

What is the educational relevance of vygotskys theory



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The effect of culture on a child's cognitive development and how culture influences what and how a child will learn is now universally acknowledged by psychologists (Woolfolk, 2007, p. 39). Research has shown that the skills a child will acquire can be influenced strongly by the culture that they have been brought up in, for example Ceci & Roazzi (1994) found that advanced mathematics and buying and selling techniques can be seen in Brazilian youths who sell sweets on the streets (Woolfolk, 2007 p. 39). This is a clear sign of cultural input into the child's cognitive and educational development as this would not normally be seen in, for example, the United Kingdom where most children learn mathematics and other skills in school.

This is known as the sociocultural theory and was founded by Lev Semenovich Vygotsky over 70 years ago, whose writings were later translated and published as Vygotsky (1978, 1986, 1987, 1993, 1997). Vygotsky's sociocultural theory is based on his belief that the cultural settings in which humans develop within are key to understanding human cognitive development as most humans develop within a sociocultural setting, interacting with others throughout their development. As Vygotsky considers learning to take place in a social world he emphasises the importance of language to our learning, as language is generally used in social interactions within and between cultures (Bainbridge et al., 2008, p. 223). Vygotsky's theories hold a lot of educational relevance as the interactions between a teacher and a student are social and I will be discussing in this essay how they can be applied to an educational setting.

Whilst Piaget described children as little scientists trying to make sense of the world through their schemas on their own Vygotsky described them as

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more social beings that would develop with other people, learning and sharing skills through social interactions. Vygotsky can be described as a Social Constructivist as he believed that knowledge is constructed upon via different social interactions (Bainbridge et al., 2008, p. 230), which differs to Piaget's theory of the child being a little scientist, making sense of the world by itself.

Vygotsky believed that culture had a significant impact on learning and emphasised how cultural tools, for example paper, pens, computers etc. and psychological tools, for example language and number systems are different in different cultures and therefore have different impacts on our learning. An example of this is the different mathematical systems used over time and how they impact on knowledge acquisition: As long as the culture provides only Roman numerals for representing quantity, certain ways of thinking mathematically from long division to calculus are difficult or impossible. But if a number system has a zero, fractions, positive and negative values, and an infinite quantity of numbers, then more is possible (Woolfolk, 2007, p. 41). In other words, the number system by which we go by makes learning mathematics more accessible. The differences between our system and the Roman numeral system are as a result of a cultural change, which shows that culture has a significant effect on a child's learning. Vygotsky believed that psychological tools, such as language, support all higher-order mental processes. These tools are taught to the children by adults or more capable peers and used to aid higher cognitive development (Woolfolk, 2007, p. 41; Karpov and Haywood, 1998). The child will then develop a cultural tool kit (Wertsch, 1991), filled with cultural tools such as paper and pens as well as

psychological tools, such as language or symbols to aid their understanding of the world (Woolfolk, 2007, p. 41). To apply this idea to an educational setting a teacher could ensure that the students have access to powerful tools that support thinking, which could be done by teaching the use of internet searches or dictionaries, allowing the child to use cultural tools to access information, encouraging further independent learning. Culture can also be used in an educational setting by using the child's cultural funds of knowledge to aid learning (Moll et al., 1992). For example, the teacher could assign the students the task of interviewing their families about work to develop a stronger fund of knowledge and then use the new knowledge for classroom activities (Woolfolk, 2007, p. 50).

An example of the use of language, a cultural development, is the use of private speech to aid learning. Vygotsky emphasised the importance of language to a child's development and believed that there was a strong relationship between language and thought and that thoughts are an internal dialogue within us. Vygotsky described three phases of learning in which internalised speech is developed. For example, when a learner is being taught by a tutor how to do a task the tutor will give the initial instructions, meaning that the speech is controlled by the tutor. The learner will then attempt the task themselves and will engage in private speech, telling the instructions out loud to themselves to aid the task. Vygotsky then describes the speech as going underground, as it will gradually become internalised through whispering, silent lip movements and eventually thoughts alone. This private speech is most common between ages 4 and 6 but is still used

by adults when performing harder tasks, for example building model planes (Winsler et al., 2003; DeLoache, Eisenberg & Siegler, 2010, p. 160).

One of Vygotsky's most prominent theories is that of The Zone of Proximal Development (ZPD). Vygotsky believed that children require structure, clues and reminders in order to help them complete tasks that they were on the verge of completing (Woodfolk, 2007, p. 44). This, therefore, requires a tutor to give guidance to the learner through a task. The ZPD is described as the area between the child's current development level and the level of development that the child could achieve (Vygotsky, 1978, p. 86; Woodfolk, 2007, p. 44).

In terms of educational relevance, the notion of the ZPD can be applied to a teaching setting. Kathleen Berger (2006) called the ZPD the magic middle: the area between what the student is capable of and what the student is not capable of (Woodfolk, 2007, p. 44). The student should not be taught what they already know as it will be boring, nor should they be taught what they're not capable of learning yet as it would be too difficult. The magic middle is the area what the student could understand with guidance and is what should be taught to the student as it will be exciting and challenging (Berger, 2004, p. 50).

Vygotsky believed that a tutor could help the learner reach the higher level of development through assistance, often using verbal prompts to guide the learner towards the completion of the task. When the learner is getting more confident at the task the tutor will gradually take away the scaffolding (Wood et al., 1976) and the child will take over the task on a more independent

level, first using private speech to take the place of the tutors verbal prompts and eventually using inner speech to guide themselves through the task (Woodfolk, 2007, p. 44).

In *The Role of Tutoring in Problem-Solving* (Wood et al., 1976), the researchers aimed to investigate the nature of tutoring when an expert helps someone less expert or a novice (Bainbridge et al., 2008, p. 230). Using a sample of thirty children from three to five years old, the tutors observed the children completing a construction task. The tutors were instructed to allow the children to complete as much as they could and only give advice when the child got stuck (Bainbridge et al., 2008, p. 231), using Vygotsky's idea of the ZPD. The results showed that the children performed significantly better at the construction task when given the scaffolding as an initial support. The study shows the significant impact that a tutor can have on a learner's achievement in problem solving. In fact, Bloom (1984) found that students who had one on one tutoring compared against those taught in groups could move from the 50th percentile to the 98th percentile (Bainbridge et al., 2008, p. 261). This massive difference shows the importance of social interaction in an educational setting. Scaffolding can be used to match the individual needs of students, by giving the student initial support, such as prompts or sentence starters, and gradually taking away the support to encourage independent learning (Woodfolk, 2007, p. 50).

Vygotsky's theory holds a strong educational relevance and has influenced many different changes in education. I have discussed how the sociocultural theory has been expanded into many different ideas, such as scaffolding (Wood et al., 1976), and *The Magic Middle* (Berger, 2004) and applied to <https://assignbuster.com/what-is-the-educational-relevance-of-vygotskys-theory/>

educational settings. However, Vygotskys theories have limitations. Firstly, most classroom teaching takes place in groups so for improvement like the results shown in Bloom (1984) each child would need an individual tutor, which would be too expensive (Bainbridge et al., 2008). It has also been shown that before culture or teachers could have an influence children learn a lot about the world by themselves, such as the concept of adding increasing quantity (Schunk, 2004; Woolfolk, 2007, p. 45). However, Vygotskys sociocultural theory has taught us the importance of social influences on a childs learning context and how a child can perform significantly better with the aid of social interaction and still holds much educational relevance.