Kathmandu City. Dinesh sees hard work and honesty as Mantra for obtaining success. During one of the interviews on how skills learning and teaching happens in their workshop, he mentioned that individual effort is the primary source of learning rather than getting instructional support from others. "*Yo kam ma sikaune bhanne chhadai chhaina*" (There is no such 'instruction' in such work). We are not like a training centre. Learning is together with working. Our process for working and learning is "*garne-herne-sochne-saparne"* [doing, seeing, thinking, and improving]"; this is by oneself" and (showing some boys working inside the workshop, he added) "for instance, the work and learning how I did is similar to these boys".

E.5 Damodar: No Papers, Pictures in the Mind: Memorizing Traditional Skills

- *Damodar, potter, Thimi*

Just crossed 35, Damodar is the eldest son of Lambodar. Like his ancestors, Damodar started working and learning pottery skills from age 12-13. He worked in the pottery enterprise of the family until his marriage. After getting married, Damodar's family started a separate pottery enterprise in their two-storied house located about a kilometre from the parents' house. Damodar completed the primary school education level and dropped it because they had the tradition of supporting the family business from an early age. Then he concentrated on acquiring pottery skills from his father, Lambodar, mainly producing artistic pottery items.

Working on his traditional pottery, Damodar also worked as Pottery Instructor in one five-star hotel for two years, where pottery skills are provided and targeted to tourists for entertainment. Even at present, he accepts requests if he gets an invitation to work

as an instructor. When his family separately started to operate a pottery enterprise, he was also instructing artistic pottery skills to his wife, Indralaxmi. During one of the interviews, when asked how they obtain, record, and use the skills, he naively expressed that they do not have a systemic mechanism. "We have to put a picture of [pottery art] items in our mind", he said and added that "to date, we have not used any paper."

E.6 Chandrika: Workplace Like a Family- A Source of Motivation

- *Chandrika, café worker, Kathmandu*

Chandrika is a single daughter of Ramila. When I met her for the first time, she was twenty-two and was studying in grade eleven. At present, Chandrika has reached twenty-five and has already passed grade twelve. Recently, she has been admitted to the Bachelor's level and attends classes in the morning. Chandrika works in the daytime in the same cafeteria as Swarupa where her mother, Ramila, works. Though Chandrika did not face the struggle for livelihood as her mother did, she was also influenced by the family's economic crisis. She had to leave the private boarding school (which is on a fee-paying basis and considered a better one) and was admitted to a public fee-less school) after grade five. When she passed the SLC, she also decided to support the family and started to work. Chandrika is satisfied and happy with her work. One of the reasons for her satisfaction is the environment and the customer's behaviour in the cafeteria. She mentions that "*Malai yahan praya sabai jana afnain pariwar jastai laagchhha*" [I feel here almost all people like my family]."

E.7 Sanju: Successful Entrepreneur as Role Model for Skills Learning

- *Sanju, motorcycle mechanic, Kathmandu*

Sanju was born and brought up in the village of Mid-Tarai. He is a twenty-year-old boy. He dropped out of school in grade eight and entered the capital city, Kathmandu, three years ago. He learned multiple automobile skills working in the workshop of Ratna. In the initial days, he has performed based on food and residential support with minimal pocket expenses. Later on, he started to receive a small amount of salary. After about one year of work, he called his younger brother from his home to work in the same workshop (of Ratna). The brother is now working there. But, Sanju had moved to another motorcycle workshop in the city centre of Kathmandu when he got the job offer with a better salary and benefits. He has been working (in Dinesh's workshop) there for about one year. He seems satisfied with his career progress. Sanju is highly impressed with the progress made by his owner Dinesh and is motivated to work hard and succeed in his occupational career despite the great struggle in his life. In my visits to the workshop, Sanju, directly or indirectly, expressed that the progress made by his owner is inspiring him to work hard in the workplace. "This occupation

is not bad. You see how Dinesh Uncle [the owner] has earned a big house in Kathmandu and riding motorcycle costing 12 Lakh."

E.8 Gaurav: Work-success as a Motivation for Further Learning

-   *Gaurav, metalcrafts artisan, Lalitpur*

Gaurav, a metal artist, is the elder son of a renowned metal artist, Yuvaraj. Although he also has some higher education, he enthusiastically follows the occupational path of his family. During my first meeting, he shared the relationship between the success of skills learning and happiness. According to him, such success provides the worker with a feeling of confidence with the sentiment, "*yes, now I can do this!*".

Gaurav mentioned, "Other colleagues work on more giant sculptures but my concentration is on *Lekhne* (making patterns) and doing *Thojya* work in smaller statues. I still have to learn a lot about design. The work environment here is favourable for my skills learning. I am also trying to work on large art items. However, it requires more skills. Presently, I am learning to make a cost estimate for large sculptures from my colleagues". Gaurav feels that though he has learned many skills, he still has to learn more. As he stated, the workplace provided this opportunity for learning additional skills. Regarding this, once Gaurav shared. "I am learning higher skills at present with Buba (father)" and added that "*I also teach skills to others.*"

E.9 Jiwa: People Do Observe and Evaluate You!

