Converging and Diverging Points of Indigenous Education and Formal Education Systems in Nepal: A Case of Tharu Community

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Abstract
This study was carried out to explore the converging and diverging points of indigenous education and formal education systems of Nepal. The entire research process of the study was guided by the interpretive-constructivist paradigm followed by case study design. Tharu teachers and students were chosen as a sample by using purposive sampling method and then in-depth interview, focus group discussion, and document analysis were used as the main methods of garnering intensive information regarding the similarities and differences of indigenous education and formal education systems primarily in reference to Tharu community. Study results reveal that both formal and indigenous education systems have their own educational goals, curriculum, teachers, and both of them impart particular knowledge and skills to the learners by using certain instructional techniques. Nevertheless, both education systems are not identical to each other in terms of learning environment, skills-focused, nature of learning, type of teachers, the medium of instruction, and assessment devices. As a result, Tharu children show poor academic performance within the formal education system as compared to non-indigenous children. Coherence between formal curricular contents and indigenous knowledge should be made to provide relevant and effective educational services to indigenous children within formal educational institutions for the purpose of improving their living standards in the future through quality education.

Keywords: Formal education, indigenous knowledge, Tharu children, curriculum, converging and diverging points.

Introduction
Indigenous knowledge is taken as an intangible heritage of numerous societies around the globe (UNESCO, 2010) since it provides necessary means of survival especially to indigenous people. Indigenous knowledge is considered as the social capital of the poor which provides a way of fulfilling the basic needs of people to sustain their lives (Senanayake, 2006). It is directly connected to the socio-cultural context of ethnic groups (UNESCO, 2009) and guides their course of living. Therefore, it has become a growing field of inquiry in the world today primarily
for those who are interested in educational innovation (Battiste, 2005) and development. The growing investigation on indigenous knowledge primarily is a response to the erosion and loss of indigenous knowledge as a result of westernization and modernization (Jacob, Cheng, & Porter, 2015; May & Aikman, 2003). Modern educational programs threat indigenous knowledge by promoting foreign values, science, language, history, and health practices (Tobin, 2004; cited in Stevens, 2008) rather giving priority to local knowledge. Strong focus on the western education system around the world keeps preventing a meaningful inclusion of indigenous knowledge and practices within the formal education system (UNESCO, 2016). Consequently, indigenous children are compelled to be alienated from their culture, values, and knowledge that have been using as a core means of their survival from generation to generation.

Formal education plays a dual role either for preserving or deteriorating indigenous knowledge. It means, education can be seen both as the main cause of the loss of indigenous knowledge as well as a potential cure to restore this loss (UNESCO, 2009) for the long run. The modern education system can play an important role in providing resources and expertise in the exploration, collection, organization, storage, and retrieval of indigenous information (Stevens, 2008). Education is also a paramount means for the enjoyment, maintenance, and respect of indigenous cultures, languages, traditions, and traditional knowledge (Lukong, 2016). By indigenous learning, we recognize the reciprocal and interactive nature of the learning process (Jacob et al., 2015). Since formal education has been transferring the ideologies of the people in power, indigenous knowledge has been denied and destroyed for centuries through the educational system organized under western or national norms by endorsing homogenization rather than plurality (Stavenhagen, 2015). Consequently, formal education does not reflect distinctive cultures, languages, and knowledge systems of indigenous people (UNESCO, 2010) and the school curricula designed for them cannot be relevant to run their future lives in a successful way. Actually, the loss of indigenous knowledge leads to a concomitant loss of literacy, school attendance, and academic achievement of indigenous children (UNESCO, 2016; Stavenhagen, 2015). These children spend much time passively in classroom settings rather than being involved actively in the teaching learning process (UNESCO, 2010). Indigenous children have not generally had access to the same quality of education as compared to their non-indigenous peers studying at a grade (Organization for Economic Cooperation and Development, 2017). Thus, indigenous knowledge and aboriginal ways of knowing should be encompassed within formal education curricula to enhance their relevancy especially for children come from indigenous backgrounds including the Tharu community.

