CDC Journal, Year 31, No. 45, December 2023, DOI: https://doi.org/10.3126/cdj.v31i45.68989
Received Date: December 31, 2023 Accepted Date: April 30, 2024

Local Knowledge and its Applicability in Secondary Level Classroom Instructions

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Abstract

This study aims at identifying the applicability of local knowledge in school level classroom instructions and analyzing task-based approaches, methods and techniques in classroom practices for the development of skill-based education in study areas. It also attempts to recommend some strategies for the application of local knowledge in classroom instructions for the development of practical education through functional or task-based classroom instructions. Based on the qualitative method, the data have been collected through observation and semi-structured interviews. The collected data have been analyzed by carrying out immersion, understanding, abstraction, synthesis, illumination of phenomena and integration and critique of findings. The key findings of the study showed plenty of diverse local knowledge available in study areas and proved to be very useful in carrying out teaching-learning activities in the classroom by applying various instructional techniques and curricular implementations in the secondary level.

Keywords: *Local people, local resources, local knowledge, task-based instructions, skill-oriented education*

Introduction

Knowledge, experiences and skills are supposed to be interconnected to each other and work simultaneously in education. According to Dewey (1916), education is a continued process of getting knowledge, experiences and revising or reorganizing knowledge and experiences into learning practical skills through the adjustment in environment. It is supposed to be a process of training for developing practical skills through the enrichment of inherent potentials (p. 61). Likewise, for Agrawal (1992), the productive aspect of education enables a person to do things by overcoming each and every problem through

practical skills (p. 33). These statements clearly reflect the basis of modern educational ideals that clearly focus on the practical aspects of education, relating it to functional, productive and skill-developing aspects. Likewise, Dewey (1997) puts his view again that the main purpose of education is to prepare the young for future responsibilities and for success in life, by means of the acquisition of the organized bodies of information and prepared forms of skill that comprehend the material of instruction (p. 18).

Emphasizing education as development of overall skill, Crow and Crow (2008) advocate that education is a dynamic force in the life of every individual, influencing physical, mental, emotional, social and ethical development resulting in practical values, behaviours and skills in a society (p. 53). From a different perspective of education, Smith (2006) argues that education can be part of the problem as well as part of the solution. Policies and practices at all levels within the education system need to be analyzed in terms of their sensitivity to local diversities and their potentials for the overall social development (p. 29). Smith's remarks here suggest that diversity provides various types of opportunities through the varieties of knowledge, experiences and skills available in the society. This availability equates to social development which is likely to be faster though it creates difficulties for the policy makers in making inclusion or accommodation of all the aspects in generating education policies and systems; this indicates the influential role of diversity in education.

In order to bring a real-world situation into the classroom, and develop practical skills in students through the real-life activities, there requires the students' involvement and interaction with the relevant resources available in the local environment in a socio-cultural context. Socio-cultural context includes human differences regarding their individual as well as group identification related to their particular knowledge, skills, experiences and practices. UNESCO (2011) puts forth similar ideas on socio-cultural context stating that it includes race, class, ability, different learning conditions and styles, ethnicity, age, gender, sexual orientation, religion, nationality and other dimensions that make up the individual and group practices (p. 2). According to Nwabueze (2022), the modern trends in education include event and task-oriented learning that is based on the phenomenon of social learning which requires the interaction of students with the locally available resources around them including local knowledge, experiences and skills prevailing in local people (p. 545). But the irony that I have found is that the abundance of local knowledge available to local people is found to have been ignored and abandoned and the traditionally practiced theory-based and teacher-centered classroom instructions are still being applied. It is where I became interested in undertaking this study.

Indigenous People

Indigenous people are particular socio-cultural groups of people who share collective ancestral ties to the natural resources and lands where they live, occupy or inhabit. The

interaction with land and natural resources on which they live are linked to their identities, cultures, livelihoods, and language as well as their physical and spiritual well-being. Local people are supposed to have the skills to mobilize the locally available resources for the proper benefit of their communities through specific knowledge and proper utilization techniques. Local people are supposed to possess the collective capacities for the proper mobilization of natural resources through their traditionally practiced, experience-based knowledge and skills. Local people possess knowledge about local skills and technologies. Similar remarks on local people have been put forth by Weddell (2002). According to his study, local or indigenous people from the poles to the tropics have initiated some highly effective and innovative conservation and development projects leading to the development of practical knowledge, skills and technologies (p. 32).

