Modern Teaching Methodologies by Piotr Derugo PhD

supported by

Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

Wrocław University of Science and Technology

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR

Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR

Some History

Frederick William I introduced compulsory schooling in 1717.

Who is most lacking? First of all: simple citizens devoted to the state who **understand written instructions and announcements**. A universal primary school is to shape **future soldiers, methodical workers and meticulous officials**.

From the class layout to the formula of classes - everything accustoms children to **individual, repetitive work**. And most importantly, the model introduced by Frederick William I and developed by subsequent rulers, teaches **respect for hierarchy and obedience.**

MODEL ASSUMPTIONS:

- Exam results determine the effectiveness of teaching
- Children are to learn the same thing, in an identical way
- The organisation of the year is adapted primarily to rural children. Hence the long holidays falling in the summer.
- A maximum of 80 people can study in one class
- Repetitio mater studiorum est

https://twojahistoria.pl/2022/03/10/prusacy-wymyslili-system-edukacji-dla-robotnikow-i-zolnierzy-do-dzis-ksztalcimy-w-nim-dzieci/

Kolb's Learning Styles & Experiential Learning

The Kolb Cycle is a four-stage learning process developed by David Kolb in the 1970s. It is based on the assumption that learning involves both a cognitive and an experiential component.

Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR

Kolb, David Allen, and Ronald Eugene Fry. *Toward an applied theory of experiential learning*. MIT Alfred P. Sloan School of Management, **1974**

Chapter 3

Towards an Applied Theory of Experiential Learning

David A. Kolb
Ronald Fry

Massachusetts Institute of Technology

The experiential learning model and its practical counterpart, the action-research method, are among the most seminal of the many contributions made by Kurt Lewin and his associates in their early work on group dynamics. From these ideas came the laboratory training method and T-groups, one of the most potent educational innovations in this century. The action-research method has proved a useful approach to planned change interventions not only in small groups but also in large complex organizations and community systems. Today this methodology forms the cornerstone of most organization development efforts.

The underlying insight of experiential learning is deceptively simple, namely that learning, change and growth are best facilitated by an integrated process that begins with (1) here-and-now experience followed by (2) collection of data and observations about that experience. The data are then (3) analysed and the

