

Education Subject Studies, Pedagogical Studies for Teachers 60 credits
Kasvatustieteen aineopinnot, opettajan pedagogiset opinnot 60 opintopistettä
Ämnesstudier i pedagogik, pedagogiska studier för lärare 60 studiepoäng

Objectives

Subject teachers graduate from the University of Helsinki by completing studies of their teaching subject at the subject departments and Pedagogical Studies for Teachers (60 cr) at the Department of Teacher Education. (The qualification requirements for teaching personnel are stipulated in Decree No. 986/1998 and the amendment to the previous degree, Decree No. 865/2005). In order to be qualified to teach in a Finnish comprehensive school, teachers need to possess excellent competence of the teaching language of the school (usually Finnish or Swedish). In upper secondary schools the competency requirement for teachers is to possess good competence of the teaching language (National Board of Education Regulation 25/011/2005). There is a need in Finland for teacher education in English and the University of Helsinki is responding to this need by offering subject teacher education in English. There are numerous non-Finnish speakers in Finland who are unable to apply to the Finnish teacher education programme. The Subject Teacher Education Programme in English also offers an authentic forum for Finnish and foreign students to study together in an intercultural and international environment, which is in line with the Strategic Plan of the University of Helsinki. In the future, this programme may also be used as an export article to be offered internationally, either as a whole or in separate courses, as there is a great interest in and demand for Finnish teacher education.

The Pedagogical Studies for Teachers give general teacher qualifications to teach children, young people and adults in educational institutions offering general, vocational and adult education. During the programme, students combine content knowledge, knowledge related to education and different learners, subject didactic knowledge, i.e. knowledge of how to teach, study and learn the subject, and knowledge about school practices into their own pedagogical practical theory. The purpose of the programme is to help the future teacher to develop into a professional in the planning, implementation, evaluation and development of teaching.

After completing the pedagogical studies, a teacher will function in various work, teaching and studying environments while adhering to professional ethics. Values related to active citizenship, social equality and intercultural understanding are emphasized in the programme. The Subject Teacher Education Programme in English also has an international aspect as the programme admits both Finnish students, international students studying for a degree at the UH, international students who have completed a Master's degree, and exchange students.

The programme enables the student to

- be society-oriented and know the social dimensions as well as the philosophical, psychological, sociological, special educational and historical foundations of education, teaching and training
- be a professional extensively researching and developing his/her own work who perceives change flexibly and is ready for life-long development of oneself
- be a pedagogically thinking planner, implementer, evaluator and educator of teaching and studying, who is able to partake in conscious and well-grounded pedagogic decision-making, curriculum planning and other development of school and interaction with homes where the goal is to enhance children and student groups' overall development and attainment of the aims set for school education
- possess skills of multidisciplinary thinking, argumentation and structuring of teaching along the value basis of general education, teaching and schooling
- possess skills of creative and flexible communal thinking, be multi-professionally cooperative and be prepared to meet and implement changes in work community
- have interaction and communication skills and master the use of information and communication technology
- develop preparedness for further studies.

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Core and Advanced Content

The core content consists of teachers' basic knowledge and skills that are:

- interactional skills
- taking into account ethical and legal questions in teaching
- knowing the subject didactic core concepts and taking them into account in planning, implementing and evaluating teaching.

Knowledge and skills related to teaching are deepened in intermediate studies. Advanced knowledge and skills are:

- mastering the psychological, special educational and societal as well as philosophical foundations of education and teaching
- skill to use various studying and learning environments
- skill to evaluate and develop own work.

Language Requirements for Students

Students partaking in the Subject Teacher Education Programme in English need to possess a high level of English skills (determined in the Application Requirements) in order to study efficiently and be involved in group discussions and exercises. Admission into this programme, however, does not guarantee necessary language skills to teach in an international or Finnish school as the matter is governed by the National Board of Education Regulation (25/011/2005).

Structure of the Subject Teacher Education Programme

The subject teacher education studies are comprised of basic studies (25 cr) and intermediate studies (35 cr) and they are divided into four periods. The studies suit degree students and postgraduate students who apply for teacher education studies after a Master's degree.

The objectives set for the guided practices – Basic Practice (7 cr), Applied Practice (5 cr) and Advanced Practice (8 cr) – deepen and broaden as students move from one practice to the next. Each guided practice has its own characteristics and is more extensive and more in-depth than the previous stage. In order for students to be able to complete the programme in one year, the subject competency requirements for Advanced Practice must be completed before applying to the programme.

After the pedagogical studies, students have an opportunity to apply for the advanced and further studies (in Finnish) in educational sciences.

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Structure of the Subject Teacher Education Programme in English

BASIC STUDIES (25 cr)	INTERMEDIATE STUDIES (35 cr)
<p><u>Period 1</u> (18 cr basic studies + 3 cr intermediate studies)</p> <p>Psychology of Development and Learning (4 cr)</p> <p>Special Education (4 cr)</p> <p>Introduction to Subject Teaching (10 cr)</p> <hr/> <p>Intermediate Studies of Education: <i>Teacher as a Researcher Seminar</i> Part 1: <i>Research and Methods (3 cr)</i></p>	<p><u>Period 3</u> (17 cr intermediate studies)</p> <p>Social, Historical and Philosophical Foundations of Education (5 cr)</p> <p>Evaluation and Development of Teaching (7 cr)</p> <p>Applied Practice (5 cr)</p>
<p><u>Period 2</u> (7 cr basic studies + 3 cr intermediate studies)</p> <p>Basic Practice (7 cr)</p> <hr/> <p>Intermediate Studies of Education: <i>Teacher as a Researcher Seminar</i> Part 1: <i>Research Plan Seminar (3 cr)</i></p>	<p><u>Period 4</u> (12 cr intermediate studies)</p> <p>Teacher as a Researcher Seminar Part 2: Research Seminar (4 cr)</p> <p>Advanced Practice (8 cr)</p>

BASIC STUDIES (25 cr)
PERUSOPINNOT (25 op)
KANDIDATSTADIET (25 sp)

During the basic studies, student teachers learn the basic skills for teaching and study guidance.