The scientific studies show the necessity of assimilating local knowledge of the indigenous people and partnership with local communities for the proper mobilization of natural resources for the development of knowledge, experiences and practical skills relating to various aspects of education. In this regard, Timsina and Ojha (2008) clarify, "Scientists themselves have admitted that knowledge that comes from the school and university education, is all based on the indigenous knowledge system which has existed with the community and farmers for generations" (p. 27).

The discussion above makes it clear that the scientists from their studies have admitted the existence of indigenous knowledge of local people for generations and the knowledge is a fundamental asset to use for school and university-based education. Surveying in the issue of knowledge of local people in order to get varied levels of innovations and generate useful insights into the deliberative interface of diverse knowledge systems in the context of Nepal, Ojha (2008) states that there is a significant potential of analysis of knowledge systems driving such practices towards understanding how better results can be achieved. According to them, lessons from the analysis of case studies on natural resource management in Nepal with varied levels of innovations generate useful insights into how the deliberative interface of diverse knowledge systems can be strengthened to achieve effective and equitable impact (pp. 3-4).

The argument above elucidates that the analysis of local people and the diverse knowledge they possess is very important for the development of experience-based practical education. This is mostly applicable in Nepal like in any other developing countries. The studies have found that the knowledge of local people plays a vital role in enhancing the knowledge of scientists. Focusing on the value of indigenous knowledge for the development of technologies in the field of resource management, Timsina and Ojha (2008) further elucidate "the participatory variety selection is one of the effective approaches which combine the knowledge of scientists and the local people however, the challenge is to fully recognize the value of indigenous knowledge system while developing technologies" (p. 27).

The issue emerges here is the challenge to recognize the value of the local knowledge system while developing technologies and strategies in the field of resource mobilization including teaching-learning. Illustrating the solution for the challenges mentioned, Jazairy et al. (1992) opine that indigenous intelligence, combined with enlightened training and other external assistance, may result in the development of technologies in every field that are manageable in scope do not rely unduly on imported technology, have low recurrent costs, and can be voluntarily maintained by the local communities (p. 37). Jazairy's statement on the other hand suggests carrying out proper training and other external support to make them able to develop and cope with the technologies in their own field. Giving the focus on local community people and highlighting them to be considered as the major stakeholders as an indigenous feature for the innovation of technologies in their own arena, Timsina and Ojha (2008) elucidate that the local people need to be considered as the active agents of the knowledge development process. Similarly, the policies of educational institutions need to be crafted in a way to promote a network of local people that promotes the knowledge system suitable for the community (p. 37).

The discussion above advocates for the establishment and promotion of the network of local people, formation of their community institutions and include it in the policy of the nation in order to promote their knowledge system. Attaching further information on indigenous knowledge, Timsina and Ojha (2008) explain, "based on the indigenous knowledge systems, local people are capable of selecting appropriate varieties that are suitable for their ecological and socioeconomic behaviours including their learning skills" (p. 27).

The studies discussed above suggest that local people are the fundamental assets that play a vital role in designing and shaping sociocultural behaviours through the mobilization of natural resources available locally. They also play a crucial role in developing technologies required in the field of resource utilization. This is because they possess the unique capacities, experiences and skills based on their local knowledge.

Local Knowledge

It is an account of a complete body of knowledge, know-how and practices of day-to-day life maintained and developed by local people through interactions with the natural resources and environment, generally in rural areas. According to Warren et al. (1995), indigenous knowledge is the local knowledge that is unique to a given culture or society that is in contrast with the international knowledge system which is generated through the global network of universities and research institutes (p. xv). Likewise, Grenier (1998) defines local knowledge as "the unique, traditional, local knowledge existing within and developed around specific conditions of women and men indigenous to a particular geographic area" (p. 1). These two definitions denote clearly that indigenous knowledge is a special and

exclusive type of knowledge made with the blend of culture, tradition, experience and skill in particular concerned with society and geographic area specific. It is allied with a very specific capability to solve the problems in particular. Explaining the formation process of local knowledge, Freire (1981) claims that indigenous knowledge is gained through action, workers have intimate, detailed knowledge of their everyday realities, and there is no hard and fast determinant of the truth, but rather methods (pp. 85–86). This shows that the local knowledge is formed out of everyday experiences, knowledge, truth and realities through which the local people generate the vision and reality of the world together. Similar ideas on practical and productive aspects of indigenous knowledge have been exemplified by Wilmsen et al. (2008) that people have intimate knowledge of the things with which they are engaged as they go about their daily lives. That knowledge is produced through actions and activities. Knowledge of processes and practices (know-how) is tied to the act of engaging in those processes and practices, and is difficult to convey outside of the context of doing them. A brush harvester's know-how, for example, is in the assessments s/he makes of a patch of brush s/he encounters in the field, the particulars of the permit that allow him {her}to harvest and, finally, the techniques that s/he employs in the harvesting itself (p. 39).