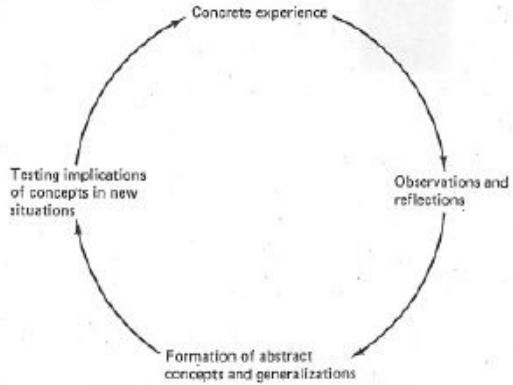


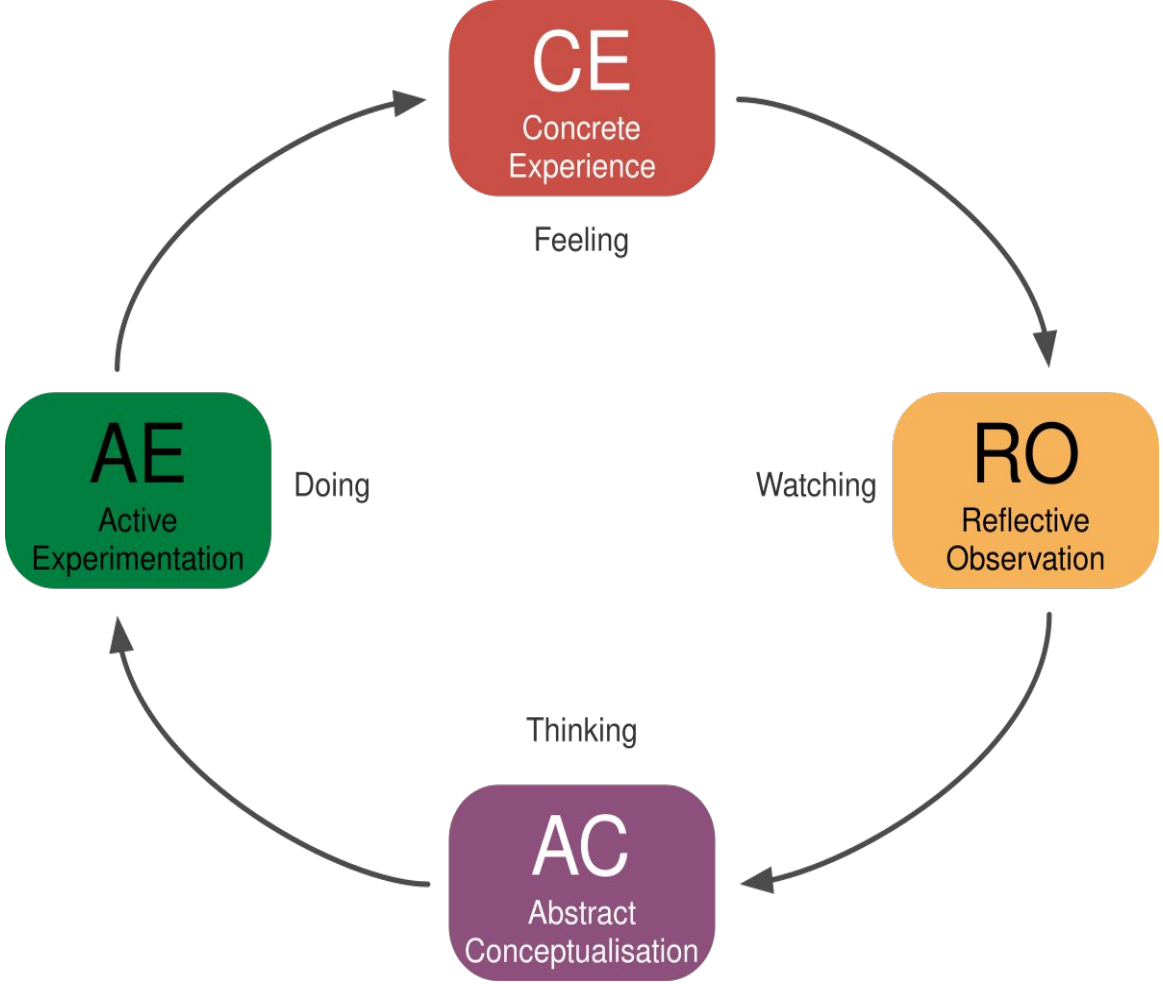
Figure 1. The experiential learning model

Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR



https://en.wikipedia.org/wiki/File:The_Four_Steps_in_Kolb_Cycle.svg

#1 Concrete experience – stage 1 of Kolb's cycle. This involves directly experiencing a situation or problem. A person must have direct contact with the subject of study in order to understand it well. In this stage, a person collects information and gains knowledge about a given issue.

#2 Reflective observation – stage 2 of Kolb's cycle. In this stage, a person analyzes their experiences, thinks about what happened, why it happened and what to do to act better in the future. Reflection allows a person to process information and transform it into knowledge.

#3 Abstract conceptualization – stage 3 of Kolb's cycle. This stage of Kolb's cycle is the creation of concepts, formulating general principles of operation of a given theory, system. A person looks for connections between different elements and creates general concepts and principles. In this way, a person organizes their knowledge and creates a frame of reference on the basis of which they will act in the future.

