

Charles University in Prague, Faculty of Education

Master's Degree Program

Secondary School Teacher Education

Final State Examination in Educational Science and Psychology

Educational Science

1. Research on effective instruction

Historical development of research on instruction. Overall effects of instructional techniques. Identification of effective strategies in classroom instruction.

2. Research-based strategies for increasing student achievement in classroom instruction

Identifying similarities and differences. Summarizing and note taking. Reinforcing effort and providing recognition. Homework and practice. Nonlinguistic representations. Cooperative learning. Setting objectives and providing feedback. Generating and testing hypotheses. Cues, questions, and advance organizers.

3. A Models Approach in instruction

The direct instruction model: teaching skills, facts and knowledge. The concept attainment model: defining concepts inductively. The concept development model: analyzing the relationships between parts of a concept. The problem-centered model: The Suchman inquiry model, The WebQuest model of inquiry, The problem based inquiry model. The cause-and-effect model.

4. Basic curricular documents in the Czech Republic

National Programme for the Development of Education in the Czech Republic. Framework Education Programme for Basic Education. Framework Education Programme for Secondary General Education (Grammar Schools). Act on Pedagogical Staff. Actual development of the curricular documents.

5. Educational system in the Czech Republic and other (European) countries

Description of the educational system in the Czech Republic. Comparison of the educational system in the Czech Republic with educational systems in other (European) countries. Internationally comparable indicators published annually in Education at a Glance.

6. Preparation of teachers for teaching

Conditions for realization of teaching practice. Preparation for instruction. Pedagogical evaluation. Teacher as a reflective professional.

7. Achievement tests

Test development plan. Taxonomy of educational objectives (Bloom's taxonomy). Item classification. Criterion-referenced testing and norm-referenced testing. Item difficulty and item discrimination. Analysis of distractors. Total and relative scores. Test validity and reliability. Standardization of achievement tests.

8. Risk behavior of children and youth

Prevention and intervention in the school environment with a focus on bullying and substance abuse. School climate and classroom climate. The importance of leisure activities for prevention of socially undesirable phenomena.

9. Multicultural aspects of education

Culture traditions of different nations and ethnic groups. Development of multicultural education and multiculturalism. Multicultural education practice abroad. Methods and forms of multicultural education. Sources of information for teaching multicultural education.

10. Cooperation between the school and families

Basic elements of cooperation between schools and families. Functions and tasks of counseling centers, collaboration with the school community.

11. Authority and closely related concepts (power, respect, social position, social status etc.)

The essence and meaning of authority. Authority as a kind of relationship and a social role. Defining authority. Types of authority. Authoritative, autocratic and authoritarian style of education.

12. Contemporary relativisation of authority

Functions of authority in society and in school. The relation of discipline and authority. Different ways of establishing teacher's authority. Possibilities of schools to work systematically and purposefully with the (teacher's) authority. Methodology issues concerning the research on authority.

Literature for educational science

Students are obliged to bring a list of at least five publications in educational science to the final state examination. Below is a list of recommended books, research articles and web links in educational science.

Books and research articles

- Arum, R. (2003). *Judging school discipline: The crisis of moral authority*. Cambridge, MA: Harvard University press.
- Bratlinger, E., Morton, M.L., Washburn, S. (1999). Teachers' Moral Authority in Classrooms: (Re)Structuring Social Interactions and Gendered Power. *Elementary School Journal*, 99(5), 491-504.
- Eshel, Y. (1991). Authority Structure, Classroom Openness and Student Outcomes. *Educational Psychology*, 11(2), 129-141.
- Estes, T. H., Mintz, S. L., Gunter, M. A. (2010). *Instruction: A Model Approach*. Boston: Allyn&Bacon.
- Hopkins, K. D. (1998). *Educational and Psychological Measurement and Evaluation*. Needham Heights, MA : Allyn and Bacon.
- Jarosz, E., Jůzl, M., Bargel, M. (Eds.). (2010). *Contemporary challenges in social pedagogy, 1st ed.* Brno: Institut mezioborových studií.
- Marzano, R. J., Pickering, D. J., Pollock J. E. (2005). *Classroom Instruction That Works: Research Based Strategies for Increasing Student Achievement*. Upper Saddle River, NJ : Pearson Education.
- Metz, M. H. (1978). *Classrooms and corridors: The crisis of authority in desegregated secondary schools*. Berkeley: University of California press.

- Pace, J.L. (2003). Managing dilemmas of professional and bureaucratic authority in a high school English class. *Sociology of Education*, 76, 37-52.
- Pace, J.L. (2003). Revisiting classroom authority: Theory and ideology meet practice. *Teachers College Record*, 105, 1559-1585.
- Pace, J.L., Hemmings, A. (Eds). (2006). *Classroom Authority. Theory, Research, and Practice*. Mahwah, New Jersey : LEA.
- Pace, J.L., Hemmings, A. (2007). Understanding Authority in Classrooms: A Review of Theory, Ideology, and Research. *Review of Educational Research*, 77(1), 4-27.
- Shults, K.S., Whitney, D.J. (2005). *Measurement Theory in Action*. Thousand Oaks, CA: Sage Publications.
- Tirri, K., Puolimatka, T. (2000). Teacher Authority in Schools: a case study from Finland. *Journal of Education for Teaching*, 26(2), 157-165.

