

# 4

## LEV VYGOTSKY

### AN EARLY SOCIAL CONSTRUCTIVIST VIEWPOINT

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#### LEARNING OUTCOMES

Having read this chapter you should be able to:

- take into consideration Vygotsky's background as a person and as an educator
- understand his philosophies as they relate to education
- understand how his theories have influenced more contemporary educational thinkers
- critically analyse his theoretical viewpoints
- consider how his theories could be applied in practice.

#### KEY WORDS

cultural-historical social activity theory; social constructivism; internalisation; self-regulation; zone of proximal development (ZPD); scaffolding

## INTRODUCTION

Vygotsky's '**cultural-historical social activity theory**' originated during the 1920s and 1930s, although it only became widely accepted in the 1980s. He argued for a radical idea of learning, in which children thought for themselves. His ideas advanced the field of educational psychology, from the positivist ideas of behaviourism and information processing, to seeing 'learning in terms of the interactions between young people and adults in social contexts' (Entwistle, 2009: 22). Similar to Dewey, this idea of learning was opposite to the rote-learning model practised at the time. This far-reaching idea was to have an overwhelming consequence for how educators thought about learning and teaching. Higher-level learning for Vygotsky was a developmental and dynamic process where children make sense of what they learn; he also argued that children learn differently from adults, hence the redundancy of didactic teaching (Scott, 2008). For Vygotsky there were four fundamental principles required for this developmental process: that 'children construct their knowledge; development cannot be separated from its social context; learning can lead development; and language plays a central role in mental development' (Williams, 2004: 25). Vygotsky's ideas gave educators a theoretical foundation for their practice. He highlighted significant aspects of successful practice for educators: 'so that one can say to oneself, "Ah, that's why I'm doing it! That's what's happening inside the child's head!"' (Palmer and Dolya, 2004: 16).

Vygotsky's most prolific and yet problematic period of writing was produced in the first four years of the 1930s, during a time of increasingly oppressive ideology in Russia. His admired work, which explored his ideas of the importance of language and learning, *Thought and Language* (1986 [1934]), was his last to be published during his lifetime. However, the period was also one where the Communist Party stepped up its oppression of intellectuals and all psychological theories were required to be based upon Marxist thinking. Those intellectuals who did not comply were punished or were set less controversial and more compliant tasks. As Palmer and Dolya (2004: 16) observe, 'In Stalinist Russia, suggestions for teaching children – indeed anyone – to think for themselves were not acceptable'. Colleagues of Vygotsky suggested that it was possible that had he 'not die[d] of tuberculosis, his chances of surviving the Stalinist purges of 1936–37 were slim' (Ardichvili, 2001: 35). It was not until the 1950s that his works were reproduced or even allowed to be discussed in Russia (Palmer and Dolya, 2004: 16). When first translated into English the content and insight of his writings, despite containing many inaccuracies, amazed academics worldwide.

Vygotsky's ideas are firmly situated in **social constructivism**, which stresses the significance of both culture and environment in the way in which we understand the world around us; it is the systems and processes we employ to build knowledge from our understanding (MacBlain, 2014). As with the overarching concept of cultural-historical social activity theory, his notions centred on the belief that a child's own social and cultural background would shape their cognitive development and allow them to adjust and

grow. According to Wertsch (1991, cited in Keenan, 2002) there were three aspects which Vygotsky felt were important for cognitive development. Firstly, that it is a historical process; secondly, it is social in nature; and thirdly, it is enabled by the idea of mediation by employing the 'tools' of language, numbers and symbols. In sum, Vygotsky contested that cognitive development was transformational and:

... results from processes which occur first between people and then occur *within* the individual. Vygotsky referred to this process of functions moving from the interpersonal to the intrapersonal as *internalisation*. (Keenan, 2002: 133, emphasis in original)

These three aspects of cognitive development and the notion of **internalisation** are all evident in aspects of Vygotsky's theories, which will be explored below. These are cultural-historical social activity, language and play, zone of proximal development and scaffolding.

