

DEVELOPMENT OF SECONDARY ENGLISH TEACHERS' PCK (PEDAGOGICAL CONTENT KNOWLEDGE) MEASURING TOOL

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ABSTRACT

Though English has been popularized day by day, it was found that academic performance of students on English is not satisfactory level in India as well as in West Bengal. Teachers' lack of pedagogical content knowledge may lead to this situation and unable to implement effective teaching. That's why the purpose of the study was to develop a tool that can measure English teachers' PCK. The investigators needed to follow three phases including many steps (literature review to reliability test) for the development of the tool. Collected data were analysed by IBM SPSS 20, for reliability test and Cronbach's Alpha Value is .930 that indicated that the tool is reliable and valuable for measuring PCK of secondary English teachers.

Keywords : Pedagogical Content Knowledge; tool development; secondary English teacher

Introduction

Second language teaching mainly English language and literature is not a new issue but has been discussing all parts of the world. Basically, in India English is taught as second language. That's why it is not acquisition, but learning. As a result, students learn English consciously. Teacher here plays a pivotal role, and teachers are the givers of adequate knowledge to pupils for effective learning. But, students of India are afraid of English language learning, and also their academic achievement in English except some students are not satisfactory level. So, not only English teachers, but also all teachers from any discipline need to have the quality that is PCK for specific subject and subject content. On PCK many studies have been conducted so far. PCK is very important for academic performance of students and implementation of effective teaching for teacher. But for measuring PCK of English teachers as second language teachers, no tool was found.

Concept of pck

The term Pedagogical Content Knowledge (PCK) was emphasized by Lee Shulman (Shulman, 1986b, 1987). PCK was introduced under a subcategory of

teacher content knowledge and another knowledge that deals with knowledge of subject matter (Shulman, 1986b).

The concept of PCK has been changing. That's why researcher like Driel & Berry defined PCK as a form of practical knowledge that teachers use to guide their actions in classroom.

In this study PCK is called as professional knowledge and belief of teacher for teaching.

Purpose of the study

The purpose of the study was to develop a tool for measuring PCK of secondary English teachers of West Bengal specifically.

Methodology

To develop a tool for data collection the investigators has done the following process as-

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Phase -1

a. Identifying dimension of PCK-After reviewing and analysing the literature regarding PCK for choosing dimensions that constructed the concept of PCK. b. Selection of Dimension-From various scholars' conceptions of PCK, the investigators decided to choose areas for construction of PCK tool. They are as- i. Planning and Preparation Knowledge, ii. Teacher & Student Relationships Knowledge, iii. Class Management Knowledge, iv. Presentation Knowledge, v. Assessment & Feedback Knowledge and vi. Teaching Learning Material Knowledge. c. Making Items for Each Dimension- Then, the investigators developed 50 items and initially with the items of PCK, the investigators developed a tool of PCK for English teachers.

Phase-2

a. Seeking Expert Opinion for Tool Validation-Initial tool was given to three renowned experts of Education from three universities. b. Eradication of Irrelevant Items –On the basis of opinions and suggestions of the experts, the investigators eradicated 6 items out of 50 and also modified the language of the items. The investigators eradicated those items rejected by any expert. c. Making a Tool for Administration among Teachers-The tool was administrated among 110 secondary English teachers of West Bengal, India.

Phase-3

a. Conducting a reliability test-From 110 secondary English teachers of West Bengal, the investigators collected data. The collected data were analyzed using IBM SPSS 20 for a reliability test based on Cronbach Alpha. Abdulla and Halim (2010) cited Chua's view that items are considered items when the alpha value for the construct is above 0.60. That's why the investigators followed to ensure each dimension ranged within this mentioned value. b. Making Final Tool of PCK for Secondary English Teachers-The value of one dimension out of six dimensions had just a little bit low than the value recommended by Chua (2006), but items of this dimension are very important. That's why the investigators did not eradicate items.

Result and analysis

To become a professional, teachers need to possess the quality that is PCK. The concept of PCK

has been gradually changing. That's why various scholars have given their concepts and components of PCK that were already mentioned.

Items were developed based on the dimension of PCK. The investigators employed five points Likert scale viz. Strongly believe, Believe, Neutral, Disbelieve and Strongly Disbelieve. And, the tool entitled English Teachers' Pedagogical Content Knowledge Scale (ETPCKS) was administrated to secondary English teachers to choose the option of each item.

After analyzing the collected data by using IBM SPSS 20., the calculated alpha values for each dimension are given in table 1.

Table 1
Result of reliability test (n=110)

Dimensions	N	Alpha Cronbach
Planning and Preparation Knowledge	11	0.682
Teacher & Student Relationships Knowledge	3	0.576
Class Management Knowledge	5	0.719
Presentation Knowledge	14	0.847
Assessment & Feedback Knowledge	7	0.775
Teaching Learning Material Knowledge	4	0.649

From the viewpoint of Chua (2006), when the alpha value is lower than 0.6, items under the dimension must be eradicated until they reach that value. Table-1 has shows that the second dimension is the only dimension that does not fulfill the mentioned value. Due to consideration of the importance of the items, the investigators did not eradicate items of this dimension. Finally, the total number of items in this tool is 44 items.

Table 2
Result of reliability test for total tool

Table-2(a) Case Processing Summary			
		N	%
Cases	Valid	110	100
	Excluded	0	0
	Total	110	100

Table-2(b) Reliability Statistics	
Cronbach's Alpha	N
0.93	44

Table-2(c) Scale Statistics			
Mean	Variance	S.D.	N
199.527	156.729	12.5191	44

From the above table-2 (a, b and c), it was shown that the total number of respondents was 110, mean (199.527), SD (12.5191) and total items were 44. Also, it was found that Cronbach's alpha value of the total scale is 0.930. According to these results and the work of Aksu et al. (2014), it can be safely concluded that the scale regarding pedagogical content knowledge is valuable and reliable.

Conclusion

Many studies have been conducted regarding pedagogical content knowledge either quantitatively or qualitatively and various scholars' conception of PCK was not the same. The investigators felt that it was necessary to develop a tool to determine the level of secondary English teachers' pedagogical content knowledge. That's why the purpose of this study was to develop a tool for measuring the PCK of secondary English teachers in West Bengal. Keeping objective in mind, the investigator developed the tool through three phases and several considerations were made during the instrument development process. And, finally, this study has produced a tool that can measure the level of English teachers' PCK.

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