



*Research Seminar 4 cr - Spring*

Risto Hotulainen  
OKL/Helsingin yliopisto  
[Risto.Hotulainen@Helsinki.fi](mailto:Risto.Hotulainen@Helsinki.fi)

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

[www.helsinki.fi/yliopisto](http://www.helsinki.fi/yliopisto) 12.2.2014 1

---

---

---

---

---

---

---

---



**Goals of Research Seminar**

Students understand

- the structure of educational research process, problem-setting of research, and methodological solutions
- the importance of scientific knowledge, the epistemological foundations of educational research as well as foundations of scientific research, and core concepts of educational research
- the interactional relationship of theory and practice
- peer group's support in teachers' work

Students are able to

- make a research plan, conduct research and produce a research report (pedagogical product or study)
- apply didactical, subject-specific and research methodological knowledge into practice
- view their work from a research perspective

Students have preparedness to

- examine educational theory from a practical perspective and practice from a theoretical perspective
- develop their skills of critical thinking and drawing conclusions

**grow into professionals who are inquisitive, and who research and develop their own work**

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

[www.helsinki.fi/yliopisto](http://www.helsinki.fi/yliopisto) 12.2.2014 2

---

---

---


---

---

---

---

---



*3. Research Seminar 4 cr (683207)*

The study unit is evaluated according to the pedagogical product or study made and presented by the student, as well as participation.  
The study unit is assessed on the scale 0-5.

*Evaluation of the Teacher as a Researcher Seminar study unit*

The study unit as a whole is graded on the scale 0-5.

The Teacher as a Researcher study unit includes

- 683163 Introduction to Educational Research 3 cr
- 683206 Research Plan Seminar 3 cr
- 683207 Research Seminar 4 cr

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

[www.helsinki.fi/yliopisto](http://www.helsinki.fi/yliopisto) 12.2.2014 3

---

---

---


---

---

---

---

---



### Timetable and theme proposal

Group 2	DATE	TIME	LOCATION	TEACHER
Period 3	Wednesday 12.2.	16-18	Fontell	Risto Hotulainen
	Wednesday 26.2.	16-18	Fontell	Risto Hotulainen
Period 4	Monday 17.3.	16-18	Fontell	Risto Hotulainen
	Monday 24.3.	16-18	Fontell	Risto Hotulainen
	Wednesday 26.3.	16-18	Fontell	Risto Hotulainen
NBI 4h	Monday 31.3.	10-14	Fontell	Risto Hotulainen
NBI 4h	Tuesday 1.4.	10-14	Fontell	Risto Hotulainen
NBI 4h	Wednesday 2.4.	10-14	Fontell	Risto Hotulainen
	Wednesday 16.4.	16-18	Fontell	Risto Hotulainen

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI
www.helsinki.fi/yliopisto
12.2.2014
4

---

---

---


---

---

---

---

---



### Timetable and theme proposal

Group 2	DATE	TIME	LOCATION	THEME
Period 3	Wednesday 12.2.	16-18	Fontell	Risto Hotulainen
	Wednesday 26.2.	14-20	RISTO'S OFFICE 319	INDIVIDUAL MEETINGS 1 (å 30min)
Period 4	Monday 17.3.	16-18	Fontell	INDIVIDUAL MEETINGS 2
	Monday 24.3.	16-18	Fontell	INDIVIDUAL MEETINGS 2
	Wednesday 26.3.	SKIP	Fontell	
NBI 4h	Monday 31.3.	10-14	Fontell	LAST HEARING FOR THE PRESENTATIONS
NBI 4h	Tuesday 1.4.	SKIP	Fontell	
NBI 4h	Wednesday 2.4.	10-14	Fontell	PRESENTATIONS 1
	Wednesday 16.4.	16-18	Fontell	PRESENTATIONS 2

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI
www.helsinki.fi/yliopisto
12.2.2014
5

---

---

---


---

---

---

---

---



### Content of the STEP THESIS

**Small study project (1/3 master's thesis)\***

**Risto's guidelines (15-20 pages)**

<b>Content of thesis</b> <b>1. Introduction</b> <b>2. Theoretical frame</b> <b>3. Questions of the study</b> <b>4. Method</b> <b>5. Results</b> <b>6. Discussion</b>	} 50% text } 50% text
--	--------------------------

\*<https://flamma.helsinki.fi/content/res/pri/HY308194>

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI
www.helsinki.fi/yliopisto
12.2.2014
6

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**1. Introduction**  
(1-2 pages) why promotion of the thinking skills and it's research is important

- Education is for thinking - not about teaching contents
- Current results show decline
- Controversal study results (can we promote thinking skills or not)

The aim of this study...

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 7

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**2. Theoretical framework / Thinking skills and education**

2. Cognitive development of adolescents

2.1. Piaget's theory of cognitive development

2.2. Critics against Piagets theory

3. About promoting thinking skills

3.1. Cognitive acceleration

3.2. Inductive reasoning

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 8

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**4. Questions of the study**

Short introduction what is missing / theory and earlier studies and study questions / hypotheses

1. How do the performance between the study groups differ in thinking skills from each other after intervention?  
Ho: There is no difference between...

2. How do the performance between the study groups differ from each other in math and other measured school subjects after intervention?

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 9

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**4. Method**

Sample

Used instruments

Data gathering

Intervention procedure (what is done and how)

Analysis procedures (what is done for the data and why, examples provided in appendix, when needed).

...all should argue against methodological literature

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 10

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**5. Results**

Follows logic of the set study questions:

In quantitative first: descriptive statistics

5.1. Performance in thinking skills by the study groups after the intervention

5.2. Performance in math and other measured school subjects after the intervention

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 11

---

---

---


---

---

---

---

---



**Example:**  
**Thinking skills intervention for 9th graders – a pilot study**

---

**6. Discussion**

What was aim of the study and did I manage to achieve it

6.1 Analysis of the findings  
- Against theory and earlier findings

6.2 Practical implications

6.3 Limitations of the study

6.4 Suggestions for the future research

6.5 Conclusion

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto 12.2.2014 12

---

---

---

---

---

---

---

---