Period 1 (18 cr basic studies + 3 cr intermediate studies)

Students observe and analyze individual students or a group studying. Practical experiences gained from the school visits are utilized in studying subject didactic knowledge. Knowledge and skills gained in subject departments are practiced to be modified in such a way during the subject didactic courses that they can be taught, studied and learned. In addition, student teachers familiarize themselves with the psychology of learning, knowledge of students and special education. Studying is done in large and small groups so that interactional skills are practiced simultaneously.

Psychology of Development and Learning (4 cr)

Objectives

Students know how to support the development of individuals and groups and recognize different groups' special features.

Students develop preparedness to

- understand different points of view about a person's growth, development and learning as well as the importance of interaction between an individual and a group
- take into account the psychological principles of learning in teaching.

Literature:

Bransford, J. D., Brown, A. L. & Cocking, R. R. (Eds.) (2000) *How People Learn: Brain, Mind, Experience, and School*. Expanded Edition. Washington, D.C.: National Academy Press. Available at http://www.nap.edu/openbook.php?record_id=9853&page=1

Additional literature:

- Glassman, W. E. & Hadad, M. (2009). *Approaches to Psychology*. 5th Edition. Berkshire: Open University Press.
- Davis, S. & Buskist, W. (Eds.) (2002). *Teaching of Psychology: Essays in Honor of Wilbert J. McKeachie and Charles L. Brewer*. Mahwah, NJ: Lawrence Erlbaum.
- EARLI. Learning and Instruction. *The Journal of the European Association for Research on Learning and Instruction*. (Selected articles from Volumes 10–20.)

Evaluation

Lectures and literature are assessed on the scale 0–5.

Group work is assessed as Pass/Fail.

The course as a whole is graded on the scale 0–5.

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Special Education (4 cr)

Objectives

Students know

- the basic concepts and structures of special education
- how to function as part of multi-professional cooperation and student welfare
- how to recognize students' needs for different support and get perspectives to understand learning problems.

Students develop preparedness

- to understand the importance of different pedagogic solutions.

Literature:

- Florian, L. (Ed.) (2007). *The SAGE Handbook of Special Education*. London: Sage.
- National Center on Response to Intervention (2010). *Essential Components of RTI – A Closer Look at Response to Intervention*. Washington, DC: U.S. Department of Education, Office of Special Education Programmes, National Center on Response to Intervention. Available at <http://www.rti4success.org>
- A set of articles (10) where the history of Finnish special education system, the tools and working methods and special issues are analyzed.

Evaluation

Lectures and literature are assessed on the scale 0–5.

Group work is assessed as Pass/Fail.

Introduction to Subject Teaching (10 cr)

Objectives

Students know how to plan teaching and study guidance while taking into account

- the curriculum
- research related to the teaching, studying and learning of the subject
- epistemological questions related to the subject.

Students develop preparedness to

- consider school as a functional environment and understand the value base for teaching and education
- use versatile techniques and information and communication technology (ICT)
- control interactional situations
- reflect on the development of their own teacherhood.

Literature:

- Kansanen, P., Tirri, K., Jyrhämä, R., Husu, J., Meri, M. & Krokfors, L. (2000). *Teachers' Pedagogical Thinking* (pp. 1–31). New York: Peter Lang.

AND

- Uljens, M. (1997). *School Didactics and Learning* (pp. 3–58). East Sussex : Psychology Press.

Additional literature:

- Kyriacou, C. (2007). *Essential Teaching Skills*. Cheltenham : Nelson Thornes.
- Kyriacou, C. (2009). *Effective Teaching in Schools: Theory and Practice*. Cheltenham: Nelson Thornes.

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Literature according to the subject group:

Biology

- Biological Sciences Curriculum Study (2009). *The Biology Teacher's Handbook*. 4th Edition. Arlington: NSTA Press.

Mathematics

- Lockhart, P. (2002). A Mathematician's Lament. Available at <http://www.maa.org/devlin/LockhartsLament.pdf>
- Tall, D. (1992e). The Transition to Advanced Mathematical Thinking: Functions, Limits, Infinity, and Proof. In D. A. Grouws (Ed.), *Handbook of Research on Mathematics Teaching and Learning*, (pp. 495–511). New York: Macmillan. Available at <http://www.warwick.ac.uk/staff/David.Tall/themes/amt.html>
- Hohenwarter, M., Hohenwarter, J., Kreis, Y., & Lavicza, Z. (2008). *Teaching and Learning Calculus with Free Dynamic Mathematics Software Geogebra*. 11th International Congress on Mathematical Education. Monterrey, Nuevo Leon, Mexico. Available at <http://www.geogebra.org/publications/2008-ICME-TSG16-Calculus-GeoGebra-Paper.pdf>
- NCTM (2000). *Principles and Standards for School Mathematics*. Reston, VA: National Council for Teachers of Mathematics. (Selected chapters.)