## LEV VYGOTSKY, THE PERSON

Lev Semyonovich Vygotsky was born in a small town in Russia, the son of a middle-class secular Jewish family, in 1896. His father worked in banking and insurance and became a bank manager in Moscow; his mother trained as a teacher but dedicated her energies to her home and her eight children. The young Vygotsky was taught at home by a private tutor for five years. He then enrolled in a private Jewish school for boys near his home for the last two years of his schooling, where he gained his diploma (Van der Veer, 2014). Both parents were keen to ensure he had the best possible education. However, in Russia anti-Semitic sentiments have always been present, and although academic opportunities were available to Jews, academic survival and progression were always insecure because of the one-party ambitions of the Soviet era (Van der Veer, 2014). Despite a limited number of places for Jewish students to study at university, just 3% decided by lottery, Vygotsky was fortunate to gain a university place. Initially he studied medicine then law at Moscow University, before enrolling at the private Shaniavsky University from which he graduated with a degree in history and philosophy. He then went on to teach in local schools in his hometown of Gomel. During this time he was also an enthusiastic follower of literature, theatre and especially poetry and the use of language structures. In 1924 Vygotsky became a research fellow at the Institute of Psychology in Moscow, completing his PhD the following year on the psychology of art. It was during his time at the Institute of Psychology that he formed the principles of his own developmental psychology, his specific interests being language and speech development and their connections with thought (Ardichvili, 2001). His academic career as a psychologist was extensive, starting as an assistant lecturer and from 1931 as a professor. He taught and researched in a number of higher education institutes, including universities in Moscow and Leningrad. Between 1924 and 1934 he completed his most influential works, which

were the foundations for a school of Russian psychology. Moreover, apart from Vygotsky's influence on Russian psychology, his ideas have had an intense and lasting impact on numerous aspects of Western educational psychology (Ardichvili, 2001). He died of tuberculosis at the age of thirty-seven in 1934 (Ardichvili, 2001; Palmer and Dolya, 2004; Van der Veer, 2014).

## VYGOTSKY'S THEORY OF LEARNING THROUGH SOCIAL ACTIVITY

Vygotsky's ideas have had a significant influence on the approaches to, and the way educators think about, learning and teaching. Although his main sphere was that of developmental psychology, his writings also influenced the thinking behind aspects of speech and language and different sectors of learning, such as tertiary, adult and special education. It was Vygotsky's notion that an individual's mental action 'can only be understood by going outside the individual and examining the social and cultural processes from which it derives' (Ardichvili, 2001: 35). It is these social and cultural processes which he argued were vital for a child to build knowledge. He proposed that an individual child's social background played a crucial role in their construction of knowledge in a manner which is in tune with the culture within which they mature (Keenan, 2002). It is where Vygotsky stresses the difference between humans and animals: the historical and cultural sophisticated features of humans are missing from the social environment of animals (John-Steiner and Soubberman, 1978).

Furthermore, Vygotsky asserted that the human trait of being able to use tools sets us apart from animals. Just like physical tools, a child develops cultural tools which represent how to communicate and how to make sense of the world. These cultural tools are developed and nurtured in a child's culture, they are not inherited. Vygotsky's view was that these cultural tools, such as language, stories, works of art, signs and models, should be introduced to children in school. He believed that they should experience a variety of cultural tools, to help them achieve new learning through problem solving and interaction with others (especially those who are skilled in the use of cultural tools) and increase their confidence (Wood, 1998; Palmer and Dolya, 2004; MacBlain, 2014). By language, Vygotsky also included the benefit of writing as it develops the meaning of the child's actions and gives a deeper understanding to their speech (Vygotsky, 1986 [1934]). It is contested that language is the most significant of all cultural tools employed by learners:

The main premise of Vygotsky's most famous work [*Thought and Language*] is the inter-relationship between thought and that most universal of cultural tools – language. He maintained that thought is internalised language. (Palmer and Dolya, 2004: 16)

Although speech is very much a matter of individual development, it is also an intensely social activity which is enhanced through interactions with others. It is through speech that children are able to reflect, make plans and help nurture behaviour and solve problems (John-Steiner and Soubelman, 1978). Children often think aloud to try and make sense of an activity or a situation, which Vygotsky termed the external monologue. This then transfers into the internalisation of thought, and the sophistication of thinking is enhanced by the language development of the child. This internalisation is the manner by which a child constructs and understands 'the world through his or her collaboration in social activities, and this includes the talk that occurs between skilled and less skilled participants' (Urquhart, 2000: 61). Therefore, the linguistic skill of a child is not merely a function of language which helps create sentences; it additionally affects their thinking and learning. Similar to Piaget, Vygotsky noted that children speak out loud without actually talking to anyone in particular. This occurrence was termed 'egocentric speech' by Piaget. Vygotsky developed this concept to explain that children were giving themselves verbal directions when they met problems as a way of thinking through possible solutions and what they could do next. As such he argued that egocentric speech 'is the intermediate stage between the social, interactive speech of adult-child conversations and the "underground" stage of genuine, private thinking' (Van der Veer, 2014: 63) – the idea being that the child guides themselves through problems and that coherent thinking is further developed by conversations with adults. Moreover, Vygotsky considered 'speech as the most important mediating device in human behaviour' (Wertsch, 1991: 32). The significance of speech in a child's learning and development is best explained by Vygotsky himself:

A child's thought, precisely because it is born as a dim, amorphous whole, must find expression in a single word. As his [*sic*] thought becomes more differentiated, the child is less apt to express it in single words, but constructs a composite whole. Conversely, progress in speech to the differentiated whole of the sentence helps the child's thoughts to progress from a homogeneous whole to well-defined parts. (1986 [1934]: 219)

The use of talk is increasingly being recognised in schools as a learning strategy to assist children to express their ideas and thoughts. The significance of speech as a learning process was highlighted in the influential Bullock Report (1975) – *A Language for Life* – which emphasised the importance of talk in classroom practice (Bartlett and Burton, 2016). The application of talk will be considered later in this chapter.