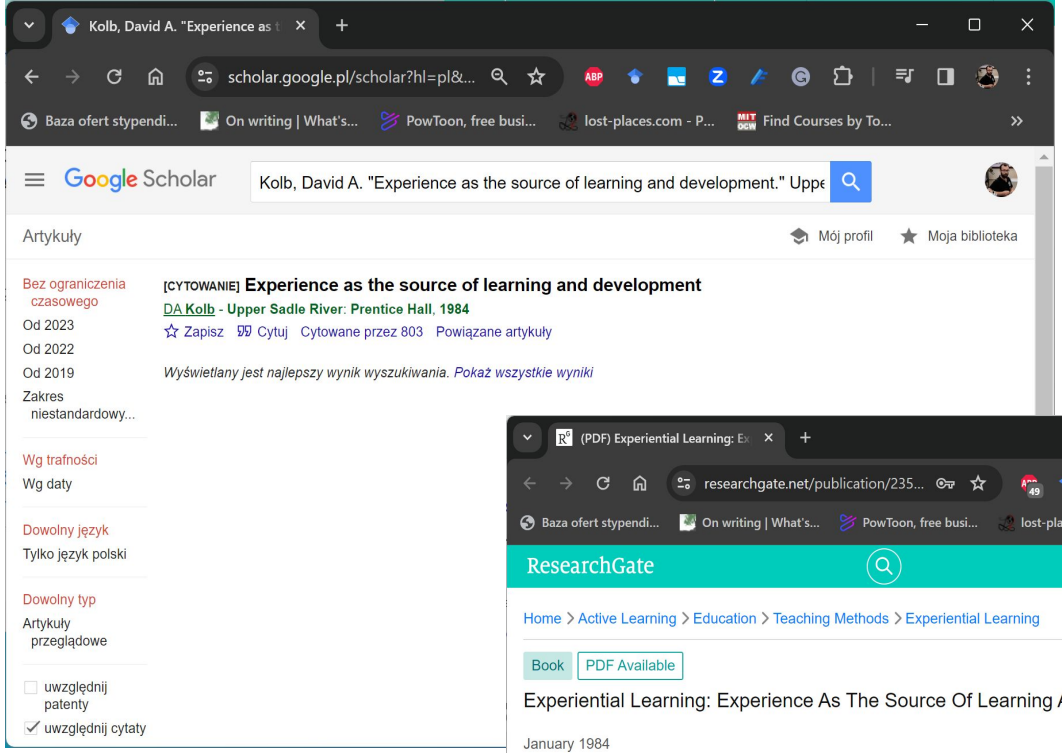
#4 Active experimentation – stage 4 of Kolb's cycle. In this last stage, a person tests their concepts in practice and checks how they work in real situations. This is the stage where a person can confront their theories with reality and learn from their mistakes. The knowledge they have applied is to be tested in practice.

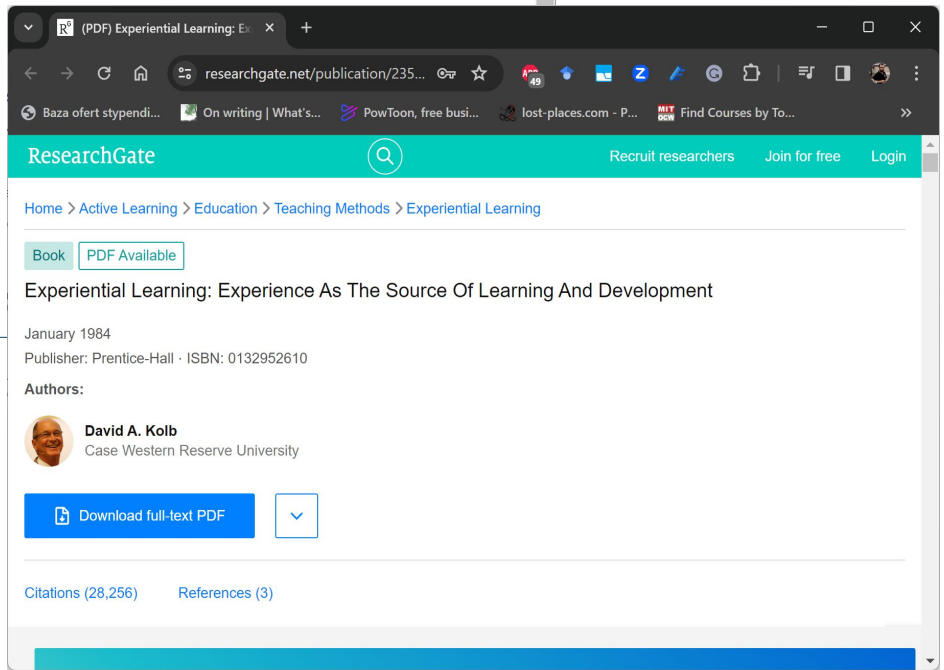
Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR





Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR

SUMMARY: A DEFINITION OF LEARNING

Even though definitions have a way of making things seem more certain than they are, it may be useful to summarize this chapter on the characteristics of the experiential learning process by offering a working definition of learning.[3] *Learning is the process whereby knowledge is created through the transformation of experience.* This definition emphasizes several critical aspects of the learning process as viewed from the experiential perspective. First is the emphasis on the process of adaptation and learning as opposed to content or outcomes. Second is that knowledge is a transformation process, being continuously created and recreated, not an independent entity to be acquired or transmitted. Third, learning transforms experience in both its objective and subjective forms. Finally, to understand learning, we must understand the nature of knowledge, and vice versa.

