

Research Article

Incorporating Local Resources for Developing Skill-based Education

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ARTICLE INFO

Received: 21/11/2024

Accepted: 06/05/2025

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Abstract

Human activities on environment and proper utilization of local resources, of course, open the door of practice and activities and ultimately lead to skill-based practical education resulting high skilled manpower easily adjustable in national and international arena and it minimizes unemployment. This study attempts to establish a connection between local resources and skill-based practical education highlighting the inclusion of local potentialities in local curriculum. Based on qualitative method, the data have been generated through PRA, classroom observation, and semi- structured interview. The collected data have been analyzed using thematic analysis under interpretative paradigm. The study has revealed the abundantly available resources or potentialities including local manpower that can be incorporated for developing skill-based outcomes in students and provides some rationale on the strategies for the development of contextual local curriculum for the development of skill-based education in study area and in general.

Keywords: Natural Resources; Local Needs; Indigenous; Resource Mobilization; Skill Development

1. Introduction

Resources in a broad sense include everything that is derivable for the use or benefit of man from any part of the universe (Worthington, 1964). Hussen (2000) defined a resource as anything that is directly or indirectly capable of satisfying human wants. A resource, therefore, is inherently anthropogenic and to a greater or lesser extent represents nature appropriated by humans (Hope, 2002). World Trade Report (2010) defines natural resources as stocks of materials that exist in the natural environment that are both scarce and economically useful

in production or consumption, either in their raw state or after a minimal amount of processing. Admitting the vital role of natural resources for the development of education, World Trade Report (2014) states that there is a correlation between natural resource abundance and the human development index, which uses statistics on life expectancy, education and income to rank countries.

Emphasizing the significant input of natural resources in an overall development of a nation, Organization for Economic Cooperation and Development (2011) stresses that the natural resources contribute towards fiscal revenue, income, and poverty reduction and owing to this fundamental importance of natural resources, they must be managed sustainably.

Stated in ancient philosophy Srimad Bhagavatagita (1980), Upanishads classify all the natural wealth in two categories: external wealth and internal wealth. Land, water, heat, air, and space come under external wealth. Skill, determination and intellect come under internal natural wealth (Srimad Bhagvatgita, 7. 4-5).

According to Hope (2002) the environment contains humans and human behaviours of all types. He claims that the prime objective of environmental management is to create and maintain a situation in which humans become as compatible with their environment as possible. This means the significant and primary factor is people harvesting the resource from the nature. People are concentrated into population in various ways of differing size and composition referring to demographic characteristics as well as sociological and economic activities.

Regarding the human beings, Worthington (1964) claimed clearly that they are the major phenomena in operating, mobilizing and harvesting the natural resources. This denotes that human beings' interaction with the natural resources determine the existence of natural resources. The way people of the particular vicinity perceive, react and handle the available resources, the value or significance of resources is determined to them. The various aspects inherent in human beings are responsible for the identification, mobilization and development of the potential natural resources.

Statement of the Problem

Nepal is known as nature's amphitheater. It is supposed to be a storehouse of natural resources containing diversity and potentiality. It is taken as a dreamland of tourists, ecologists and researchers. Each and every corner of it is reported to be full of locally available unique resources encompassing indigenous people having abundances of indigenous knowledge technologies and skills. From the mountain range to the southern belt (Terai),

there are boundless unpublished and unlisted potentialities and resources that play a vital role in leading the nation to the path of development and prosperity. The conversion of such local potentialities into experiences and skills for productive outcome on local manpower having local based practical skills primarily requires experience based education (Dewey) including practical aspects based on activity, experience and work performance. But the irony is that the curriculum of Nepal's education system lacks the utilization of locally available natural resources. It lacks the inclusion of locally available skills and local manpower (Dhakal & Koirala, 2006). Therefore, Nepal is lacking the efficient manpower having productive skills. As a result, we are unable to identify and mobilize the nationally and internationally valuable resources or raw material available at our doorsteps. Instead, we are wondering about importing the same goods and materials from other countries.