Vygotsky also emphasised the importance of play in a child's development. In their play, children as young as three can both experience gratification and develop skills for their future. Although he stressed the importance of play in learning, he put this particularly into 'the context of language and social connection: language is the tool for thought while social intercourse is the means by which it is developed' (Thomas, 2013: 54). He argued that before the age of three a sense of imagination is missing.

Imagination, he suggested, originates from action and play (Vygotsky, 1978). Moreover, the active and interactive aspects of play enhance the opportunities for young children to become skilled in communication and social processes; furthermore:

... they are not fearful of trial and error nor weighed down by tight notions of success and achievement. They are actively engaged in the learning processes more than actively pursuing learning goals. (Collins et al., 2002: 25)

During play, children copy the way that adults conduct themselves in their culture and in so doing prepare themselves for their future responsibilities and values. Therefore, in play they start to gain the attributes needed for involvement within a social environment, which can only be truly obtained with help from other children and adults (John-Steiner and Soubberman, 1978). Indeed, a child during play will 'behave beyond his [*sic*] average age, above his daily behaviour ... as though he were a head taller than himself' (Vygotsky, 1978: 102). According to Vygotsky, what is important in play is that the child's imagination works within a set of rules of behaviour. For example, if they are playing the role of a parent then parental behavioural rules are obeyed. This is **self-regulation**, which, if nurtured, can lead the child to develop a set of higher mental functions which in turn enable them to make the 'transition from being "slaves to their environment" to becoming "masters of their own behaviour"'. 'Self-regulation behaviours ... include delaying gratification, being able to rapidly switch between different tasks, focussing attention and controlling one's emotions' (Bodrova, 2006).

During play and games, children copy the behaviour of adults within a known and recognised cultural model, and in doing so they create opportunities for learning and develop their self-regulation:

Initially, their games are recollections and re-enactments of real situations; but through the dynamics of their imagination and recognition of implicit rules governing their activities they have reproduced in their games, children achieve an elementary mastery of abstract thought. In this sense, Vygotsky argued, play leads to development. (John-Steiner and Soubberman, 1978: 129)

Play, he proposed, is a vital element for a child's intellectual development and acts as a precursor for what takes place in school. Learning in play and learning in school should be perceived as equally important and they should both generate a **zone of proximal development (ZPD)**. In each of these contexts children build upon cultural and social proficiencies and information that develops through internalisation and interaction with more knowledgeable others (Vygotsky, 1978). Before exploring ZPD further, it is fitting to consider Jarvis et al.'s view on the importance of ZPD in educational thinking: 'Only with Vygotsky's zone of proximal development does potential to grow and develop occupy a significant place in learning theory' (2003: 41).

ZPD endeavours to illustrate the difference between what a child of a certain “mental age” can do without help, and what the same child can achieve with the benefit of adult assistance’ (Moore, 2000: 16). Specifically, ZPD is:

The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978: 86)

Vygotsky contested the significance of ‘mental age’ in a child’s intellectual development. He thought that there were two principal areas of importance for the concept of ZPD. The first area concerns the ways in which the more knowledgeable other person in the same cultural and social environment helps develop the child. Such help will involve working at a marginally higher level than the child’s current level of competence. The other area of importance, and disquiet, for Vygotsky was how cognitive development was measured. For him what was important was the child’s potential for learning with the assistance of an adult or with a more ‘capable peer’ rather than what the child can do on their own. However, this viewpoint of ZPD became quite contentious in the politics of communist Russia. Vygotsky argued that those children entering school from socially and culturally nurturing families where books and artefacts were commonplace were at an advantage over those children who were not exposed to the written word. This, he contended, was because those children from advantaged backgrounds had a head start when they began school as they had already covered most of the ZPD required by the state school curriculum. He found that those from more privileged backgrounds soon became bored because school did not challenge them, and hence he argued for differentiated teaching to cater for the zones of development for individual children. The controversial nature, then, was that:

Vygotsky’s plea for instruction in the zone of proximal development essentially boiled down to advocating a practice that preserves cognitive differences between children that are based on social class. That would certainly have been a very unwelcome suggestion in the Soviet period. (Van der Veer, 2014: 86)