The discussion above shows clearly that local people possess such a type of knowledge which has been internalized through their own context. Their knowledge is practical, functional and based on a problem-solving approach because their knowledge is generated through action and experience. Such knowledge, when applied in classroom instructions, can bring a real-life situation leading to task-based activities. Showing the role of local people's knowledge in generating new technologies through cultural experience Quiroz (2002) explains that local people generate new knowledge every day; they also integrate and adapt new technologies into their knowledge system relating to their cultural experiences. It optimally utilizes available resources, exploits the existing diversity, takes into account the instability of the environment, and provides livelihoods whilst appreciating the need to sustain the productive resource base (p. 306). Quiroz's remarks denote that indigenous knowledge is generated by the local people through their everyday experiences. The knowledge is renewed and updated every day through their everyday generalizations. Through experience-based knowledge, they generate new technologies which obviously play a crucial role in the development of practical skills when connected or applied in the teaching-learning process through classroom instructions. Addressing the necessity of the recognition of local knowledge and incorporating it with real-world actions. Showing the scientific, constructive and productive outcome of local knowledge in teaching-learning, Wilmsen et al. (2008) highlight, "recognizing the importance of this knowledge and involving the knowledge holders directly in the research in no way constitutes an abandonment of the traditional concerns of conventional science for rigor" (p. 39).

It can be understood from the above discussions that indigenous people and their knowledge gained through their everyday experiences, social practices and cultural reality

can definitely enhance the activity and skill-oriented practical education. Hence, their experiences, knowledge, skills and interests are to be addressed in the various aspects concerned to the teaching-learning perspectives.

Culture and Indigenous Knowledge

From the cultural perspective, Haverkort (1994) defines local indigenous knowledge as the actual knowledge of a given population that reflects the experiences based on cultural traditions and includes more recent experiences with modern technologies (pp. 454). This defined concept of indigenous knowledge in usual sense, Roling and Engel (1989) have stated the view that local knowledge must be understood within the framework of the cultures of local people; to separate it from its cultural context is to lose sight of the meaning that it has for the survival and integrity of these communities (p. 101). This justifies that the presence of indigenous knowledge in the cultural framework is a must in order to make it lively. Relating indigenous knowledge to the culture of a nation, Warren, et al. (1996) state in their study that indigenous knowledge is considered a useful skill, and attitude needed in order to maintain national culture (pp. 96). Highlighting the importance and role of culture in acquiring indigenous knowledge, Baker (1995) clarifies that subjects should be related more closely to the learner's societal or cultural environment. In other words, the cultural context of the society which provides its settings and whose needs it exists to serve should be taken much more explicitly into account (pp. 965-704).

Baker's argument clarifies that the knowledge that consists of subject matter should be shaped by cultural aspects containing the learners' experiences acquired through the socio-cultural environment. Such knowledge he said should be set in cultural settings of the society. Regarding the learning theory to be carried out for the aforementioned context Baimba (1993) claims that the interpretations and explanations to the learners should be based on the cultural context (including local knowledge) that surrounds them (p. 213). This means the perception, interpretation and explanation of local knowledge should be carried out in the cultural context. This shows that as indigenous knowledge plays a vital role in the proper mobilization of natural resources and as the knowledge should be interpreted in the cultural context, the local knowledge should also be perceived and explained from the teaching-learning perspective as one of the important components of education

Presenting local knowledge as an invaluable national and global resource for socio-cultural and economic development, Warren et al. (1996) serve the supportive remarks that there is now an increasing awareness about the fact that the local knowledge system represents invaluable national and global resources. There are the authors who even refer to that kind of knowledge as 'cultural capital' e.g., Berkes, Folke and others (p. 3). Focusing on the accountability of indigenous knowledge in developing vocational and practical education, Warren et al. (1996) highlight that the interactions between vocational education

students/graduates and their society could be more meaningful and beneficial if they (the students/graduates) are familiar with the local knowledge existing in that community (p. 3).

