

# **Educational Implication of Piaget and Vygotsky Language Learning Theories in Pakistani Context: A Review**

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## **Abstract**

*This comprehensive paper aims to explore some of the implications of the works of great theorists to work for a conducive environment for teaching and learning English in Pakistani schools. The theoretical premise for this study is the very early studies of Jean Piaget (1926-1956) and Lev Vygotsky (1934-1962). They remained a standard for language studies for long in the west. Although their names and some of the term such as scaffolding, zone of proximal development may seem exotic to our educational system but they provide some concrete and practical guidelines for language studies. This paper presents the alternative as well as complementary ideas of both Piaget and Vygotsky on different issues such as child's developmental stages, egocentric speech in children, importance of language and the role of the teacher and student in language learning. The implication of their intersecting ideas for promoting a supportive environment for English language teaching and learning in Pakistan is then discussed in the paper.*

**Keywords:** Piaget, Vygotsky, Learning, Teaching, English, Pakistan

## **Introduction**

The importance of English language is undeniable in the everyday transforming national and international scenario. It has always been the focus of research and study not only in Pakistan but throughout the world. Besides the controversy of teaching it as a first or second language, the fact remains that its importance is indisputable and steps should be taken to improve the quality of teaching and learning English in Pakistan.

In Pakistan teaching and learning English is not being revolutionized according to the new demands of the time. Even today,

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we are using old teaching and learning methods of English. Grammar Translation Method is the most popular and intensively used method for teaching English. A research conducted by Nomina Khattak shows the percentage of using different methods in different Government and private schools in the city of Islamabad.<sup>1</sup> Most frequently used methods in Government schools are Grammar Translation Method which is used by 57% of the teachers, 29% used direct method and 14% used other methods. While the situation in private schools is quite different, there Direct Method is used by 60% of the teachers, 10% used Grammar Translation Method and 30% used other methods. She states that English is taught using mostly the direct method .In Government Schools; teachers discourage communicative approach as they proceed from the first to the fifth class. Whereas in private schools, English is taught using a large numbers of methods like the Structural-Situational Method, Eclectic Approach and the Audio-Lingual Method while concentrating mostly on the Direct Method.

One of the major problems of our Government schools is over crowded classrooms. In the late 1980s the research reports of the Lancaster-Leeds Language Learning in large classes Research Project looked at the problems of large classroom, based on responses from non-native teachers of English from Indonesia, Japan, Nigeria, Senegal and South Africa. Such responses can be considered fairly representative of countries with similar conditions. The classes are over crowded with more than 100 students in a class. Besides this the teachers are required to cope with obsolete syllabi. Coleman lists four problems identified by teachers around the world (pp.2-10).<sup>2</sup> First, teachers feel self-conscious, nervous, and uncomfortable under the constant focus of more than 100 pairs of eyes. Second, discipline and class management are problems, especially if the teacher uses communicative methodology. Third, evaluating or reviewing student's oral and written work is difficult. Last, teachers feel that because they cannot give individual attention in large classes, very little learning takes place.

One important factor in our system is that there are no practical implications of new research in this field. USAID report states "The lack of diverse and modern instructional practices as one of the critical problems facing primary education and among the main causes of the low performance of the system".<sup>3</sup>

Although some of the private schools have attempted to go for innovative methods. According to Muhammad Arif,<sup>4</sup> in private sector Field based Teacher Development Programme (FBTD) of the Agha Khan Education Services (AKES) is the first significant initiative in the NGO sector of its type. It aimed at giving up traditional methods in rural

primary schools. Adopt new approach to teaching which shifts attention from teacher centered to learner centered learning. It encourages the teachers to replace traditional forms of behavior by replacing memorization with comprehension, abstain from physical punishment, moving in the class in informal manner and relating all activities to daily life so that child learn through concrete experience.