Mathematics, Physics and Chemistry

- Kupiainen S., Hautamäki, J. & Karjalainen, T. (2006). *The Finnish Educational System and PISA*. Available at http://www.pisa2006.helsinki.fi/files/The_Finnish_education_system_and_PISA.pdf
- Pehkonen, E., Ahtee, M. & Lavonen, J. (Eds.) (2007). *How Finns Learn Mathematics and Science*. Rotterdam: Sense. The following chapters: Chapter 2: J. Lampiselkä, M. Ahtee, E. Pehkonen, M. Meri & V. Eloranta. Mathematics and science in Finnish comprehensive school (pp. 35–48). And Chapter 5: M. Hannula, K. Juuti & M. Ahtee. Gender issues in Finnish mathematics and physics education (pp. 85–96).
- Bransford, J. D., Brown, A. L. & Cocking, R. R. (Eds.) (2000). *How People Learn: Brain, Mind, Experience, and School*. Expanded Edition. Washington, D.C.: National Academy Press. Available at http://www.nap.edu/openbook.php?record_id=9853&page=1
- Donovan, S., & Bransford, J. D. (2005). *How Students Learn: History, Mathematics, and Science in the Classroom*. Washington, D.C.: National Academy Press. Available at <http://tinyurl.com/howstudentslearn>

Geography

- Butt, Graham (Ed.) (2011). *Geography, Education and the Future*. London: Continuum.

History

- Husbands, C. (1998). *What is History Teaching? Language, Ideas and Meaning in Learning about the Past*. Buckingham: Open University Press.
- Seixas P. (Ed.) (2004). *Theorizing Historical Consciousness*. Toronto: University Press.

Social Studies

- Arthur, J., Davies, I. & Hahn C. (Eds.) (2008). *The Sage Handbook of Education for Citizenship and Democracy*. Los Angeles: Sage.

Religion

- Jackson, R. (2004). *Rethinking Religious Education and Plurality: Issues in Diversity and Pedagogy*. London: RoutledgeFalmer.
- Wright, A. (2000). *Spirituality and Education*. London: Routledge/Falmer.

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Ethics and Philosophy

- Lipman, M. (2003). *Thinking in Education*. 2nd Edition. Cambridge: CUP. Available at: <http://www.dawsonera.com/guard/protected/dawson.jsp?name=Helsingin%20Yliopisto&dest=http://www.dawsonera.com/depp/reader/protected/external/AbstractView/S9780511308079>
- UNESCO (2007). *Philosophy - A School of Freedom. Teaching Philosophy and Learning to Philosophize: Status and Prospects*. Paris: United Nations Educational, Scientific and Cultural Organization. Available at <http://unesdoc.unesco.org/images/0015/001541/154173e.pdf>

Foreign languages

ONE of the following books:

- Lightbown, P. M., & Spada, N. (2006). *How Languages are Learned*. Oxford: Oxford University Press.
- Mitchell, R., & Myles, F. (2004). *Second Language Learning Theories*. London: Arnold.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.

AND two of the following articles:

- Harjanne, P. (2008). Communicative oral practice in the foreign language classroom: Methodological challenges. In J. Loima (Ed.), *Facing the Future—Developing Teacher Education* (pp. 111–129). Helsinki: Gaudeamus, Helsinki University Press.
- Harjanne, P., & Tella, S. (2007). Foreign language didactics, foreign language teaching and transdisciplinary affordances. In A. Koskensalo, J. Smeds, P. Kaikkonen, & V. Kohonen (Eds.), *Foreign languages and multicultural perspectives in the European context; Fremdsprachen und multikulturelle Perspektiven im europäischen Kontext. Dichtung – Wahrheit – Sprache* (pp. 197–225). Berlin: LIT-Verlag. http://www.seppotella.fi/HarjanneTella_ViKiPeda05.pdf
- Harjanne, P., & Tella, S. (2009). Investigating methodological reality in Finnish foreign language classrooms: Revisiting the KIELO project's rationale and research, In R. Kantelinen & P. Pollari (Eds.), *Language Education and Lifelong Learning* (pp. 135–154). Joensuu: Joensuun yliopistopaino. <http://www.seppotella.fi/vikipeda09.pdf>

AND

- *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. (2001). Council of Europe. Cambridge: Cambridge University Press. http://www.coe.int/T/DG4/Portfolio/?L=E&M=/documents_intro/common_framework.html (or the same in other foreign languages)

AND

- Byram, M. (2008). *From foreign language education to education for intercultural citizenship: Essays and reflections*. Languages for Intercultural Communication and Education. Clevedon: Multilingual Matters. (Selected chapters.)
- Byram, M., Gribkova, B., & Starkey, H. (2002). *Developing the Intercultural Dimension in Language Teaching: A Practical Introduction for Teachers*. Strasbourg: Council of Europe. http://www.coe.int/t/dg4/linguistic/source/guide_dimintercult_en.pdf

Psychology

- Glassman, W. E. & Hadad, M. (2009). *Approaches to Psychology*. 5th Edition. Berkshire: Open University Press.

