THE REASONING BEHIND THE USE OF PRACTICAL ACTIVITIES IN THE EDUCATION OF STUDENTS WITH MODERATE/SEVERE DISABILITIES

Praktiskās darbības loma skolēnu ar garīgās attīstības traucējumiem izglītībā

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Abstract. This paper examines the background to the use of experiential learning with students with moderate/severe disabilities. The role of practical tasks and activities in the education of these students is an important one. There has been a change in the concept of learning, away from the behaviourist notions of teachers as purveyors of knowledge and students as passive receivers. Cognitive, humanistic, social and constructivist learning theories stress the importance of making sense or meaning from experiences. A review of current and past theories of cognitive development focusing on the role of experiential learning, the impact of the surrounding environment, active participation, scaffolding support for learning, the impact of emotions and the development of attitudes as well as the place of interaction, reflection and feedback is linked to implications for practice.

Keywords: experiential learning, practical tasks and activities, students with moderate/severe disabilities.

Introduction

The popularity of teaching everyday work skills in schools is longstanding, as demonstrated by the fact that in Latvia’s 1925 overall curriculum plan “almost one third of the mandatory lessons for students were dedicated to subjects which required activity-based learning by the students” (Antalogija, 1994: 14).

Lev Vygotsky (Выготский) stressed that special education must be linked to regular education in that it should follow the same principals as general education, that is that education must lead development (Выготский, 1983, 50-60). He discusses students with disabilities in terms of their “primary” and “secondary” disabilities and their interactions. The primary disability is the impairment due to biological factors but this is compounded by distortions to higher psychological functions due to social factors. Vygotsky sought to define a student with disabilities from a point of strength calling this “positive differentiation”.

For today’s students with disabilities there is a strong emphasis on practical skills and motor skills development. (Gudjons, 1998: 355) Freimanis reinforces this when he states that lessons need to focus on well-defined activity-based learning (Freimanis, 2007: 64). Subject –specific teaching and learning
programs should focus on activity-based experiences across a range of situations because “sensory experiences and words are the key to the formation of concepts, but words removed from sensory experiences transfer the process to a verbal sphere which is not characteristic for children” (Vigotskis, 2002: 120). Similarly Freimanis states that “occupational therapy has a positive effect on the child’s psyche, helps to manage and organise the child’s impulses, renews and promotes appropriate work habits, helps organise his/her activities and reduces the child’s focus on his/her own shortcomings or disabilities” (Freimanis, 2007: 180)

The aim of this paper is to analyse the literature and evaluate personal experience in order to identify the criteria for the use of practical activities for students with disabilities.

**Developing practical activities and experiences for students with disabilities. Theoretical guidelines**

Researchers Kule (Kūle) and Kulis (Kūlis) state that it is experience which shapes a person’s character and also the human condition. According to Kule and Kulis, a “cognitive entity can only be a person, who is engaged in a living relationship and endowed with will and imagination, that is, psychological characteristics”. A person as a cognitive entity is at the centre, tied to a particular time and place. Human life experiences determine people’s attitude to the world. People’s lives contain historically incurred meaning as a whole. Their lives demonstrate the sense which people make of life and which they reinforce through their actions. As a cognitive entity, people’s socio-historical understanding is based on the notion that cognitive processes, outputs, and conditions result from their socio-historical experiences. Researchers Kule and Kulis focus on knowledge creation and growth through life’s experiences (Kūle, Kūlis, 1998). For students with moderate / severe disabilities, if their most significant activity is generally practical activity, then their experiences and knowledge will evolve through this practical activity.

The philosopher John Dewey believed that children went to school to do things, so they participated in real, guided experiences which, in turn, fostered their ability to contribute to society. Therefore students needed to be involved in real-life tasks and challenges. He believed education should be based on a theory of experience which had two central tenets:

- **Continuity**: Humans are affected by their experiences. Every experience, whether negative or positive, is a learning opportunity and it is the total of these experiences which influence the nature of future experiences. Continuity occurs as each experience is stored and then carried on into the future. This is not a conscious activity.
• Interaction: The current experience can be understood as a function of the past, or stored, experience which interacts with the present situation. Any experience can be experienced differently by a range of individuals as they each have their own, unique stored experiences.