-   *Jiwa, metalcrafts artisan, Lalitpur*

Jiwa was born in a rural settlement in a mid-hill district of Nepal. He had to drop school education after sixth grade. With the help of a relative, Jiwa entered the capital city, Kathmandu, in his adolescence and obtained a job as a domestic worker in a household metal crafts business. He learned some metal-crafts skills in two different family enterprises. Just recently crossed twenty-five, Jiwa already has ten years of work experience in the field. For five years, Jiwa has been working as a Senior Craftsperson in one of the renowned metal-crafts enterprises of the country, led by Yuvaraj. Jiwa seems worried that youth like him are not getting the opportunity for skills up-gradation and wide recognition. However, he is hopeful for recognition in the occupational field. During one of the conversations, he said, "*Ramro gardai gae pachhi, manchhele gareko ta dekhchha ni!* [When we perform well, the work will undoubtedly be evaluated by the people].

E.10 Yuvaraj: Family Counseling from Upper to Lower Generation is Vital

- Yuvaraj, metalcrafts owner, Lalitpur

Born as the eldest brother in a Shakya family of Okubahal, Lalitpur, Yuvaraj is a senior artist and innovator in sheet-metal arts and crafts. He has just crossed his fifty. Yuvaraj learned metal arts and crafts-related skills in his Jyasal (domestic workshop) from his grandfather, as his father died early. Later, he expanded the household enterprise and opened a workshop in the same locality. In the initial stage, all three brothers of Yuvaraj worked in the same workshop. Afterward, they separately started their workshop in the different places of Lalitpur. Yuvaraj is also known as one of the famous artists in sheet-metal arts and crafts in the country. He has constructed various sheet-metal sculptures, primarily of Buddhist monuments, inside the country and in foreign countries such as China, India, and South Korea. He has led the construction of famous Buddhist monuments globally. Yuvaraj has also written a book on traditional occupational skills. In the past, he conducted a training program in his effort and trained many youths. He has been bestowed with some national-level awards. Interestingly, Yuvaraj does not have a higher level of educational qualification.

Yuvaraj sees the future of traditional skills brighter but worries that the present generation is not sufficiently valuing the skills and occupation. To face this situation, Yuvaraj sees the vital importance of family counselling. *"Fakaera fulyaera pani uniharu lai akarshit garnu parchha"* [We have to attract them even through persuasion and counselling]" shared once Yuvaraj multiple instances to me stressing the role of senior artisans in counselling younger ones.

E.11 Binayak: Family as an Employing Institution

<div style="text-align: right;">- *Binayak, potter from Thimi*</div>

Approaching his forty, Binayak is a potter from Thimi. His family owned ample land area, but later on, it started to squeeze. Presently, his family pottery is being operated in one single-storied, narrow, old house along the roadside. He completed secondary-level school education but could not attend the SLC, a national-level examination. Till completing his school education, he did not like pottery and felt shy while working in this occupation. So, he searched for and entered a job in the sector of construction. But, after some months, he found pottery better than the construction sector. So, he quit the work in the construction sector and re-joined the ancestral occupation—pottery.

Despite the multiple problems and challenges, Binayak now loves the occupation and is satisfied that it provides a livelihood for the family. His version during one of the conversations was quite interesting. He mentioned, *"Yo pesha pani thikai chha, kaam khojna bhautarinu ta pardaina!* [Actually, this occupation is okay, one has not to wander here and there in search of a job]"*.

E.12 Suraj: Who Knows If My Mama Is a Broker?!

<div style="text-align: right;">- *Suraj, motorcycle mechanic, Bhaktapur*</div>

Suraj, 22, is from a rural village in the south plane near the Indian border. His family did not have irrigable land and worked in the land of other lords. The earnings made by his parents were scarcely running the family. Being the elder son, Suraj had to think about his family. Though Suraj did not have to pay the school fee as it was a government school, he had to consider his family and his younger brothers and sisters. So, he decided to drop out the school when he was in grade eight. After leaving school to support his family economically, he moved to one adjoining city in India, Motihari, searching for a job. Nobody was there at Motihari, who facilitated identifying the job for Suraj. He spent almost a week wandering here and there, searching for a job. One workshop owner offered him a cleaner job and provided food and a residence facility inside the workshop as an incentive.

Initially, Suraj was working only on cleaning and collecting tools, but afterwards, the senior *mistri* [craftsperson] started to believe him and assigned some minor tasks of repairing motorcycles. For seven months, Suraj learned the preliminary skills of motorcycle mechanics. Amid, one of his far relatives approached him and proposed whether he wanted to go to Kathmandu for a similar job. The proposal encouraged Suraj to leave the present place as he had heard good stories from colleagues about the possibilities of good earnings in Kathmandu. Thus, Suraj arrived in Kathmandu and initiated the work in a motorcycle workshop, the workshop of Kundan. Though Suraj is in the initial phase of his skills learning, he seems hopeful to progress through

this occupation. In response to one of the questions regarding his future aspirations, he responded in the Nepali language difficulty (as his mother tongue is different). His version was—*"pahile ramro mekanik banne ra pachhi paisa kamaera aafnai warkasap kholne man chha."* [I want to become a good mechanic first and then, after making money, run my own workshop]."