AKES developed in-service English language training program as well. Other popular school systems as Beacon and City school have their own training programmes. Interesting NGO in Lahore called Alif-Laila children Education Complex (ALCEC) introduces very creative ways of learning for children including hobby clubs, art and handicraft activities, a bus library and very attractive teaching-learning material for young children.

Besides these innovations we cannot ignore the majority who cannot afford to go to private school. According to Bregman and Mohammad four out of six school going children are in Government schools. Children do learn in these schools but usability in modern society and standard abroad are still a question.<sup>5</sup>

The role of the teacher in a teaching learning process is most important Ingvarson states that “to have the best schools, we must have the best teachers what teachers know and can do is the most important influence on what students learn”.<sup>6</sup>

Teachers in primary going school in Pakistan still happen to be what Hargreaves calls the pre professional stage of teacher development when the educational system in most part of the world are moving towards what Hargreaves describes as the post-professionalism.<sup>7</sup> Teachers are still struggling with large group of learners to cover the content with few textbooks or resources to help them with little reward or recognition.

Teachers are not aware of the needs of the students. They do not know about the capabilities of their students. Even the students have no idea about their aim of learning English. Teachers rely on Lecture Method and as a result student depend upon memorization to pass the examinations. There is no peer-group discussion or student-teacher interaction which could help construct a conducive environment where actual learning can take place. Therefore there is a great need for research and development to bring change in the existing teaching and learning English in the Pakistan context.

My Paper takes up the issue of English language teaching and learning in Pakistani schools, and explores the possibility of constructing a supportive environment for language learning in which the proximal development of student can take place, and the role of the teacher as

knowledgeable other in helping to create such an environment. I have brought in two language theorists, Lev Vygotsky and Jean Piaget for their influence on teaching methods and approaches to learning.

Both have offered alternative yet complementary explanation for children's cognitive learning styles and abilities. Piaget and Vygotsky differ on how they approach discovery learning. Piaget advocated discovery learning with little teacher intervention, whereas Vygotsky promoted guided discovery in the classroom. Both of them provide practical suggestions on how to teach certain material in a developmentally appropriate manner.<sup>8</sup>

By looking at these two alternative as well as complementary language theories by Piaget and Vygotsky, this paper aims to address the following questions:

- To what extent and in what ways Piaget language learning theory helps to promote effective language learning and teaching?
- How does Vygotsky engage with, counter to and further the development of Piaget's language theory?
- How can the intersection of Vygotsky and Piaget's views on language learning and language learning context promote a cohesive English Language Teaching and Learning environment that produces proficient and promising learners?

### **Educational Implications of Piaget's Developmental Stages**

Piaget proposed four developmental stages of the child. Each of them has a certain period and demands from educational point of view. Considering the pre-operational stage, this includes the child aged between two to seven years. Children at this stage "are encouraged to experience diverse material and helped to discover-or, more accurately to construct- their conceptualizable properties for themselves. For this reason, Furth favored physical activities (such as threading beads, tying knobs, dancing) that develop the child's general understanding of space and time as well as her finely discriminatory movements."<sup>9</sup>

Furth lays less emphasis on reading or writing in primary schools, believing that it "may hinder the spontaneous growth of intelligence." Here higher the responsibility of the teacher, who has to assess that children do not rely on repetitive terms to give answers and then make them a part of their learning without properly understanding the meanings of the words.<sup>10</sup>

Margaret A. Boden (1979) suggests that activities such as dressing dolls and laying tables are more important for intellectual development than is learning to spell or to recite the multiplication tables. It is not necessary for the student to have the knowledge of

cardinal numbers or the equivalence of set as these are technical terms and she has never heard these. She has to discover or construct for herself the realization that two dolls need two hats two walking sticks, two plates and so on.<sup>11</sup>

### **Egocentrism as viewed by Piaget and Vygotsky**

In the pre-operational stage, action and verbal instruction are mostly recommended to be used by the teacher. The use of visual aids, while keeping instructions short would most benefit the child in this stage.<sup>12</sup> The teacher must be sensitive to the fact that these children, according to Piaget, are still egocentric and may not realize that not every one shares the same view.<sup>13</sup> Piaget uses the term egocentrism to mean the child's inability to take another's point of view. In relation to egocentric behaviour, Piaget gave an example.<sup>14</sup> The experiment presents a child with a toy landscape including mountains, horses and so on in which a doll is placed looking in the direction different from the child's line of sight. The child is then asked either to describe what the doll sees or to pick that one out of the set of pictures which shows what the doll sees. Even the eight years old often fails, and young children are very likely to describe the scene as they see it themselves.

