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Experiential Learning as an Effective Pedagogy to Impart Indigenous Knowledge: Teachers' Perception

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ABSTRACT: The vision of New Education Policy 2020 to inculcate deep rooted knowledge of India among all learners can be fulfilled when the indigenous knowledge is integrated in the school curriculum. This goal can be fulfilled through a potential pedagogy. Experiential learning can be considered as an effective pedagogy to impart indigenous knowledge. The present study focuses on the objectives — knowing the teachers' views on integrating indigenous knowledge in school curriculum and examining the perception of teachers on experiential learning as an effective pedagogy to impart indigenous Knowledge. The hypotheses proposed are: i) There is significant importance in the teachers' views on integrating indigenous knowledge in the school curriculum. ii) There is no significant difference between male and female teachers' perceptions of experiential learning as an effective pedagogy to impart indigenous knowledge. iii) There is no significant difference between the perceptions of trained graduate teachers and postgraduate teachers on experiential learning as an effective pedagogy to impart indigenous knowledge. A sample consisting of 62 teachers from the population of five AP model schools in Visakhapatnam District of Andhra Pradesh was collected using Random sampling techniques. The data collected through an open-ended question from the participant teachers were analysed by pooling the common views. The data collected through a questionnaire consisting of 25 items were quantitatively analysed using a t-test. Data analysis of Hypothesis 1 revealed that participant teachers have high levels of perception of experiential learning as an effective pedagogy to impart indigenous knowledge. Furthermore, the statistical values obtained for the demographic variables: gender and designation regarding hypotheses 2&3 show no significant difference between the perceptions of Participant teachers (male/female and Trained Graduate Teachers and Post Graduate Teachers) on experiential learning as an effective pedagogy to impart indigenous knowledge. Hence, Hypotheses 2&3 were accepted, which indicates that participant teachers had similar levels of perceptions.

KEYWORDS: Indigenous Knowledge, Experiential Learning, Cross-curricular Pedagogy, Teachers' perception

I. INTRODUCTION

The mystic land of India owns an accumulated treasure of diverse culture and knowledge developed over thousands of years and is manifested in various forms.

It is a well-known fact that the fundamental component of any country's knowledge system is its Indigenous Knowledge. (Hindle & Lansdowne, 2007). So, what is indigenous knowledge? It is a context-specific, locally acquired knowledge that is accumulated over a long period of time and is unique to a particular community, culture or society. (Sillitoe and Marzano 2009) In other words, indigenous knowledge is native, ancestral knowledge that has been transmitted from one generation to another generation through the collective memory of its people both orally and by practice.

Indigenous Knowledge includes insight, skills and experience of indigenous people, which has been useful over the years towards maintaining and improving their livelihood (Subba Rao 2006). It originates from trial and error rather than theory and tends to be retained within particular communities. As it gets deeply embedded in every sphere of life of the community in which it originates. It lay hold of the intrinsic nature of the people, of the place and the natural and built context they exist in.

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The vision of New Education Policy 2020 is to inculcate deep rooted pride in being Indian among all learners. This pride should not only be in thoughts but also in deeds, spirits, and intellect. It must yield a truly global citizen by developing knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living and global well-being — this implies the importance of indigenous knowledge for the progress of nation.

The key propulsive force of pedagogy and curriculum reforms of the education system advocates that aim of education will be on building character and creating holistic individuals. Indigenization of curriculum demands much more than just including the indigenous content. Our post-independence education system has, since its inception till the present days, valued western ways of thinking. But now the situation demands specific ways of instructions or pedagogies are to be identified to instil a set of skills and values through engaging process of teaching and learning. This proposes the teaching and learning to be conducted in a more interactive, creative, collaborative, exploratory for deeper and more experiential learning.

Experiential learning: As the name indicates is the process of making meaning from direct experience in real world context. It provides the learners the opportunity to initiate life long learning through generating and applying the knowledge and skills in the context of different learning settings. It is an established pedagogy to accelerate learning and provide a safe learning environment with increased engagement levels of the learners. It is an established pedagogy to accelerate learning and provide a congenial learning environment with increased engagement levels of the learners.

The National Education Policy 2020, recommends a pedagogy which encompasses hands on learning, art-integrated, sports integrated with exploration of relations among different curricular subjects. In this context Experiential Learning can be a potential cross curricular pedagogy. It has a broad scope to encompass various categories of learning including community engagement, art, craft, sports, languages, culture and science. Hence can prove to be an effective pedagogy to impart Indigenous Knowledge also.

Research Questions:

• Is integrating indigenous knowledge necessary in school curriculum?

• What are the teachers views on integrating indigenous knowledge in school curriculum?

• How do teachers perceive experiential learning as an effective pedagogy to impart indigenous knowledge?

Objectives:

The following objectives were framed for conducting the present study:

• To know the views of the teachers on integrating indigenous knowledge in school curriculum.

