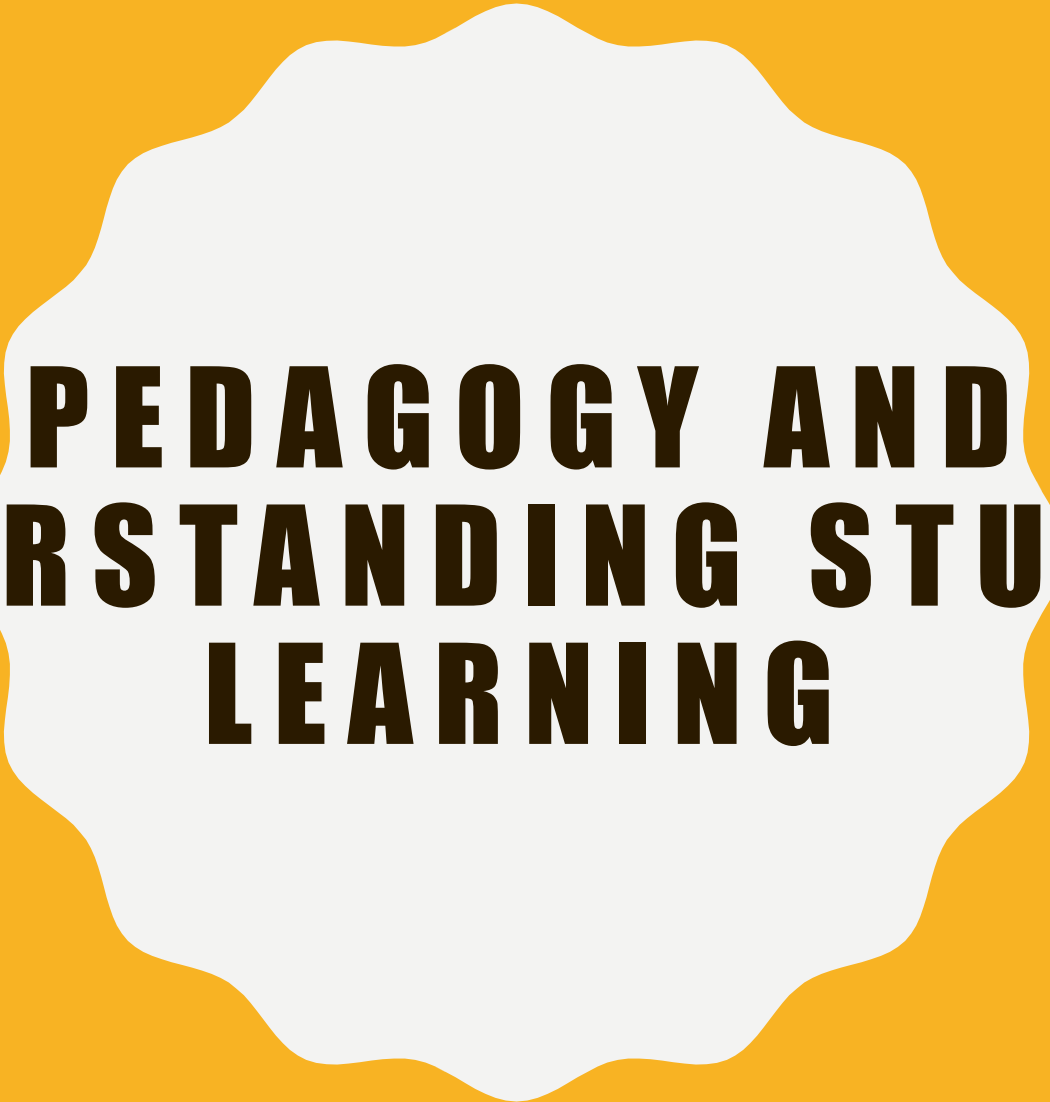




PEDAGOGY AND UNDERSTANDING STUDENT LEARNING

BY KASSYMOVA GK

PEDAGOGY

- **Pedagogy is an art.** Right from the beginning, education was assigned the status of an art – the art of teaching, of leading children to knowledge. This concept reminds us that the profession of educator first emerged in Ancient Greece.
- **Pedagogy is a science.** At the end of the 19th century, the development of such scientific fields as sociology and psychology is accompanied by the emergence of pedagogy as an applied science,” that is, it starts to be viewed as a true science. Pedagogy is now treated as a science.
- **Pedagogy is an applied science.** Today, we no longer debate whether pedagogy is an art or a science. We live at a time when pedagogy – just as medicine or politics – is viewed as an “applied science.”



So, what is Pedagogy?

HISTORY OF PEDAGOGY IN 5 MINUTES

- How was education in the past?
- Who is the “Guru”?
- Where did the “Individualized-learning approach” come from?
- Where was the teaching very strict?
- Where did the state control education?
- Where did the parents teach their children?
- Where were the children or students trained to save the city from enemies?
- Who are “Pedokrites”?
- Who made the revolutionary in the early pedagogy according to the video?
- Who was John Amos Comenius?

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UNDERSTANDING STUDENT LEARNING

- **What is learning?**
- Learning is about how we perceive and understand the world, about making meaning (Marton and Booth, 1997).
- Learning also may involve mastering abstract principles, understanding proofs, remembering factual information, acquiring methods, techniques and approaches, recognition, reasoning, debating ideas, or developing behaviour appropriate to specific situations; it is about change.