Piaget believes that ability to decentre develops out of child's experience of walking around and handling things, which are then seen from different point of view and also out of child's argument and negotiations with adults and with other similarly egocentric children.

While discussing the educational implication of egocentric child, Boden views that "primary schools should encourage cooperation and talking, as well as manipulative play, not purely for the social skills that these activities will develop but for their importance in developing objectivity and intellectual decentring in general."<sup>15</sup>

Piaget views that most of preschool children's talk is egocentric which vanishes as they reach the age of seven. Vygotsky argues that egocentric speech has a specific function.<sup>16</sup> It serves an intellectual purpose for children and does not disappear at the age of seven but is internalized to form inner speech and verbal thinking.

*"In order to determine what causes egocentric talk, what circumstances provoke it, we organize the children's activities the same way Piaget did, but we added a series of frustrations and difficulties. For instance when a child was getting ready to draw, he could suddenly find that there was no paper, or no pencil of the color he needed. In other words, by obstructing his free activity we made him face problems. We found that in that difficult*

*situations the coefficient of egocentric speech almost doubled, in comparison with Piaget's normal figure for the same age and also in comparison with our figure for children not facing these problems. The child would try to grasp and to remedy the situation in talking to himself: "Where's the pencil? I need a blue pencil. Never mind, I'll draw with the red one and wet it with water; it would become dark and look blue. ...Our findings indicate that egocentric speech does not long remain a mere accompaniment to the child's activity. Besides being a means of expression and of release of tension, it soon becomes an instrument of thought in the proper sense – in seeking and planning the solution of a problem".<sup>17</sup>*

In this way speech serves a very important function and referred to as 'the higher mental processes'.<sup>18</sup> He views that these include the ability to plan, evaluate, memorize and reason. These processes are culturally formed in social interactions. Language does not simply reflect or represent concepts already formed on a non verbal level. Rather it structures and directs the processes of thinking and concept formation themselves.

Vygotsky emphasized that social interactions are crucial for development from the very beginning of a child's life. He asserted that any mental function necessarily goes through an external social stage in its development before becoming an internal, truly mental function. Thus, the function is initially social and the process through which it becomes an internal function is known as internalization.<sup>19</sup>

In the third stage of development the child is able to classify items by focusing on a certain aspect and grouping them accordingly.<sup>20</sup> Teaching in this stage involves hands-on learning. By performing experiments and solving problems, students develop logical and analytical thinking skills.<sup>21</sup> Children are given opportunities to advance in their analytical skills in formal operational stage. They should be offered open-ended projects to explore solutions to problems.

Piaget argues that the child's stage of development determines his ability to control where and how he looks at things. Pre- operational child cannot inspect situation logically. Thus according to David Wood what they perceive is more unreliable and idiosyncratic than what is perceived by an operational thinker, whose inspection of the world is guided by a logically understanding of it. It follows that young children are logically incapable of seeing the world as adults do. Any attempt to teach them by demonstrating how things work is bound to fail if children

do not possess the necessary mental operation to make sense, in logical terms, of what they are shown.<sup>22</sup>

### **Educational Ideas of Piaget**

One important educational message of Piaget is that children have to be active and constructive in order to develop their understanding of the world. David Wood quotes Piaget's experiment in which a five year-old child is asked how many? While he was playing with blocks. He would not have understood it because he lacks the operation that deals questions like "how many?" with logical meaning. It is only possible if we told him how to count and then managed the answer "five" but still he doesn't know the concept of numbers. He lacks the conceptual understanding of number. He will not understand such abstract concepts unless he reaches operational thinking. Attempts to question, how or explain things to children before they are mentally ready cannot foster development, though the child may learn some empty procedures.<sup>23</sup> Without understanding premature teaching and questioning may demoralize or frustrate a child.