The discussion above indicates that when the projects that are based on local indigenous knowledge are launched, the local group of people are motivated for the active participation in the mobilization of resources. Such participation becomes more fruitful in making socio-cultural interaction with vocational education graduates by bringing such knowledge in classroom situations and that ultimately leads to the effective and meaningful development of vocational and practical education through participatory approach. Highlighting the implementation of participatory approaches for the development of indigenous knowledge, others argue that within the context of natural resource management, participatory action approaches have enabled diverse groups of stakeholders to not only increase input, but also more importantly, to establish a fundamentally different platform to provide local knowledge (Michaels et al., 2001; Purnomo et al., 2004). This indicates a two-way relationship between indigenous knowledge and development of participatory and interactive approach. This means participatory approach supports the development of local knowledge and the priority on local knowledge enhances and encourages local community for interactive learning and if such approach brought in classroom situations, that would create the natural, practical and skill-oriented learning in real world situations. Showing the interconnection between local knowledge and community involvement for participatory and interactive approach in resource utilization including socio-cultural practices, Finn (1994) opines that from this core, community involvement always stood as a central tenet of participatory practices with the goal of coordinating local knowledge and resources to address the issues that affect local constituencies (pp. 25-42).

Illustrating the system of knowledge practiced in Nepal regarding natural resource management, the study of Ojha (2008) shows four different but overlapping systems of knowledge: techno-bureaucratic knowledge systems, knowledge systems of development agencies, knowledge systems of politicians, and knowledge systems of civil society networks (p. 3). This categorization lacks the inclusion of the knowledge system that the local people hold in the practices of socio-cultural activities. Pointing the same issue out Timsina and Ojha (2008) state in their study that lack of coordination between scientists and extension workers at the local level is a major issue in building an effective mechanism for deliberative knowledge interface between scientists and local farmers (p. 28).

Equity, gender and marginalization of indigenous knowledge systems have been some of the prominent issues in the present practice of local knowledge systems (Ojha, 2008, p. 24). The issue raised here focuses on the inclusion of indigenous knowledge in the practices of agricultural development. By giving the example of agricultural development the above-stated issue signifies the importance of indigenous knowledge for the proper utilization and development of nature including socio-cultural resources. Showing the

practices of local knowledge prevalent, Paudel and Ojha (2008) in their study reveal that there are only some who have knowledge and commitment and are trying to bridge the local and scientific knowledge that professionals and villagers hold, through informal strategic alliances across government, NGOs and communities to a small extent (p. 53). This study clarifies that there haven't been considerable attempts and efforts in identifying, mobilizing and applying the available local knowledge for the enhancement of socio-cultural and economic development. Hence, there is no inclusion of such knowledge in educational policies and strategies. This all raises major questions in me whether the locally available knowledge can be brought in the classroom and applied for developing student-centered activities in the classroom and how can such knowledge be utilized in classroom learning practice.

Objectives of the Study

- To identify the local knowledge available in the study areas.
- To analyze the applicability of identified local knowledge in classroom instructions in the study areas.
- To recommend some strategies for the application of identified local knowledge in classroom instructions.

Research Questions

- What local knowledge can be found in the study area?
- Are the identified local knowledge pedagogically significant?
- How can the identified local knowledge be used in classroom learning practice?

Research Methodology

To find out answers to the research questions, a qualitative research approach has been chosen applying hermeneutic phenomenology to find out people's lived experiences (Langdridge, 2007, p. 4) by using a method of making sense of the world as people experience it by interpreting the meaning of the experiences (Van Manen, 2014, p. 28). The aim of the researcher through this phenomenology is to explore the hidden meanings of peoples' experiences and their practiced knowledge and skills by applying an 'interpretive paradigm' which is viewed as a social construction having a central goal of seeking to interpret the social world (Higgs, 2001, pp. 48- 49). Relevant phenomenological questions through unstructured and semi-structured interviews are used for collecting experiential data from participants (Beck 2021). The experience contained data are utilized for proper phenomenological analysis and reflection which is meant to serve the purpose of producing categories to unlock meaning through the process of phenomenological interpretation, analysis, reflection, and writing (Stolz, 2023, p. 825). For this purpose, field observation,

and semi-structured interviews have been applied as processes. Field notes, photographs and voice recordings were also carried out as supportive tools and techniques.

Regarding the study location, I have considered the diverse features in the selection of study sites (Rowland & Leu, 2011), I have drawn information from three geographical pocket areas: arable plain, riverside area, and tourist area in suburbs of Sainamaina Municipality-6, Tillottama Municipality-14 and Lumbini Cultural Municipality-10 of Rupandehi district Nepal respectively.

