

EMNERAPPORT

Emnekode: INTH315 Emnetittel: Methods in Global Health Research	Semester: Haust 2019	Institutt: Institutt for global helse og samfunnsmedisin
Emneansvarlig: Ingunn M.S. Engebretsen, Bente Moen Dato: 16 April 2020	Godkjent i: Programme Committee for Global Health	

INNLEDNING:

Emnets læringsutbyttebeskrivelse:

Knowledge

The student is able to:

- Explain/describe the philosophical underpinnings of research methodologies used in global health studies
- Describe the theoretical foundation and concepts of qualitative study designs in research
- Discuss the principles of causality in research
- List relevant databases for scientific literature and explain the principles of literature reviews
- Compare different research concepts and epidemiological study designs such as randomized controlled trials, observational studies (surveys, cohort studies, case & control studies, cross-sectional studies,)
- Describe qualitative research methods (observations, interviews, group discussions and document analysis)
- Explain fundamental statistical concepts and methods relevant to global health research, including methods for reporting and summarizing data
- Use tables and graphs, report descriptive statistics for continuous and categorized data from data sets
- Recognize ethical challenges in global health research; integrity, accountability and social responsibility and their possible consequences.
- Consider trustworthiness and validity aspects of research

Skills

The student is able to:

- Search systematically for scientific literature in global health
- Critically evaluate scientific literature in global health
- Independently identify appropriate objectives, study designs and methods for data collection and analysis and argue for these choices
- Plan an ethically sound study
- Present, explain and justify choice of research tools
- Develop a qualitative interview guide and plan a qualitative interview
- Conduct basic coding/analysis and establish thematic categories of qualitative data
- Present, explain and justify choice of research methods in public health and epidemiological research as well as in basic biomedical research within life sciences
- Apply statistical methods
- Estimate disease occurrence
- Estimate and interpret risk associations
- Discuss measures to increase trustworthiness and how to minimize bias and confounding in qualitative and quantitative data
- Handle, organize and secure data sets
- Plan, design and present a visual and oral presentation

General competence

The student is able to:

- Reflect upon the role of different disciplines and research methodologies in global health research relevant for low- and middle income countries
- Critically evaluate and interpret results from global health research its relevance, societal and ethical implications

STATISTIKK:

Mengde vurderingsmeldte studenter: 33	Mengde studenter møtt til eksamen:					
Karakterfordeling ->: Eller ->:	A: 0	B: 12	C: 14	D: 5	E: 1	F: 1
	Bestått: 32			Ikke bestått: 1		

SAMMENDRAG AV STUDENTENE SIN EMNEEVALUERING (*hovedpunkt*):

Below are some of the points given in the narrative text which the students identified as having potential for improvement and their wishes:

- The course may benefit from having the structure of the course outlined more clearly from the beginning. By having a clearer oversight of the course, some of the anxieties and confusions may have been eased. Several of the students commented that the lectures seemed 'all over the place'. Although the flow of the course is very clear from the teachers' perspective (eg. theory of science, qualitative methods, epidemiology ---experimental study design (RCT) and observational study design (cross sectional, case control etc), the structure is not clear for the students. Perhaps the course overview that was developed for the evaluation could be presented at the beginning of the course (see below).
- The sessions on Stata were frustrating and confusing for many students. This is the first time that many of the students had seen the program and it is not very intuitive and can be very intimidating for those unfamiliar with statistics and/or computer programming. It is a good exercise for the students to do the tasks in Stata, however MUCH more time should be allowed for such a session to ensure that all the students are on the same page.
- PhD candidates were popular as lecturers – the students felt that they were more approachable and often explained the material more clearly than some of the more experienced lecturers. However, PhD candidates were also less likely to have some of the more in-dept knowledge required for answering complex questions – more support should be offered to them to pre-empt such questions and how to answer them.
- The structure of 45 minute teaching/ 15 minute break structure seemed to work well.
- One student suggested that the Gordis be kept as mandatory reading.
- If possible, lectures should start later in the morning – it was rare that all students were present at 8.15 am and this either delayed and/or disrupted the lecture as students arrived. A lecture start time of 9.00 may be more appropriate. In addition to Wednesday reading days, lectures could finish at 12.00 noon daily.
- If possible, the amount contact hours should be reduced to allow for more own reading/study/assignments. Students felt some lectures were unnecessarily long and that there was not enough time to 'digest' the materials learned in the lectures, before having to read for the next topic.
- Better streamlining of lecture content, fewer lecturers involved in this course.
- More focused and organized lecture slides.