Indigenous people use their knowledge as an inseparable part of their lives because they use it as a sole criterion to make decisions about daily life activities such as food security, health, education, etc. (Stevens, 2008; Senanayake, 2006; Boven & Morohashi, 2002) and they have been practicing different ways of teaching for handing down their knowledge and skills to new generations for centuries (Acharya & Acharya, 2009). They usually learn their ethnic knowledge by practice, experience, experiment, observation, interaction, story, rituals (Carol, 2012), and storytelling (Stevens, 2008). Indigenous pedagogies, methodologies, and research are crucial to have meaningful and sustained learning (Jacob et al., 2015) especially for the children come from diverse ethnic backgrounds. But most indigenous groups lose their skills
that can only be learned through experiences outside of classrooms, such as hunting, farming, fishing, and other survival skills, which are still useful to manage food, cloth, and shelter for a family (UNESCO, 2010). Indigenous knowledge, skills, and technologies are not adequately promoted and protected (Lukong, 2016) and ethnic people have been encountering different problems in contemporary society. Different ethnic groups including Tharu in Nepal have their own indigenous knowledge transferring from generation to generation to make their lives more comfortable and meaningful. But nowadays, their ethnic knowledge is continuously declining because of the high motivation of youths towards modern and scientific knowledge with an assumption of a utilitarian perspective.

Tharu is an ethnic group out of 126 castes in Nepal and represents 6.6% population of the country (Central Bureau of Statistics, 2012). They are socially, economically, politically, and educationally backed (Verma, 2011; Kumar, 2007) as compared to other many ethnic groups. Considering the bitter reality, the Nepal Government has been endorsing different policies and programs for mainstreaming Tharus by preserving their language, culture, and knowledge for years. Scholarships and reservations in the field of education have been offered to Tharu children to have equal educational opportunities as their same age peers come from other communities.

Education is considered as an important tool for improving the current situation of ethnic groups including Tharu by pursuing their socio-economic and cultural development (UNESCO, 2009; 2016). But the curriculum, in most of cases, enacted within the formal education system rarely reflects ethnic knowledge and indigenous ways of knowing (Champagne, 2009) to relate a greater world with local communities that ultimately causes educational gap for children who come from the Tharu community. Consequently, educational lag is resulted within the system in the form of low enrolment, high drop-out, repetition, low promotion, and poor employment rate. Bridging the gaps between formal and indigenous education systems may lead to a concomitant improvement in the access and success of Tharu children within the mainstream education system in Nepal. The formal education system, therefore, should reflect indigenous knowledge and skills to make the program more functional from the vantage points of view of Tharu children. Inclusive education policies and practices should be implemented in schools to promote their cultures, language, values and identity through mother tongue instruction. In this regard, this study was conducted to explore the converging and diverging points of Tharu schooling and formal education systems in Nepal.

**Objective and Research Questions**

Nepal Government has been implementing different educational programs (scholarship, reservation in education for example) to motivate Tharu children towards formal education, and in these days, a large portion of Tharu children are attending to schools to receive education. But indigenous children have been encountering difficulties in learning curricular content within formal educational institutions due to irrelevant contents and defective instructional techniques (Mitchell, 2017; Banks, 2016) imposed on them for a long time. In this regard, the main objective of the study is to investigate converging and diverging points between Tharu schooling and formal education systems in Nepal. Based on the objective, two research questions – how the education provided in the Tharu community is similar to formal education systems in Nepal? How these two schooling systems are different from one another? – have been answered throughout the research process.
Methodology
This study is based on the interpretive-constructivist paradigm (Creswell & Poth, 2018; Merriam & Tisdell, 2016) followed by case study design (Yin, 2018; Koul, 2009; Best & Kahn, 2007; Cohen, Manion, & Morrison, 2007). The case study answers explanatory questions (how questions for example) that deal with operational links need to be traced over time rather than mere frequencies. The case study is preferred in examining contemporary events, but when the relevant behaviors cannot be manipulated (Yin, 2018). Following the study design, Jitpur-Simara sub-metropolitan city was chosen as a research site by using purposive sampling method where significant numbers of Tharus were living. Six Tharu teachers and 15 Tharu students were chosen from three public schools by using purposive sampling method to collect data regarding the issues explored throughout the research process. Different qualitative data collection methods namely in-depth interviews, focus group discussions, and document analysis were used to collect information in terms of converging and diverging points of indigenous education and formal education systems in Nepal. Each sample teacher was interviewed approximately 35 minutes and three focus group discussions (approximately 70 minutes for each) were conducted with selected students and then gathered data were analyzed in a descriptive way by generating some themes based on the research questions proposed at the beginning of the research process. Different techniques namely triangulation, peer review, and member checking (Merriam & Tisdel, 2016; Creswell, 2015) were applied to enhance the reliability and validity of this article.

