

IF ONLY I KNEW HOW TO DO IT...

How to study effectively at university?

Know yourself: Learning strategies

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What is a learning strategy?

Learning strategy:

- Complex methodology of obtaining knowledge
- Contains several elements of study techniques
- Individual
- Action plan: planning the route to acquire knowledge in the most efficient way

Developing a learning strategy

- What do you want to study?
- Where can you obtain information?
- How can you use sources of information?
- How can you process information?
- How to memorize pieces of information?
- How to organize studying (time-management, environment, devices)?

Applying a learning strategy

- Talented students can spontaneously apply more efficient learning strategies – background of better achievements
- Weaker study achievements: students often do not possess appropriate learning strategies.
- Many students cannot keep pace or only with too much effort, due to inappropriate learning strategies / techniques.

Classifying learning strategies

(Kozéki, Entwistle, 1986)

1) Organized learning:

- Based on systematic order, good organization.
- Students develop and apply a combination of methods, which suits their personality and the subject, including
 - ✓ order of activities (what comes after what)
 - ✓ identifying key points
 - ✓ processing information (e.g. reading it once, twice, then find the most important parts).

Classifying learning strategies

(Kozéki, Entwistle, 1986)

2) Mechanistic (reproductive) learning strategy:

- Based on memorizing details.
- Aim of learning: precise fixing and reproduction of knowledge.
- Suitable strategy: if the subject matter does not contain any logical relationships (e.g. chemical structures, dates, foreign words)
- Problem: if the material should be understood and interpreted, but we still stick to mechanistically repeating it
- Certain study materials (e.g. poems, definitions): important to understand them, but at the same time they should be remembered word by word (deep learning strategy + mechanistic strategy)

Classifying learning strategies

(Kozéki, Entwistle, 1986)

2) Mechanistic (reproductive) learning strategy:

- Problematic / harmful: when the study material should be understood – *instead of learning the text, learning from the text* would be desirable.
- Bad learning habits may fixate – if we get used to mechanistic learning, we will apply this strategy in each learning situation, without thinking over the learning strategy and style to be applied.
- Research among Hungarian students (B. Németh M., Habók A., 2006): mechanistic learning strategy is dominant.
- Many students entering university learn mechanistically → difficulties in learning – with this strategy they cannot memorize hundreds of pages that would be necessary in case of certain subjects

Classifying learning strategies

(Kozéki, Entwistle, 1986)

3) Perspicacious / thorough („get to the bottom”) learning strategy:

- Students intend to understand and systematize things, have an overview of the study material.
- Students try to relate new pieces of knowledge to the old ones,
- Try to form their own, independent opinion,
- Do not accept each interpretation,
- Apply critical approach.

Classifying learning strategies

(Kozéki, Entwistle, 1986)

3) Steps of perspicacious / thorough learning strategy:

- ***Observe, read, watch*** – read the text, observe an experiment, watch a video
- ***Understand*** – draw-imagine, try out, interpret things, ask questions that help to understand the material.
- ***Remember*** what I have observed and understood – say the text aloud (or silently), if we cannot, we look at and remember a few keywords, which will remind us of other things. We can draw logical organizers (figures, charts) that help us recall what we have learned.
- ***Apply, put in practice*** what I have learned – we no longer need to look at our notes, or turn back pages in the book; we are able to relate new knowledge with older pieces, we can find relationships between them, we are able to analyze, compare

Mixing learning strategies, dominant learning strategy

- Main learning strategies \leftarrow learning techniques – can be mixed for a student \Rightarrow one or the other learning strategy becomes dominant

Successful learning may depend on the appropriately chosen learning strategy, depending on the situation and the study material to be learned.

Success vs. failure – learning strategies

Research (universities/colleges):

- Most successful students: applying a „deep to the bottom” strategy, directed at understanding, interpreting the study material
- Least successful students: organized learning is missing from their study strategies.
 - Mostly with outer motivation (e.g. parents’ expectations),
 - Lack of their own learning concept,
 - Uncertain if they are at the right place, ambivalent learning orientation
 - Low self-esteem, fear from failure – may hinder them.

Success vs. failure – learning strategies

Secondary school (highschool) → University/College – lower achievement:
various learning strategies have to be followed to different degree

❑ Secondary school: study material is well organized and paced, easy to take in – better results can be achieved even with fewer/less efficient learning strategies.

❑ University:

- Students have to organize their own studying process,
- They have to process large volumes of study materials,
- Have to get used to source-based learning.
- Students often have to face the problem that the learning strategy applied so far is not appropriate any longer, and need to find a different way to acquire knowledge.
- Positive: students' concept of studying will include self-controlled learning to a larger degree, and start to elaborate a new, efficient learning strategy

Other approaches

SQ4R technique

1. SCAN/SURVEY
2. QUERY/QUESTION
3. READ
4. REFLECT/RECORD
5. RECITE
6. REVIEW

(Thomas and Robinson, 1972)



MURDER technique (Dansereau et al., 1979)

Cooperative learning, students interact with each other, in positive interdependent environment; students negotiate, share information, clarify ideas through discussion

1. **MOOD:** encourages students to relax, focus on the task; appropriate motivation, making the students familiar with the material and the task
2. **UNDERSTANDING:** reading for understanding – identify the meaning of each word to understand the message the text carries, identify the main idea, students are encouraged to follow the author's way of thinking, find the parts that are more difficult to understand
3. **RECALLING:** students try to make a summary of the main points, transform the material into the students' own words; find and define keywords, identify the main logical relationships, continuous repetition of new knowledge
4. **DIGEST/DETECT:** students make the summary as accurately as possible, detecting errors, omissions from their memory, then referring to the written material
5. **EXPAND/ELABORATE:** make the information in the summary more memorable, relate new knowledge elements to prior knowledge
6. **REVIEWING:** students produce a summary for the entire passage, including the main points from each section

IPOO-model

Mező (2004)

1. **INPUT:** collecting information
2. **PROCESS:** processing information – new knowledge is understood analyzed
3. **OUTPUT:** putting new knowledge into practice
4. **ORGANIZATION:** actual organizing of study process – summarizing the processes of the previous three points