Realizing this, this study highlights the importance of the integration of local resources for the development of practical and skill based education through diversified local curriculum in order to develop skilled manpower in Nepal by putting emphasis on mobilization of locally available potentialities and provide some rationale on the strategies for the development of practical and skill based local curriculum in general and in specific to study area. The following are the objectives of this study: i) To explore the locally available potentialities, ii) To explore the relation between resource and education and iii) To examine the need of resource-based local curriculum for mobilizing local resources and developing skill based education.

Research Questions

This study focuses on answering the following research questions: i) Is there any perceived connection between local resources and education? ii) Is there any practice to connect local resource with skill development in prevalent curriculum or education? and iii) What can be the ways to integrate local resources in education through local curriculum?

2. Literature Review

Nepal is measured as the land of potentialities having the most wonderful topography in the world having some of the most outstanding natural bio-diversities and resources in the world ranging from south to north and the productivity of land differs to a vast variety and large extent, each and every corner of it is stated to be full of unique potentialities and productivities. Concerning the resource potentialities available in Nepal, Thapa (2006) states, "Owing to its greatly varied geographical, geo-morphological, and climatic conditions, Nepal occupies the most diverse ecosystem in the world" (Introduction section, para 1). Pandey et al. (1995), also support the aforesaid view that Nepal features diverse physiographic and ecological characteristics. Nepal is believed to be a storehouse of natural diversity and

resources. It is a dreamland of ecologists and researchers. Nepal possesses some of the most outstanding bio-diversities in the world ranging from the sub-equatorial rain forest in the south to the alpine deserts of the northern Tundra region (Tuladhar, 1999). Each and every corner of it is full of potentiality and productivity, illuminating this, Tuladhar (1999) further states that from Terai's fertile land to grassland tropical forests to riversides and lakes, valleys to hills, mountains to remote forests, it is estimated to be a natural and anthropological treasure land. Concerning the indigenous ethnic groups of Nepal, Koirala et al. (2011) have reported all together 59 groups including some of their culture specific definite indigenous potentialities regarding knowledge, skills and technologies. From the mountain range to the southern belt (Terai), there are boundless unpublished and unlisted potentialities and resources that play a vital role in leading the nation to the path of development and prosperity.

Resource, Experience and Skill Development

Resource is related to the behavioural and functional aspects of human beings. "Resource is neither a material nor a substance but a positive interaction between man and nature positive to approaching the given ends of satisfying individual wants and social objectives" (Sadhukhan, 1986 p. 94). There is always an interactive relation between locally available natural resources and people concerning the individual and social needs. In this respect Sadhukhan (1986) further argued, "Resource itself is not anything visible but the interacting elements, i.e., man and nature are to be seen everywhere. In this connection, Zimmermann views, "Resource does not refer to a thing or a substance but to a function which a thing or substance may perform or to an operation in which it may take part" (cited. in Sadhukhan, 1986 p.94). This clarifies that resource is related to the functional or operational aspect which is carried out through the interaction of people on the things or substances resulting various experiences.

The factual meaning of resource is associated to man's response and interaction with the environment or nature. Man's activities along with experiences turn the resource into output.

"Man's activity is the central feature of the use of natural resources available in any area and therefore he has intimate relationship with its surrounding environments for their use, production and maintenance "(Pradhan & Pradhan, 2011, p. 39)

Local inhabitants and their interactive practice on the locally available resources or environment is supposed to establish a set of experience that creates a chain relation in developing socio-cultural outlook and attitude resulting in habit formation and shaping the way of life. Linking the interactive interconnection between man's experience and environment one of the distinguished educationalists puts forward this argument, "Experience

is the result, the sign, and the reward of that interaction of organism and environment which, when it is carried to the full, is a transformation of interaction into participation and communication" (Dewey, 1980, p. 22).