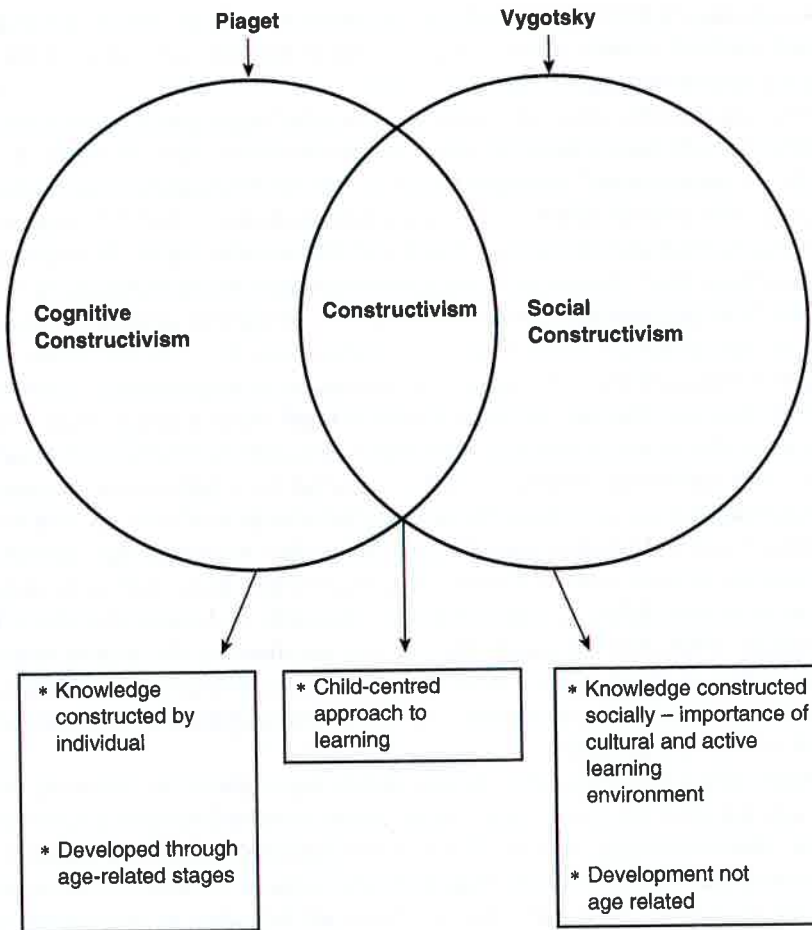
On account of his conviction regarding the significance of cognitive development being a process rather than an outcome he was against summative assessment, favouring assessment which was developmental and formative in nature. Although it is recognised that ZPD has had a great impact on understanding how children learn and what educators can do to provide a quality experience for their pupils, what Vygotsky did not stipulate was what happened within the ZPD for development to take place (Keenan, 2002). Vygotsky considered that different learners had different levels of capacity in their ZPDs, which result in ‘different potential within that specific context, and that they can be nurtured through teaching’ (Jarvis et al., 2003: 37). This ‘nurturing’ or application of ZPD, which can be termed *scaffolding*, was left for others, mainly Jerome Bruner, to develop further.

Scaffolding, therefore, is the nature of the assistance the child has from, and with, the adult or more 'capable peer' to undertake a task or solve problems (Scott, 2008). It is an active practice between the child and adult where the type and level of guidance given to the child will hopefully result in successful outcomes of learning. Once success has been achieved, the child is then confident enough to undertake a comparable task without help. Adults should support and persuade the child to work at the peak of their capability. In short, Olson describes scaffolding as a 'kind of teaching by modelling, showing and telling' (2014: 45). Then once the child achieves success, the level of support and guidance from the adult is reduced but at the same time the child is urged to push ahead and try more developmental tasks. The process is one where there is a shift from the child being regulated by others to one of self-regulation, the idea being that the teaching involved in scaffolding is not just focused on filling the void of the ZPD, but rather creates new forward-looking opportunities for future development (Van der Veer, 2014). The vital aspect of successful scaffolding is that the adult should know the child and their capabilities and be responsive to their needs (Keenan, 2002). A significant element of successful scaffolding belongs to Vygotsky's ideas on the importance of language in a social and cultural context. As such, the language the adult uses with the child should be adapted to their needs but also stretch the child's thinking in a supportive way which takes them to the limit of their potential learning (Urquhart, 2000). After exploring Vygotsky's links with other theorists and then briefly critiquing his ideas, the chapter revisits these concepts by considering their application in practice.