Additional literature according to the subject group:

Biology

- A website offering information about Finland's plants, birds and butterflies, and pictures of featured species. Available at <http://www.naturegate.net/>

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Foreign languages

- Harjanne, P., & Tella, S. (2009). *Teaching and Study Practices in Finnish Foreign Language Classrooms*. Presentation in the TBLT 2009 Lancaster. 'Tasks: context, purpose and use'. 3rd Biennial International Conference on Task-Based Language Teaching. 13–16 September 2009. <http://www.lancs.ac.uk/fass/events/tblt2009/index.htm> (conference presentations) (Also available at <http://tinyurl.com/harjanneTBLT2009>)
- Tella, S., & Harjanne, P. (2009). The didactic model as the educational rationale for the WebCEF project. In H. Bijnens (Ed.), *WebCEF: Collaborative evaluation of oral language skills through the web* (pp. 27–49). Heverlee, Belgium: AVNet. (A web site closely related to the article: <http://tinyurl.com/mindbook5>)

Psychology

- Davis, S. & Buskist, W. (Eds.) (2002). *Teaching of Psychology: Essays in Honor of Wilbert J. McKeachie and Charles L. Brewer*. Mahwah, NJ: Lawrence Erlbaum.
- EARLI. Learning and Instruction. *The Journal of the European Association for Research on Learning and Instruction*. (Selected articles from Volumes 10–20.)

Evaluation

The lectures and exam in General Didactics are assessed on the general scale 0–5.

The lectures and groups in Subject Didactics are assessed separately on the general scale 0–5.

The Getting Acquainted with School phase is assessed as Pass/Fail.

Reflection is assessed as Pass/Fail.

The course as a whole is assessed on the general scale 0–5.

Intermediate Studies: Teacher as a Researcher Seminar (10 cr)

Part 1: Research and Methods (3 cr) and Research Plan Seminar (3 cr)

See the course information from the course description in Period 4.

Research and Methods (3 cr) and Research Plan Seminar (3 cr) start in Period 1 and continue for the duration of Period 2 and into Period 3.

Period 2 (7 cr basic studies + 3 cr intermediate studies)

Students apply knowledge learned in subject didactics and education into practice. Guided practice helps students to plan teaching and pay attention to the different questions related to teaching, studying and learning.

Basic Practice (7 cr)

Objectives

Students are able to

- plan and with guidance carry out lesson periods according to the aims described in the school curriculum
- use different teaching techniques and pedagogically justify the solutions they make in teaching and studying situations
- recognize various types of learners
- consider and analyze their own and others' teaching, give and receive feedback in peer groups.

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Students develop preparedness to

- use theoretical knowledge related to education as support for their teaching and analyze the known theory with the help of practical experience
- utilize information and communication technology (ICT) in teaching
- cooperate with special education and student welfare professionals
- take part in the everyday life at school from the teachers' perspective
- work in a network of experts.

Literature

Additional literature:

- *National Core Curriculum for General Upper Secondary Education*
http://www.oph.fi/english/publications/2003/National_Core_Curriculum_for_Upper_Secondary_Schools_2003
- *National Core Curricula for Basic Education*
http://www.oph.fi/english/publications/2009/national_core_curricula
- Syrjäläinen, E. & Jyrhämä R. & Haverinen L. (2004). *Praktikumikäsikirja*. Helsinki: Studia Pædagogica 33. Available at www.helsinki.fi/behav/praktikumikasikirja
- eNorssi työtapapankki. Available at <http://www.enorssi.fi/opetusmateriaalit/tyotapapankki-1>

Evaluation

Basic Practice is assessed as Pass/Fail.

In approved performance students have completed according to the given instructions

- 1) parts included in contact teaching (teaching guidance, guided observation and analysis of teaching, School as a Community)
- 2) tasks related to assimilation and deepening of contact teaching as well as reflection
- 3) familiarization with the literature stated in the curriculum.

Evaluation is based on subject competency and didactic solutions. Attention is also paid on students' commitment and activeness.

Previous studies

Students have to fulfil the subject competency requirements for Advanced Practice at the time of applying to the programme. Insufficient studies prevent the starting of practice. The Introduction to Subject Teaching course is to be completed before the start of Basic Practice or during it.

Intermediate Studies: Teacher as a Researcher Seminar (10 cr)

Part 1: Research and Methods (3 cr) and Research Plan Seminar (3 cr)

See the course information from the course description in Period 4.

Research and Methods (3 cr) and Research Plan Seminar (3 cr) start in Period 1 and continue for the duration of Period 2 and into Period 3.

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INTERMEDIATE STUDIES (35 cr)
AINEOPINNOT (35 op)
MAGISTERSTADIET (35 sp)

Students deepen their pedagogic understanding in intermediate studies. Student teachers learn to plan and evaluate and develop their students' studying and learning in general. They also independently study school and teaching and familiarize themselves with societal relations.

Period 3 (17 cr intermediate studies)

In Period 3 students are familiarized with the societal and philosophical conditions related to school work. Professional ethics, equity and tolerance are emphasized in this phase. Students familiarize themselves especially with evaluation and the prevention and care of learning problems. They apply their skills to various teaching, studying and learning environments.

Social, Historical and Philosophical Foundations of Education (5 cr)

Objectives

Students know how to analyze the historical structure and versatile societal relations of the school system.