E.13 Indralaxmi: Traditional Gender Role as Hurdle for Skills Learning

- *Indralaxmi, potter, Thimi*

Indralaxmi, the wife of Damodar, is a young lady who has just crossed her thirty. Although her main occupation was also pottery, the same as in her paternal home, she never learned pottery skills at her maternal home because they did not teach occupational skills to a female family member. When she entered the house of Damodar, she got the opportunity to learn pottery skills. Remarkably, she purposefully started to learn the skills from her husband when the couple (Damodar and Indralaxmi) initiated the separate pottery enterprise. She has been acquiring especially pottery carving and painting skills. Indralaxmi has completed school-level education up to the secondary level. The thought of Indralaxmi is a bit different than other people involved in the traditional occupation. She is hopeful that the trade can survive and be promoted in the coming days. So, she is motivating their siblings to instruct specific pottery skills.

Indralaxmi regrets that the practice of her maternal family not allowing girls to learn pottery skills is making her back in learning pottery skills. "Tyas bela sikna paeko bhae ahile malai katti sajilo hune thiyo!" [If I could learn skills at that time, how easier it would be for me now!]. During one of the conversations, Indralaxmi said they occasionally teach their children pottery skills. Linking her exclusion from the learning opportunity, she added—"*Uniharulai sikai rakhu, garnu pare garla.; napare nagarla* (Let us teach them, if needed, they will do [practice] it. *If not needed, will not do.*"

E.14 Kundan: High Turnover of the Workers as Opportunities and Challenges

- *Kundan, motorcycle workshop owner, Bhaktapur*

Kundan studied till grade five in his village located in central Tarai. Due to weak economic conditions, he could not continue his education. Once, he left his home secretly and went to Birgunj, the nearest city to his village. He got a job in one motorcycle workshop on a probation basis. He continued his work for six years and became a skilled mechanic. Amid, he obtained an offer from a motorcycle workshop in the capital city, Kathmandu, through a relative senior mechanic. Thus, he entered the capital city at the age of eighteen. He continuously worked there for 12 years, where he upgraded his skills and acquired some entrepreneurial skills. The skills and

knowledge obtained by Kundan provided him with courage for the initiation of a separate enterprise. He started a small motorcycle workshop in Madhyapur Thimi with a tiny investment taking two boys from his village as supporting workers.

Presently, Kundan is already a ten years long experienced self-entrepreneur. However, he is experiencing multiple challenges in sustaining the business. One of such challenges he faces is the high turnover of the workers. However, he takes this phenomenon as usual. Once, he mentioned: *"we cannot say this* [frequent change of the workplace] *is unusual because it provides the opportunity for more learning as well as earning."*

E.15 Ratna: Informal Skills Learners are Problem Solvers

- *Ratna, motorcycle workshop owner, Bhaktapur*

Ratna, about forty-five, represents a peasant family in the Kathmandu Valley. He has been running a workshop for more than two decades. When he dropped out of school in grade three, he initially helped his peasant father. However, he could not continue supporting his father as his willingness was to work in the automobile sector. With the help of one relative, he initiated a job as a service boy in a workshop in Balaju. Fortunately, one of his friends helped him find a similar position in a convenient location, at Teku, where he worked for more than seven years. The work experience obtained at Balaju and Teku made Ratna confident in his occupational skills, creating the germs of becoming a self-entrepreneur.

At present, Ratna has been operating his workshop in Madhyapur Thimi for 12 years, and despite the multiple struggles faced for the establishment and operation, he seems satisfied. Ratna realizes that small enterprises like theirs must work with scarce resources. He thinks that the people trained in such an environment are competent in solving problems. Once, he stated that "Nepal ko mistri lai chhino ra hammer bhae pachhi kehi pani chahidaina [A pair of chisel and a hammer is sufficient for working well for a Nepali craftsperson]."

E.16 Amod: Skills Learning is Like a Journey

- *Amod, Senior Metal Artist, Lalitpur*

Just crossing forty-five, Amod was born at Okubahal of Lalitpur, known as one of the Arts Museums in the country. The traditional occupation of Amod's family was tailoring. This occupation ended in his father's generation when he (Amod's father) got a civil service job. Amod was influenced by the environment of the artistic occupational practice of the locality where he was brought up. He considers that he was attracted to this metal arts and crafts occupation due to this environment and his interest in making artistic drawings. Amod has obtained formal education up to the

bachelor's level. So, he was aligned on the occupation lately in contrast to those children whose family occupation was metal arts and crafts. Amod considers the main two reasons for his alignment in this occupation. First, the environment where he was brought up encouraged him, and second, he got the opportunity to be a trainee in the training program conducted by Yuvaraj. Amod used his metalcraft skills to run the family's livelihood for an extended period and was involved in other social activities in the community. However, he was fully aligned in this occupational sector when he started to work in the team of Yuvaraj for two years. Presently, he is working as a manager in the enterprise of Yuvaraj. Seeming satisfied, Amod envisions the brighter future of this occupation. But, he is anxious that the occupational sector lacks preservation and promotion activities from the side of the state.

