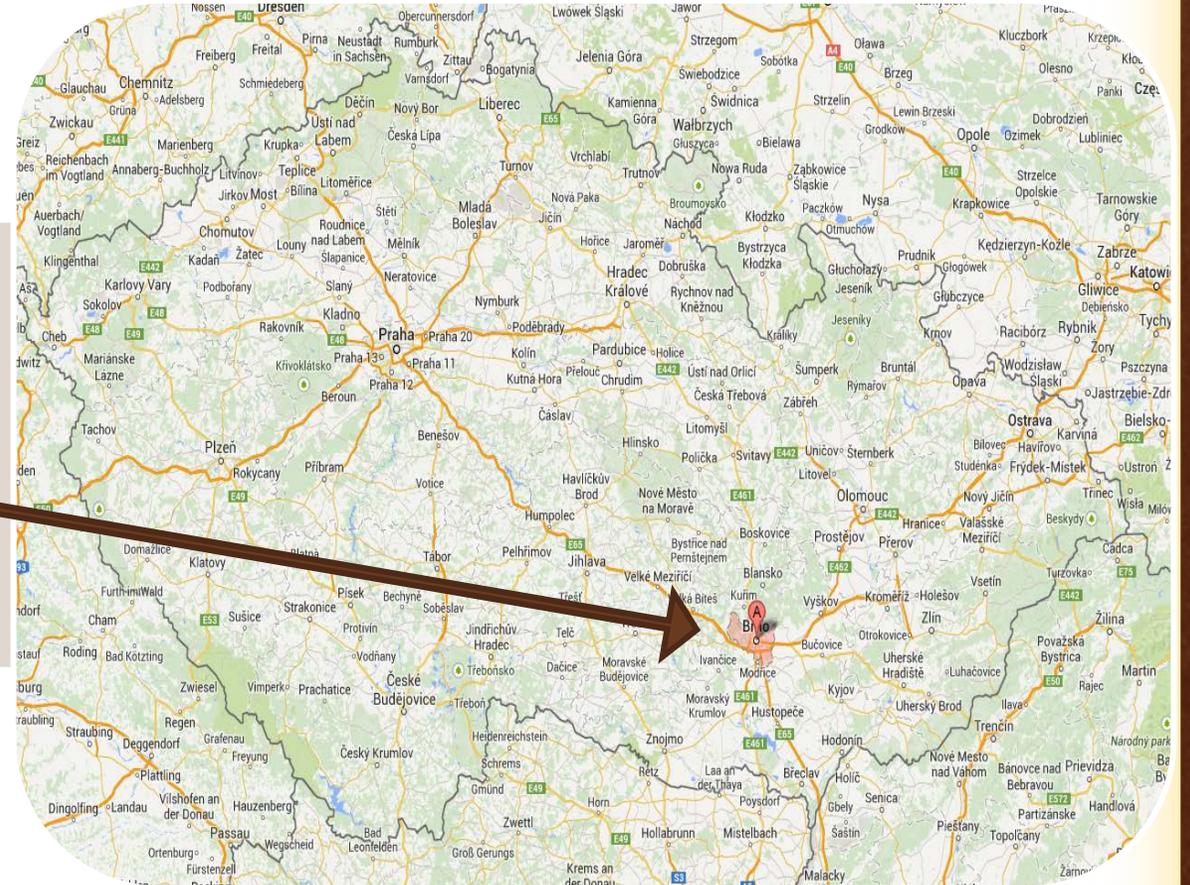




Evidence-based learning approach in evaluation of information literacy education

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Goal of the presentation

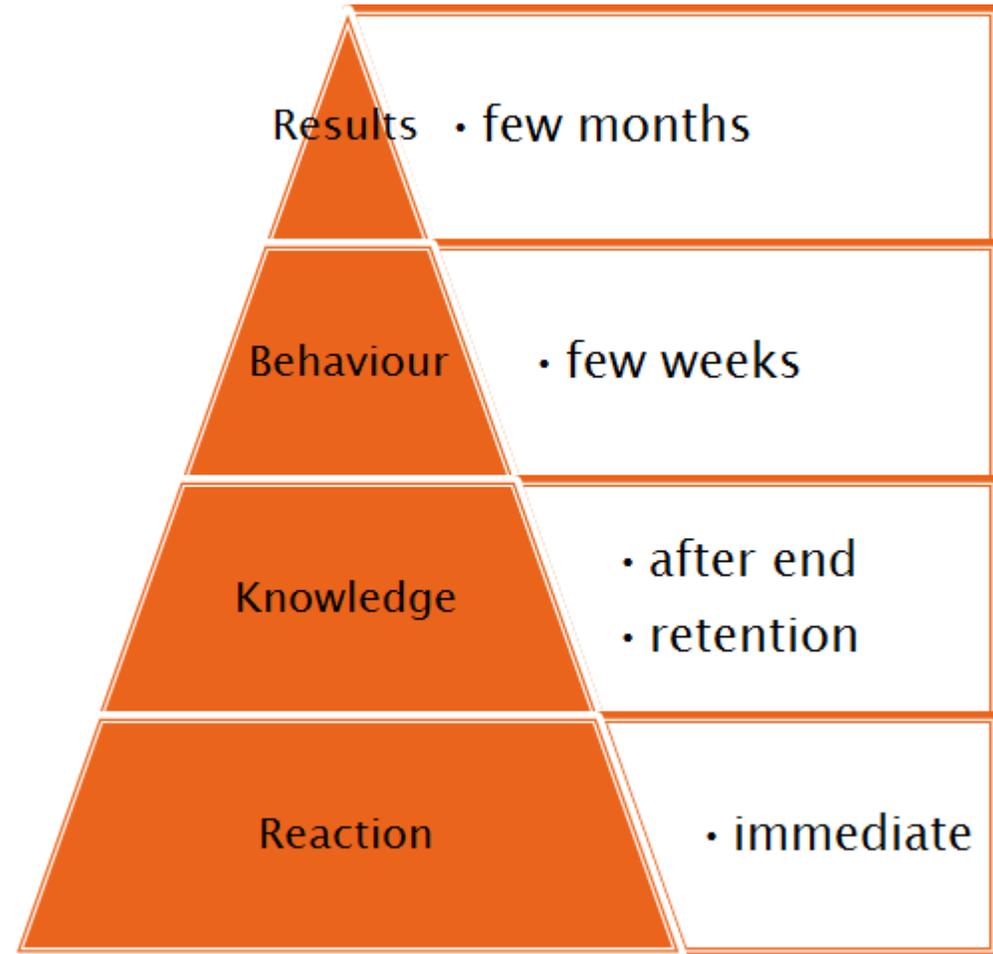
- Goal: practical experience to show benefits to IL education when research in Kirkpatrick's model
- Topics:
 - evidence-based learning and used model
 - practical experience on each level
 - results