## LINKS WITH OTHER THEORISTS

There has been a large number of educational philosophers who have been influenced by the works of Vygotsky; many of these could be loosely termed 'social constructivists'. His own philosophy, however, was shaped by the writing of Friedrich Engels, who argued that human beings evolved by using and adapting the tools of labour and, more specifically, the tools of intricate language systems which made humans intelligent, good-humoured and inquisitive (John-Steiner and Souberman, 1978). Perhaps the most celebrated link is with Piaget. Although there is a certain similarity between the ideas of Vygotsky and Piaget in that they both considered learning to be active and child-centred, there are significant differences. It can be seen from Figure 4.1 how their ideas overlap and have commonality, and how they diverge. Piaget, as a cognitive constructivist, considered that children move through a succession of age-related stages of individually constructed development and learn through teaching which is confined to the child's stage of development. Unlike Piaget, what was important for Vygotsky as a social constructivist was not the age of the child, but the notion of cultural history and the use of speech and thought in a socially interactive environment to shape their thinking (Wood, 1998).





**Figure 4.1 Piaget and Vygotsky's constructivism: commonality and divergence**

The idea that learning is socially interactive is very much aligned with Dewey, who felt that teaching should not be didactic or based on the predetermined restrictions within a subject-specific curriculum (Scott, 2008). Reggio Emilia schools (Lois Malaguzzi) also employ Vygotsky's ideas, 'where dialogic teaching and thinking between children and peers, children and adults, and teachers and parents is fundamental to the project-based curriculum' (Woods, 2008: 317). As we have already seen, Bruner applied the concept of ZPD and practical ideas for scaffolding. There are close links with the concept of ZPD learning in the support of more capable others within Lave and Wenger's notion of situated learning and how culture and observation were key to learners building skills as part of the process of apprenticeship. Both Guy Claxton's *Building Learning Power* and epistemic apprenticeship and Barak Rosenshine's principles of

instruction promoted ZPD and scaffolding. However, it is argued that both Claxton and Rosenshine applied a more active coaching and prompting style of scaffolding than Vygotsky or Bruner envisaged.

Vygotsky stressed the value of communication and highlighted from research that the teacher's speech has a profound effect on the intellectual development of a child's learning in a classroom environment (Wood, 1998). His association between language and learning and cultural history has connections with the somewhat more contemporary thinkers, such as French sociologist and philosopher Pierre Bourdieu and the British sociologist Basil Bernstein. Bourdieu emphasised the importance of culture in driving the learning process, particularly for the privileged groups in society. He argued that the language used in the curriculum and by educationalists gave an advantage to those learners who were brought up in a culture where such language was in everyday use (Moore, 2000). Bernstein's work with language was more specific. He used the terms 'restricted' linguistic codes, which related to working-class language, and 'elaborate' linguistic codes, relating to middle-class language. He argued that this gave an advantage to middle-class children who were well versed in the 'elaborate' code used in school (Moore, 2000: 84). Although this appears to be quite a negative view, Bernstein stressed that the teacher–pupil interrelationship was the key to how the 'different class factions were able to access the curriculum in schools' (Scott, 2008: 82). Benjamin Bloom also emphasised the importance of language development, particularly for learners in their early years. Albert Bandura, like Vygotsky, also stressed the importance of language development in individuals taking control of their social potential.

Vygotsky's belief that education should match the cultural and historic needs of learners was adopted by Paulo Freire in his drive to raise levels of adult literacy in Brazil and other developing nations. Freire urged teachers to adapt a pedagogy which complemented the learners' social, historical and cultural backgrounds (Freire, 1996 [1970]). Like Vygotsky, the adult educator Malcolm Knowles advanced the idea of learners building upon their past experiences through problem-based active learning approaches. In the same way Carol Dweck considered that learning was a progressive process, that teaching should begin with what the learners already know, and that priority should be given to how pupils learn rather than the outcomes of learning (Aubrey and Riley, 2019). Vygotsky's thoughts on language and social and cultural history have had an ongoing influence on other educational thinkers, which have consequently had an impact on classroom practice.

## CRITIQUING VYGOTSKY

Although Vygotsky's theories have had a significant impact on how educationalists think about and apply their practice, there are some aspects of his ideas which others have criticised. Mainly it is his notion of ZPD which many have misgivings about even

though the general idea holds a degree of fascination. Measuring the extent of difference between what the child can do on their own and what it can do with the help of an adult is a complex and challenging undertaking. Furthermore, it is difficult to gauge whether the help of an adult can be accurately differentiated to meet the particular needs of the child's ZPD. Hence the danger could be that the adult may either go beyond, or indeed, undervalue the child's potential (Wood, 1998). There is also some disquiet about the notion of children's dependence on adults, or peers, in the solving of problems. For example, in a school setting this assistance could be misinterpreted as cheating; conversely, in many social environments not seeking help in problem solving from a more 'capable other' could be considered as imprudent (Rogoff, 1990).

According to Vygotsky, assessment should focus on the development of the child with the assistance of a more 'capable other'. This is both an innovative concept and one which would be very difficult to implement in practice. His idea is that assessment should take into account what the child would be able to do alone, not at the time, but in the future. This in turn would bring the processes of teaching and assessment much closer together as part of the ZPD. However, the idea of the assessment for development in the future and hence a closer link between teaching and assessment would be very complex to standardise. This standardisation could be impractical in a classroom environment, because the nature and level of assistance to be provided to assess potential would be dependent on the needs of the individual child (Scott, 2008).

