

UNIVERSAL UNITS

UNIT 3

CONSTRUCTIVIST THEORIES OF LEARNING

Learning outcomes

Trainees will:

- Be familiar with three main developmental/constructivist theories of learning,
- Understand the significance of these for a range of pupils with SEND,
- Be prepared for reference to child development in several of the modules including BESD, ASC and MLD, and
- Consider how these theories may relate to building pupil skills in a wide range of outcomes.

ONLINE RESOURCES

The content and tasks throughout these PDFs are supported by online resources that are designed to facilitate and supplement your training experience.

Links to these are signposted where appropriate. The resources use graphics and interactive elements to:

- Highlight salient points
- Provide at-a-glance content summaries
- Introduce further points of interest
- Offer visual context
- Break down and clearly present the different stages and elements of processes, tasks, practices, and theories

The online resources offer great benefits, both for concurrent use alongside the PDFs, or as post-reading revision and planning aids.

Please note that the resources cannot be used in isolation without referencing the PDFs. Their purpose is to complement and support your training process, rather than lead it.

You should complete any learning or teaching tasks and additional reading detailed in this PDF to make full use of the Advanced training materials for autism; dyslexia; speech, language and communication; emotional, social and behavioural difficulties; moderate learning difficulties.

To find out more about the resources, how they work, and how they can enhance your training, visit the homepage at: www.education.gov.uk/lamb

The first resource for this unit can be found here:

www.education.gov.uk/lamb/besd/learning-theories/intro

Theories of learning are valuable to teachers in so far as they provide a framework in which they can operate and adjust their practice. Theories of learning have arisen in different disciplines, for example behaviourism, where the focus is on the observable and the measurable such as the work developed from Skinner and his experiments around conditioning, (See the unit on SEBD for further explanation), Cognitivism, where the focus is on brain function and in particular focuses on how the memory is thought to work- see the MLD units and units on Autism for exploration of working memory. Neuro-science also focuses on brain function but relatively few findings as yet have direct application to the classroom.

The third strand, which is the focus of this unit, is constructivist theory. The next section gives a brief outline of three of the main theories that inform educational practice regarding how constructivists conceptualise learning. Evidence suggests that many teachers are not familiar with these theories, particularly in the secondary sector. Understanding the progression pathway that the pupil may be travelling along is crucial to supporting every child to make progress and in identifying the next steps for individual progress and can help teachers to set meaningful success criteria with the pupil. Both can be relevant to thinking about how pupils with SEND learn and what the next stages of learning may be for them to make progress. It should be remembered that unlike behaviourist approaches, there is relatively little in the way of empirical evidence to back up many of the theories espoused by constructivists.

This has been one of the focal points for criticism of this approach, together with a concentration on the maturational approaches favoured by theorists such as Montessori. However, the theories we look at here are not dependent solely on the 'discovery learning' model and you will notice in some approaches the adult plays a significant part in structuring and shaping the learning.

The constructivist approaches are also relevant to the learning of pupils with SEN, as much parental feedback to the Lamb Inquiry (2009) revealed concerns about pupils with SEND becoming isolated, and failing to interact or learn alongside their peers

Theories of “typical development”

In this section you will read a brief introduction to some of the main theoreticians who have shaped Western Education through the last Century. Although now viewed with suspicion in some quarters because of the distrust of discovery learning, they are often seen as key drivers for student for child-centred, learner-centred or student-centred approaches to teaching, learning and assessment. Other criticism comes from feminist perspectives who see the potential in such approaches to reproduce social stereotyping and inequality rather than challenge it.

However, these theories can also have a key role in developing an understanding of how typical development takes place. As you will have read, our SEND legislation is based on relative concepts of how children progress and the support they may need, a decision which is heavily influenced by how teachers, other professionals and institutions view differences within their pupil cohorts.

Task 1

As you read through the following text on the theories of learning, make notes in your learning log on your reflection on the implications of each theorist for pupils with SEND. In particular, note what you think is the primary point of reference in your current practice- is it the pupil’s chronological age and how they compare to their peers, or is it what the next steps for the individual pupil might be- in other words, age or stage? Alternatively, you can use any of the video resources to ask the same question of the pupils and the teaching seen in the clips. There are some task prompts to help you in the following briefing.