The identification of local resources creates curiosity and motivates the people for the responses. Naturally they make various responses with the local resources in the environment. They involve with the resources making observation, various trials generating various activities. This process develops real practice and get real and self-experience. Ultimately with a natural and scientific generalization, they generate practical skills with knowledge. The practical skill with knowledge is the real education in a scientific sense. This again makes people able to identify the local resources and the process gets cycled naturally. In this regard Dewey, (1997) clarified, "Again, a given experience may increase a person's automatic skill in a particular direction and yet tend to land him in a groove or rut; the effect again is to narrow the field of further experience" (p.26). Dewey's clarification distinctively shows the interconnection between experience and skill. He remarks here that skill is the outcome of experience.

The aforementioned statement about the experience focuses on a vital role of environment that results experiences in a person. "The environment, the world of experience, constantly grows larger and the educator who receives the child at the end of this period has to find ways for doing consciously and deliberately what "nature" accomplishes in the earlier years" (Dewey, 1997, p. 74).

It can be argued from the above mentioned statements that skill based practical education requires the involvement or active participation of a learner in an environment which obviously is equipped with geographical resources. It can easily be claimed then that the type of geographical environment determines the type of experience the learners acquire and ultimately the type of experience the learners get determines the type of skills they get.

Educational Approach to Natural Resource Mobilization

The educational approach according to Castellanet and Jordan (2004) is the approach that believes that unwise use of natural resource is the result of people's ignorance, lack of knowledge and skills regarding the functions and values of nature. This indicates clearly that a specific education or purposeful training is a must since it plays a vital role for the proper management of natural resources. Providing knowledge and skill and informing people about the consequences of their environmental activities are certain to develop their performances in proper mobilization of natural resources. This clearly advocates for a good training program that can promote awareness that certain resources are in fact very sensitive and limited. This

realization may make people accept and even support new rules or policies of the government that will control their use of available resources in general.

Theory of Local Needs in Resource Mobilization

The theory of local needs in resource mobilization assumes that local people are supposed to have the capacity in mobilizing the locally available resources, their communities are thought to be responsible for the proper utilization of the resources. Getz et al. (1999) claim for the same, "It starts from the premise that local people have the collective capacity to manage natural resources; in community-based conservation programs, local communities are responsible for managing their natural resources" (pp. 378-379). Local indigenous people possess the knowledge about the local resources. Similar remarks on indigenous people have been put forth by Weddell (2002); according to his study indigenous people from the poles to the tropics have initiated some highly effective and innovative conservation and development projects. These reflect a strong desire for self-determination as well as knowledge of local resources and an appreciation of the importance of managing them sustainably. 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 him, lessons from the analysis of case studies on natural resource management in Nepal with varied levels of innovations generate useful insights into how deliberative interface of diverse knowledge systems can be strengthened to achieve effective and equitable impact.

The argument above elucidates that knowledge system and its analysis is very important in making policies and programmes on participatory natural resource management and understanding how better result can be achieved. This is mostly applicable in Nepal like in any other developing countries. The outcomes from the case studies concerning the same in Nepal show that the diverse knowledge of local people are the effective tools in making policies and programmes on the proper management and utilization of the locally available natural resources.

Likewise, (1992) states, "Indigenous intelligence, combined with enlightened training and other external assistance, may result in flourishing technologies which are manageable in scope do not rely unduly on imported technology" (p.37). Jazairy's statement suggests for carrying out proper trainings and other external supports for making them enable to develop and cope with the technologies in their own field.

The studies discussed above suggest that indigenous people or local manpower is the fundamental aspect that plays a vital role in 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 capacity, experience and skill based on their locally acquired indigenous knowledge.

