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## Inquiry Method for ELT: Effective Constructivist Pedagogy

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### Abstract

The current study investigated the effectiveness of the inquiry based problem solving method of teaching by experimenting with a group of 60 students of B. Ed program for English language for a period of 6 weeks. Inquiry method of teaching was employed with the experimental group by assigning different projects to the learners to develop their English language skills. The learners' learning potential was triggered by involving them in different language learning tasks and activating them to learn from their own experiences. The results show that the learning made through inquiry method is more effective than traditional method and that real life tasks and experiences develop a powerful undertaking of the target language.

*Keywords:* Learning, Problem solving, Inquiry method, Constructivism

### Introduction

Quest for innovative pedagogies to capitalize on the inquisitive behaviours of learners for effective, successful and lifelong learning has always been of interest to language teachers. Relying on one method of teaching is never sufficient for teaching all contents of the language; the same is true for the theories of learning. Language teaching methods based on behaviourism provide language teachers with pedagogies which are based on behaviour formation, whereas cognitive teaching methodologies call for the development of thought process behind the behaviour, focusing on how information can be best received, organized, stored and retrieved by the mind of the learner. Methodologies based on constructivism

take learning as construction of knowledge through individual experiences. The researchers feel that inquiry method may be more helpful. The purpose of this research is to investigate the effectiveness of Inquiry Method for teaching English.

### Literature Review

The basic proposition of Constructivism is that human knowledge is constructed on the basis of the already existing knowledge. Learners are active participants of the process of construction of knowledge (Hoover 1996). Killen (2003, p.28) points out that the learners get knowledge and increase it 'through active construction and reconstruction of theory and practice'. According to Hoover (1996) two important ideas form the core of this theory; the first idea is that the constructivists deny the concept of *tabula rasa*, rather, learning is based on previous knowledge and that previous experiences influence new learning. The second idea is that 'learning is active rather than passive; learners confront their understanding in light of what they encounter in the new learning situation' (Hoover, 1996).

Constructivists' view of learning and teaching emphasizes the importance of both cognition and environment. 'Cognitive constructivism' emphasizes the role and procedures of cognitive processes whereas 'Social constructivism' highlights the influence of society and environment in understanding a phenomenon. Vigotsky (as cited in Henson & Eller, 1998, p. 363) emphasized the importance of social situation in constructing meaning. Even he believed in such curricula which could facilitate interaction among students. His concept of the 'zone of proximal development' emphasized that teachers should 'adjust classroom learning experiences to the learner's current skills and knowledge level' (p. 363). Vigotsky was against the use of abstract language in the classroom (as cited in Henson & Eller 1999, 363) and approved of concrete language.

Motivation, according to constructivists, also plays an important role in teaching and learning. A constructivist teacher encourages students to discover information. He identifies the interests of the students and helps them construct and understand the concepts. Henson and Eller (1999, p. 363) believe that "[u]nlike the behaviourists, who sanction the use of tangible rewards, constructivists believe that internal motivators, such as the joy of learning, are stronger than external rewards".

Constructivist teaching and learning have several distinguishable features such as engagement of the learners, equal opportunities for all the learners, collaborative and learner-focused activities. Teaching is learner centered, teacher playing the role of a facilitator only, fostering independent learning and encouraging the learners to draw out their creativity through comprehension thus making them in charge of the entire



process of learning. In constructivist teaching the teachers set some objectives and learning goals and devise some meaningful constructivist activity in order to achieve the objectives and goals. Students “construct knowledge based on what they’re reading and what they already bring to the activity” (Gray, n.d.). This synthesis of new and old ideas help students foster their learning and develop meaningful understanding. In this way the whole discussion becomes process oriented.

By viewing learning as an active process, taking students prior knowledge into account, building on preconceptions, and eliciting cognitive conflict, teachers can design instruction that goes beyond rote learning to meaningful learning that is more likely to lead to deeper, longer lasting understandings (Jones & Brader-Araje, 2002).