See and listen to these clips:

www.education.gov.uk/lamb/audio-video

BRIEFING

Theories of Learning

Student-centred learning is an educational style that revolves around the learner. As a crude model, teachers act as a facilitator, as pupils are freer to guide their own learning based on their individual needs, interest and abilities. This idea is

contradictory to that of teacher-centred learning, which is characterised by the teacher deciding for the students what they need to learn and how they will do so. Psychologists Dewey, Piaget, and Vygotsky, all advocated a more child-focused approach to learning, which was further developed by practitioners such as Montessori.

Learning in a child-centred environment forces pupils to be active participants in their education and experience, instead of allowing them to be led by teachers. It is a widely acknowledged view that children learn better and gain a deeper understanding of material when they experience it for themselves and are able to explore it in a way that best suits their preferred learning style. In addition, child-centred learning is said to improve motivation, peer collaboration, and behaviour in the classroom.

See online resources:

www.education.gov.uk/lamb/besd/learning-theories/theories

www.education.gov.uk/lamb/besd/learning-theories/theorists

Vygotsky

Lev Vygotsky, a constructivist, (that is to say he believed knowledge is socially constructed), was most interested in how pupils' contact with the world was influenced by cultural tools, which helped them to construct knowledge. Cultural tools include language, thought, play, and imagination. Vygotsky believed that language is learned through interaction with adults and peers (through modelling), and is key in the development of abstract thought and the formation of concepts.

Task 1 prompt: *How many opportunities for such modelling do you see in your three observations? Who is the modeller- teacher, assistant, pupil or combination of all three? What is the impact of a pupil having fewer language skills than their peers on their ability to make progress in the lesson you observed?*

Interaction with a more skilled other is an essential part of Vygotsky's *Zone of Proximal Development*, which is a way of expressing the learning potential of children by comparing what a child can do on their own against what they can

achieve with the support of a skilled other. This has become incorporated into many approaches to teaching pupils with SEND. The support is referred to as *scaffolding*, which can be removed gradually as children are able to do activities on their own without support. Note that the idea of scaffolding is to *remove it step by step*.

Task 1 prompt: *how far is support actually removed over time in the lessons you observe? Or does it remain constant, which according to Vygotsky would not move the pupil through the zone of proximal development into securely mastering the knowledge, skills and understanding required. If there are TAs employed, how do they assist or hinder scaffolding?*

Another key concept in Vygotskian theory is that of *contingent support*. This is the idea that teachers should only intervene in learning when children are really stuck and need assistance to move on to the next step in the learning process. This approach, unsurprisingly, has drawn criticism from those who see it as a way of holding pupils back.

Task 1 prompt: *Doubtless the children with SEND will be receiving support, but how could the support be reduced without leaving the pupil stranded? Also, observe carefully how much adult intervention is purely because the pupil is absolutely stuck. How long are adults prepared to wait for an answer if the pupil with SEND doesn't reply immediately? Do the pupils with SEND get questioned at all?*

Vygotsky stressed the importance of collaborative learning, where students with varying levels of knowledge worked together in a group, which would allow more able students to scaffold those that needed help. An importance is put on classroom discussion, which allows children to collaborate and build knowledge together through discussion of ideas and facts.

Task 1 prompt: *Are the same pupils always the "skilled other?" How does ability grouping allow the least able to receive modelling? How might less able pupils be placed in the role of the expert during discussion and group work?*

Piaget

Jean Piaget was first an epistemologist, that is to say he studied the origins and development of knowledge. Central of his developmental theory was the supposition that when pupils learn new things they must adapt that information to fit in with the concepts they already know about. They achieve this by either assimilation or accommodation.

- *Assimilation* occurs when children transform the environment or outside influence so that it can be sorted into a pre-existing category (schema).
- *Accommodation*, on the other hand, occurs when a child changes the schema in order to accept the new information. An example of this is the idea of categorizing and labelling. To start, a young child may think that all four-legged animals are dogs, based on an adult pointing to a four-legged animal and saying, “dog”. Later, the same child would adjust their schema when they realize that some four-legged animals are called cats, cows, horses, etc.

