Introduction to Meta analysis

Category	Content
Course Code	
Course Title	Meta analysis
ECTS Credits	1 ECTS Credits
Level of Study	Ph.D.
Full-time/Part-time	Part-time
Language of Instruction	English
Semester	Spring/Fall semester
Place of Instruction	Faculty of Psychology, University of Bergen

Objectives and Content	*Content* Meta analysis: • Introducing meta analysis • Research design • Finding relevant databases • Developing search protocols and methods • Data analysis • Appraisal (PRISMA) • Meta analysis software • Presentation of findings *Main learning objectives* The main course goal is to introduce Phd students to the genre of meta analysis, and show how to complete this on doctoral level. Throughout the course the Phd students will develop their understanding of the main elements of a meta analysis process. In addition, the course aims to develop the Phd students' abilities and knowledge for designing and completing their own meta analysis in collaboration with supervisors, research group, etc. After completing the course, the Phd students will have general knowledge about: • Meta analysis as systematic review • Relevant databases within health and social science research • Developing a search protocol • Search methods for database searches to locate and collect literature in a systematic and transparent way • Methods for analysis, critically appraising and tools for organizing collected primary quantitative studies • Ways of presenting findings in meta analysis After completing the course, the Phd student will have specific knowledge about: • How to develop an original problem statement for completing their own meta analysis (in collaboration with others) • What types of meta analysis and research design will fit their own project • Using different methods and techniques for analyzing and critically appraising primary studies • How to measure effect sizes and analyze collected primary studies • How to present findings from meta analysis in text and visually at a high academic level

Learning Outcomes	By completing the course the Phd students will have completed the following learning aims, which are here defined as knowledge, skills, and general competence: *Knowledge:* The student will have knowledge about meta analysis, what purposes these have in research, and which research design that should be used when planning a meta analysis. The PhD-student will be familiar with relevant databases within health and social science research, and how to use these. The PhD-student will be familiar with various methods of analysis and tools for assessing, critically appraising, sorting, and presenting the collected primary studies from database searches. *Skills:* The student will be able to use different databases for health and social science research for planning and performing database searches using various search methods in an independent way. *General competence:* The PhD-student will be able to develop an original problem statement, and use the problem statement to complete and present a meta analysis on a high academic level.
Required Previous Knowledge	Master's degree within disciplines relevant to pedagogy, educational research, psychology, medicine and health science.
Recommended previous Knowledge	Should know about literature reviews from Bachelor- and Master's level
Credit Reduction due to Course Overlap	None

Is the course open or reserved for students enrolled in particular programmes?	The course is open for students at Ph.D.-level
Teaching Methods and Extent of Organized Teaching	Teaching will be organized as lectures and cases at the University of Bergen. Also, databases, search engines, and tools will be demonstrated. In addition, the course will have digital elements integrated in the course design (e.g. “flipped classroom”).
Compulsory Assignments and Attendance	80 % attendance during lectures

Forms of Assessment	The assessment criteria at the Faculty of Psychology will be used. Pass or fail Pass included 80 % attendance during lectures and the Phd student should also set aside enough time for work with the prescribed course texts.
Examination Support Material	Not relevant
Grading Scale	Pass or fail Pass included 80 % attendance during lectures and the Phd student should also set aside enough time for work with the prescribed course texts.
Assessment Semester	Spring/Fall

Reading List	Cumming, G. (2012). *Understanding the new statistics: effect sizes, confidence intervals, and meta-analysis.* New York, Routledge. Cumming, G., Finch, S. (2001). A primer on the understanding, use and calculation of confidence intervals that are based on central and noncentral distributions. *Educational and Psychological Measurement*. 61 (4), 532-574 Gough, D., Oliver, S., & Thomas, J. (2012). *An introduction to systematic reviews*. Los Angeles, CA: Sage. Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, *26*(2), 91-108. Pickering, C., & Byrne, J. (2014). The benefits of publishing systematic quantitative literature reviews for PhD candidates and other early-career researchers. *Higher Education Research & Development*, *33*(3), 534-548.
Course Evaluation	Course evaluation is done in accordance to the Faculty of Psychology's' procedures for study quality
Programme Committee	Professor Rune Johan Krumsvik
Course Coordinator	Professor Rune Johan Krumsvik Associate professor Kjetil Høydal

Course Administrator	Research group Digital Learning Communities, Department of Education, the Faculty of Psychology
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