Snowman and Biehler (2000) view constructivist learning and teaching principles as:

- a) The learners are the active constructors of knowledge rather than passive receivers of information. Their personal experience plays a positive role in the meaningful interpretation of knowledge.
- b) Because of the role of personal experience it is not possible to transfer one person’s knowledge to another completely.
- c) Culture of the people affects their understanding of the surroundings.
- d) There are ‘open-minded discussions’. Ideas are generated by the willingness to think about and accept differing ideas. (as cited in Killen, 2003, p.28)

Advocating the use of constructivist strategies for teaching, Gray (n.d) says “...teachers are more effective. They are able to promote communication and create flexibility so that the needs of all students can be met.” Constructivist approaches are the best ones, backed by research and “emerged from within the profession” (Zemelman, Daniels, & Hyde, 2005) and “[a]s an instructional strategy, *constructivism* is the most effective approach for learners in our society” (Seefeldt & Foster, 2007:2).

### *Constructivist Pedagogy in Pakistan*

In Pakistan the traditional approaches to teaching, in which teachers have central role, are prevalent whereas the constructivist approaches are new and are at an experimental stage, and have not gained popularity yet. Hussain (2012:183) while experimenting with the approach in Pakistani situation found that students readily participated in the constructivist learning activities, even the shy and the introvert students became sociable and after coming to grips with group dynamics, they facilitated one another in collaborative and cooperative projects.

However, he observed some limitations of the constructivist approaches to teaching owing to social norms and cultural values of Pakistan. For example some female students wore veil and felt uncomfortable in performing the constructivist activities with male students and male students from the rural background were shy and hesitant to perform the learning tasks. Khalid and Azeem (2012) found that the results of students in grammar, reading skills, and writing skills, taught through constructivist approaches were far better than those of the students taught through traditional method.

While training Pakistani Post-graduate scholars at National University of Modern Languages, Levy & Steeley (2005) have pointed out the following important constructivist teaching approaches to language teaching:

1. Cooperative learning
2. Simulation
3. Communicative language teaching
4. Problem solving
5. Scaffolding of instruction
6. Graphic organizers
7. Higher order thinking skills
8. Authentic assessment

Several pedagogies use constructivist theory and numerous approaches have emerged out of it. All these approaches define learning as 'doing' and not just relying on the reported contents. Inquiry method is a teaching approach in which the learners construct their knowledge. 'As such, that teacher will want students to be actively engaged in their own learning, and will have the students carrying out investigations to construct their understandings' (University of Saskatchewan, n.d.). Inquiry sees knowledge construction as a multifaceted and interrelated phenomenon (Stephenson, n.d.). The inquiry approach values 'doing' through problem-solving. Inquiry-based learning is based on the idea that learning occurs when learners are presented with a problem and assisted by a facilitator, they research the question and find their solutions. Inquiry-based teaching provides teachers a technique for developing life-long learning. This paper builds on the effectiveness of constructivism in English Language learning through the use of inquiry method.

### Research Methodology

Experimental method of research was applied on a sample of 60 students of B.Ed class of Allama Iqbal Open University during their 6 weeks workshop on teaching practice. 60 students were divided into 2 groups of 30 each. One group was selected as a control group and the other was selected for experimentation. Control group

was given teaching practice in a traditional manner and the experimental group was exposed to problem solving using inquiry method of teaching.

In the traditional method the researcher used the techniques of Grammar Translation Method in which the researcher had the central role and imparted all the information to the students. The researcher followed 5-E model with the experimental group. Llewellyn (2002 as cited in Warner & Myers 2008) has identified Six Stages of the Inquiry Cycle; Inquisition, Acquisition, Supposition, Implementation, Summation and Exhibition. Based on this process of inquiry, Carin, Bass, and Contant (2005, as cited in Warner & Myers, 2008) have given two models for classroom instruction; Guided Discovery model and 5-E Model. The later has been used for the present study. The 5-E model follows a hierarchical progression of five steps to learn new knowledge; engagement, exploration, explanation, elaboration, and evaluation. The model was executed in the following manner:

#### *Engagement*

This step is meant for stimulation and arousal of interest among the learners. It is not only the starting point, but directs the learner till the end. During this stage the Problem is defined through the activation of the existing schema and an outline of the project is developed. At this stage different problems related to English pedagogy in Pakistan were brain stormed and students were set free to choose any one of them and were then helped to state problem for their project.