As we have seen, Vygotsky did not offer much about the application of the ZPD apart from the notion of scaffolding, which involved the adult asking questions, giving demonstrations and offering possible solutions to problems. He did not stipulate what the role of the child would be in negotiating the scaffolding process with the adult. It is suggested, as the adult is designated as the expert, that the scaffolding process could become somewhat one-sided and directed by the adult. A preferable and more inclusive notion of scaffolding has been proposed by Rogoff (1990), who used the terms 'guided participation' and 'apprenticeship', which are more specific inasmuch as they emphasise the active involvement of the child in their cognitive development. Furthermore, Rogoff's adaptation of scaffolding has, unlike Vygotsky's original idea, the benefit of including not just one adult and one child but learning that takes place within a community. Both experts and children learn and support each other by exploring resolutions to problems in a shared social and cultural environment (Rogoff, 1990).

## APPLYING VYGOTSKY IN THE CLASSROOM

Before we consider the practical classroom aspects of Vygotsky's work, it is fitting that we briefly remind ourselves of what he thought learning entailed from a teacher's and student's perspective. For Vygotsky, learning is a social, collaborative and interactional

pursuit which is tricky to explicitly teach; rather, the role of the teacher is to prepare the conditions for learning which then supports the learning to take place (Cohen et al., 2004). Perhaps, just as importantly, 'the role of the teacher is to know the children so well that he or she knows when to intervene but not to interfere' (Hall et al., 2014: 50). Vygotsky's ideas, and those which have been developed since his death, have considerable practical implications in the classroom. Most writers indicate the child's (novice) learning develops because of the teacher's (expert) ability to resolve problems, their detailed knowledge and their sense of responsibility. Moore suggests there are four major implications for applying Vygotsky's theories:

- the importance of not waiting to teach something until the child is deemed able to 'absorb' it (this can apply to the use of reading schemes in primary schools just as much as to the development of scientific concepts with older students)
- an opposition to the use and typically limited or misleading results of diagnostic tests that forbid any help being given to students by other students or by the teacher
- an emphasis on the development of independent *processes of learning* rather than the memorising and regurgitating of facts or 'knowledge'
- the importance of perceiving learning, in all phases of schooling, from a genuinely cross-curricular perspective.

(2000: 19, emphasis in original)

The main practical applications of Vygotsky's ideas, then, are laid out above, but for young children the importance of play cannot be underestimated. It is during play that they cultivate relationships with others to make sense of what is happening; they do this by using the cultural tools of language and acting by copying the ways of others. In this way they become secure in what they are doing, make up and abide by rules and are more likely to then play and learn independently. Therefore, it is argued that play between children should be encouraged as, although such play may not have definitive objectives, it can promote experimentation and creativity which may help resolve problems in the future (Rogoff, 1990; MacBlain, 2014). It is during play, particularly when the child models the ways of adults, that teachers have the opportunities to nurture children's self-regulation. Bodrova (2006) makes the point that with 'this kind of mature make believe play, young children make their first attempts at self-regulation by constraining their behaviour to a set of actions defined by the play role'. She further suggests the following three broad outlines on how to scaffold the development of self-regulation:

1. Need to make sure children engage in other-regulation – a well-behaved child is not necessarily a self-regulated child.
2. Teaching and learning of specific cultural tools including but not limited to private speech. (Such as letter and number charts, wall displays, rhymes, and games.)

3. Making sure that make believe play not only happens but reaches its well-developed form – by providing the environmental conditions, and fitting resources, under which self-regulation can flourish.

(Bodrova, 2006)

The role and speech of the teacher are also significant factors in developing the child's cognitive development. The teacher's talk will at one time be repeated and internalised by the child, which in turn develops thought and makes sense of situations. However, what makes Vygotsky appealing for teachers is that he believed the manner of interaction between adult and child was a core factor in cognitive development. An experienced and sensitive teacher modifies their degree of help to match the needs of the individual child and would adapt their *instruction* (scaffolding process) according to the reactions of the child. In this way it is not only the child's cognitive development that improves, but the teacher also enhances their practice by refining their own communication to use with other children (Urquhart, 2000). The difficulty of teachers responding to each child's needs in a differentiated manner in a busy classroom setting is recognised. Moore, however, offers four models of differentiation, which are differentiation by 'outcome', 'response', 'task' and 'stimulus' (2000: 108), and it is considered that these could be adapted to reflect the significance Vygotsky placed on language, culture and the child's potential for development.