Evidence-based learning

- “the integration of professional wisdom with the best available **empirical evidence** in making decisions about how to deliver instruction”, “to compare, evaluate and monitor progress”.
[Whitehurst]
- Is audience able to receive, retain and effective use the knowledge? => answer in research (student-centred education)
- Kirkpatrick:
 - formal and informal
 - more data source, sample purposively
 - mixed mode, semi-structured interview and open-ended methods
- The question is the core, complex evaluation = more questions

Kirkpatrick's model

- One of the most used (current constructivist conception of instruction is highly reflected)
- To strength students' satisfaction and learning results
- Main reasons for evaluation [Explorable]
 - improve future
 - decide continuing present
 - justify existence



1st Immediate reaction

- Feel about the various aspects of educational activity (environment, content, lecturer etc.) => satisfaction and motivation
- **Smile-sheets:**
 - 10-11 years - subject left on 1 from 3 emoticons, start of oral comments in the class
 - 20-25 years - 5 smileys, more aspects, open question
 - Organizational and content problems to reduce
- Quantitative self-report: understandable, anonymous, free comment
- Positive not effective, but negative guarantees refusal

2nd Gained knowledge

- Quantity of knowledge, statistical tests for comparison (time, control group)
- **Tests:**
 - Didactic test for LIS students and librarians about digital footprint: different knowledge, weak topics, motivation and participants' characteristics
 - Pre- and post-test in IL e-learning course: 22 multiple-choice questions (1 from 3 + "I don't know"), anonymous, no control group
- Knowledge does not mean the ability to use

3rd Long-term behaviour

- Qualitative methodology, long-term change in participants' behaviour → benefit of hindsight (e.g. 3 to 6 months after the lesson)
- **Interviews:**
 - 360-degree feedback by 6 semi-structured interviews (library, school, family): behaviour of children few days after lesson (many discussions with all) to the interviews (not able to repeat, but identify risk behaviour and possible consequences)
 - Focus groups (university students, participants of an e-learning course): consolidation of knowledge and skills gained in the course - searching for scholarly information, producing scholarly texts etc.; change in behaviour after 6 months
 - detailed scenario, 7–10 participants, experienced moderator , group dynamics

4th Educational results

- Overall (economical) effectiveness of instruction (return on investment in education), changes on a society wide level
- Changed behaviour + gained knowledge and skills consistently applied in practice → increasing productivity
- How to judge for children and IL students?
 - Part of 360-degree feedback: influence of children on society and cultivation of children's online environment (active dealing, not ignoring of problems)

Presentation results

- Emphasis on evidence-based approach (constant feedback, valuable data, recommendations on improvement)
- Variable research methods + searching context + continuing process → new emergent evidences
- Kirkpatrick's model = flexible practical attitude to evaluating IL education
- Changes in IL education activities determined by research results:
 - E-learning topics, which students were not understood sufficiently, were subjected to change
 - New lecturers for some lessons were selected
 - Courses on IL education have been enriched with multimedia elements etc.

And what?

- Join forces and share evidence-based best practice →
 - new environment for sharing data, methodology, practical experience?
 - Striving for research-based lessons
 - Reflecting new findings
- By small steps to a big goal - improving information literacy in society

Thank you for your attention.



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References

- Kirkpatrick, D.: The Four Levels of Evaluation: Measurement and Evaluation. American Society for Training & Development Press, Alexandria (2007)
- Kirkpatrick, J.: The Hidden Power of Kirkpatrick's Four Levels. T+D, 61(8), 34--37 (2007)
- Explorable: Pretest-Posttest Designs, <https://explorable.com/pretest-posttest-designs>