David Wood (1988) views that

*A teacher can provide appropriate material and contents for development and organize time and space so that children are free to act upon the world with objects and tasks that serve to foster the emergence of operation and an understanding of invariance. But the basis for such an understanding is constructed by the child through his own, self selected problem solving, not through any direct effort of his teachers.<sup>24</sup>*

Yet we should not underestimate that Piaget didn't give importance to the teacher. One important generalization of Piagetian theory is role of the teacher. In Piagetian classroom teacher is responsible for providing a rich environment for the spontaneous exploration of the child. A classroom filled with interesting things to explore and encourage students to become active construction of their own knowledge through experience that encourage "assimilation" and "accommodation".

Donaldson views that if exceptional care is taken to make sure that the child understands what she is required to do, even landscape task can be successfully tackled by many preschool children. The teacher can guide the child timely without interfering in the natural development process, providing him help to accomplish the task.<sup>25</sup>

Piaget defines the goal of education (cited from Richard M Gorman), the principle goal of education is to create men who are capable of doing new things not simply of repeating what other generations have done, men who are creative, innovative and discoverers. The second goal of education is to form minds which can be critical, can verify and not accept everything they are offered. The great danger today is of slogans, collective opinions, ready-made trends of thought. We have to be able to resist individually, to criticize, and to distinguish between what is proven and what is not. So we need pupils who are active who learn early to find out by themselves, partly through material we set up for them, who learn early to tell what is verifiable and what is simply the first idea to come to them.<sup>26</sup>

Here the basic aim of education as defined by Piaget is innovation and verifiability on the part of the learner. There is a difference between “given knowledge” and “knowledge constructed” by the learner. Piaget encourages the knowledge constructed by the learner.

### **Importance of Language**

One of the main reasons of Piaget’s too much emphasis on self directed knowledge by a child is probably his under estimation of the role of language. Language for Piaget is a system of symbols for representing the world, as distinct from actions and operations which form the processes of reasoning according to David Wood.

Lev Vygotsky puts great emphasis on language. He views that language is not just a mean of expression; it is a mean of thought. The development of language is considered to be a major principle of Vygotsky’s Socio-cultural theory. The language of a certain group of people indicates their cultural beliefs and value system. Vygotsky states that humans may have “built in basis, rules and constraints about language that restrict the number of possibilities considered.”<sup>27</sup> A child thinking regarding these language constraints is very important in language development.<sup>28</sup>

Language seems to interfere in evaluation in developmental stages (proposed by Piaget). David Wood points out that we have to consider many factors before Piaget’s developmental stages are taken into account.<sup>29</sup> Here the most important factor is if the child has misunderstood the words and expressions involved in attempts to test his understandings. Donaldson even showed how the researcher’s language could be alien and ambiguous challenging children to guess the researcher’s particular meaning of key words like “more” on which hypothesis depended.<sup>30</sup> Children cannot understand many things that adults say because they lack the necessary intellectual structures to make



sense of what they mean. Vygotsky's theory invites us to consider the possibility that children understand those things that are common features of their social experience.

Vygotsky proposed that language allowed the child a far greater freedom of thought and lead to further cognitive development as oppose to Piaget who believed that it moved from individual to social. For Vygotsky speech moved from social speech (communication) to inner egocentric speech.