Dewey describes experience broadly and includes emotional, social, intellectual, mental and cultural experiences. He stresses that experiences are formed through experiencing multiple activities and their consequences. The experience contains both active and passive components. The overall meaning of the experience only becomes clear when the consequences of the activity are felt. Learning through experience entails creating a link between the current experience and stored experiences.

Dewey stresses the place of personal experiences in the learning process, as well as the social factors which contribute to individual experiences (Dewey, 1974). According to Dewey (Дьюи) the measure of the value of the experience is in the depth of understanding which the individual achieves through the experience (Дьюи, 2000). His philosophical and pedagogical creed is “Experience is everything and everything is experience” (Дьюи, 1997: 187). Based on Dewey’s tenet of continuity, it is possible to say that new forms of knowledge, skills and attitudes come from the experience through the constant interaction of the known with the unknown. As each experience, based on the tenets of continuity and interaction, can be unique for an individual, educators need to understand the student’s past experiences in order to better structure current learning experiences. Initially by interacting with adults and later with peers, students with moderate / severe disabilities gradually learn to share their experiences, enriching their learning and in a co-operative environment learn new knowledge, skills and attitudes.

According to empiricism, knowledge which cannot be tested through experience is unreliable. An individual can only know those things which he/she can test for themselves. Comprehension of the experience is only the first step in cognition. According to Francis Bacon (Бэкон) acquired facts need to be worked on and processed. Empiricists asserted that knowledge comes primarily from sensory experience, acquired through observation or experimentation. To increase objectivity, Bacon suggests that the experience needs to be purified, so that it is trustworthy (Бэкон, 1989). For Bacon determining the essence of a thing / experience was a process of reduction, using inductive reasoning. The inductive process assists in making sense of the world. Induction is the ability to gradually generalise a finding based on accumulated data thus building a case from the ground up. It is more than a process of enumeration, it is one of experimentation where the experience is analysed and pulled apart. His method consists of procedures for isolating characteristics and investigating the experience, including the method of agreement, the method of difference and that of concomitant variation. The method involved “a just scale of ascent, and by
successive steps not interrupted or broken, we rise from particulars to lesser axioms (could be understood as a hypothesis); and then to middle axioms (could be understood as a theory); one above the other; and last of all to the most general” (Bēkons, 1989: 36). Thus to reach the stage of generalisation, observations based on experience and inquiry are crucial.

Another who helped define the foundations of empiricism was John Locke (Loks). He stated that our actual experiences are formed through contact with elements of our consciousness: creativity, imagination, thinking, memories and feelings. “From where does the mind gain its material for thought and knowledge? To this question I answer with one word – experience” (Loks, 1977: 37) Ideas which are gained through experiences are not themselves knowledge, they are only the means for constructing knowledge. For them to become knowledge, the conscious has to process them. This process is different from feeling or reflecting as it involves comparison, amalgamation and abstraction. He stresses that sense perception (simple ideas derived from the senses) is used to turn experiences into knowledge. Locke refuted any idea of innate knowledge. As we are born without innate ideas, knowledge is instead determined by experience derived from sense perception. Thus sense perception provides opportunities for thought and cognition. As students with disabilities can have sensory disturbances, sensory training, according to Locke’s theory, would be crucial to expanding their knowledge of the world and their place in it.

Psychologist Bruner studied children’s cognitive development and interaction with their environment. He stresses the importance of lessons learned in the move from the concrete to the abstract, where the child with the help of activities uses his/her experiences to change internal interpretations (Bruner, 1996). He used the term “scaffolding” to describe how children built on material that they had mastered. “To instruct someone...is not a matter of getting him to commit results to mind. Rather, it is to participate in the process that makes possible the establishment of knowledge” (Bruner, 1966: 72).

Bruner focused on how individual’s construct “realities” based on common cultural narratives and symbols. He viewed reality as cultivated through social interaction, rather than as something that was external.

He proposed three modes of representation: enactive (action-based); iconic (image-based); symbolic (language-based). His theory suggests that when students are faced with new material, the most efficacious way to teach them is to progress from enactive through iconic to symbolic. He also suggests that a learner of any age is capable of learning new material as long as the instruction is organised appropriately. As with Vygotsky, Bruner sees social interaction having a key role in the development of cognition and language. Therefore, it is crucial in the education of students with moderate / severe disabilities to use practical activities which allow the student to “scaffold” information and to move from concrete activities to the symbolic level, to the development of
individual thought processes. It is also important that a teacher is aware that his or her conception of a learner shapes the instruction that is provided. Carl Roger’s, a leader in humanistic psychology, suggests:

- significant learning takes place when the subject matter is relevant to the personal interests of the student;
- learning which is a threat to the self e.g. new perspectives or attitudes is more readily assimilated when external threats are at a minimum;
- learning proceeds more quickly it threats to the self are low;
- self-initiated learning is the most pervasive.