Results
Indigenous people including Tharus use various instructional techniques to deliver their indigenous knowledge to the new generationas in the formal educational institutions. This study indicates that almost all the instructional activities carried out within formal educational institutions are guided by curricula developed in advance. But the knowledge, skills, and values are taught in the Tharu community are transferred to the new generation by considering the needs, traditions, norms, and values of the community. Study results show that both Tharu education and formal education systems are similar to each other with some differences as mentioned below:

1. Converging Points between Indigenous education and Formal Education Systems
All social institutions (school, family for example) play an educative role and convey different types of knowledge, skills, and values to all members who are in their contact. An individual can collect a chunk of experiences from his/her family, community, school, and university as well. Education is a purposeful activity either it is formal, non-formal or informal; either it is scientific or indigenous. The result of the study shows that Tharu as an ethnic group plays an educative role as formal educational institutions to transfer indigenous knowledge to new generations to make them economically independent in their course of living. Almost all teachers participated in the study indicated that all-round development (physical, social, cognitive, moral, and emotional) of a child is a paramount goal of formal education system and more or less similar goal has also been followed in Tharu community to address the needs and expectations of the community members for their worthwhile living. Supporting the statement, a focus group concluded, “We can learn so many useful knowledge and skills from our family and school as well.” Indigenous knowledge, as in the formal educational institutions, is provided to each member of the community primarily to make them socially efficient, vocationally competent, and economically independent expecting
their prosperous and happy lives in the future. In this regard, a teacher indicated, “all children come from the Tharu community receive education not only from their school but also from their family and community as well to make their future lives happier, healthier, and prosperous.” The statement indicates that formal educational institutions such as school, college, and university are established to provide educational services to all learners including Tharu children. But they also obtain a chunk of learning experiences from their family and community that cannot be learned from other social institutions. Education of these children, therefore, is not only limited within formal educational institutions but they also learn diverse knowledge and skills from their family and community as well. Thus, both formal institutions and the Tharu community play an educative role to change an immature child into a good member of society.

Both the Tharu community and formal educational institutions provide a variety of knowledge, skills, and values to all learners who come to their contact based on a specific curriculum. But the curricula found in these institutions are not identical to each other. Although some social institutions including the Tharu community do not have organized, preplanned, and well-structured curriculum as available in the formal educational institutions, they play an educative role to develop intended behaviors within community members based on their curriculum, which is not found in visible and concrete form. Supporting the reality, a teacher replied, “each social institution (a family, a community, a school for example) has its own specific curriculum and each of them provides certain knowledge based on the curriculum to a group of learners for their better future.” Nevertheless, the curricula available in the formal educational institutions are more planned, structured, and concrete, and on the other hand, the curriculum exists in the indigenous community is more spontaneous, flexible, and abstract.