The participants in this study were both native and migrant dwellers of identical geographical pocket areas: arable plain, riverside area and tourist area of Rupandehi district, Province no. 5, Nepal. I have included the people who were the inhabitants of selected pocket areas inclusive of males and females. The participants include twelve local dwellers, six teachers, six students, six parents, three social workers, three SMC members, three local representatives, and one educationist. The collected data were analyzed by carrying out six stages: immersion, understanding, abstraction, synthesis, illumination and illustration of phenomena and integration and critique of findings.

Result and Discussion

The identified local knowledge through field observation and semi-structured interviews in the study area has been categorized as physical, technical and social knowledge following the frame model of Kiyamaz & Mukherjee (2000) and presented in the table (see Table 1) below.

Table 1

The Identified Local Knowledge

Geo-pocket Areas	The Identified Local Knowledge: Physical/technical/social knowledge (Kiyamaz & Mukherjee, 2000.)
Arable Plain	***Physical Knowledge:*** Topographic knowledge (relief, hydrograph, vegetation) soil type, land condition, land tenure, quantifying, thatching, weather prediction, doing yoga, physical exercises etc.
	Technical Knowledge: Transplanting, Weeding, Ploughing, Field leveling, drawing water, Mapping, Diagramming, Listing, Comparing/contrasting, Identifying, Estimating, Ranking, Visual sharing/mental maps, Cross-checking, Correcting, Modifying, Sequencing, naming, etc.
	Social Knowledge: Observing, listening to others, Criticizing, Discussing, Interacting, seeking problems, Seeking solutions, Answering, Telling local history, Presenting the information map, Sharing, etc.

Riverside Area	***Physical Knowledge:*** Topographic knowledge, Land structure, Soil type, Land condition, Land tenure, Quantifying, Thatching, Weather prediction, swimming etc.
	Technical Knowledge: Transplanting, Weeding, Ploughing, Field leveling, Drawing water, Mapping, Diagramming, Listing, Comparing/contrasting, Identifying, Estimating, Ranking, Visual sharing/mental maps, Cross-checking, Correcting, Modifying, Sequencing etc.
	Social Knowledge: Observing, Listening to others, Criticizing, Discussing, Interacting, Seeking problems, Seeking solutions, Answering, Telling local history, Presenting the information map, Sharing, etc.
Tourist Area	***Physical Knowledge:*** Topographic knowledge, Land structure, Soil type, Land condition, Land tenure, Quantifying, Thatching, Weather prediction, etc.
	Technical Knowledge: Transplanting, Weeding, Ploughing, Field leveling, Drawing water, Mapping, Diagramming, Listing, Comparing/contrasting, Identifying, Estimating, Ranking, Visual sharing/mental maps, Cross-checking, Correcting, Modifying, Sequencing, classifying, etc.
	Social Knowledge: Observing, Listening to others, Criticizing, Discussing, Interacting, Seeking problems, Seeking solutions, Answering, Telling local history, Presenting the information map, Sharing, etc.

I found the above-stated physical, technical and social knowledge in three of the study pocket areas to be similar to a large extent. I also found these sets of understandings, interpretations and meanings as part of a cultural complex that encompasses language, naming and classification systems, practices for using resources, ritual, spirituality and worldview (Boven & Morohashi, 2002) providing the basis for local-level decision-making about many fundamental aspects of day-to-day life and adaptation to environmental or social change.

Such knowledge could be used from multiple aspects and purposes to develop various skills in students. To unlock meaning from the data through the process of phenomenological interpretation, analysis, reflection, and writing (Stolz, 2023, p. 825), I have categorized the use of above-stated indigenous knowledge from two perspectives as: possible common use and possible pedagogy-specific use.