Rogers argued that experiential learning, that is, applied knowledge, is more significant than cognitive learning such as rote learning. Learning is facilitated when: a student participates completely in the process and has control over its nature and direction; it is primarily based upon direct confrontation with practical, social, personal or research problems. To help students scaffold their learning teachers need to establish a positive climate and clarify the purposes of the learner. They need to organise learning resources, balance the intellectual and emotional components of learning and share feelings and thoughts with learners but not in a dominating way. By using these strategies, teachers support students to learn how to learn which Rogers emphasised as being important (Rogers, 1994).

“The principle of experiencing includes an infinitely important feature - in order for something to be recognised and accepted as true, a person must participate, more precisely, he must find such substance (in the experience) which is in accord with his self-concept. He must participate – whether this participation is through the use of his external senses, or through his deepest spirit, through the quintessential inner self” (Hēgelis, 1981: 28). Hegel (Hēgelis) suggested that the ideas people have of the world are socially constructed, shaped by the ideas of other people through the language, traditions and mores of the society. Spirit is Hegel’s term for the collective consciousness which shapes each individual. He argued that there is a collective component to knowledge. Tension arises between an individual’s unique knowledge about things and the need for universal concepts. At first the mind tries to make sense of something in an initial attempt to understand the nature of an object/task. This is followed by perception, which is the consciousness in search of certainty, the meanings that others have worked out before and transmitted through language. The tension between perception and the meaning an individual originally gave to the object/task give rise to uncertainty. Categories of thought reveal contradictions and the consciousness seeks out more adequate categories. This process of moving from the less certain to the more adequate is the process of learning or understanding and Hegel calls it the mode of consciousness. The individual’s perception collides with the universal quality of concepts. Initially there is an idea or proposition (thesis) about the world and how we relate to it but every
idea includes an inherent contradiction or flaw which leads to antithesis. Finally the thesis and antithesis are reconciled into a synthesis, a new idea which combines elements of both. Thus experience is linked to the external and also the quintessential inner self, which makes human cognition unique. Vedins highlights two basic types of implementation that are associated with actions: tangible action, where “at the core are practical activities...directed towards changes and restructuring the surrounding environment”; psychological action, where “the basic content is created through cognitive activity directed at revealing the global context” (Vedins, 2008: 559).

Vedins stresses “that practice is the universal foundation for cognition, cognition – the driving force for practical activities” (Vedins, 2008: 560). “From the first contact with external environment a child is active...sight and hearing are not passive” (Piažē, 2002: 190). That means that from birth a child is practising listening, seeing, searching for activity, deriving information from examining people and that gives them the ability to navigate the world around them.

Based on the senses complicated reflections of reality can form in the conscious: perception, concepts, thoughts (Komenskis, 1992: 152). Individuals construct an understanding of the world around them. They perceive all of their actions in relation to this understanding of their environment. While external organisation has not occurred there is no reason to believe that it has occurred internally (Piažē, 2002: 190).

Piaget (Piažē) discusses original or “direct experience” as a way that the external manifestation of objects is accommodated by the thought process, but this then needs correction, so that it becomes “true” experience. Thoughts are customised to other thoughts and reaching a state of mutual respect or dependence between these thoughts leads to the possibility of equilibrium, which creates an advantageous environment for development (Piažē, 202, 316-17). Practical activities provide students with moderate / severe disabilities an opportunity for development, including cognitive development.