Furthermore, the results of the study show that different teaching-learning strategies such as storytelling, role-play, demonstration, question-answer, and discussion are used to convey indigenous knowledge to the new generation in the ethnic community. These techniques are also applied in formal educational institutions to convey curricular contents to the students enrolled at a particular class. A teacher participated in the research process informed that the instructional techniques used to convey indigenous knowledge were more contextual, learner-focused, and interactive than the instructional methods applied within a formal educational institution. In addition, findings of the study reveal that more knowledgeable people play a vital role in providing knowledge and skills to less knowledgeable people either in the formal educational institutions or in the Tharu community. However, certified teachers play a crucial role in delivering curricular contents from his/her subject area mainly within the formal education system, but in the Tharu community, more experienced people (parents, priest, relatives for example) play an imperative role for transferring indigenous knowledge to their younger generations. As a whole, the education either provided in school or in the Tharu community intends to offer a better future of learners.

2. Diverging Points between Indigenous Education and Formal Education Systems

Despite having some similarities, education provided in the Tharu community and in the formal educational institutions also has remarkable differences. Although both schools and Tharu community play an educative role; the learning environment, contents, nature of learning,
backgrounds of teachers, the medium of instruction, and assessment techniques used to educate learners who come from diverse backgrounds are found different from one to another. Study results indicate that the education provided in the Tharu community was more skills-oriented whereas the education given within formal educational institutions was found more content-oriented. The knowledge and skills that Tharu children acquired in their family and community were directly related to their daily lives and instrumental in earning a decent income for their daily living. In this regard, a teacher indicated, “the knowledge and skills learned by Tharu children from their family and community are more functional and based on their daily life situations.” They learned different daily life skills such as cooking, harvesting, fishing, waiving, building a house, etc. from their family and community as well. In the contrary, formal educational institutions were teaching them to write alphabet, word, sentence, to answer specific questions in the exams, and the like.

Furthermore, research results show that children from the Tharu community learned aboriginal knowledge, skills, and values in a natural setting. Supporting the fact, a teacher stated, “Tharu children learn different indigenous knowledge and skills through trial and error principle.” But they had to learn curricular content in contrived settings especially within four walls of classroom formal education system. Thus, the teaching-learning activities that took place in the Tharu community were context-specific but the instructional activities conducted in schools, colleges and universities were context-free and less functional to solve their daily life problems. Hence, a teacher stated, “Tharu children learn their ethnic knowledge and skills while working with their more knowledgeable family member(s), playing with their peers, and celebrating their cultural festivals.” Children could immediately use their ethnic knowledge to solve daily-life-problems but a remarkable portion of content encompassed within the formal curriculum was far from their real-life situations. It indicates that the education provided by the ethnic group was more contextual as compared to the education delivered within formal educational institutions. Generally, learners were kept in the center rather than contents while providing indigenous knowledge in the Tharu community but the condition was found just opposite in the case of the formal educational system.

Study results also reveal that different knowledge, skills, and values were taught in the integrative form in Tharu community but the content chosen from different subject areas was taught in a compartmentalized manner under the formal educational setting. In this regard, a teacher informed, “contents chosen from different subject areas are organized separately in the forms of various subjects within the formal education system and then taught by following a structured time schedule.” The education provided in the Tharu community was more spontaneous in nature but the learning that took place within formal educational institutions was more deliberated. Hence, a group of Tharu students concluded, “we learn indigenous knowledge from our family as well as community spontaneously especially while performing day-to-day activities during our course of living.” But they learned all curricular content deliberately under a formal educational setting by following a scheduled routine. In addition, experienced persons played a crucial role in teaching indigenous knowledge and skills in the Tharu community but the education is provided by certified teachers primarily within the formal education system. Even though the indigenous people did not have any formal degree of education, they could teach aboriginal knowledge and
skills to their children based on their experiences. But teachers working informal educational institutions taught a particular subject based on their expertise knowledge. Study results also depict that family members, relatives, and sometimes community members played the role of the teacher by gender to teach ethnic knowledge in the Tharu community. Supporting the reality, a focus group concluded,

*Generally, grandmother, mother, and elder sister including other females teach many indigenous skills (painting, decorating house, and coloring hands with henna for example) only to girls and male members (father, brother for example) also teach different skills (fishing, constructing house for example) mainly to boys of the community.*