- Very frequently learning is thought of in terms only of adding more knowledge, whereas teachers should be considering also how to bring about change or transformation to the pre-existing knowledge of their learners (Mezirow, 1991).

APPROACHES TO LEARNING

- These were classified as **deep** and **surface approaches** to learning. **So, how do you understand deep and surface learning?**
- **The deep approach to learning** is typified by an intention to understand and seek meaning, to distinguish between new ideas and existing knowledge, and to critically evaluate and determine key ideas and concepts. In short, such an approach results from the students' intention to gain maximum meaning from their studying, which they achieve through high levels of cognitive processing throughout learning.
- **The surface approach to learning** is typified by an intention to complete the task, memorise information, make no distinction between new ideas and existing knowledge. Such an approach results from students' intention to offer the impression that maximum learning has taken place, which they achieve through superficial levels of cognitive processing. 'Facts' are learnt without a meaningful framework.

DEEP AND SURFACE LEARNING

How would you distinguish deep and surface approaches to learning?

EXERCISE TO THINK

Consider occasions when you have wanted your students to really think about something or take it on board in a fundamental way, but they have taken a surface approach. Why do you think this was?

THE SOLO TAXONOMY OF LEVELS OF UNDERSTANDING

SOLO stands for **Structure of the Observed Learning Outcomes**. The taxonomy is based on the study of a variety of academic content areas and the principle that, as students learn, the outcomes of their learning pass through stages of increasing complexity (Biggs and Collis, 1982; Biggs, 1999).

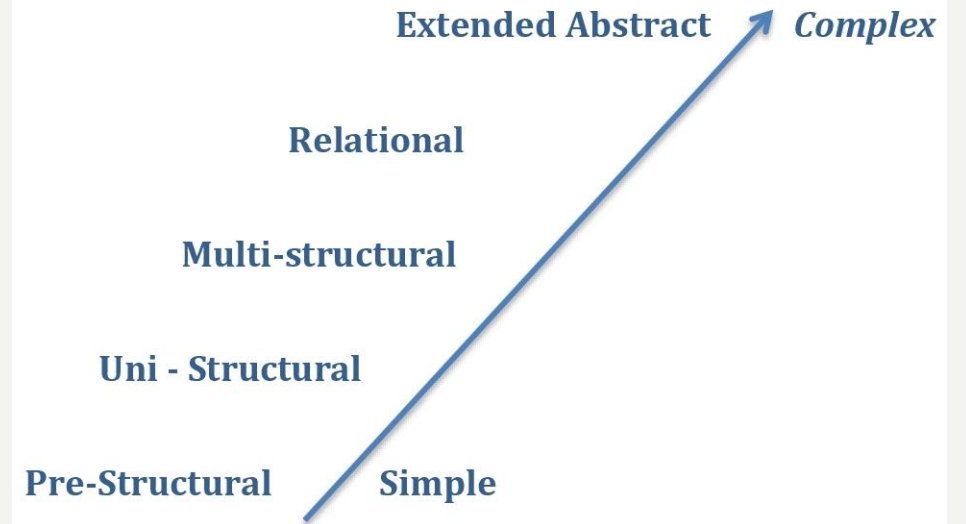
Pre-structural: understanding at the individual word level. Here, students show little understanding of relevant learning.