Local Needs and Resource-based Curriculum

Taba (1962) claims strongly that the investigation of local needs is the first and foremost aspect of curriculum development. The local needs, according to him, contain all the potentialities inherent in local resources. Local needs are created by locally available resources and interaction of local people with the resources around them, Taba's theory designates that local development and prosperity are hidden in the local potentialities so inclusion of such potentialities in curriculum or education of the society is a fundamental need. The identification hidden potentialities underlying in locally available resources is supposed to be as important as to identify the physical needs of the human body. As human skills and experiences are acquired through the interaction with the environment and as an environment comprises of various resources, the inclusion of local resources as local need in curriculum leads to the development of experiences and skills in learners; as a result the theoretical education is converted into activity-based, practical and skill-oriented education. Moreover, such phenomenon leads to proper mobilization of local resources creating independence, economic development and prosperity in a society. Hence, the theory suggests the education system of a society or nation to address the issue of local need by making rigorous inclusion of local resources in a curriculum.

Local Curriculum and Skill-based Education

Local curriculum is formulated to address the local potentialities and their mobilization through the activity based textual organization. Savage and Evans (2015) claim that developing a Local Curriculum explores how local area and its resources/potentialities can be used as a fundamental need, stimulus and inspiration for curriculum development. It examines the ways in which the geography, history, culture, tradition, art, architecture and people within local area can enrich the learning experiences offered to students to make them more relevant and meaningful. Local curriculum by providing real life situation provides opportunities to students in getting engaged in various practical activities; such activities provide them a platform in developing practical skills leading them to be skilled manpower of their society and nation.

This shows how the diverse and rich geography, histories and cultures of Nepal can be developed through an understanding of the local area. It also reveals how engaging with the 'local potentialities' can help developing practical skills and experiences in local manpower by providing practical guidance on engaging with the local community in innovative ways. This proves that inclusion resources in local curriculum in Nepal in the context of developing local

potentialities is a basic need which is supposed to lead the country on the path of development and prosperity through skill-based education.

3. Materials and Methods

To find out answers of the research questions, a qualitative research approach has been chosen applying hermeneutic phenomenology to find out people's lived experience (Langdrige, 2007, p. 4). The aim of researcher through this phenomenology is to explore the hidden meanings of peoples' experiences, their practiced knowledge and skills by applying 'interpretive paradigm' which is viewed as a social construction having a central goal of seeking to interpret the social world (Higgs, 2001). 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). For the purpose, field observation, and semi-structured interview have been applied as research tools. Field notes, photographs and voice recording were also carried out as supportive tools and techniques.

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. I have done thematic analysis abstracting the information from the relevant categories or themes to obtain an interpretation. My research design contains some validation strategies (Padilla-Diaz, 2015) and I have also provided a summary of the findings of major themes and issues. I have vigorously reported the findings using direct quotations of the research participants and interpretation through descriptions rather explanation (Qutoshi, 2018).

The participants of this study are from Dudharakshya, Sainamaina Municipality Rupandehi, one of the most fertile areas for agriculture in Nepal. The local participants consisting 10 peasants, 5 businessmen, 5 teachers, 5 students and 3 local representatives from ward office.

4. Result and Discussion

The collected data from the study site have been analyzed applying six stages: immersion, understanding, abstraction, synthesis and theme development, illumination and illustration of phenomenon and integration and critique. The data collected from semi-structured interview were analyzed thematically. On the basis of thematic analysis, the emerged themes are as follows:

Theme I: Local resources are in the condition of negligence

We have a lot of natural resources like jungle, rivers, ponds, streams, grasslands, fields, arable and fertile land etc. People of this area have various indigenous knowledge and skills but all these resources are in the condition of negligence, being destroyed, misused and degraded. (Sahadev Chaudhary, a peasant: 07/10/2024)

We have fertile land; our country is agricultural country but we import a large amount of rice and other food stuffs from India. This is very bad symptom for our country. (Basanta Bhattarai, a businessman: 07/10/2024)

Theme II: Mobilization of local resources is a very important factor for local development