Thus, a chunk of indigenous knowledge and skills were taught to children by considering their gender roles in the community. But teachers teaching in formal educational institutions taught different contents without considering gender-specific needs. In addition, study findings reveal that people use their mother tongue as a medium of instruction in the Tharu community but the Nepali language was used as a core instructional medium to deliver curricular content in the formal education system. Moreover, different methods were used to convey the same knowledge and skills by considering the individual backgrounds of learners in the ethnic community. In this regard, a teacher stated, “*different instructional techniques, in most of the cases, are used at a time to convey specific indigenous knowledge and skills in the Tharu community based on the individual needs of the learner.*” Thus, when a learner becomes unable to understand specific content through a particular teaching method then other alternative methods were employed on a required basis to impart the desired knowledge and skills. But in the formal education system, teachers usually use single and sometimes very limited methods to convey a list of content to learners. Students, therefore, should be fitted to the teaching method used by teachers rather using the methods suited to the particular learner. Finally, study results indicate that non-testing tools of evaluation were used to judge the learning behaviors of children in the Tharu community but testing devices were employed to assess the knowledge and skills learned by children under planned curricula within the formal education system. In this regard, a focus group concluded that *observation, interview, and project work are used to assess the behavior of the learners in the Tharu community but mainly paper-pencil test is used to measure the academic achievement of students within the formal education system.* Thus, there are some significant differences between indigenous education and formal education systems in Nepal even having some similarities.

**Discussion**

All institutions of society including the Tharu community play various educative roles for developing a good personality of an individual by divulging diverse knowledge, values, and skills based on their own curriculum that is existed either in a tangible or in an intangible form. Some scholars (Marsh & Willis, 1999; Tanner & Tanner, 1980 for example) also contend that each social institution has its own curriculum and a chunk of knowledge and skills was provided to people by following the curriculum. In all institutions including school and Tharu community, more knowledgeable people play a paramount role in transferring knowledge to less knowledgeable one by using different instructional techniques. Different studies also show that indigenous knowledge is transmitted through storytelling (Stevens, 2008; Barnhardt, 2005),...
observation (Stevens, 2008; Barnhardt, 2007), experience (UNESCO, 2010; Barnhardt, 2007; Barnhardt, 2005), apprenticeships, and practice (Stevens, 2008; Semali, Grim, & Maretzki, 2006). These techniques can also be used in formal educational institutions to pass on curricular contents to students including those who come from an ethnic background like Tharu children. Thus, both indigenous and formal schooling systems are identical to each other to some aspects since they play an educative role to transfer an individual into an ideal person of society.

The knowledge given within the formal education system is theoretical in nature but the education provided in the Tharu community is more practical and functional to handle daily life activities. Tharu children learn their indigenous knowledge from real-life performance in their active involvement usually in the natural environment as compared to the formal education system. Some studies also indicate that formal education lacks contextual relevance and devalue indigenous knowledge (Barnhardt & Kawagley, 2005; Barnhardt, 2005), traditional teaching strategies (Batibo, 2009), and conventional assessment techniques (Barnhardt & Kawagley, 2005). Consequently, indigenous learners including students from the Tharu community cannot perform as their peers come from non-indigenous communities. Ethnic students neither find formal educational setting exciting nor inviting as compared to their indigenous learning setting. They often feel unwelcome, insignificant, and alienated (Ornstein, Pajak, & Ornstein, 2015) under the formal education system. Tharu children learn different life survival skills such as hunting, fishing, building houses, etc. from their family and community but not from school curricula. Supporting the study results, Stevens (2008) also states that indigenous children learn some fundamental life skills from their family and community and some of them (hunting, fishing for example) are not taught within the formal education system. Tharu children have to fit themselves within the available education system rather accommodating formal educational system as per their individual learning needs. Such acculturation process promoted by formal education widens achievement gap between indigenous and non-indigenous students (UNESCO, 2016; Argeaga & Glewwe, 2014; Barnhardt, 2005), and are more likely to drop out in earlier grades (Barnhardt, 2005) and left behind with fewer opportunities for higher education (UNESCO, 2016; Briggs, 2013; Lanzano, 2013). Indigenous knowledge, therefore, should be incorporated as curricular content to improve the educational performance of indigenous learners including Tharu children within the formal education system.