Uni-structural: responses deal with terminology. They meet only part of the task and miss out important information.

Multi-structural: many facts are present, but they are not structured and do not address problems.

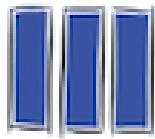
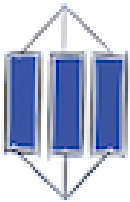
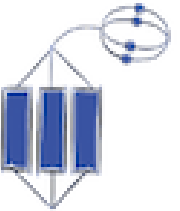
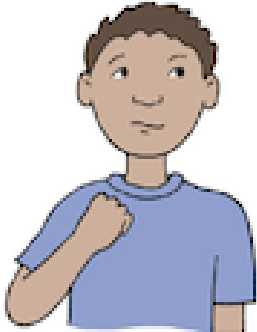
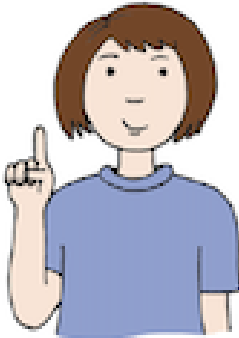
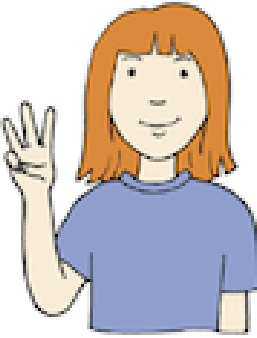
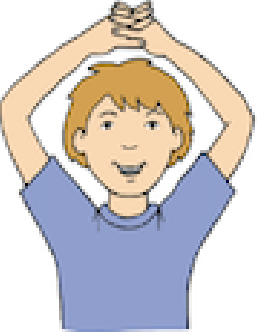
Relational: consists of more than a list of details, addresses the point and makes sense in relation to the topic as a whole. This is the first level at which understanding is displayed in an academically relevant sense.

S O L O Taxonomy



Extended abstract: a coherent whole is conceptualized at a high level of abstraction and is applied to new and broader contexts; an achievement has been made, which changes the way of thinking about issues, and represents a high level of understanding.

Table 1.1: SOLO levels, symbols and hand signs

Prestructural	Unistructural	Multistructural	Relational	Extended abstract
				
Learning outcomes show unconnected information and no organisation.	Learning outcomes show simple connections but importance is not noted.	Learning outcomes show connections are made but significance to overall meaning is missing.	Learning outcomes show connections are made and parts are synthesised with the overall meaning.	Learning outcomes go beyond the subject and make links to other concepts – generalising, predicting, evaluating.
No idea	One idea	Many ideas	Related ideas	Extended ideas
				