Web links

A) Documents

- ACT No. 563/2004 Collection of Law, on Pedagogical Staff and on the Amendment to Some Other Acts Available at <http://www.msmt.cz/dokumenty/act-no-563-of-24th-september-2004>
- European Commission. Eurydice. (2011). National system overview on education systems in Europe - Czech Republic . Available at http://eacea.ec.europa.eu/education/eurydice/documents/eurybase/national_summary_sheets/047_CZ_EN.pdf
- Ministry of education, youth and sport. (2001). National Programme for the Development of Education in the Czech Republic. Available at <http://www.msmt.cz/files/pdf/whitepaper.pdf>
- Research Institute of Education in Prague. (2007). Framework Education Programme for Basic Education. Available at http://www.vuppraha.cz/wp-content/uploads/2009/12/RVP_ZV_EN_final.pdf
- Research Institute of Education in Prague. (2007). Framework Education Programme for Secondary General Education (Grammar Schools). Available at http://www.vuppraha.cz/wp-content/uploads/2009/12/RVP_G-anj.pdf

B) Institutions and foundations

- Charles University in Prague, First Faculty of Medicine, Clinic of addictology <http://www.adiktologie.cz/>
- The People in Need foundation <http://www.clovekvtisni.cz/>

Psychology

1. Psychology as the Science

Subject and methodology of psychology. Psychological disciplines. Main psychological paradigms (short description and basic differences between them). Importance of psychology for teaching.

2. Personality in Psychological View

Structure of personality. Basic terminology for better understanding of personality – self, identity, social role, temperament etc. Development of personality. Main theoretical approaches toward development (S. Freud, J. Piaget, L. Kohlberg, E. Erikson etc.). The role of schooling in personal development.

3. Socialization

Definition of socialization process. Socialization in family, socialization in school – their principles and differences between them. Relationship between school and family (as social institutions), teacher-parents communication.

4. Learning

Definition of learning process. Determinants of learning. Types of learning: habituation, classical conditioning, observational learning etc. Sensory-motoric, cognitive and social learning. Metacognition and its role in schooling. Main theoretical approaches toward learning: J. Piaget, L. Vygotskij, J. Bruner etc. Relationship between learning and cognition. Cognitive and learning styles. Diagnostics of learning potential and learning difficulties.

5. Teaching and learning motivation

Definition of motivation (motive, need). Main concepts and theories of motivation. Motivation in schooling: cognitive, performative, social. Intrinsic and extrinsic motivation. Diagnostics of motivational styles by teachers. Using of rewards and punishments within the education. Motivational factors inhibiting school achievement (boredom, fear).

6. Children in age 4-10 years

Characteristics of children in pre-school age and in young school age: main developmental shifts. Typical manifestation in cognitive, personal and social area. Maturity and readiness for school, its diagnostics and support. Eventual problems in the beginning of school attendance. Importance of school in the lives of children and their families.

7. Children in age 11-18 years

Characteristics of children in different stages of adolescence, main developmental shifts. Typical manifestation in cognitive, personal and social area. Relationships with peers, parents, teachers. Potential problems in schooling and their prevention.

8. School un/success

Subjective and objective definition of school success. Factors supporting of school success. Theories of socio-cultural handicaps. Diagnostics of school failure by teachers. Intervention increasing school success.

9. Peer relationship in classroom

Definition of social group. Typology of social groups. Group dynamics: conflict, cooperation. Group structure: social positions in group. Sociometry and other techniques for description of social structure. Styles of leading group. Social and pedagogical climate. Importance of positive climate for learning. Bullying. Prevention and intervention.

10. Communication in school

Definition of social and pedagogical communication. Verbal and non-verbal communication. Potential weaknesses of teacher-student communication. Principles of effective communication with students, parents, colleagues. Social perception and cognition – its impact on communication. Halo effect, Pygmalion effect, self-fulfilling prophecy etc. Stereotypes and prejudice. Attribution.

11. Children with learning and behavior difficulties

Definition of learning disabilities/difficulties, their causes and manifestations. Reading disorder, disorder of written expression, math disability etc. Diagnostics, treatment and intervention at schools. Definition of behavior difficulties, their causes and manifestations. Diagnostics, treatment and intervention at schools.

12. Diagnostics and consulting in schools

Types of diagnostics in education. Diagnostics of individual pupil, group and teacher. Particular techniques. Main approaches toward diagnostics. Weaknesses of diagnostics and their inhibition. Importance of psychological consulting. System of consulting at schools and in supportive institutions.

Literature for psychology

The preparation for the final examination should be based on reading the textbooks of psychology (general), of social psychology and of pedagogical or school psychology. The recommended books are listed below (it is not necessary to read exactly that publications). Besides the basic textbooks, some other books (e.g. by L. Vygotskij or J. Piaget) are needed. Students should put forward the list of used literature during the examination.

- Atkinson, R. L. (1999). *Introduction to Psychology*. New York: Harcourt College Pub.
- Schacter, D. L., Gilbert, D. T., Wegner, D. M. (2009). *Introduction to Psychology*. London: Worth Publishers.
- Merrell, K. W., Ervin, R. A., Peacock, G. G. (2011). *School Psychology for the 21th Century*. Boston: The Guilford Press.
- Santrock, J. (2010). *Educational Psychology*. New York: McGraw-Hill Humanities.
- Myers, D. G. (2007). *Social Psychology*. New York: McGraw-Hill College.