Tharu children generally learn their indigenous knowledge in a natural setting which is context-specific and holistic in nature but the content taught under the formal education system is context-free and compartmentalized in nature. Supporting this result of the study, Barnhardt (2005) states that indigenous knowledge has been acquired through direct experience in the natural world, which is more practical in nature and taught in an integrative manner. Furthermore, Battiste & Henderson (2000) indicate that the indigenous knowledge systems do not have separate categories for science, art, religion, philosophy, and so on as western knowledge systems. In many cases, indigenous students do not see their knowledge and histories within textbooks and instructional materials (UNESCO, 2010; Barnhardt, 2005). Such a situation is also found in the formal education system in Nepal where the indigenous knowledge and skills of Tharu are rarely acknowledged. Consequently, a significant number of Tharu children do not show proper motivation towards curricular content and perform poorly in the exams as compared to their non-
indigenous peers. Indigenous knowledge of Tharu, therefore, should be encompassed within a mandated curriculum to make formal education programs more relevant from their vantage point of view. Different studies (Nakashima, Galloway, Thulstrup, Ramos, & Rubis, 2012; Barnhardt, 2005 for example) show that the curricula, instructional strategies, and assessment procedures associated with mainstream education do not adequately appreciate indigenous knowledge. Such condition ultimately detaches indigenous people including Tharu children from their real lives situations and compels them to be assimilated into mainstream culture.

On the other hand, certified human resources play a crucial role in transferring curricular content to Tharu children through Nepali or English language primarily in the formal education system. Even though indigenous students do not find the proper utility of formal curricular content, they are compelled to stay inside a classroom to listen to the lecture given by their subject teachers on a specific lesson. In this regard, Barnhardt (2007) also denotes that the formal education system prioritizes mono-cultural and disregards indigenous knowledge. All indigenous students including Tharu children have to participate in the exams administered by the school to show their educational performance as their non-indigenous peers to get success at a particular grade. Competency of learners is often assessed based on predetermined criteria by using various forms of objective tests (Barnhardt, 2005) but indigenous knowledge has not been reflected within test-items. Due to these reasons, indigenous students show the poor result in the exams as compared to their non-indigenous peers. Thus, the single-stream education system has alienated indigenous children including Tharu from their culture, histories, and knowledge. As a result, these children are compelled to be assimilated into other cultures mainly the mainstream culture of Nepal.

Conclusions
All social institutions of a nation play an educative role to impart diverse knowledge, skills, and values to children come either from indigenous or from non-indigenous backgrounds. Even though the Tharu community provides a portion of knowledge based on a specific curriculum to achieve certain educational goals as a formal educational institution, the knowledge and skills provided in the community are different than the knowledge and skills delivered within formal educational institutions. Tharu children, therefore, cannot learn those subject matters that they learn from their family and community as well. Nevertheless, more knowledgeable people transfer knowledge to less knowledgeable ones either in a school or in an indigenous community. In spite of having some similarities between formal education and indigenous education systems, they are different from each other mainly in terms of the nature of learning, learning environment, contents taught, the medium of instruction, and assessment techniques. Ethnic children can learn more functional knowledge and skills from their own locality as compared to formal educational institutions. In this regard, indigenous knowledge of Tharu can be used as an elevator to uplift their lives by using it as a powerful tool for fighting against poverty, unemployment, oppression, exploitation, and social exclusion that they have been facing in contemporary society. Ethnic knowledge, therefore, should be encompassed within formal education curricula to boost their learning in school by optimizing access to curricular content as their non-indigenous peers.
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