Vygotsky shares some important areas of agreement with Piagetian theory, particularly an emphasis on activity as the basis for learning and for the development of thinking but Vygotsky emphasis more on the role of communication, social interaction and instruction in determining the path of development than Piaget . Vygotsky argues that the capacity to learn through instruction is itself a fundamental feature of human intelligence.<sup>31</sup>

According to David Wood when adults help children to accomplish things that they are unable to achieve alone, they are fostering the development of knowledge and ability. Without a natural ability for teaching, as well as learning, human cultures would never have developed since they can only be perpetuated if the immature learns and the mature teaches. For this perspective which places instruction at the heart of development, a child's potential for learning is revealed and indeed is often realized in interactions with more knowledgeable others.<sup>32</sup>

### **Vygotsky's Teaching Learning Process**

One of the alluring features of Vygotsky's work as opposed to Piaget is the prospect that teaching can be an intervention in cognitive development. Vygotsky himself says that "instruction can not be identified as development but properly organized instructions will result in the child's intellectual development, will bring into been an entire series of such developmental processes, which are not possible without instructions".<sup>33</sup>

### **Zone of Proximal development**

One of the main contributions of Vygotsky to educational theory is a concept termed as zone of proximal development. Vygotsky himself defines it as the distance between the actual developmental level as determined by independent problem solving [without guided instruction] and the level of potential development as determined by problem solving under adult guidance or in collaboration with more capable peers<sup>34</sup>

The term proximal (nearby) indicates that the assistance provided goes just slightly beyond the learners current competence complementing and building on their existing abilities.<sup>35</sup> It is very important for the teacher to stay within the zone of proximal development of the learner. If the teacher gives a problem that is far above the level of possible understanding of the learner, he will be confused and no intellectual growth will take place. If it is below the level of the learner he will not be challenged and therefore will lose interest in the work. According to David Wood this concept leads to a very different of 'readiness' for learning to that offered by Piagetian theory. Readiness involves not only the existing state of knowledge but also his capability to learn with help.<sup>36</sup> Two children at nominally the same level of (unassisted) performance in a given task or discipline may differ in how they are able to learn given amounts of instructions. A child's current level of performance is distinguished from her aptitude to learn more from instruction.

It is very important for the teacher to be aware of the zone of proximal development of the learner and his crucial role that she has to perform in the development of the learner. Yaroshevky stated that the idea of ZPD manifests Vygotsky's position on the issue of links between education and development. By introducing the idea of ZPD Vygotsky puts education ahead of development, arguing that rather than having education dragging behind in sociological development it must anticipate it-it must "run ahead as the adult helps the child to climb the next step."<sup>37</sup> Vygotsky recognized that the distance between doing something independently and with the help of another indicated stages of development, which do not necessarily coincide in all people. In this way he regarded an instructor's "teaching of a student not just as a source of information to be assimilated but as a lever with which the student's thought, with its structural characteristics, is shifted from level to level".<sup>38</sup> Their relationship is also different from the one implied by Piaget's theory. In the words of David Wood "both (teacher and the young child) cooperate in the development of mutual understanding or the 'stuff' of development and learning."<sup>39</sup>

### **Scaffolding**

One important aspect of zone of proximal development is 'Scaffolding'. It is the action taken by the teacher to make sure that the learner is on the right path. Scaffolding has been interpreted in a wide sense as "a form of support for the development and learning of children and young people".<sup>40</sup> It is also used to describe the way that "teachers or peers supply students with the tools they need in order to learn".<sup>41</sup>

Some techniques of Scaffolding that can be used in teaching learning process are demonstration, dividing a task into simpler steps; providing guidelines; keeping attention focused<sup>42</sup> as well as providing examples and questioning.<sup>43</sup> Breaking content into manageable pieces is also a feature of scaffolding.<sup>44</sup>

Wood and Wood in seeking to identify the meaning of Scaffolding have suggested that adults can serve a number of crucial tutoring functions in guidance and collaboration that promotes development.

*“...These included recruitment of the child’s interest in the task, establishing and maintaining an orientation towards task-relevant goals, highlighting critical features of the task that the child might overlook, demonstrating how to achieve goals and helping to control frustration.”<sup>45</sup>*

### **Educational Implications of Piaget and Vygotsky’s Language Theory in our System**

Looking at the comparative and contrasted views of Piaget and Vygotsky and their educational implications; their ideas can be applied in our system to give a better output.