We have enough potentialities of agriculture, poultry farming, fish farming, pig farming, producing off seasonal vegetables and many more... Not only these but also we can invite tourists at our house, welcome them in our village, make them participate in our cultural activities, create home stay and develop our area by making it beautiful. There is no need to go to Arabian country for making labour, we will have development and opportunities in Nepal but everything is neglected and ignored... (Tulsiram Tharu, a teacher/student: 09/10/2024)

Theme III: One of the main causes of resource destruction is lack of awareness and education

Until and unless the people are well educated and trained this problem will never be solved. You know, people around are ignorant and unaware about the conservation and protection of natural resources, most of the youth are in gulf countries and political leaders never care for these resources. (Saroj Bhattarai, a teacher: 09/10/2024)

Theme IV: The prevalent education is not playing a remarkable role in mobilizing local resources

I have completed formal education spending many years but it did nothing for my agricultural development. I went to Lukhnow (India) and took only two months vegetable planting training. That training has changed my life. I have developed a kind of professionalism in planting vegetable in this area. I produce a remarkable amount of it and make good earnings and making my living far better than before. (Mohan Tharu, a peasant: 09/14/2024)

Theme V: Skill based education or training plays a vital role mobilizing and developing local resources

For me, two months training has been proved to be much more beneficial and practical than the education that I got spending many years. This is because I got practical skills from the training that helped me in mobilizing agricultural resources professionally. (Nathu Tharu, a peasant: 09/14/2024)

Theme VI: Local resource-based curriculum is necessary for the development of practical and skill-oriented education

Most of this area contains fertile arable plain and people are based on agriculture. But the subject-matter related to agriculture is not taught in the school here. We are still following traditional agriculture system; the production is very less. People are being distracted to agriculture. Various social evils are emerging. Fertile arable lands are being plotted in haphazard way. In my opinion, this school should give the education related to local need. Only then the education becomes practical, skill-oriented and beneficial to all of us (Gopal Pokhrel, Ward Chairperson: 09/17/2024).

5. Conclusion

This study conducted in interpretive paradigm using thematic analysis, in order to explore and draw the hidden meanings of peoples' experiences (the essence of a phenomenon), their practiced knowledge, skills and technologies (Van Manen, 1990), was carried out applying phenomenological methodology. The tools and techniques chosen for the collection of required data are: resource mapping exercise, observation and interviews. Field notes, photographs and voice recording were also carried out as supportive tools. The collected data were analyzed applying the six stages: immersion, understanding, abstraction, synthesis and theme development, illumination and illustration of phenomena and integration and critique of findings and emerged findings were presented in six themes. Informed consent for ethical issues was maintained by protecting four constituent elements: disclosure, comprehension, competence, and voluntariness.

The researcher from PRA found that the indigenous and local people of the selected study area possess varieties unique knowledge, skills and technologies. As stated literature claim that proper education and training play a vital role in proper mobilization of such potentialities but no provision from government level and education sector for the proper utilization of such potentialities has been found. In order to carry out overall development of society, proper mobilization of local resources has been found as one of the major aspects but no attempt from local and government level has been found.

Development of local manpower and its mobilization has been found as the most important aspect to carry out a proper development in overall fields of local level. It has been found from the observation that the resources around have been found in the condition of negligence, misused, overtaken, destruction and in pitiable condition. Regarding the responsible causes for such condition in study area, mainly three causes have been found from the interview: lack of awareness and ignorance, lack of relevant trainings and government action. As education has been discussed in earlier chapters and taken as the basic foundation for the resource development, it should be tied up with the local resources as a local need. Resource-based local curriculum should be formulated and implemented both in formal and informal modes of education in the study area for the permanent and sustainable solution of this problem. Formulation and implementation of local resource-based curriculum is the ultimate conclusion of this study in order to lead the proper mobilization of local potentialities along with the overall development and prosperity of nation through skill-based education.

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