Students develop preparedness to evaluate controversial demands placed on the school system, meet societal demands for change and work actively to develop the school system.

Multicultural Education (1 cr) is part of the Social, Historical and Philosophical Foundations of Education. Its objective is for students to gain preparedness to understand education and teaching in a multicultural context. The aim is also for students to familiarize themselves with different perspectives in multicultural education.

Literature

for Social, Historical and Philosophical Foundations of Education (4 cr):

- Cuban, L. & Tyack, D. (1995). *Tinkering Toward Utopia. A Century of Public School Reform*. London: Harvard University Press.
- Palmer, J. A. (Ed.) (2001). *Fifty Modern Thinkers on Education. From Piaget to the Present*. London: Routledge. (Selected sections as directed by the lecturer.)
- Gardner, R., Cairns, J. & Lawton, D. (Eds.) (2000). *Education for values: Morals, Ethics and Citizenship in Contemporary Teaching*. London: Kogan Page. (Selected sections as directed by the lecturer.)

NB. If a more suitable book is found before the start of the course, it will replace the two last-mentioned.

Articles for small groups:

- Ahonen, S. (2001). The End of the Common school? Change in the Ethos and Politics of Education in Finland Towards the end of the 1900s. In S. Ahonen & J. Rantala (Eds.), *Nordic Lights. Education for Nation and Civic Society in the Nordic Countries 1850–2000* (pp. 175–203). Studia Fennica: Historica 1. Helsinki: Finnish Literature Society.
- Simola, H. (2005). The Finnish miracle of PISA: historical and sociological remarks on teaching and teacher education. In *Comparative Education* 41(4), 455–470.

Literature

for Multicultural Education (1 cr):

- Talib, M.-T., Loima, J., Paavola, H. & Patrikainen, S. (Eds.) (2009). *Dialogs on Diversity and Global Education*. Frankfurt: Peter Lang.

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Evaluation

–Social, Historical and Philosophical Foundations of Education (4 cr):

Lectures and literature are assessed on the scale 0–5.

Group work is assessed as Pass/Fail.

The course as a whole is assessed on the scale 0–5.

–Multicultural Education (1 cr):

A task carried out in the subject didactic group is assessed as Pass/Fail.

Evaluation and Development of Teaching (7 cr)

Objectives

Students know how to plan, evaluate and develop teaching while taking into account

- the curriculum
- research related to teaching, studying and learning the subject
- epistemological questions related to the subject
- challenges in a multicultural network society.

Students are able to examine their own development as a teacher.

Students develop preparedness to

- partake in planning a curriculum
- use different kinds of evaluation methods for teaching
- utilize information and communication technology (IT) in teaching
- cooperate with homes and groups involved with school
- plan teaching and learning entities and critically evaluate the social effects of education.

Literature

Literature according to the subject group:

Mathematics

- Pehkonen, E. (1998). International comparison of pupils' mathematical beliefs. In E. Pehkonen & G. Törner (Eds.), *The State-of-art in mathematics-related belief research, results of the MAVI activities* (pp. 249–276). Research Report 195. Department of Teacher Education: University of Helsinki.
- Lewis, C. (2000). Lesson study: The core of Japanese professional development. Paper presented at the American Educational Research Association (2000 Annual Meeting), New Orleans, LA. Available at <http://www.csudh.edu/math/syoshinobu/107web/aera2000.pdf>
- Jaworski, B. (1998). Mathematics teacher research: Process, practice, and the development of teaching. *Journal of Mathematics Teacher Education*, 1, pp. 3–31. Available at <http://math.unipa.it/~grim/YESS-5/Jaworski,%201998%20JMTE.pdf>
- Gorgori6, N. & Planas, N. (2001). Teaching mathematics in multilingual classrooms. *Educational Studies in Mathematics*, 47, pp. 7–33. Available at <http://www.springerlink.com/content/urqra54aqc46y876/fulltext.pdf>
- Jaworski, B. (2004). Grappling with complexity: Co-learning in inquiry communities in mathematics teaching development. Proceedings of the 28th PME Conference. Bergen: Bergen University College. Available at http://emis.icm.edu.pl/proceedings/PME28/PL/PL003_Jaworski.pdf
- Descamps, S. X., Bass, H., Evia, G. B., Seiler, R & Seppälä, M. (2006). E-learning mathematics (panel). In Proceedings of the International Congress of Mathematicians, Madrid, Spain, European Mathematical Society. Available at <http://www.mumie.net/publications/ICM06-eLearningMathematics.pdf>
- Engelbrecht J. & Harding, A. (2005). Teaching Undergraduate Mathematics on the Internet. In *Educational Studies in Mathematics*, 58, pp. 253–276).

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- NCTM (2000). *Principles and Standards for School Mathematics*. Reston, VA: National Council of Teachers of Mathematics. (Selected chapters.)

Physics & Chemistry

- Atkin, J. M., Black, P. & Coffey, J. (Eds.) (2001). *Classroom Assessment and the National Science Education Standards*. Washington, D.C.: Committee on Classroom Assessment and the National Science Education Standards, Center for Education, National Research Council. Available at http://www.nap.edu/catalog.php?record_id=9847

OR

- Black, P., Harrison, C., Lee, C., Marshall, B. & Wiliam, D. (2003). *Assessment for Learning: Putting it into practice*. Berkshire: Open University Press.