Amod thinks that learning occupational skills and moving further is like a journey. He shared how he started skills learning from his tiny domestic workshop and gradually progressed in skills learning. Emphasizing his current role as the manager of a company, he proudly mentioned that "*a young boy cannot perform the managerial work*".

E.17 Swarupa: Skills Learning as an Individual Occurrence

> - *Swarupa, cafeteria owner, Kathmandu*

Swarupa is a mature lady in her forties. She represents an upper-middle-class of *Kshetriya* clan from the Kathmandu Valley. After completing a Bachelor's degree education she searched a wage job, but she could not get it. Her in-laws' family wanted that she did not align for any jobs and stay at home doing domestic chores. The father-in-law of Swarupa expressed that there was no need for her to have outside work and suggested "*staying relaxed at home*" as the family was comparatively well off. However, after not getting *Jagir* [salaried job], Swarupa had a solid commitment to running a business. She faced difficulties in pursuing family members on the matter. When they permitted doing business, there was a strong reservation about the type of business she selected. She wanted to run a restaurant, but as the restaurant business could involve providing service to diverse people, the family opposed doing that business. Ultimately, Swarupa got permission to run a bakery shop where she dealt with fewer people as take-away clients using disposable utensils. Her parents-in-law did not want that their daughter-in-law washed dishes used by other 'strangers'.

Thus, Swarupa established a bakery shop near the International Airport in Kathmandu, where some prominent organizations such as hospitals, airline offices, and construction companies were located nearby. When Swarupa managed to run the bakery shop successfully and started to make a good income, she got approval to change the enterprise from a bakery shop to a Café cum restaurant. Then she rented a spacious shop stall along the busy road and furnished it with necessary facilities and utilities. The business has been running well for nine years with a small team of female members. She seems happy with the business and with the team members. She

is glad that people learning skills here during work have become more skilful than her. During one of the interviews, she expressed such feelings stating—*"Guru jaha ko tyahin hundo rahechha, chela kahan kahan pugdo rahechha"* [An instructor might remain at the same level, but the learner would approach too far (in skills acquisition)].

Appendix F: Audit Trail- Process of Selection of Literature

(Developed Based on Randolph, 2009)

Three procedures were followed in selecting the literature

    A. Selecting the literature using CAQDAS-Atlas ti

    1. Searching the literature using key phrases

        a. informal workplace learning

        b. learning process+ learning conditions

        c. Selected literature (Among 1372 total documents from the literature folder):

            i. From the first search (informal workplace learning): 60 nos

            ii. From the second search (learning process+ learning conditions): 67 nos

    2. Created two separate folders of the selected literature

    3. Created two individual projects in Atlas ti with different related codes (of keywords): acquisition, drivers, feedback, informal workplace learning, learning approaches, learning conditions, learning environment, learning motivation, learning potential, learning process, learning style, participation, situated learning, social institution, trial and error

    4. Developed two separate Document-Code Occurrence Report

    5. Scanning through the literature selected in two projects and deciding whether to choose for the review based on criteria of whether the literature is more or less contributing to the themes of the dissertation

    B. Selection of articles from the Book: The Sage Handbook of Workplace Learning

Appendix G: Analytical Framework
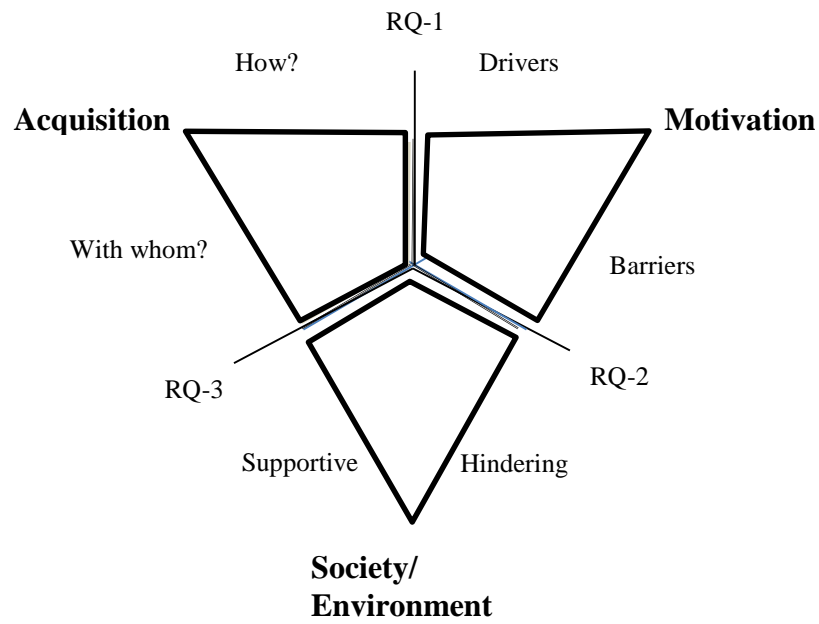
Source: Prepared by the Author based on Illeris (2007)