Possible use of Local Knowledge

I have identified the possible common use of local knowledge (see Table 2) as follows:

Table 2

Possible Common Use of Local Knowledge

Geo-pocket Areas	Possible common use of local knowledge
Arable Plain	-Identification of relief, hydrograph, vegetation and use in farming -Timing management for plantation, cultivation and harvesting -Preparation, planning and implementation of an entire session of agriculture for a year -Mapping, dividing, classifying and ranking of available resources -Development of social skills including the documentation of social background
Riverside Area	-Identification of relief, hydrograph, vegetation and use in farming -Timing management for plantation, cultivation and harvesting -Preparation, planning and implementation of entire session of agriculture for a year -Mapping, dividing, classifying and ranking of available resources -Development of social skills including the documentation of social background
Tourist Area	-Identification of relief, hydrograph, vegetation and use in farming -Timing management for plantation, cultivation and harvesting -Preparation, planning and implementation of an entire session of agriculture for a year -Mapping, dividing, classifying and ranking of available resources -Development of social skills including the documentation of social background

Pedagogic use of Local Knowledge

Keeping the available indigenous local knowledge in my mind and seeking their possible linkage with the development of concepts on various subject items and topics linking them with the teaching-learning process including the possible activities in classroom instructions, I have identified the possible use of local knowledge in classroom instructions. These possible pedagogy-specific uses of local knowledge are based on locally available resources which were found to have been involved, mobilized and proceeded by the local people of respective geo-pocket areas as (see Table 3) follows:

Table 3

Pedagogic Use of Local Knowledge

Geo-pocket Areas	Pedagogic Use of Local Knowledge	In Curriculum	In Textbook	In Teachers' guide
Arable Plain	-Conceptualizing topographic variations, land structure connecting with the management of farming and housing through observation - Preparation and planning skills - Implementation of the plan - Plantation, cultivation and harvesting skills -Mapping, dividing, classifying and ranking skills -Socio-cultural practical skills for daily lives, sincerity and discipline	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics
Riverside Area	Teaching topographic variations, land structure connecting with the management of farming and housing through observation - Preparation and planning skills - Implementation of the plan - Plantation, cultivation and harvesting skills -Mapping, dividing, classifying and ranking skills -Socio-cultural practical skills for daily lives, sincerity and discipline	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics
Tourist Area	Teaching topographic variations, land structure connecting with management of farming and housing - Preparation and planning skills - Implementation of the plan - Plantation, cultivation and harvesting skills -Mapping, dividing, classifying and ranking skills -Socio-cultural practical skills for daily lives, sincerity and discipline	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics	Grades: 8,9 and 10 Subjects: Agriculture Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy and Economics

The local knowledge could be addressed and mentioned in the secondary level curriculum; the above-discussed knowledge could be utilized through the formulation of local curriculum associating them with the objectives through an establishment of local needs as a base for the problem-solving skills as also mentioned in the Curriculum Development Center (CDC) Nepal (2010) having a concept 'Think Globally, Act Locally.' However, I found neither the systematic inclusion of such knowledge in the curriculum nor the proper practice in teaching-learning. Searching upon the reasons I found that there is no adequate research on local knowledge for the inclusion in curriculum and the teachers do not show interest for the application of such knowledge in teaching learning because there is no provision for the practical examination for the same.

Conclusion

The identification, recognition, perception and mobilization of locally available resources and their subject matters are supposed to be carried out by proper education through practical knowledge, experience and skills. The practical knowledge, experience and skills are supposed to be the outcome of an interaction and reactions made by human beings with the locally available resources in a specific socio-cultural context. Therefore, bringing a variety of locally available resources into the classroom is bringing real-world situations for learning particular experiences and skills. Such resources can be used for classroom teaching in multiple ways depending on the level of students, the nature of the subject matter to be taught, the immediate technique of the teacher, and the situation of the teaching-learning activities. For example, they can be used for project works, field visits, demonstrations, participation or involvement and so on in grades 8, 9 and 10 in most subjects like Agriculture, Education, Occupation, Business and Technical Education, Social Studies, Science Education, Accountancy, Economics, etc. by addressing and mentioning in the secondary level curriculum. The local knowledge available to local people can be brought into the classroom by inviting or appointing local people as resource persons as they can bring their real-life experience to classrooms by applying their expertise and experiences. This can create activity or task-oriented activities in classroom instructions resulting in the development of practical insights and skills in students. Students can be taken to farms for field visits and observation tours to make them able to perceive things from various perspectives and aspects. An individual student or students in a group can be asked to carry out project work on the local people regarding their typical skills. The key workers of such local workplaces can be invited into the classroom and asked to elaborate on the activities, processes and functions of their practices for creating interactive and collaborative pedagogical aspects. Moreover, such local knowledge can be applied in classroom instructions according to the relevant subject content of social sciences and the demand of the situation to develop the students' various social and technical skills and behaviors through the formulation of local curriculum associating them with the objectives

through an establishment of local needs as a base for the problem-solving skills as also mentioned in Curriculum Development Center (CDC) Nepal.

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