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Perceptions of Preservice Teachers Towards Inclusion of Indigenous-Knowledge in the Curriculum

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Abstract

In the present times, as countries align themselves with globalisation, the memory of indigenous knowledge and cultures and the concern to preserve it, remains. Curriculum framers and education policy makers attempt to balance between the demands of neo-colonialism and the inclusion and representation of indigenous knowledge in the curriculum. However, it is important to study the attitudes and reactions of both, teachers and students towards this step. Efforts have to be made by curriculum makers to know if teachers and student wish to study their indigenous ways; what and how do they wish to study it, so that the curriculum includes the expectations of teachers and learners alike, rather than being prescriptive and authoritative. This study attempts to explore the perceptions of pre-service teachers in Bengaluru towards the inclusion of indigenous knowledge in the mainstream curriculum. Challenges and ways forward are discussed.

Keywords: *indigenous knowledge, curriculum, preservice teachers, teacher education*

Introduction

Indigenous Knowledge refers to local knowledge that is unique to a culture or society. The term is synonymously used with 'local knowledge', 'folk knowledge' or 'traditional knowledge'. This type of knowledge is passed from generation to generation orally or through rituals. The knowledge has sustained and has been the basis for agriculture, education, health care, conservation and a wide range of activities that aid in sustaining societies all over the world. ("Indigenous Knowledge and Sustainability")

India is home to diverse local communities who have a history of interacting with the natural environment. The communities have treasurable knowledge, which could sustain populations against marginalisation, poverty and impoverishment. Indigenous knowledge in the country comes from varied sections of population and groups like farmers, fishermen and pastoralists whose knowledge is rooted to a specific place or has developed with occupancy of several generations. ("Indigenous Knowledge | Anthropological Survey of India")

Close to two decades back, the National Curriculum Framework 2000, in its second chapter titled 'Organisation of Curriculum at Elementary and Secondary Stages' reflected the realisation that in order to make education meaningful and relatable to the Indian learners, it was essential to shift to a curriculum that was rooted in indigenous traditions. The framework expressed concern that India, would not flourish, by merely 'importing' or 'borrowing' what was happening elsewhere or resolving issues to problems that were faced elsewhere. The NCF (2000) called for the judicious use and drawing from traditional knowledge systems to find solutions to issues of health, water management and population explosion.

In 2005, the NCF reiterated the need to include indigenous knowledge in the curriculum, by encouraging plurality of textbooks and other material. With a special emphasis on implementing constructivist methods of teaching and learning in the classroom, the framework stressed upon the importance of incorporating the child's community and local environment, while teaching from the textbook. The aim of this way of teaching and learning was to provide knowledge to connect withe the world. It was realised that unless learners locate their standpoints and experiences in the textbooks, the knowledge is reduced to mere information. One of the principles of approaches to knowledge in the curriculum was to engage with indigenous practices in the community and relating it with school knowledge, whenever possible.

Joe McCarter and Michael C Gavin, in their study titled 'Perceptions of the value of traditional ecological knowledge to formal school curricula: opportunities and challenges from Malekula Island, Vanuatu' highlight how inclusion of traditional knowledge into the school curricula could improve the delivery of educational objectives. The interviews revealed that the stakeholders believed that traditional knowledge could be included in the curricula, provided there was an appropriate format developed. The respondents expressed their concern over epistemological barriers to teaching traditional knowledge in schools - tensions between private and public forms of knowledge, multiplicity in values. Koopman presents how the inclusion of indigenous knowledge could 'domesticate' and 'infuse' Western Science. Discussing Jegede's collateral learning theory and Piaget's cognitive development theories, he points out the cognitive challenges of learners when the focus is only on Western knowledge in the classroom.

This paper explores the perceptions carried by preservice teachers in Bengaluru towards the incorporation of indigenous knowledge in the curriculum to assess the relevance of indigenous knowledge in the curriculum in the present, challenges faced by teachers to implement this inclusion and changing perceptions towards indigenous knowledge.

Methodology

A 15-item questionnaire with a 3-level Likert scale was developed, based on the initial research conducted on the topic. The items on the questionnaire were validated by experts, after which a pilot study was carried out among 100 preservice teachers. Suggestions and feedback were collected and minor changes were made. The questionnaire was then distributed among 100 preservice teachers in Bengaluru.

The responses received were as follows:

S. No.	Item	Agree	Neither Agree nor Disagree	Disagree
1	**The inclusion of indigenous knowledge in the curriculum would make the content more relatable to the learners.**	70%	12%	18%
2	**Teachers would have to employ constructivist methods of teaching while including indigenous knowledge in the content taught.**	80%	20%	22%

S. No.	Item	Agree	Neither Agree nor Disagree	Disagree
3	**The inclusion of indigenous knowledge in the curriculum would encourage teachers to sensitise themselves about diverse indigenous practices/ knowledge systems.**	80%	8%	12%
4	**There should be a blend of indigenous knowledge and knowledge that cater to the demands of the fast changing world in the curriculum.**	68%	16%	16%
5	**Members of the indigenous community must be deputed to teach indigenous knowledge in classes, rather than teachers.**	33	14%	20%
6	**Inclusion of indigenous knowledge in the curriculum would make teaching strenuous for the teacher.**	52%	28%	20%
7	**Indigenous knowledge of the local communities should not be included in national curriculum.**	22%	14%	64%
8	**Indigenous knowledge of the local communities should be included in the state level curriculum.**	70%	24%	6%
9	**The inclusion of indigenous knowledge in curriculum would not benefit students studying in urban schools.**	30%	8%	62%
10	**Inclusion of indigenous knowledge in the curriculum would encourage to develop multicultural perspectives towards various topics.**	84%	14%	2%
12	**Indigenous knowledge cannot be incorporated in Mathematics and Science subjects.**	60%	2%	38%
13	**Incorporating indigenous knowledge in the curriculum would lead to sustainable development.**	84%	6%	10%
14	**Availing teaching materials while teaching about indigenous knowledge would be very difficult.**	60%	12%	28%
15	**Including indigenous knowledge in the curriculum would encourage learners to connect to their families and community.**	86%	6%	8%

Table 1: Total responses received from preservice teachers

Discussion

The responses received revealed varied perceptions of preservice teachers towards the inclusion of indigenous knowledge to the main school curriculum. While preservice teachers popularly agreed that the inclusion of indigenous knowledge would make the content more relatable to the students; students would be sensitised about diverse indigenous practices, a popular concern about blending indigenous knowledge while teaching subjects like Mathematics and Sciences was recorded. Preservice teachers remained unsure about the kind of teaching materials that could be used while teaching the class about traditional knowledge and were of the opinion that it could make teaching strenuous for the teacher. There is a clear

conflict the inclusion of traditional knowledge in the national level curriculum over the state level curriculum. This is possibly due to the concern of reception of various communities if a certain indigenous practice was represented in the curriculum over the other.

Conclusion

Having examined how advantageous and essential the inclusion of traditional knowledge in the curriculum is, the findings in the study reveal the need to provide exposure and develop sensitivity about indigenous knowledge and practices in teacher education. Teacher education could focus on providing experiences to the future teachers, that help them realise the utility of local knowledge and identify the communities that relate to them. This would enable them to access local knowledge easier and bring elements of it to the class-room, in the form of examples or anecdotes. Teachers can be encouraged to develop content, where complex concepts are explained through the narrative of the local context. An emphasis can be laid on blending indigenous knowledge equally, in all subjects and breaking myths that they are easily adaptable to a particular stream alone.

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