[3]From this point on, I will drop the modifier "experiential" in referring to the learning process described in this chapter. When other theories of learning are discussed, they will be identified as

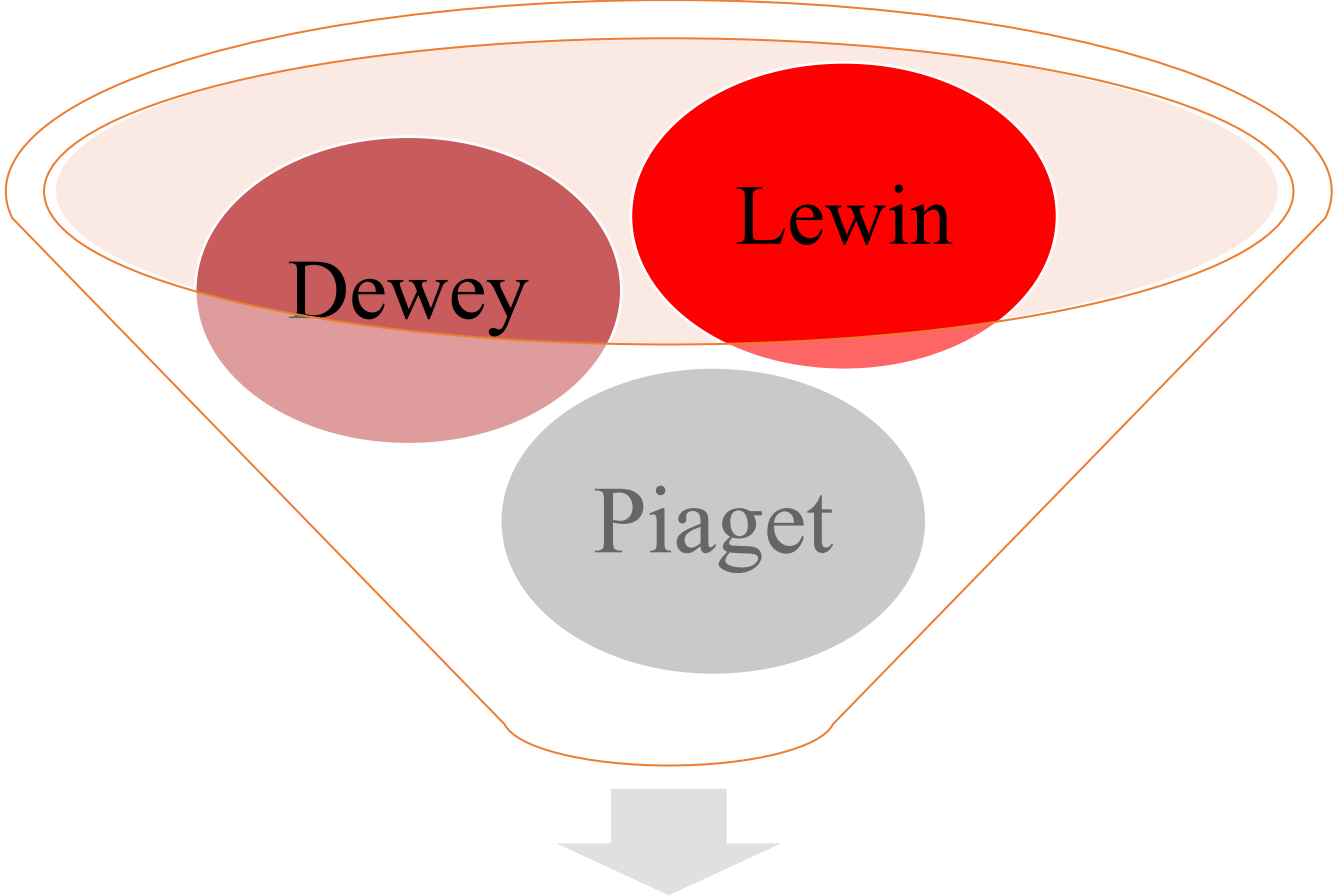
Kolb, David Allen, and Ronald Eugene Fry. *Toward an applied theory of experiential learning*. MIT Alfred P. Sloan School of Management, **1974**