Vygotsky would have approved of teachers supporting children in solving problems at a level higher than they were currently assessed at. This approach would also encourage teachers to reach for the uppermost stages of the child's achievement and consequently offer a more knowledgeable assessment for potential. What is central to this process of scaffolding and reaching for the child's potential for development is the teacher's skill at indicating what the main aspects of the problem are. This is not a matter of telling the child how to solve the problem so they will be able to learn by rote and do it themselves next time. Rather, it is about pointing them in the right direction, so they can internalise and make sense of the task needs, so that in future they will be able to solve a similar problem. Therefore, it is the scaffolding skill of the adult to make the major points of a problem, or task, clear to the child, which is paramount to teaching. From a Vygotskian viewpoint it is at the heart of how lessons are planned, how resources are selected, what learning and teaching strategies are employed, how **questions** are asked and how feedback is given (Urquhart, 2000). The value of **questions within** the scaffolding process is not to be underestimated. By the teacher asking **challenging** questions the child will build and refine their own understanding and **thought** processes, and this will help them in talking about the way in which they **use these** to give an answer and hence develop cognitive learning and language **skills** (Muijs and Reynolds, 2001).

For Vygotsky, purposeful assessment is related to the child's potential with the **help** of an adult rather than measuring what the child can currently achieve on their **own**. Here we see a difference between a Piagetian approach to assessment, which

would be summative in nature and measured against levels where a child should be, and Vygotsky's, which would favour formative assessment, concerned with working towards levels (Moore, 2000: 23). Providing students with rich, informative feedback operates as a scaffold for learning – but not by giving the correct answers, rather by empowering them to work out the answers for themselves (Cohen et al., 2004). The interaction between teacher and student in giving feedback also has the overall benefit of enabling 'students to improve their learning processes' (Sortkaer, 2019: 719). This preference for formative assessment, it is suggested, would also require teachers to reconsider their practice, with assessments being undertaken individually following discussions between teacher and child rather than the reliance on pre-set diagnostic assessments. Teaching itself would not be organised in age-ability levels; each child would be involved in individual goal setting, and one-to-one and small-group tasks would be preferred to teaching the whole class (Moore, 2000). All of which suggests a view of teaching which is actively constructed with others and not didactic rote learning where facts are offered as rigid interpretations of knowledge (Scott, 2008).

Such Vygotskian practice, much the same as Dewey's ideal, would further suggest a move away from a traditional subject-specific curriculum where knowledge is acquired in separate silos and structures. Even though the primary curriculum does set out to focus on themes and topics which involve cross-curricular aspects, there is still a bias towards subject-specific topics, such as literacy and numeracy, and in the secondary sector there is little evidence of cross-curricular learning. This, according to Vygotsky, divides teaching into a restricted specialist and behaviourist model for the acquisition of specific skills and a more developmental approach which transcends subjects. His preferred model, which has different connotations today, he termed 'instruction'. He argued that this holistic and cross-curricular approach to teaching had much more value for cognitive development as it allowed the child to reflect with others on what they had learned and they would be able to transfer that learning to other tasks and subjects. Furthermore, this model gives the opportunity for children to talk through complex tasks and their solutions with fellow pupils and teachers with the possibilities of using them in an array of situations (Moore, 2000). The application of Vygotsky's theories has been taken up by Reggio Emilia pre-primary phase schools, which offer a project-based curriculum where learning is centred on discussion and enquiry between children, teachers and parents.

The application of Vygotsky's ideas involves active learning where students are given a degree of independence and influence over the direction of their learning. Active learning can include problem solving, discovery and investigatory work. It can, for example, involve small-group collaborative project work, discussions, role play and project work. Kyriacou argues that the following benefits are possible for active learning:

- such activities are intellectually more stimulating and thereby are more effective in eliciting and sustaining pupil motivation and interest in the activities
- such activities are effective in fostering a number of important learning skills involved in the process of organising the activities, such as organising their own work during individualised activities, interaction and communication skills during cooperative activities
- such activities are likely to be enjoyed, offer opportunity for progress, are less threatening than teacher talk activities and thereby foster more positive pupil attitudes towards themselves as learners and more positive attitudes towards the subject
- cooperative activities in particular enable greater insights to occur regarding the conduct of the learning activities through observing the performance of peers and sharing and discussing procedures and strategies.

(Kyriacou, 1991: 42)

Kampouri et al. (2020) used Vygotskian social constructivist principles with learners who have English as an Additional or Foreign Language; this included learners with differences in language, cultural differences, and a diverse level of academic ability. They maintain that for these learners to have a successful learning experience, teachers should use techniques such as negotiation of meaning and collaborative learning which includes real-life problem-solving activities. Kampouri et al. offer the following techniques to foster social constructivist learning:

- reciprocal questioning – which encourages working together to ask and answer questions
- jigsaw classroom activities – where small groups of students become experts on one part of a bigger problem and each group educates the others on their speciality to attain overall conceptual understanding
- structured controversies – where students work together on a common goal.