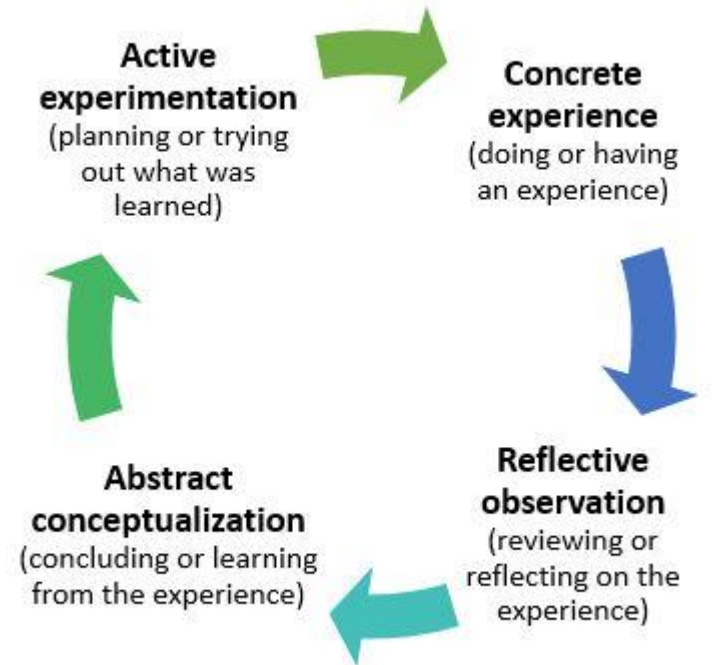
ADULT LEARNING THEORY OR ANDRAGOGY

Malcolm Knowles is associated with using the term andragogy to refer to adult learning and defining it as the '**art and science of helping adults learn**' (Knowles and Associates, 1984). Andragogy is considered to have five principles:

1. A person becomes more self-directed.
2. Adults have accumulated experiences that can be a rich resource for learning.
3. Adults become ready to learn when they experience a need to know something.
4. Adults tend to be less subject-centered than children; they are increasingly problem-centered.
5. For adults the most potent motivators are internal.

EXPERIENTIAL LEARNING AND REFLECTION

First, learners are involved fully and freely in new experiences (CE). **Second**, they must make/have the time and space to be able to reflect on their experience from different perspectives (RO). **Third**, learners must be able to form, re-form and process their ideas, take ownership of them and integrate their new ideas and understanding into sound, logical theories (AC). It is these middle two elements in the cycle that can be strongly influenced by **feedback** from others. This moves towards the **fourth** point (AE), using the enhanced understanding to make decisions and problem-solve, and test implications and usage in new situations.



The most widespread theory of learning from experience is associated with **David Kolb (1984)**, who developed ideas from earlier models of experiential learning.

LEARNING STYLES AND RELATED IDEAS

The best-known categorization of learning style is that of **Honey and Mumford** (1982). They offer a fourfold classification of **activist, pragmatist, reflect or and theorist**:

1. **Activists** respond most positively to learning situations offering challenge, to include new experiences and problems, excitement and freedom in their learning.
2. **Reflectors** respond most positively to structured learning activities where they are provided with time to observe, reflect and think, and allowed to work in a detailed manner.
3. **Theorists** respond well to logical structure and clear aims, where they are given time for methodical exploration and opportunities to question and stretch their intellect.
4. **Pragmatists** respond most positively to practically based, immediately relevant learning activities, which allow scope (сфера) for practice and using theory.

TURNING THEORY INTO PRACTICE

Selection of teaching, learning and assessment methods should be grounded in and considered alongside an understanding of theories about learning. What we understand about how students learn are the following:

1. Learners experience the same teaching in different ways.
2. Prior knowledge needs to be activated.
3. Learners may be more motivated when offered an element of choice.
4. Learners need to be able to explain their answers, and answer and ask 'why?' questions.
5. Teachers and learners are both responsible for learning happening.
6. Teachers need to be aware of the impact of cultural background and beliefs on learner behaviour, interpretation and understanding.
7. Feedback and discussion are important in enabling the teacher and learner to check their actions on understanding.
8. Formal and informal discussion of what is being learnt in a peer (small) group can be a powerful learning tool.
9. Learning best takes place in or related to a relevant context.
10. The learning climate/environment in which learners learn (e.g. motivation, interaction, support) affects the outcomes.
11. Teachers should consider reducing the amount of didactic teaching. Didactic teaching is a teaching method that focuses on teachers giving lessons (lectures) to students.
12. Assessment has a powerful impact on student behaviour.