Appendix H: Final Code List of Atlast ti Project

Project: Dissertation_Data anal_Ph-1 (Report created by Durga Baral on 3/01/2022 Code Report All

(56) codes)

1. Field work: Fast food
2. Field work: Metal crafts
3. Field work: Two-wheeler mech
4. Field work: Pottery
5. IS Learner: multiple role
6. IS Learners: No time
7. ISL and aspirations
8. ISL and life improvement: Education
9. ISL and life improvement: Health
10. ISL and life improvement: Identity and social prestige
11. ISL and life improvement: Income
12. ISL and quality of work
13. ISL and social institution: Formal and training provisions
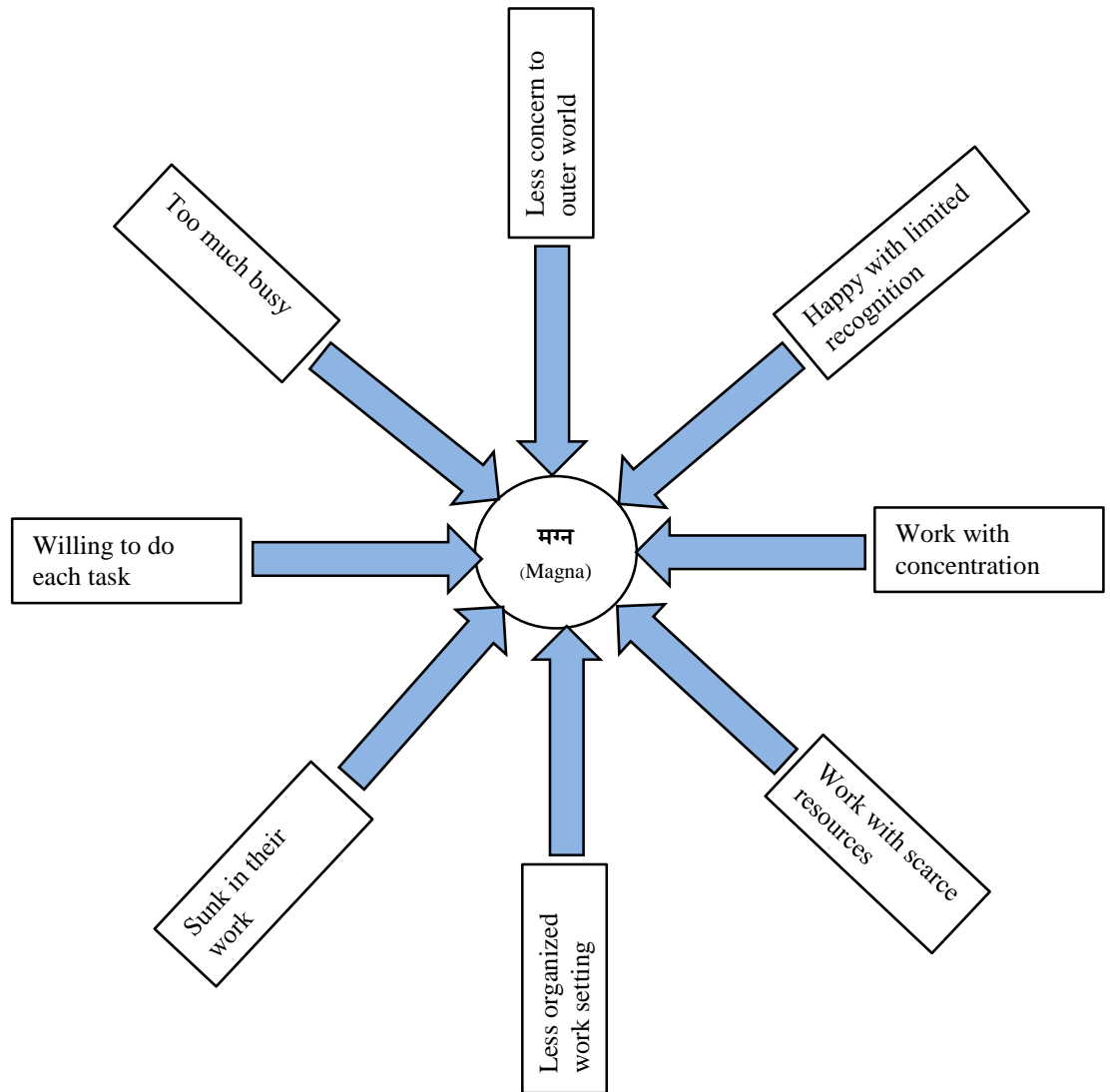14. ISL and social institution: Formal skill test
15. ISL and social institution: informal
16. ISL and social institution: Miscellaneous
17. ISL and social interaction
18. ISL demotivation: family tradition
19. ISL demotivation: Health problems and ageing
20. ISL demotivation: No acknowledgements
21. ISL demotivation: No proper instruction
22. ISL demotivation: Other
23. ISL demotivation: socio-cultural context
24. ISL motivation: Acknowledgement and recognition
25. ISL motivation: By birth
26. ISL motivation: Economic condition
27. ISL motivation: Family background
28. ISL motivation: Family tradition
29. ISL motivation: Good income possibility
30. ISL motivation: instruction-guidance-mentoring-caring
31. ISL motivation: Other
32. ISL motivation: Personal zeal and willingness
33. ISL motivation: Role model
34. ISL motivation: Socio-cultural context
35. ISL motivation: Work environment
36. ISL path: Occupational change
37. ISL social institution: Caste, race, gender, geography
38. ISL social institution: Getting employment
39. ISL social institutions: Performing work
40. ISL social intuition: Learning and career growth
41. ISL through observation-copying
42. ISL: A gradual process
43. ISL: Learning through feedback
44. ISL: Occupational/hard
45. ISL: Soft skills
46. ISL: Use of technology
47. Learn_Fast-food
48. Learn_Metalcrafts
49. Learn_Pottery
50. Learn_Two-wheeler
51. Methodology related
52. Occupation related information: Fast-food
53. Occupation related information: metal crafts
54. Occupation related information: Pottery
55. Occupation related information: Two-wheeler mechanics
56. Participants' voice: In their words