In Piagetian’s classroom, students must be given opportunities to construct knowledge for themselves. Technologies such as multimedia, video tasks and CD ROMs offer a vast area for such opportunities, supporting the teacher in providing a learning environment that helps expand the conceptual background of the reader. Although these technologies are not readily available in our remote areas, still efforts can be made to fully benefit from the available sources. It is not necessary to have fast computers, teachers can use available material like charts, can ask the students to get commonly used things to make the classroom as attractive and informative as can be done remaining within the limits.

According to Dewey,

*A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in a concrete manner what surroundings are conducive to having experiences that lead to growth.<sup>46</sup>*

Dewey views that classroom environment although apparently superficial can be used to teach many lessons. Here teacher has to be a real ‘knowledgeable other’ to collect items that act as teaching tools and stimulus for the learner in a classroom. Instead of focusing too much on writing and reading, physical activities can be introduced to the children

so that their physical growth is also looked after. Instead of directly making them memorize alphabets or numbers. Different materials such as chart paper, crayons, and sand boxes can be used to give them 'the concept' without making them parroting the alphabets.<sup>47</sup>

In our system, teacher can take help from 'anchored instruction' inspired by the ideas of Piaget. Here learning and teaching are designed around an 'anchor' that can be a story, adventure or situation that includes a problem or issue to be dealt that is of interest to the students. Ideas can be taken from traditional books, text books, children encyclopedia or internet. In a language class room the children can be shown a picture and then ask to write what is happening in it and then complete the story. In this way it invokes the creativity of the child, here the teacher must be aware of the zone of proximal development of different children. She can use scaffolding by giving hints and clues in completing the story. The teacher has to go to each child to listen to what she/he is thinking and then helping them properly according to their individual needs. As Stenhouse said, "The teacher is like a gardener who treats different plants differently and not like a large scale farmer who administered standardized treatments to as near as possible standardized plants."<sup>48</sup>

David Wood gives very good advice to the teachers of young children that can be applied universally.

*Perceptual/attention activities take time, demand guided selection, memory and interpretation. Perhaps it becomes less surprising, then, to find that young children in the first years of schooling still have much to learn about how to attend to and interpret their world in the same way that more mature members of their culture do. When we ask a young child to 'pay attention' we should recognize that any failure to comply might not result from boredom, willfulness or 'distractability' but from the fact that he lacks the necessary knowledge and skill to bring to bear on the task or the topic at hand. This is not to say that young children (like all of us) might not concentrate or attend because they are uninterested in what is going on, or because they prefer to do other things. However, we have to recognize that when we ask children to pay attention and concentrate on tasks that we have set and which provide little by way of concrete, perceptual support, they may find it impossible to comply with our demands.<sup>49</sup>*

These things should also be taken care of by the teacher. We have to set our programme and demands according to the level of children and yet open our mind for any kind of favorable or otherwise response.

In a language classroom, it should be taken care that tasks are meaningful to the lives of the students. Whole language learning can also be encouraged in our system. It provides a better understanding of the text and a more interesting and creative approach to reading. It may come at the expense of accuracy and correctness. A child may be awarded high marks for “overall performance” even if she/he has misspelled many words.

### **Conclusion**

A great contribution of Piaget to the theory and practice of education was his view of the child as an active constructor of his own knowledge, as an independent discoverer and explorer. The implication of this is that initiative and self determination of the child as a learner should not be hindered by educational instruction. Vygotskian theory was built upon the Piagetian idea of the child as an active learner with the emphasis on the role of social interaction in learning and development. The quality of child-adult interaction is seen as crucial when scaffolding children’s learning.<sup>50</sup> Overall, teacher has to play a crucial and most important role in building a conducive environment in the form of classroom where the triangular relationship of teacher and students on the whole, teacher-student relationship at the individual level and student-student relationship support to produce proficient and promising learners.

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