Piaget stated that children construct an understanding of the world around them and then experience discrepancies between what they know and what they experience in the environment. The process of making sense of these discrepancies involves assimilation and accommodation. Assimilation is the process of adapting the environment into pre-existing cognitive schemes or structures. Accommodation involves altering the pre-existing cognitive schemes to accept something from the environment. Behaviour, adaptation to the environment, is controlled through mental organisation which Piaget called “schema” or schemes which the individual uses to represent the world and designate action. This adaptation is motivated by a need to obtain a balance or equilibrium between the schemes and the environment. In order to form clear understanding of concepts, this balance or equilibrium must be achieved.
Liepina (Liepiņa) suggests that this secondary image forms the basis of a personal experience system and a way of thinking (Liepiņa, 2008). It can be concluded that development and cooperation is a holistic process. Experiences will be more meaningful, if they occur in a social environment. Lev Vygotsky (Выготский) the father of social constructionist theory, uses the concept of the “socio/cultural” learning, that is, it is the interaction between social environment and personal experience which determine the mental development dynamics (Выготский, 2005). It is the responsibility of the teacher to create an environment which promotes active participation for students with moderate/severe disabilities and to build on the collected prior experiences in order to facilitate learning. Intellectual development cannot be understood without reference to socio/cultural context. Higher mental processes have their origin in social processes.

Vygotsky introduced the “Zone of Proximal Development” (ZPD), a methodology for an adult or more advanced peer to provide appropriate assistance. The ZPD occurs between two levels of attainment: the first is the present level of development; the second is what the student could achieve with help, his/her hidden potential. In the ZPD an adult uses the processes such as scaffolding, apprenticeships and reciprocal teaching to help the student to gain new knowledge. The techniques used must reflect the student’s needs and also be appropriate for his/her level of comprehension. Vygotsky’s methodology requires the teacher to scaffold learning so that the student’s experiences are broadened, a process which is critical for students with moderate/severe disabilities.

It is possible to categorise experiences into those that are direct experiences and those that are mediated experiences. In turn mediated experiences can be divided into other people’s experiences and universal experiences. (Tiļļa, 2005). The experiences of students with moderate/severe disabilities are all varied as they come from a rage of environments. Individuals from a specific cultural environment usually accumulate those experiences which are relevant to them in that community, in order for them to make the most of life in that environment.

Ericson discuss emotional relationships, where healthy interpersonal relationships can promote interaction, thus highlighting the importance of everyday experiences, especially those in the first two years of life, which form the foundation for motivation and actions later in life. An individual is influenced by the prior environment where the previous experiences occurred because development is guided by “a series of experiences which require a range of environments” (Ericson, 1993). Ericson stresses that while ensuring educational guidance, opportunities must be provided for the student to follow their own internal rules of development.
Changes occur in behaviour when an individual actively co-operates with others, perceives, collects, understands and applies information. These changes lead to character development and improved understanding. How well the student understands an activity is dependent upon his/her previous experiences and the level of their cognitive development. It is important to combine ideas from direct perception with emerging verbal generalisations, which will assist with reflection.

Vedins states “thought is the transformation of information corresponding to the cognitive demands of the subject” (Vedins, 2008: 561) while Hegel (Гегель) considers “Thinking is by its very nature (inherently) a denial of direct perception“ (Гегель, 1974: 97). There needs to be movement from concrete activity to a level of verbal logical generalisation. Thinking results in subjective new knowledge which cannot be gained through an unmediated experience (senses, perception, concepts). Vedins stresses that “thinking is work – serious and often hard work” (Vedins, 2008, 562) because it is mental activity. With the development of thinking comes the development of language, and vice versa, “thinking and language are a dynamic whole, with direct and reverse feedback links” (Vedins, 2008: 562). Based on Vygotsky’s findings, who sees words as a powerful tool, linguistic symbols help an individual to move from personal micro-experiences to behaviour which is socio/cultural in nature (Vygotsky, 2005).

By becoming aware of their surroundings, which can be described and experienced, students with disabilities learn to test their experiences, comparing them to other experiences.

As can be seen in the above diagram, the overall goal of cognitive exploration is knowledge. For students with disabilities such knowledge could be associated with completing practical tasks.

Vedins stresses that, in order to achieve knowledge sensory cognition, thinking and intuition are involved, as knowledge is the result of cognition, which corresponds reality.

![Diagram](image.png)

*Figure 1. Cognition and knowledge (based on Vedins 2008)*
Knowledge hinges on the following characteristics: knowledge is information which corresponds to reality; that is expressed in the form of a judgement; with a focus on a specific cognitive object (Vedins, 2008: 575).