Appendix I: मग्न (Magna) as Driver for Skills Learning

Appendix J: Framework for Analyzing Informal Skills Learning Dynamics

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                          ┌─────────────────┐
                          │ Informal skills │
                          │ learners as steady│
                          │ learners        │
                          └────────┬────────┘
                                   │
                                   ▼
┌──────────────┐          ┌─────────────────┐          ┌──────────────┐
│  Learning    │─────────▶│  How an ISL     │◀─────────│  Learning    │
│ environment  │          │  learns and     │          │  potential   │
│              │          │  progress the   │          │              │
│              │          │  career?        │          │              │
└──────────────┘          └─────────────────┘          └──────────────┘
       ▲                           ▲                           ▲
       │                           │                           │
```

Learning environment	How an ISL learns and progress the career?	Learning potential
- Prod/service - Community - Workplace practice	Facilitating and hindering role of institutions/ Enabling and constraining learning environment	- H&S Skills - Incentive - Work Identity

- Hard and soft skills - ISL as time-scarce people - ISL as multi-role people - Learning approach - Organizational motivation and demotivation - Use of technology - Learning through social interaction - Feedback - Logic of production vs logic of development - Adaptive vs developmental learning - Power dynamics - Division of labour	- Personal identity - Socio-cultural drivers and barriers - Personal motivations and barriers - Identity and life change - Level of action and reflection: skill-based; rule-based, knowledge based, reflective action) - Observation, imitation, and copying - Trial and error - *Magnata*/ Stage of flow

Source: Prepared by the Author based on Illeris (2011) and Ellstrom (2011)

Appendix K: Informal Skills Learning Environment and Potentials

(Prepared Based on the Framework for Analyzing Informal Skills Learning Dynamics Provided in Appendix J)

S. No.	Element of Informal Skills Learning	Traditional Occupation		Modern Occupation	
		Pottery	Metal Arts and Crafts	Two-wheeler Mechanics	Fast-Food Café
1	**Learning Environment**				
1.1	*Production or service-related environment*				
	Main production/service	Clay pots for domestic use, cultural and religious items, art items	Sheet metal decorative items, religious and cultural items, construction and restoration of statues, monuments	Provide service of repair/maintenance of two-wheelers automobiles	Serve fast-foods
	Major hard skills acquired	Diverse skills from identification of clay type and appropriateness to the marketing of produced pottery items	Embossing, welding, finishing, decorating (Thojya, Majya, Katanjya, Chojya)	Cleaning and handling of two-wheelers to servicing and repairing engines	Cleaning, preparing crude materials, preparing items, serving foods, managing café.'
	Major soft skills acquired	Working in a team, communication skills (new language, use of courteous language, relation-building skills, estimating and calculating skills, enterprise operation skills	Being patient, working in a team, use of courteous language, relation-building skills, enterprise operation skills, and problem-solving skills	Being patient, working in a team, communication skills (new language), use of courteous language, recognizing people and their behavior, relation-building skills, enterprise operation skills, and problem-solving skills	Being patient, working in a team, use of courteous language, recognizing people and their behavior, relation-building skills, estimating and calculating skills, enterprise operation skills
	Organizational motivation: Workplace Related	Flexible working approach	Cordial work environment	Treatment of Gurus/senior craftsperson	Workplace as a family
	Organizational motivation: Work-benefit Related	Sufficient for running family expenses	Comparatively good earning Supporting families with weak economic condition	Residence and food facility Supporting families with the weak financial condition	Possibility of making extra money

	Organizational demotivation	Untidy and labor-intensive nature of the job	Unsecured work (for the wage worker) Exploitation	Unsecured work, unfavorable work-environment	N/A
1.2	*Working Community related*				
	Organizational motivation: Work team related	Family working together	Individual teamwork in overall Family's involvement	Frequent discussion about work	Managing individual concerns Probability of extra-earning through additional work
	Organizational motivation: Role model	Father	Father/ Owner	Owner	Owner
	Educational background	Very low	A mixture of high and low	Low	A mixture of high and low
	Diversity of role/task Time availability/ Scarcity	Less multi-tasking Busy but flexible nature of work	Less multi-tasking Mostly time-scarce people	Highly multi-tasking Mostly time-scarce people	Highly multi-tasking time-scarce people