History

- Arthur, J., Davies, I., Wrenn, A., Haydn, T. & Kerr, D. (2001). *Citizenship through Secondary History*. London: Routledge. Available at <http://www.dawsonera.com/guard/protected/dawson.jsp?name=Helsingin%20Yliopisto&dest=http://www.dawsonera.com/depp/reader/protected/external/AbstractView/S9780203451632>

Social Studies

- Banks, J. (2007). *Educating Citizens in a Multicultural Society*. New York: Teachers College Press.
- Arthur J., Davies, I. & Hahn, C. (Eds.) (2008). *The Sage Handbook of Education for Citizenship and Democracy*. Los Angeles: Sage.

Biology

- Koba, S. & Tweed, A. (2009). *Hard-to-Teach Biology Concepts: A Framework to Deepen Student Understanding*. Arlington, VA: NSTA Press.

Religion

- Grimmitt, M. (Ed.) (2000). *Pedagogies of Religious Education: Case Studies in the Research and Development of Good Pedagogic Practice in RE*. Great Wakering: McCrimmons.

Ethics and Philosophy

- Kasachkoff, T. (Ed.) (2004). *Teaching Philosophy: Theoretical Reflections and Practical Suggestions*. Lanham, Md.: Rowman & Littlefield Publishers.
- Foshat, A. W. (2000). *The Curriculum: Purpose, Substance, Practice*. London: Teachers College Press.

Psychology

Selected parts of the following publications as directed by the lecturer:

- Goss Lucas, S. & Bernstein, D. (2005). *Teaching Psychology: A Step by Step Guide*. Mahwah, NJ: L. Erlbaum.
- Mc Keachie, W. J. (2002). *Mc Keachie's Teaching Tips*. 11th Edition. Boston, MA: Houghton Mifflin Company.
- Fox, R. (2005). *Teaching and Learning: Lesson from Psychology*. Malden MA: Blackwell Publishing.
- Bustkist W. & Davis, S. F. (Eds.) (2006). *Handbook of the Teaching of Psychology*. Oxford: Blackwell Publishing.

Foreign Languages

Selected chapters from the following literature as suggested by the lecturers:

- Anderson, L. W. (2003). *Classroom assessment: Enhancing the quality of teacher decision making*. Mahwah, NJ: Erlbaum.
- *Common European framework of reference for languages: Learning, teaching, assessment*. (2001). Council of Europe. Cambridge: Cambridge University Press.

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http://www.coe.int/T/DG4/Portfolio/?L=E&M=/documents_intro/common_framework.html (Chapters on assessment.)

- Hildén, R. (2008). Multiple aspects of validity theory in the service of an oral proficiency assessment project. In S. Tella (Ed.), *From Brawn to Brain: Strong Signals in Foreign Language Education. Proceedings of the ViKiPeda-2007 Conference in Helsinki, May 21–22, 2007* (pp. 189–206). University of Helsinki. Department of Applied Sciences of Education. Research Report 290. <http://blogs.helsinki.fi/rhilden/publications/>
- Kohonen, V. (2008). On the significance of the CEFR and ELP in FL Education: Findings from recent research. In S. Tella (Ed.), *From Brawn to Brain: Strong Signals in Foreign Language Education. Proceedings of the ViKiPeda-2007 Conference in Helsinki, May 21–22, 2007* (pp. 99–127). University of Helsinki. Department of Applied Sciences of Education. Research Report 290. <http://www.seppotella.fi/290.pdf>
- Training to use CEFR scales:
<http://www.helsinki.fi/project/ceftrain/index.html>
<http://www.webcef.eu/>
<http://www.cefcult.eu/>

Additional literature:

Foreign languages

- Tella, S. (2005). Multi-, inter- and transdisciplinary affordances in foreign language education: From singularity to multiplicity. In J. Smeds, K. Sarmavuori, E. Laakkonen, & R. de Cillia (Eds.), *Multicultural Communities, Multilingual Practice: Monikulttuuriset yhteisöt, monikielinen käytäntö* (pp. 67–88). Turku: Annales Universitatis Turkuensis B 285.
- Articles chosen by the lecturer together with the student from 2 to 3 net journals: *Language Testing, Language Assessment, Educational Measurement or Language Learning and Technology* (<http://lt.msu.edu/archives/default.html>)
- Info on *Preparing teachers to use the European Language Portfolio—arguments, materials and resources*. <http://tinyurl.com/Little-preparingteachers>

Geography

- Fraser, S., Lewis, V., Ding, S., Kellett, M. & Robinson, C. (Eds.) (2004). *Doing Research with Children and Young People*. London: Sage.

Evaluation

Lectures and small groups are assessed on the scale 0–5.

The course as a whole is graded on the scale 0–5.

Applied Practice (5 cr)

Objectives

Students are able to

- apply what they have learned to practice in new environments.

Students develop preparedness to

- work on their own pedagogic practical theories
- examine their own teaching from the point of view of educational theories / through research from a theoretical framework
- act as a professional in their own field in a versatile pedagogic network.

Literature

Additional literature:

- Syrjäläinen, E. & Jyrhämä R. & Haverinen L. 2004. *Praktikumikäsikirja*. Helsinki: Studia Pædagogica 33. Available at www.helsinki.fi/behav/praktikumikasikirja
- Other literature, for example the curriculum or implementation strategies of the practice school/place.

Evaluation

Applied Practice is assessed as Pass/Fail.

