

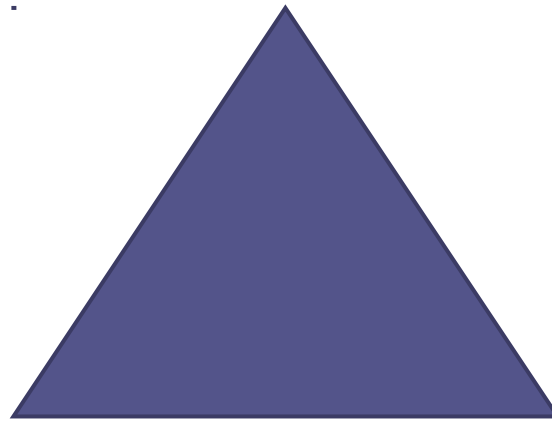
Universal Cognitive Skills: Continuity in Secondary and Tertiary Education

In Russia's context

A decorative graphic consisting of a thick teal horizontal bar that spans the width of the slide. Below this bar, on the right side, there are three thin, parallel horizontal lines in a light teal color, extending to the right edge of the slide.

Method? Teacher? Learner?

Method (principles, techniques,
contents)



Teacher (interaction,
scaffolding, inclusion)

Learner
(aptitude,
motivation,
UCS)

UCS?

UCS (Universal Cognitive Skills, i.e. *universalniye uchebniye deistviya УУД*) – commonly performed acts of cognition towards extracting/producing, processing/structuring, applying/verifying and digesting/evaluating the knowledge.

Federal Standards of Education in Russia stipulate **personal** (civics, ethics, attitudes), **trans subject** (worldviews, cross curricular knowledge, UCS) and **subject bound RESULTS** of school course.

Western specifics of UCS?

- psychometric approach to personality
- cognitive skills must be measurable through tests
- verbal reasoning vs. numerical reasoning vs. abstract reasoning
- general ability vs. specific ability
- individual cognitive characteristics (auditory, visual, sequential, holistic, processing speed, executive functioning)
- cognitive skills = abilities to cope
- individual specifics = equal opportunities

Semantic differential

Result-oriented
skills

vs.

Process-oriented
skills



Achievement criteria
of success

vs.

Involvement criteria
of success

Russia's specification of UCS (general school education)

- Personal UCS – civics, attitudes, motivation
- Regulatory UCS – plan, structure, storage
- Acquisition UCS - search, memory, processing
- Communicative UCS – relevance, clarity, interaction

There is **no mention of competences** in Federal Educational Standards for general school education

Russia's specification of UCS=competences (bachelors' /masters' Standards)

- **General cultural competences** (knowledge expansion and world views development)
- **General professional competences** (knowledge accumulation through information search)
- **Specialized professional competences** (knowledge production through research)

Verifiable indicators of competences

- Knowledge expansion (scope of background knowledge, range of interests, relevance of study needs)
- Knowledge accumulation (scope of fields studied, range of resources used, relevance of knowledge gathered)
- Knowledge production (command of research methods, structuring research procedure, relevance of knowledge produced)

Focal points:

- Critical thinking
- Problem solving
- Collaboration
- Analysis
- Communication
- ICT literacy
- Creativity and imagination
- Leadership
- Global awareness
- Entrepreneurship
- Leadership

Barriers to UCS development

- Lack of continuity: “school-university”
- Lack of consistency: “UCS – competences”
- Lack of delivery: “declaration-achievement”
- Lack of practicality: “theory - implementation”
- Lack of relevance: “bottom-up demand – top-down offer”

Cause-and-effect phenomenon

For lack of UCS development, other skills go forward:

- school-learners **copy/paste**
- undergraduates **compile/combine**
- graduates **plagiarize** –proof-checking with plagiarism-detection software is not obligatory
- postgraduates **outmaneuver** checking for plagiarism by paraphrasing resources
- Professionals **are reluctant** to make their own decisions and delegate responsibility upward.

Plagiarism - continuity across borders

- 36% of students plagiarize from Internet sources.
- 38% admit to paraphrasing to hide plagiarism.
- 14% fabricate/falsify a bibliography.
- 7% copy materials word for word.
- 7% turn in papers written by others.
- 5% obtain papers of previous years.

<http://www.plagiarism.org/resources/facts-and-stats/>

Will these kids plagiarize? If “Yes”, why?

https://www.youtube.com/watch?v=qsQZUKCn_l8



Will they cheat at the exam?



“Hundreds of parents and relatives were arrested in eastern Bihar state (India) for scaling the walls of schools and providing crib sheets and study material to students during exams.” (from news reports)

<https://www.yahoo.com/news/three-arrested-over-india-exam-paper-leak-182323442.html?ref=gs>

Cognitive traps for productive writing (essay)

- planning the text



generating content

- organizing content



drafting/redrafting ideas

- making a fair copy



Evaluating

A little bit of philosophy

In the perilous sea of productive thinking there is a safe haven – **rote learning and text retelling**, where intellect is least challenged. Hence, the popularity of rote learning and text retelling for lack of UCS.

Further reading

- Federalniy Gosudarstvenniy Obrazovatelniy Standart
<http://www.edu.ru/db/portal/obschee/>
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- OXFORD, R. (1990). Language learning strategies: what every teacher should know. Rowley, Mass: Newbury House.
- FEE, S., B. Belland / Eds. (2012). The Role of Criticism in Understanding Problem Solving. N.Y. Springer.