	Division of labor

Degree of freedom and autonomy | Hierarchical/vertical Division of work between men and women

High | Less hierarchical and separate teamwork Women are only in administrative jobs Moderate | Highly hierarchical/vertical No participation of women Low | No hierarchy at all/horizontal Women-team

High |
	Decision Making Power dynamics	Senior family member Seniors are more powerful	Chief/ unit-chief Less power exercise	Master craftsperson/ Owner The owner is highly powerful	Individual decision/ Advisory role of the Owner Equal power-sharing
	The flow of messages, instructions, mentoring and coaching, feedback,	Mentoring, coaching and counseling exists Less sharing of ideas Feedback different among the workplaces	Mentoring, coaching and counseling exists Moderate Two-way feedback	Mentoring, coaching and counseling exists Direct supervision and instruction One-way feedback	Prompt sharing of information Two-way feedback Customer feedback highly influential
	Learning through social interaction	Limited to work community. Very few interactions with outer people.	General craftspeople have less social interaction with outer world	Moderate interaction of mechanics with outer people.	high level of social interaction
1.3	*Workplace practice and occupational phase related*				
	Use of modern technology	The use of modern technology, and IT was found negligible.	The moderate use of modern technology, and IT	The moderate use of modern technology, and IT	The moderate use of modern technology, and IT

		The logic of production vs the logic of development	Production oriented	Production-oriented with the moderate concern for development	Service-oriented	Service-oriented
		Adaptive vs developmental learning	Adaptive	Moderately developmental	Adaptive	Adaptive
		Overall learning opportunities	Explicitly less considered	Explicitly somehow considered	Explicitly less considered	Explicitly less considered
		Learning path/ continuity	Steady/ Unbreakable	Steady/ Less breakable	Steady/ highly changing	N/A
2	**Learning potential**					
2.1	*Learning type and approach*					
		Prevalence of learning type	Assimilative, accommodative and transformative	Accommodative and transformative	Accommodative and transformative	Accommodative and transformative
		Observation, imitation, and copying	Highly practiced (from generation to generation)	Highly practiced	Moderately practiced	Less practiced
		Trial and error	Prevalence	Prevalence	Prevalence	Less prevalence
2.2	*Learning motivation related*					
		Major socio-cultural drivers	Social value/acknowledgment and recognition, family condition and tradition, brought-up environment, and higher potentiality for career progress	Social value/acknowledgment and recognition, family condition and tradition, brought-up environment and higher potentiality for career progress	Family condition and tradition, the higher potentiality for career progress	social value/acknowledgment and recognition, family condition and tradition, the higher potentiality for career progress
		Socio-cultural barriers	Lack of raw materials and shrinking market demand, white-collar mentality	Social environment and family tradition, white-collar mentality	Social environment and family tradition, white-collar mentality, foreign employment craze	Social environment and family tradition
		Influential supporting informal social institutions	Family, religious and cultural institutions, seniors as gurus	Family, friends' and relatives' network, workplace, religious and cultural institutions, mediators, seniors as gurus	friends' and relatives' network, workplace, mediators, gurus and senior artisans	friends' and relatives' network, workplace
		Gender role	Hindering	Hindering	Hindering	Less hindering
		Personal motivations	Inherent abilities and interests, success in skills learning, and life	Inherent abilities and interests, success in skills learning, and	Inherent abilities and interests, success in skills	Inherent abilities and interests, success in skills

		change occurred through informal skills learning (income, health, education, social identity and prestige)	life change occurred through informal skills learning (income, health, education, social identity and prestige)	learning, and life change occurred through informal skills learning (income, health, education, social identity and prestige)	learning, and life change occurred through informal skills learning (income, health, education, social identity and prestige)
	Personal demotivation	Failure or unsuccessful at the work The physical and mental condition of a person.	Failure or unsuccessful at the work The physical and mental condition of a person.	Failure or unsuccessful at the work The physical and mental condition of a person.	Failure or unsuccessful at the work The physical and mental condition of a person.
	Magnata/ Stage of flow	Highly observed	Highly observed	Highly observed	Highly observed
2.3	***Work-identity related***				