Wrocław University of Science and Technology

Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR



David A. Kolb

Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR

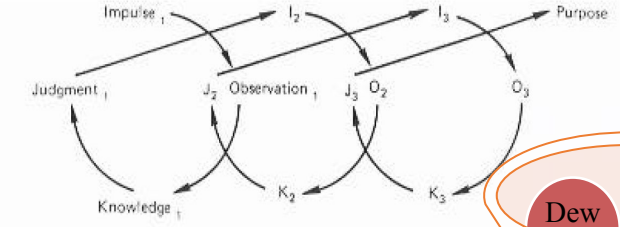


Figure 2.2 Dewey's Model of Experiential Learning

John Dewey
1859 – 1952

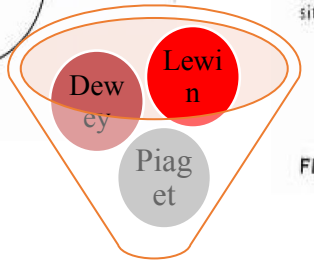


Figure 2.1 The Lewinian Experiential Learning Model

Kurt Lewin
1890 –1947

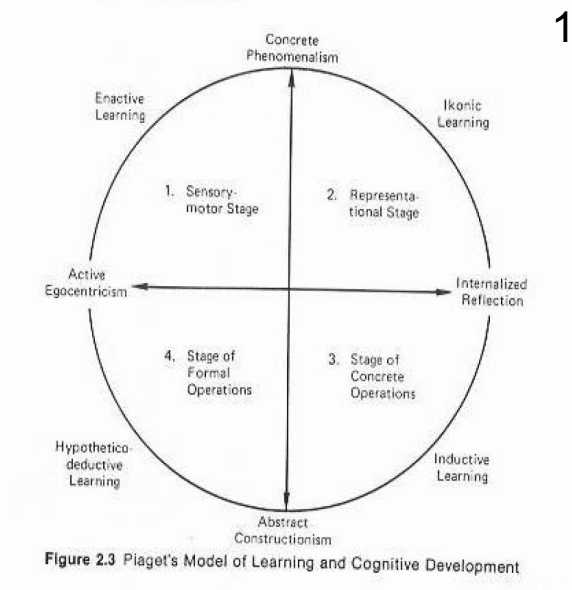


Figure 2.3 Piaget's Model of Learning and Cognitive Development