It is important to learn to use the knowledge which has been gained. Vedins believes that “skills are a singular way of showing the existence of knowledge – skills are practical knowledge” (Vedins, 2008: 56). Zelmanis perceives skills to be the demonstration of the readiness to apply knowledge to various activities (Zelmanis, 2000). To achieve the nominated goal, Čehlova (Čehlova) believes, that students need to choose activities which correspond to the goal (Čehlova, 2002). For students with moderate/severe disabilities, practical tasks provide the opportunity for deliberate practice.

Zogla (Žogla) defines skills as the qualitative acquisition of procedural knowledge, which allows individuals to apply this knowledge using a model or apply it to a new situation, in order to achieve some practical or cognitive goal (Žogla, 2001). In a similar way Vedins stresses that the skill is the ability to address known and unexpected situations, according to circumstances. Actual practice (practice through living) is the foundation for developing these skills (Vedins, 2008: 577). For students with moderate/severe disabilities to be able to use skills in new situations, additional practice is required but attitude to performing these tasks also impacts on the level of performance. Špona (Špona) describes attitude as “an individual’s preferred communication system with the surrounding world” (Špona, 2001).

Attitude, as expressed through actions, impacts on relationships; interaction – is the condition which allows the development of attitudes and relationships (Выготский, 2005) and enables participation in activities. According to Leont’ev (Леонтьев) attitude is action to which specific emotional experiences are linked (Леонтьев, 1972), that is why, for students with disabilities, appropriate resources must be chosen, which stimulate interest and evoke positive emotions during the practical activities. During practical activities, attitudes become part of an individual’s character... and physical, psychological and social habits are formed (Špona, 2001). As it is characteristic for students with moderate/severe disabilities to have an uncritical attitude towards the outcome of activities (Liepiņa, 2008) practical tasks help to develop attitudes which makes it possible to compare performance against the stated objective, which fosters sustainable practical living skills.

Broks talks of educational activities which are specifically organised to extract life experiences utilising: cognition; reflection; action; awareness. These life experience which appear as specific knowledge, attitudes and skills and the corresponding thought process encourage an individual’s interaction with a specific environment. Life experiences consist of the thoughts which reside in an individual’s conscious and are helpful for the materialisation of new thoughts (Broks, 2007). Sternberg has researched the role of experience in contemporary
contexts and notes that when a situation occurs, it is previous experience which
will determine whether the situation will be addressed as a completely new one
or as a well known one (Sternberg, 1985).
Knowledge of the practical activity, skills to complete the activity and attitude
are all crucial when using experiential learning.

Conclusions

A review of the literature on cognitive development and its application to
students with moderate / severe disabilities, leads to the conclusion that such
students require a learning environment that supports them to undertake
purposeful learning tasks, ensuring that these are appropriate to their needs and
which utilise sequential and multi-level activities and provide opportunities for
learning through practice.
A student – centred approach is needed, not one which places a disorder or
disability at the centre. The student, his/her needs, strengths, personality and
opportunities for development and acknowledgement of the student’s
experiences need to be at the centre of the learning process.
An analysis of cognitive, humanistic, social and constructivist learning theories,
shows that in planning tasks or activities, the student’s achievement levels need
to be taken into account, not only prior knowledge, but immediate opportunities
for further development. Also crucial for the student are opportunities for
reviewing or “mulling over”, for reflection, for comparison to prior experiences.
These need to be linked to opportunities for interaction, for it is by learning co-
operatively through positive and practical activities that the student develops an
understanding of themselves and their environment.
Based on both Cultural Historic Activity Theory and its application in teaching
practice with students with moderate / severe disabilities, it is possible to define
cornerstones of practice. Central to this approach is the drawing together of prior
experience where initially the student’s personal needs are satisfied. The student
becomes the focus for different types and forms of activities and this result in
new motivation. This provides a new emotional experience and new attitudes are
formed about the aims or goals and the process. Students are guided through the
practical activity.
In practical subjects students with moderate / severe disabilities, need to be
guided by an adult to a deliberately chosen goal. This goal needs to be one that
will help the student to achieve as independent a lifestyle as possible. The
guiding or support by adults needs to be done in such a way that any feedback
given is positive, providing information about the task, the process, the student
himself or encouraging the student to evaluate, to self-regulate. Teachers need to
support the student to scaffold his/her own learning and not dominate the
process. They also need to be aware that their conceptions about the student will impact on the way they set learning tasks and provide feedback.

Bibliography

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