Approved performance:

Applied Practice in a school or institute:

Student has completed according to the instructions given by the practice place

- 1) parts related to contact teaching
- 2) tasks related to the assimilation and deepening of contact teaching
- 3) familiarization with given literature, and
- 4) assigned written work.

Applied Practice in the field of teaching or education:

Student has completed according to the instructions given by the practice place and the Department of Teacher Education

- 1) agreed activities
- 2) familiarization with given literature, and
- 3) assigned written work.

Applied Practice as Own project:

Student has completed according to the instructions given by the practice place and the Department of Teacher Education

- 1) the planned project
- 2) familiarization with given literature, and
- 3) assigned written work.

In evaluation, attention is paid to interactional skills, initiative, and skills to examine practical experience as part of own development into a teacher.

Previous studies

Students have to fulfil the subject competency requirements for Advanced Practice at the time of applying to the Subject Teacher Education Programme. Inadequate studies prevent the starting of practice. Before Applied Practice, students have to complete Basic Practice.

Period 4 (12 cr intermediate studies)

The purpose of this period is to create a research perspective into the school and teaching work and multiculturalism. Students deepen their teaching skills as comprehensive knowhow. They are able to find answers to practical problems in the field of teaching from theories. The objective is for students to become professionals in the field of education and teaching who are prepared to develop themselves continually.

Teacher as a Researcher Seminar (10 cr)

Objectives

Part 1:

Research and Methods (3 cr):

Students know the foundations of subject didactic research and its methods.

Research Plan Seminar (3cr):

Students know how make an educational research or work plan.

Students develop preparedness to

- read and analyze subject didactics studies
- apply research knowledge into teaching
- research problems in the field of education.

Part 2:

Research Seminar (4 cr):

Students know how to

- examine research dealing with the teaching, studying and learning of their own subject
- complete and report on a pedagogical study or product.

Students grow into professionals who research and develop their own work.

Literature

Literature according to the subject group:

Biology

- Wheeldon, J. & Åhlberg, M. (2011). *Visualizing Social Science Research: Maps, Methods, & Meaning*. London: SAGE.

History

- Levestik, L. S. & Barton, K. C. (2008). *Researching History Education – Theory, Method, and Context*. New York: Routledge.

Social Studies

- NCSS. *Theory and Research in Social Education*. Silver Spring, MD: National Council for the Social Studies. (Selected articles.)

Religion, Ethics and Philosophy

- Cohen, L., Manion, L. & Morrison, K. (2007). *Research Methods in Education*. 6th Edition. London: Routledge.

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Psychology

- Korthagen, F. A. J. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. In *Teaching and Teacher Education*, 20(1), 77–97.
- Korthagen, F. & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional development. In *Teachers and Teaching: Theory and Practice* 11(1), 47–71.
- Meijer, P. C., Korthagen, F. A. J. & Vasalos, A. (2009). Supporting presence in teacher education: The connection between the personal and professional aspects of teaching. In *Teaching and Teacher Education*, 25(2), 297–308.
- Munby, H., Russell, T. & Martin, A. K. (2001). Teachers' knowledge and how it develops. In V. Richardson (Ed.) *Handbook of Research on Teaching* (pp. 877-904). 4th Edition. Washington: American Educational Research Association.
- Hansen, D. T. (2001). Teaching as a moral activity. In V. Richardson (Ed.), *Handbook of Research on Teaching* (pp. 826-857). 4th Edition. Washington, DC: American Educational Research Association.
- Cochran-Smith, M. & Fries, S. (2008). Research on teacher education: changing times, changing paradigms. In M. Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre & K. E. Demers (Eds.), *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts* (pp. 1050-1094). 3rd Edition. New York: Routledge/Association of Teacher Educators.

Foreign Languages

- Harjanne, P., & Tella, S. (2008). Strong signals in foreign language education, with a view to future visions. In S. Tella (Ed.), *From Brawn to Brain: Strong Signals in Foreign Language Education. Proceedings of the ViKiPeda-2007 Conference in Helsinki, May 21–22, 2007* (pp. 55–84). University of Helsinki. Department of Applied Sciences of Education. Research Report 290. <http://www.seppotella.fi/strongsignals.pdf>
- Hinkel, E. (Ed.) (2005). *Handbook of Research in Second Language Teaching and Learning*. Mahwah, NJ: Erlbaum. (Selected chapters.)
- Lund, A. (2003). *The Teacher as Interface: Teachers of EFL in ICT-Rich Environments: Beliefs, Practices, Appropriation*. Oslo: University of Oslo. The Faculty of Arts and The Department of Teacher Education and School Development.
- Tella, S. (Ed.) (2008). *From Brawn to Brain: Strong Signals in Foreign Language Education. Proceedings of the ViKiPeda-2007 Conference in Helsinki, May 21–22, 2007*. University of Helsinki. Department of Applied Sciences of Education. Research Report 290. (Chapters suggested by the lecturer.) <http://www.seppotella.fi/290.pdf>
- Hildén, R. (2009). Transforming language curricula through a research and development project: A case from Finland. In T. Autio & E. Ropo (Eds.), *International Conversations on Curriculum Studies* (pp. 235–256). Rotterdam: Sense Publishers.