• To know the perception of teachers on experiential learning as an effective pedagogy to impart indigenous knowledge

Hypotheses:

The following hypotheses were proposed to conduct the present study:

1. There is a significant importance in the views of the teachers on integrating indigenous knowledge in school curriculum.
2. There is no significant difference between the perceptions of male and female teachers on experiential learning as an effective pedagogy to impart indigenous knowledge.
3. There is no significant difference between the perceptions of trained graduate teachers and postgraduate teachers on experiential learning as an effective pedagogy to impart indigenous knowledge.

Method And Procedure

In view of the objectives of the present study, the researcher adopted Descriptive Survey, method. The investigator made use of both qualitative and quantitative means to collect the data.

Sampling and Sample:

The present study was conducted in Visakhapatnam district on the teachers working in Andhra Pradesh Model Schools. The statistical population consists the teachers working in five model schools functioning under the management of Andhra Pradesh government. Random Sampling Technique has been used to select the sample for the study. The variables in the study includes indigenous knowledge as independent variables and experiential learning as a dependent variable. These variables are measured based on the data collected qualitatively by means of grouping of common views and quantitatively by means of testing the hypotheses using the demographic variables (gender - male/female and designation - Trained Graduate Teachers/Post Graduate Teachers).

Keeping this in view a sample of 62 teachers was selected randomly with care from five model schools of Visakhapatnam district, to include the demographic variables. Out of the 62 teachers 28

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were males and 34 were females representing the demographic variable - gender. 23 Trained Graduate Teachers and 39 Post Graduate Teachers representing the demographic variable – designation.

Tools used:

To collect the qualitative data one open ended question regarding the views of the teachers on integrating indigenous knowledge in school curriculum was posed and participants were asked to respond using their own words and thoughts, so as to get a range of possible free responses rather than restricting to a choice among the stated alternatives.

The tool employed for quantitative data collection by the investigator a self prepared questionnaire consisting 25 close ended items to be scored based on 5-point Likert scale (1=Strongly Agree, 2= Agree, 3=Undecided, 4= Disagree, and 5=Strongly Disagree). Score range in this questionnaire is 25-125. The prepared items in the questionnaire were designed to best elicit responses that fit the research questions. The items in the questionnaire were validated through the consultation of subject experts in education. Therefore, the tool has content and construct validity.

II. RESULTS AND DISCUSSIONS

The research Hypothesis 1: "There is a significant importance in the teachers' views on integrating indigenous knowledge in the school curriculum." was qualitatively analysed by means of pooling the common views obtained for the open-ended question, "Why is it necessary to integrate indigenous knowledge in school curriculum?" From the 62 responses given by participant teachers to the above question, the pooled common views are as follows -

Integrating indigenous knowledge in the school curriculum

- facilitates the preservation and promotion of our cultural wealth.
- plays a vital role in the conservation and management of our natural resources.
- inculcates ethical and moral values in school children.
- enriches the knowledge and paves the ways for indigenous innovations.
- enhances the socio-economic development of our nation as it aids small-scale cottage industries to flourish.
- forms basis for low-cost technologies which provide alternative solutions to our local problems.

Apart from the above views, some teachers express negated views that

- it hampers technological growth and modernisation of our country.

This implies that there is significant importance in the teachers' views on integrating indigenous knowledge in the school curriculum. Hence, Hypothesis 1 is accepted. From the views of teachers, it is evident that they have sufficient knowledge regarding the importance of indigenous knowledge; however, it is not included in the present curriculum.

To examine Hypotheses 2&3, the collected data were quantitatively analysed in line with the research questions using a statistical test (mean, standard deviation). The data regarding the participant teachers' overall responses were examined first. Mean and descriptive statistics are given in the table below.

Table 1: Mean and descriptive statistics of participants

Variable	N	Mean	SD
Perception of Teaches	62	109.226	12.272

Table-1 shows the mean score of participant teachers' overall perception of experiential learning as an effective pedagogy to impart indigenous knowledge. It is found to be 109.226. The findings make it apparent that participant teachers have a high level of perception of experiential learning as an effective pedagogy to impart indigenous knowledge.

To know whether the participant teachers' perception of experiential learning as an effective pedagogy to impart indigenous knowledge differ with respect to demographic variables, gender (Male/Female), and designation (Trained Graduate Teachers and 39 Post Graduate Teachers), a t-test was conducted, and the results of the analysis are represented as presented below

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Table 2: t-test results in relation to gender of participant teachers

Variable	Groups	N	Mean	SD	df	t
Gender	Male	28	109.286	12.258	60	0.035
	Female	34	109.176	12.316		

Graph 2
t-test results in relation to gender of participant teachers.