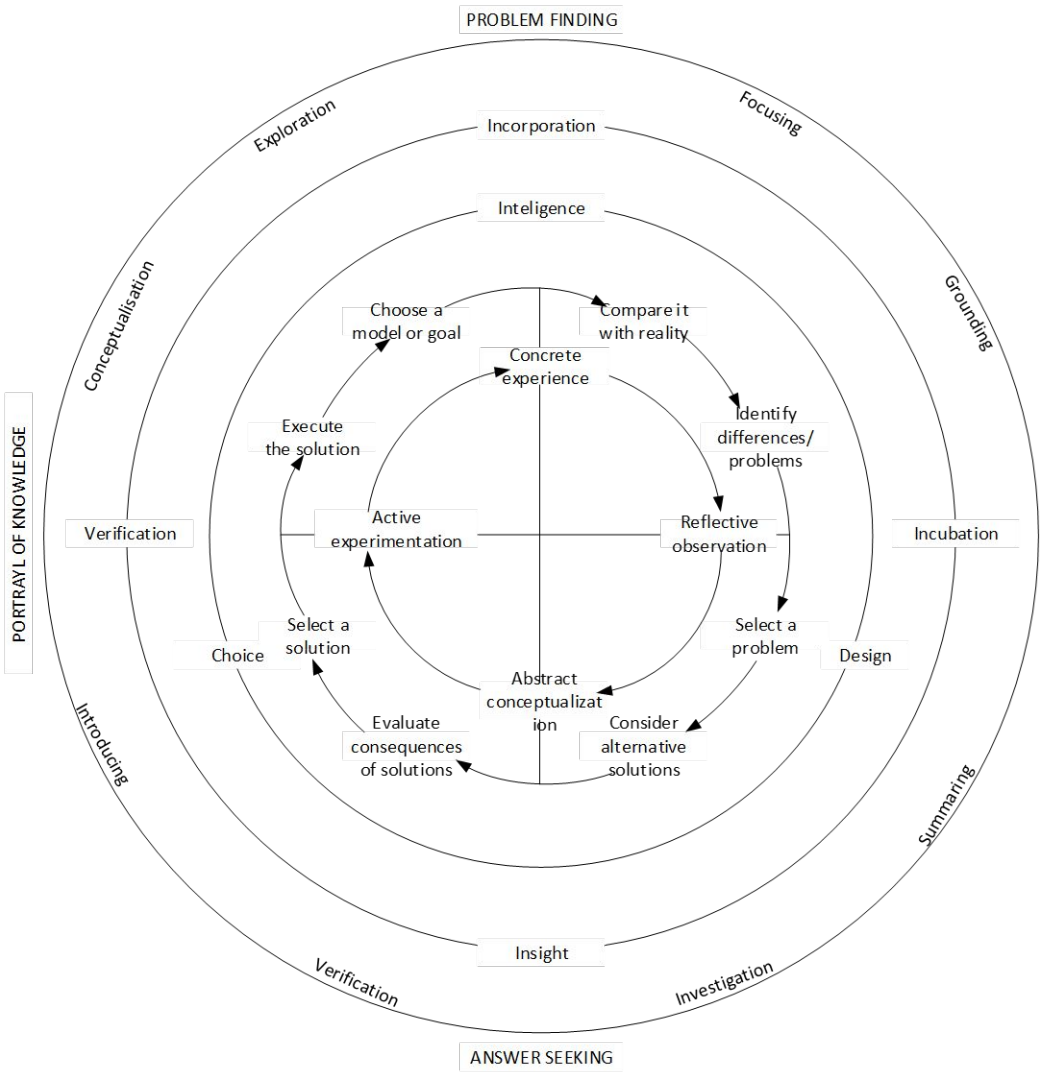
Jean Piaget 1896–1980

Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM UNIVERSITY OF GYŐR

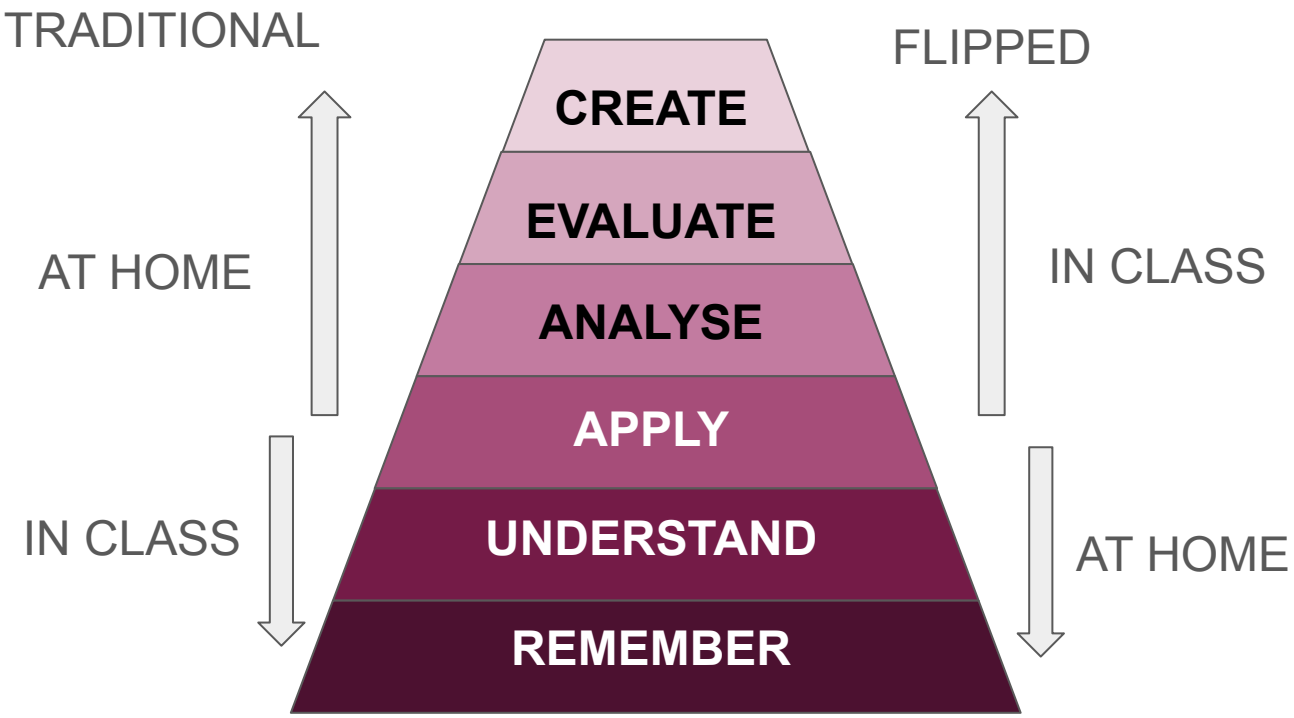


Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR



Wrocław University of Science and Technology

Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR

BLOOM'S TAXONOMY

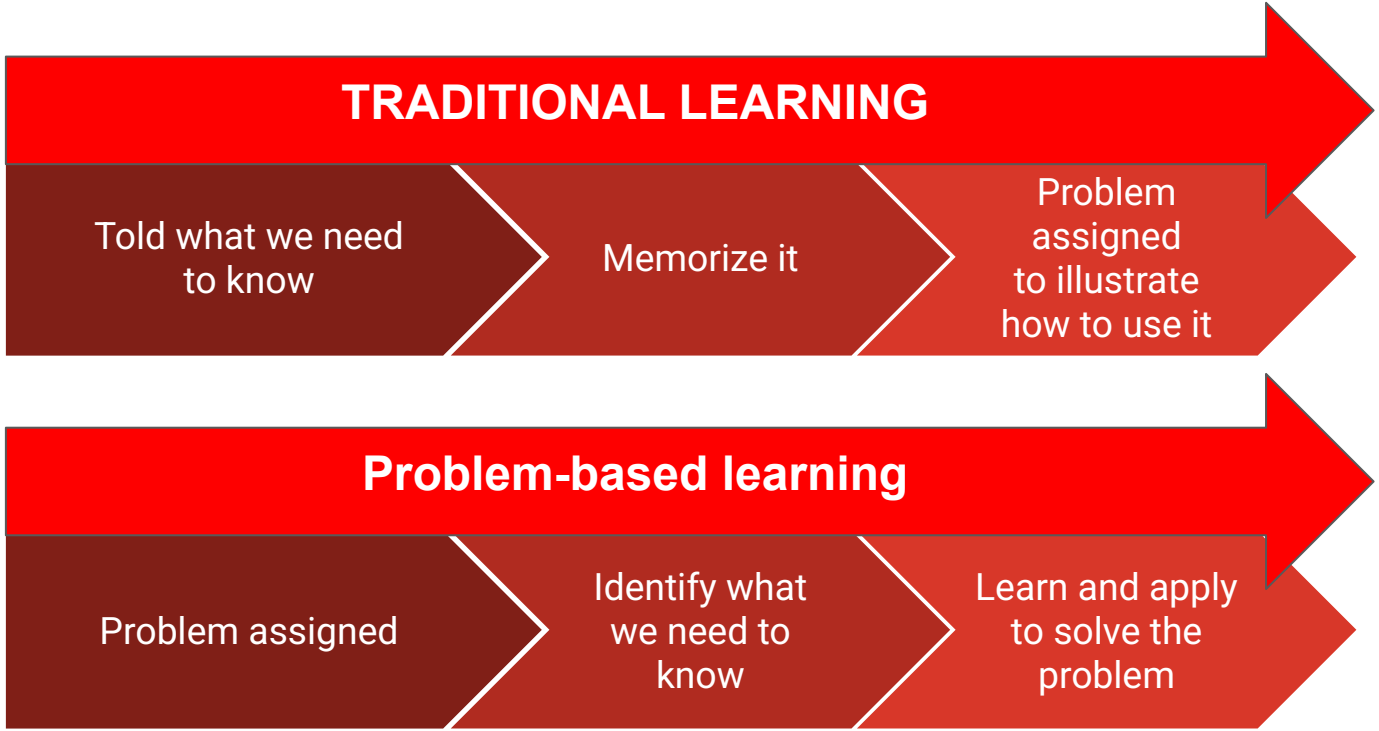
CREATE	**Use existing data and information to make something new**
EVALUATE	**Based on analysis of data and information make judgements**
ANALYZE	**Thing about relationships, connections, causes and reasons**
APPLY	**Try to use existing information in new contexts**
UNDERSTAND	**Rephrase, describe, look for the meaning of information**
REMEMBER	**Repeat and recall information and data**

Wrocław University of Science and Technology

Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR



Wrocław University of Science and Technology

- Visegrad Fund

TECHNICAL UNIVERSITY OF KOŠICE

SZÉCHENYI EGYETEM
UNIVERSITY OF GYŐR