(2020: 228)

Finally, it is argued that teachers in all schools are very conscious of ZPD and the value of scaffolding in children's cognitive development. Understandably, however, there is perhaps an element of apprehension in using what might be perceived to be a more learner-centred and discursive teaching style, especially with the constraints of the National Curriculum and Standard Assessment Tasks (SATs) (Bartlett et al., 2001). Nevertheless, even today, Vygotsky's ideas have a number of positive implications for practice in the classroom. These implications focus on interaction, the use of language, the role of the flexible and sensitive teacher, a formative approach to assessment and the avoidance where possible of subject-specific teaching.

### OVERVIEW OF APPLICATION: VYGOTSKY'S IDEAS FOR CLASSROOM PRACTICE

It is suggested there are a number of thoughts about the application of Vygotsky's social constructivism discussed above. However, the following points are offered as a brief synopsis of what to think about when planning and using his ideas in practice. This synopsis is not by any means a comprehensive list, but just some ideas which you could augment from your own practice and in discussion with others.

- Create a student-centred, collaborative and active learning environment where all are actively involved – stressing the importance of speech and writing in activities.
- When planning, involve tasks and approaches which include ZPD and scaffolding which are differentiated to challenge all learners.
- Prioritise summative and developmental assessment wherever possible.
- If appropriate include play, wall charts and games.
- Consider using cross-curricular topics if possible.
- Apply a dialogic approach to teaching and questioning which stimulates thinking, and encourage students to talk through complicated tasks.
- Promote the use of group problem-solving project activities which encourage discussion between the group members and with the teacher.

## SUMMARY

Despite the fact that it is more than eighty years since his death and despite the comparative paucity of his written output, Vygotsky's theories still have an impact on both academics and practitioners alike. Many of his ideas have been adapted and developed further by more contemporary thinkers and writers. His ideas, which were quite radical for his time, are still used in teacher education and considered to be the basis for high-quality teaching.

His thoughts on the importance of the cultural history of children and the use of language and speech have helped educators to better understand the processes of cognitive development. Vygotsky believed that cognitive development was a social and interactive process which began during children's early years with play. During play children begin to make sense of the world through imagination, the creation of rules and modelling the behaviour of others. Young children often think out loud, using an external monologue, trying to make sense of what is happening, which then develops or is internalised as thought. The development of thought, then, is closely linked with the linguistic skill of the child.



He also argued that the role of the teacher was vital in assisting children to carry out tasks within their ZPD, tasks which were slightly beyond their competence if alone, but which they could manage with guidance. This guidance by teachers through the scaffolding process is managed by prompting discussion through questions and answers, offering possible solutions to problems and demonstrating. The skill of the teacher within this socially constructed learning is to offer the child a problem within their ZPD and then support the child to successfully solve the problem. In doing this, Vygotsky's idea of teaching was very discursive and child-centred with an emphasis on a cross-curricular approach to learning. He also opposed the use of diagnostic and summative assessment and argued for the use of formative assessment as a truer reflection of a child's potential.

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## GLOSSARY OF TERMS

### **Cultural–historical social activity theory**

Highlights the significance of how social and cultural backgrounds influence children's cognitive development. Broadly speaking cultural–historical social activity theory infers that cognitive development is dependent on the children's historical context, that learning is a collaborative process, and involves the use of various communication tools including symbols, numbers and language.

### **Internalisation**

Children often think aloud to make sense of a situation. This then changes to the internalisation of thought, and the intricacy of thinking is further enriched by the child's language development. Internalisation is the way the child makes sense of the world through social interaction, where language skills enhance communication competence as well as shape the way the child thinks and learns at a higher level.

### **Scaffolding**

(See 'Zone of proximal development' below.) According to Vygotsky this is the form of help from an adult, or capable other, which enables the child to solve problems or achieve given tasks that would have otherwise been beyond their level of competence, the intention being that when the child achieves success through scaffolding they are then sufficiently confident in attempting similar tasks on their own. Successful scaffolding requires the adult, or capable other, to be aware of the individual child's abilities and to be responsive to their needs.

**Self-regulation**

The ability of a child, particularly in play, to regulate their behaviour. This includes delaying gratification and being able to quickly change between varied activities, focus their attention and adjust their emotions. For Vygotsky the nurturing of self-regulation can develop the process of higher mental functioning.

**Social constructivism**

Emphasises the importance of both culture and environment in the manner in which children make sense of the world they experience, through social interaction. As such, social constructivism is a series of practices, strategies and ways of thinking that children adopt to create knowledge from how they see the world around them.

**Zone of proximal development (ZPD)**

The gap between what a child can do without any help and what they can do with the help of an adult or capable other.

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