#### *Exploration*

As the name indicates, the issue needs to be explored at this stage. Students were therefore asked to collect available material on their topic. This stage is actually learning through experience. How theories are applied and how philosophies and human psychology are related to teaching and learning. They were guided by giving instructions on how to collect material and how to jot it down.

#### *Explanation*

At this stage the students were invited to explain their discoveries in a provided format; simply stating, What, Why and How. They were again guided and pushed to the next stage.

#### *Elaboration*

Elaboration was meant for the detailed oral presentation of their projects along with the write up. The presentations were supposed to follow a given format. While one group used to present the others were asked to discuss, add, comment



and question. The presenters were asked to defend their studies by answering the raised questions.

#### *Evaluation*

Two types of evaluations were carried out: informal assessment throughout the process and formal assessment which was again divided into evaluation of the oral presentation, meant to enhance oral communication skill and written presentation, meant to develop academic writing skill. The projects were evaluated quantitatively and feedback was provided.

#### **Data Analysis and Results**

The data for the present study were analyzed statistically. The results of the evaluation of the two groups were compared. The t-test for independent groups was used to calculate the difference of mean scores of the two groups from each other. This analysis is appropriate whenever comparison of the two independent groups is required, the results were analyzed at .05 level of significance. The results show that the experimental method was more helpful in enhancing written communication skills and honing oral communication skills. The results are explained in Table 1 and Table 2 below.

**Table 1:** Written communication skills analysis

Variable	No. of Cases	Mean Value	Difference of Means	Standard Deviation	t-value	df
Control group	30	4.57		1.88		
Experimental group	30	8.18	3.61	4.62	4.1	62

Table 1 shows that t-value is significant at .05 level which implies that the performance of the experimental group is higher as compared to that of the control group. It is explicit that inquiry is an effective pedagogy for the development of written communication skill.

**Table 2:** Oral communication skill analysis

Variable	No. of Cases	Mean Value	Difference of Means	Standard Deviation	t-value	df
Control group	30	5.87		2.76		
Experimental group	30	8.83	2.95	5.18	2.8	62

Table 2 indicates that t-value is significant at .05 level from which it is evident that the performance of the experimental group is better than that of the control group. therefore, learning made by inquiry is effective and has enhanced the oral communication skill of the learners.

### Discussion

Innovative language pedagogies play an important role in the process of teaching and learning a language. The uphill task of learning and teaching English language can benefit from the valuable addition of such pedagogies. But the real advantages can be derived from these pedagogies by implementing them practically rather than approving them in theory and "it cannot be assumed that merely appreciating them will make them a part of successful learning. Teachers need to help students see how they can develop and transfer knowledge into 'rules for action' (Johnson, 1996), that is, into successful procedures for undertaking a specific task" (Kow & Amir, 2008, p. 11). The results show that Inquiry based teaching and learning can help fulfil such goals by helping learners activate their potential abilities and relate them in a meaningful way to the classroom experiences that provide students' with lifelong learning. The present study found that learning made by inquiry method was more effective. By involving learners in real life experiences, a powerful undertaking of the subject was obtained. The learners learned effectively by practically researching the issues. The inquiry method of teaching, when employed in language classroom made the learners independent and enabled them to successfully handle real life problems. Inquiry-based teaching method provides language teachers with another tool to add to their toolbox of teaching practices. English language teachers can use this method to capitalize on the innate inquisitive nature of learners.

Inquiry can be used in a variety of different ways with respect to teaching. Since inquiry is considered central to science learning, but this does not imply that it is not effective for language teaching. Its importance lies in learning 'by doing' and language is function which is acquired through experience and use in context, so it was hypothesized for the study that this method of teaching would be effective for language learning. Inquiry method was chosen as one of the constructivist approach to learning, so other methods of teaching based on constructivism can also be tested for results. Furthermore the use of these pedagogies require expertise on part of the teacher as well; therefore, it is needed to train language teachers for constructivist teaching in order to nurture the development of learners for independent learning and successful problem-solving.



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