A key concept in Piagetian theory was that of the construction of knowledge, which he believed children achieved through a trial and error interaction with their surroundings (similar to Dewey). He viewed the child as a quasi-scientist that would carry out experiments to discover things about the world. Like Vygotsky, Piaget also saw an importance in peer collaboration, as it forced children to view things from other perspectives and allows them to discuss ideas with peers at the same intellectual level and stage of development.

Task 1 prompt: *note the similarities with Vygotsky and also the emphasis on peer collaboration- how many opportunities do the pupils you observe in the three lessons get to do this? How are the pupils with SEND grouped in the lessons? What may account for any variance- teacher preference? Subject? Pupil Age?*

The stages that Piaget conceptualised according to “typical development”:

Stage	Characteristics
Sensorimotor Stage (0-2)	Infants use sensory experiences to understand the world. They gain this

	<p>knowledge by interacting with the physical world. The stage ranges from birth to two years, when children develop the ability to use language.</p>
<p>Preoperational Stage (2-7)</p>	<p>Children are able to construct concepts about the world and use reasoning to solve problems, although they are still very egocentric and find it difficult to separate magical beliefs from what is real. They are also able to use language to label things, with words and pictures.</p>
<p>Concrete Operational Stage (7-11)</p>	<p>Children are able to perform such tasks as conservation, transitivity, and classification, where they can think logically about what happens in the physical world (to concrete objects). However, they have difficulty thinking logically about abstract concepts and hypothetical events. In this stage children also develop the ability to think about things from the perspective of another—they are no longer egocentric.</p>
<p>Formal Operational Stage (11-adulthood)</p>	<p>Children move from the concrete to abstract. Adolescents are able to use information to solve problems logically and even solve hypothetical problems. Adolescents are able to use trial and error to solve problems that they don't know the answer to, and are able to think like scientists systematically testing possible solutions and using hypothetical-deductive reasoning. Adolescents also learn to grasp abstract concepts such as love, values, beliefs, and morals.</p>

Task 1 prompt: *Are there opportunities for discussion and decision taking offered in the three lessons you observe commensurate with the stages that Piaget identified?*

What about the implications for atypical pupils such as some pupils with SEND? How far do the workings of pupil democracy in your setting allow pupils to operate and be challenged within their stage of development – for example, at what age would you say a pupil could make a decision about choices for school dinners and yet this remains a focus of many ‘democratic’ interactions for many pupils up until the end of secondary education and for people with learning difficulties this can continue throughout their tertiary education.

Dewey

John Dewey was originally a philosopher, but after several years of teaching his views about the acquisition of knowledge led him to write about education. He argued that education should be a social environment where children should have the opportunity to take part in their own learning and should be able to use the curriculum provided in a way that best suits them. He stressed that schools were not only a place to learn about history and mathematics, but were a place to learn about life. Attending school gave children the opportunity to discover themselves and identify their strengths and passions. Dewey argued that child-centred learning would allow learners to address those strengths and interests and use them to better themselves. Dewey viewed teacher-centred learning as an opportunity for children to be inactive and for knowledge and ideas to be told to them without them absorbing them or thinking for themselves.

Task 1 prompt: *How often in the lessons you observe are pupils told facts? Does it vary from lesson to lesson?*

Dewey argued that children need to take knowledge and apply it to their own experiences in order to really internalise what they are being taught. However, contrary to some of the criticism of constructivism, he warned about being too child-centred in the classroom, as giving too much power to students can be just as detrimental as rote learning. To remedy this situation, he proposed a balance between the teacher providing information to students and the interests of the students. This way, teachers were able to guide children without them becoming disinterested with curriculum. From this concept the idea of hands-on learning arose,

in which children constructed their own knowledge based on direct experience with natural objects, which were chosen by the teachers. This is a concept that is similar to the views of Maria Montessori, who also stressed the role of the teacher as more of a guide or facilitator.

Task 2

With another colleague arrange to see three types of lessons that involve children with SEND. One type will be practical, one desk-orientated and one where pupils interact with each other for a large part of the lesson.

- Observe carefully how far the different theories of learning and development can be seen to be operating with the children with SEND. Discuss with a group or with your colleague.
- In your setting, which approach to understanding learning might have the biggest implications for pupils with SEND?
- Taking Dewey's idea of balance between instruction and pupil centred practice, on a scale of 1-10 where would you say the balance was struck in the lessons you observed, and what accounts for this?

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