	Personal identity/ Biography	Highly valued	Highly valued	Highly valued	N/A
	Occupational Identity and life change	More valued within the potters' community	Highly valued nationally and internationally	Valued among the occupational sector and customers circle	Valued as a family member

Appendix L: Academic Contributions During My PhD Journey

When	What	Remarks
November 2017	Enrolled in the course	Actual work started in January 2018
2018/03/05	Published Nepali article: प्रत्येक स्थानीय तहमा प्राविधिक शिक्षालयः मजाक कि मन्त्र ? (Technical School in each local level: joke or Mantra?)	5 March 2018 (21 Phagun 2074) https://www.prasashan.com/2018/03/05/57457/
2018/05/28 to 06/01	Attended Leading House course "Vocational Training: Institutions and Markets" at ETH Zurich	
2018/06/04 to 06/04	Attended PhD "Leading House" course at NADEL, ETH Zurich	
2018/08/28	Defended PhD proposal	At KUSOED
2019/04/23	Presented a paper "Aspirations of Informal Skills Learners: Pathways of Struggle for Livelihood and Learning" To Chautari Annual Conference 2019	http://www.martinchautari.org.np/files/List-of-Selected-Abstracts-for-Chautari-Annual-Conference-2019.pdf
2019/05/30 (१६ जेष्ठ २०७६)	Published an article बरालिने प्रवृत्ति र युवा (Loitering and Youth) in national daily "Nagarik News"	https://nagariknews.nagariknetwork.com/news/78335/#/.XO-ysRw7aOg.facebook
2019/07/19	Defended Qualifying Paper-I "Searching the places of informal skills learners in the TVET system of Nepal"	
2019 September	Published working paper-4: Positioning Informal Skills Learners in Nepal's TVET System	LELAM Working Papers, vol. 4, Zurich: KOF Swiss Economic Institute, ETH Zurich, 2019. https://ethz.ch/content/dam/ethz/special-interest/dual/r4d-tvet4income-dam/documents/WP_4_Positioning%20Informal%20Skills%20Learners%20in%20Nepals%20TVET%20System.pdf
2019 September	Published working paper-7: Country Case Study on Technical Vocational Education and Training (TVET) in Nepal	LELAM Working Papers, vol. 7, Zurich: KOF Swiss Economic Institute, ETH Zurich, 2019. https://ethz.ch/content/dam/ethz/special-interest/dual/r4d-tvet4income-dam/documents/WP_7_CrossCase_Study_Nepal.pdf (With two other scholars Johanna M. Kemper, Karina Maldonado-Mariscal)
2019/09/09 to 2019/09/10	Participated in the PhD workshop on Qualitative Research methods	Facilitated by Karina Maldonado-Mariscal https://r4d.tvet4income.ethz.ch/education/for-phd-students.html
2019/09/11 to 2019/09/12	Attended International Conference on Technical and Vocational Education and Training (ICTVET) in Nepal. Presented a paper entitled "Developing a typology of informal skills learning places in Nepal"	Organizing team member https://soe.kusoed.edu.np/ictvet/
27-29 November 2019	Presenter paper entitled "Asset Mapping of TVET in Nepal" to Third CTEF Indo-Nepal Internaitonal Seminar in Kathmandu	Received a certificate

2019 December	Published policy brief: Are Informal Skills Learning Valued?	https://www.dcdualvet.org/wp-content/uploads/2019_KOF_Policy-Brief_Are-Informal-Skills-Learning-valued.pdf
2020 January	Published working paper: Developing a Typology of Informal Skills Learning Places in Nepal	LELAM Working Papers, vol. 17, Zurich: KOF Swiss Economic Institute, ETH Zurich, 2020. https://ethz.ch/content/dam/ethz/special-interest/dual/r4d-tvet4income-dam/documents/WP_17_DEVELOPING%20 A%20TYPOLOGY%20OF%20INFORMAL%20SKILLS%20LEARNING%20 0PLACES%20IN%20NEPAL.pdf
2020/07/23-24	Facilitated virtual Atlas ti workshop for PhDs	Record https://drive.google.com/file/d/1v9v6gi cLxAtJmlYLevdwrwxkAcxQZmPi/view
2020/09/25	Presented TVET Case Study Report to the forum of about 50 TVET professionals and	Virtual Meeting with TVET professionals and practitioners
2020/10/09	Published Paper "Positioning Informal Skills Learners in TVET System of Nepal." In Journal of Education and Research (JER)	In Journal of Education and Research (JER) https://www.nepjol.info/index.php/JER/article/view/31897
2020/12/28	Published Paper "Developing a Typology of Informal Skills Learning Places in Nepal.	In Journal of Training and Development (JTD) https://www.nepjol.info/index.php/JTD/article/view/33847
2021/4	Published Paper 'Confined Dreams' of Informal Skills Learners: Can TVET Widen their Aspirations?	In Technical and Vocational Education and Training (TVET) Journal, Vol.- 1, Issue: 15
2021/0704	A TVET Article in Nepali: 'टीभीईटी' फलामको चिउरा (TVET as Iron Beaten-Rice)	Published in Gorakhapatra (National Daily) https://gorkhapatraonline.com/arts/2021-07-04-41083
2021/10/6	Defende Qualifying Paper-II: Researching informal skills learners: Considering work interruptions and vulnerabilities	Updated on Moodle
2021/12/18	Published co-authored paper: Technical and Vocational Education and Training Fund: Present status and future prospectus	In Journal of Training and Development (JTD) Vol. 6 No. 01 (2021) https://www.nepjol.info/index.php/JTD/article/view/41778
Ongoing	Book Chapter writing on the topic "TVET in a formal, non-formal, and informal setting: Cases from the underdeveloped context	Under the LELAM Project Team