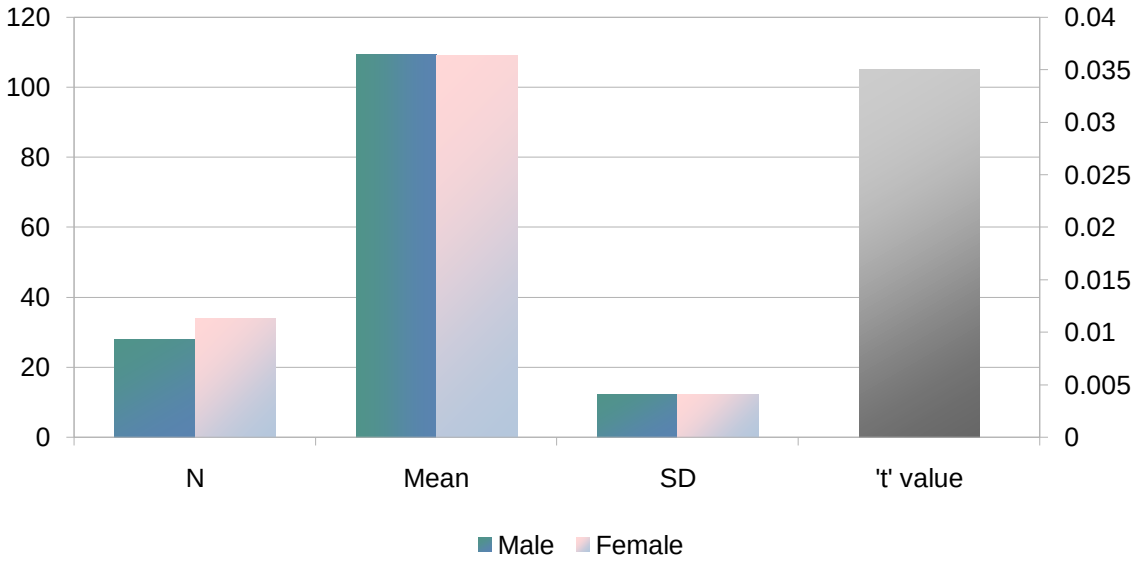

Table 3: t-test results in relation to designation of participant teachers

Variable	Groups	N	Mean	SD	df	t
Designation	Trained Graduate Teachers	23	109.739	12.281	60	0.128
	Post Graduate Teachers	39	110.154	12.529		

As presented in Table 2 above, the statistical values for the demographic variable, gender shows the 't' values ($t = 0.035$, $p > 0.05$). The value was not significant at 0.05 level of significance. This observation points out that there is no significant difference between scores obtained by female and male participant teachers towards the perceptions of experiential learning as an effective pedagogy to impart indigenous knowledge. Hence, Hypothesis 2 is accepted. This observation implies that both the male and female participant teachers have similar levels of perceptions.

Furthermore, as seen in Table 2, the statistical values for the demographic variable, designation shows the 't' values ($t = 0.128$, $p > 0.05$). This observation reveals that the value was not significant at 0.05 level of significance. This observation indicates no significant difference between the perceptions of Participant Trained Graduate Teachers and Post Graduate Teachers on experiential learning as an effective pedagogy to impart indigenous knowledge. Hence, Hypothesis 3 is accepted, which indicates that participant teachers

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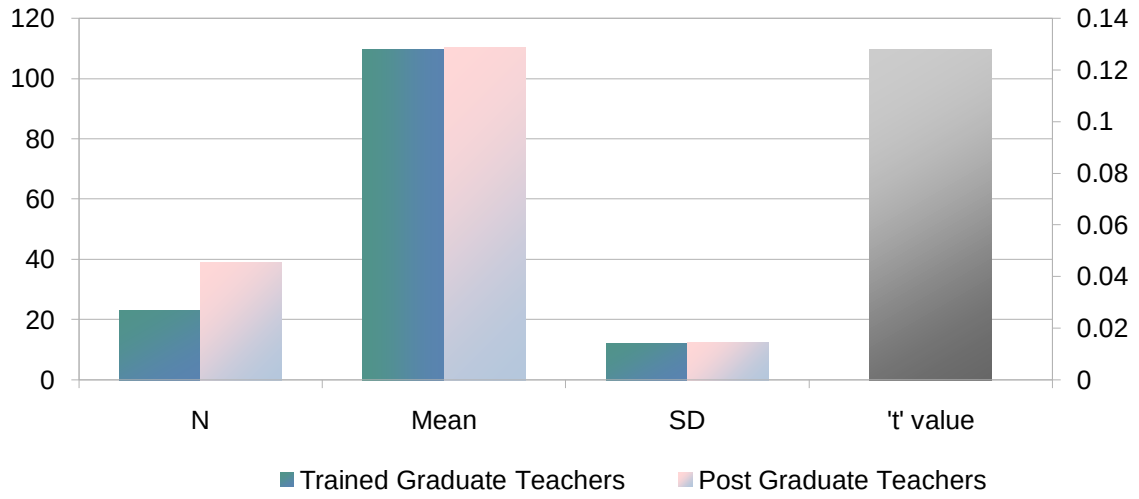
with different designations had similar levels of perceptions.

Graph 3
t-test results in relation to designation of participant teachers.



III. CONCLUSION

The outcomes of the present study were obtained through qualitative data obtained from an open-ended question, and the quantitative data analysed through t-test provides insight that teachers have sufficient knowledge regarding the importance of indigenous knowledge; however, it is not included in the present curriculum. Therefore, this research study indicates the need for further research as not much is known and revealed of its application strategies in the present school curriculum through effective pedagogy.

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