



Faculty of Health, Science and Technology

Syllabus

Research Methodology in Health Service Research

Course Code: 7OMV004
Course Title: Research Methodology in Health Service Research
Credits: 7,5 ECTS
Degree Level: Doctoral

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology, 23 September 2020 and is valid from the autumn semester 2020.

Language of instruction

Teaching is in English and Scandinavian languages depending on the lecturer's natural language. If there are participants unfamiliar with Scandinavian languages English is used as the course language.

Prerequisites

Qualification requirements are admission to a doctoral programme in Health Sciences or at a Master's Degree in Health Sciences, or equivalent. The course is primarily for PhD students at Karlstad University, secondly for PhD students admitted to other universities, and thirdly for students with a Master Degree.

Learning Outcomes

Upon completion of the course, students should be able to:

1. differentiate and critically analyse designs commonly applied within health service research
2. problematise the development, testing and evaluation of complex interventions within health service research and their relation to different designs and frameworks,
3. identify and formulate a research problem of importance for health service research and critically argue for a design suitable to answer it, and
4. develop a study protocol for publication in accordance with relevant reporting guidelines for chosen study design.

Course Content

The course will use a combination of lectures, workshops and seminars. Thereafter students will work on their examination paper, consisting of a study protocol for a planned study or systematic review this will be followed up by including an opponent and respondent seminar where the participants will critically discuss their individual examination task.

The course will contain discussion about the most common research paradigms within health service research: positivism, constructivism and pragmatism. They will be discussed in relation to some of their most relevant designs, literature study designs included. Research ethical principles will also be covered. The designs application, strengths and weaknesses with a particular focus on what research questions each design is suitable to answer will also be covered. Multi-methods versus mixed-methods as well as complex interventions and framework for such will additionally be critically discussed. The following components are included in the course

- Experimental designs: cluster- pragmatic- and explanatory randomised controlled trials and factorial designs, such as the sequential multiple-assignment randomised trial (SMART) and the micro-randomized trial (MRT)
- Multiphase Optimization Strategy (MOST)
- SMART and adaptive interventions
- Quasi experimental designs
- Observational study designs
- Systematic literature reviews: overview of reviews, scoping reviews, meta-synthesis and mixed-method reviews
- Intervention development and frameworks for complex interventions
- Research ethical principles for literature study designs
- Multi-methods versus mixed-method

Reading List

See separate document.

Examination

Assessment will be based on seminar participation and on an individual written take-home exam.

Grades

One of the grades Fail (U) or Pass (G) is awarded in the examination of the course.

Quality Assurance

The course convenor has a duty to encourage a continuous dialogue on learning processes and goal fulfilment. A written evaluation is carried out at the conclusion of the course combined with a joint student-teacher discussion of all aspects commented on. The result of the evaluation is collated and made available in accordance with *The Higher Education Ordinance*, Chapter 1, § 14.

Course Certificate

Course certificate is issued on request.

Goal matrix

Goals that, after completing the course, are fulfilled for the doctoral or licentiate degree are marked with an X.

	Doctoral			Licentiate	
	Knowledge and understanding			Knowledge and understanding	
1a	- demonstrate broad knowledge and systematic understanding of the research field and	X		1a demonstrate knowledge and understanding in the field of research including	X
1b	advanced and up-to-date specialised knowledge in a limited area of this field, and	X		1b current specialist knowledge in a limited area of this field as well as	X
1c	familiarity with research methodology in general and the methods of the specific field of research in particular.			1c specialised knowledge of research methodology in general and the methods of the specific field of research in particular	
	Competence and skills			Competence and skills	
2a	- demonstrate capacity for scholarly analysis and synthesis as well as			2a demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively and to	X
2b	to review and assess new and complex phenomena, issues and situations autonomously and critically	X		2b plan and use appropriate methods to undertake a limited piece of research and other qualified tasks within predetermined time frames in order to contribute to the formation of knowledge	X
3a	- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to			2c as well as to evaluate this work	
3b	plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work	X		3a demonstrate the ability in both national and international contexts to present and discuss research and research findings in speech and writing and in dialogue with the academic community and	
4	- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research			3b society in general	

5a	- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and		4	demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.	
5b	society in general				
6	- demonstrate the ability to identify the need for further knowledge and	X			
7	- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.				
Judgement and approach				Judgement and approach	
8a	- demonstrate intellectual autonomy and disciplinary rectitude as well as		5	demonstrate the ability to make assessments of ethical aspects of his or her own research	
8b	the ability to make assessments of research ethics, and		6	demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used	X
9	- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.	X	7	demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.	