Two out of the following articles:

- Hildén, R. (2008). Making the future happen in language education – from type tasks to transformative activity. In Loima, J. (Ed.), *Facing the Future – Developing Teacher Education* (pp. 45–58). Helsinki: Palmenia.
- Lier, van L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In Lantolf, J. P. (Ed.), *Sociocultural Theory and Second Language Learning* (pp. 245–259). Oxford: Oxford University Press.
- Tella, S. (2004). Visualising future foreign language education: From revision and supervision to vision. In K. Mäkinen, P. Kaikkonen, & V. Kohonen (Eds.), *Future Perspectives in Foreign Language Education* (pp. 71–98). Oulu: University of Oulun, Oulun yliopiston kasvatustieteiden tiedekunnan tutkimuksia 101. <http://www.helsinki.fi/~tella/tella2004ViKiPeda.pdf> (A graphic presentation of this article is at <http://www.helsinki.fi/~tella/vision.html>)
- Tella, S. & Harjanne, P. (2007). Can we afford any more affordances? Foreign language education specific reflections. In K. Merenluoto & A. Virta (Eds.), *Opettajankoulutuksen muuttuvat rakenteet: Ainedidaktinen symposiumi 9.2.2007* (pp. 500–506). Turku: Turun opettajankoulutuslaitos, Turun yliopiston kasvatustieteellisen tiedekunnan julkaisuja. <http://www.seppotella.fi/ads07.pdf>

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Mathematics, Physics and Chemistry

- Creswell, J.W. (2005/2008). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. 2nd or 3rd Edition. Upper Saddle River, NJ: Merrill/Pearson. Chapters 1, 2, 6–9.
- Other literature based on the research topic.

Additional literature according to the subject group:

Foreign languages

Selected chapters from the following as suggested by the lecturers:

- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
- Nishimura, S., Nevgi, A., & Tella, S. (2008). Communication style and cultural features in high/low context communication cultures: A case study of Finland, Japan and India. In A. Kallioniemi (Ed.), *Uudistuva ja kehittyvä ainedidaktiikka. Ainedidaktinen symposiumi 8.2.2008 Helsingissä. Osa 2* (ss. 783–796). [In A. Kallioniemi (Ed.), *Renovating and developing subject didactics. Proceedings of a subject-didactic symposium in Helsinki on Feb. 2, 2008. Part 2* (pp. 783–796). University of Helsinki. Department of Applied Sciences of Education. Research Report 299].
<http://www.seppotella.fi/nishimuranevgitella299.pdf>

Geography

- Butt, G. (2002). *Reflective Teaching of Geography 11-18*. London: Continuum.

Psychology

- Carol S. Dweck (2008). *Mindset: The New Psychology of Success*. New York: Ballantine books. (Chapters 1, 2, 3, 7, 8.)

Evaluation

The small groups and research plan of Part 1 are assessed as Pass/Fail.

Research Methods are assessed on the scale 0–5.

The study and small groups in Part 2 are assessed on the scale 0–5.

The whole course is graded on the scale 0–5.

Advanced Practice (8 cr)

Objectives

Students are able to

- plan, conduct and assess their teaching independently and responsibly while adhering to the ethical principles of teaching
- use various teaching methods and ICT in multiple ways in their teaching
- meet different kinds of learners and plan and implement their teaching in a structured way while taking into account the needs and aims of learners and learner groups
- view their work reflectively.

Students develop preparedness to

- apply the educational legislation in their work
- partake in planning and conducting teaching in a multi-professional work community
- cooperate with teachers of different subjects
- critically examine the school system and teaching
- get involved with developing and improving school and teaching
- utilize and produce research knowledge in teaching
- upkeep professionalism
- function in an intercultural environment

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- be involved in school decision-making, activities and assessment of the work community and its interest groups
- function in the network of school professionals while knowing its responsibilities and interactional relations.

Literature

Additional literature:

- *National Core Curriculum for General Upper Secondary Education*
http://www.oph.fi/english/publications/2003/National_Core_Curriculum_for_Upper_Secondary_Schools_2003
- *National Core Curricula for Basic Education*
http://www.oph.fi/english/publications/2009/national_core_curricula
- Syrjäläinen, E. & Jyrhämä R. & Haverinen L. 2004. *Praktikumikäsikirja*. Helsinki: Studia Pædagogica 33. Available at www.helsinki.fi/behav/praktikumikasikirja
- eNorssi työtapapankki. Available at <http://www.enorssi.fi/opetusmateriaalit/tyotapapankki-1>
- Teacher as an international player. http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm (Selected parts.)
- Basic Education Act. Available at <http://www.finlex.fi/en/laki/kaannokset/1998/en19980628.pdf>

Evaluation

Advanced Practice is assessed as Pass/Fail.

In approved performance students have completed according to the given instructions

- 1) parts included in contact teaching (teaching guidance, analysis of teaching and research perspective in teaching, School as a Community)
- 2) tasks related to assimilation and deepening of contact teaching as well as reflection
- 3) familiarization with the literature stated in the curriculum
- 4) completed given written assignments.

Evaluation is based on subject competency and didactic solutions as well as on interactional skills and initiative. Attention is also paid on criticalness and skills to conduct reflection based on students' own aims.

Previous studies

Students have to fulfil the subject competency requirements for Advance Practice at the time of applying to the Subject Teacher Education Programme. Insufficient studies prevent the starting of practice. Before Advanced Practice, students need to complete Basic Practice and Evaluation and Development of Teaching course.