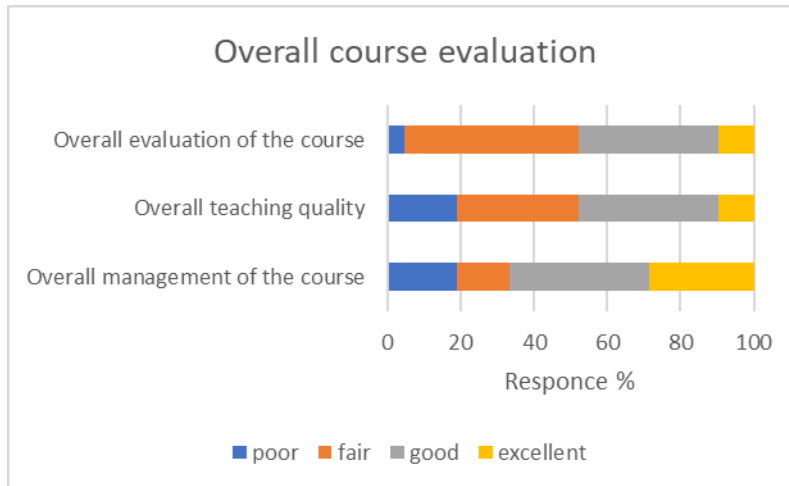
Results from the course evaluation form.

- A total of 21 students responded to the course evaluation form which was administered electronically through an internet link. A brief summary of the responses are presented below
- Overall evaluation questions

The overall evaluation of the course was positive. However, students commented on the heavy content load of the course. It was noted that the presence of a course coordinator was helpful in helping to answer students' questions and difficulties with regards to the overall structure of the course.

With regards to the teaching, students were satisfied overall but felt that there was a lack of coordination between the teachers and noted that certain lectures were unnecessarily long due to digression and overlap. Students also commented on the lack of 'straight forward answers' to their question from the material and this seemed to be particularly problematic in lectures given by PhD candidates. Despite this, many students noted that they preferred the pedagogical style and approachability of the PhD candidates, but felt they perhaps required some more support and clarity in the subject matter.

In response to attendance rates, 85% of students said they attended 76-100% of the classes and 15% attended 51-75%.

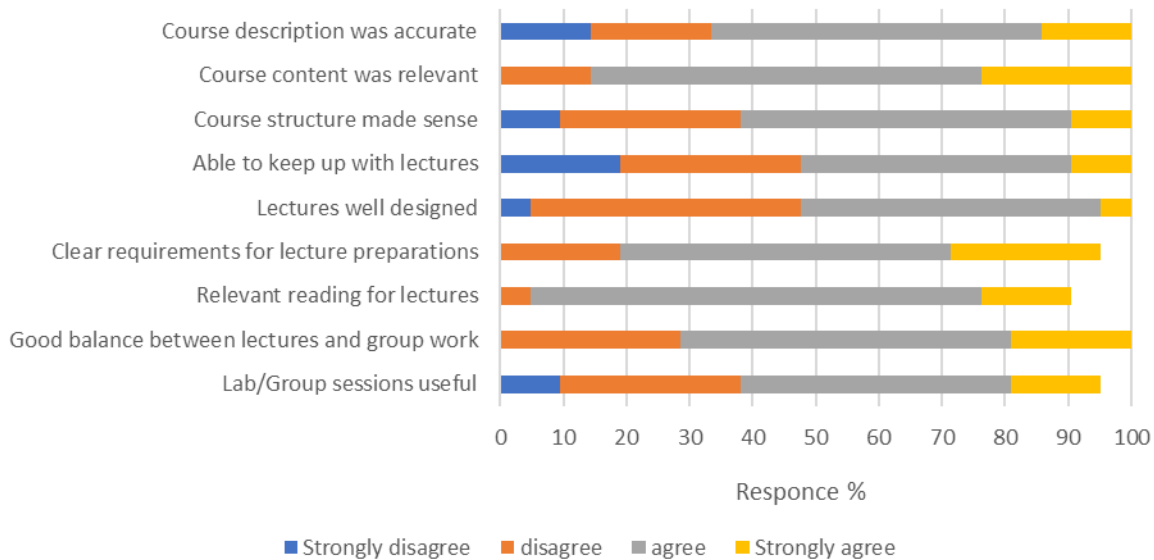


- Course structure and content questions

Overall, students felt that course description was accurate and the content was relevant. Those who were dissatisfied with the course content, generally commented on the balance between qualitative and quantitative methods; some felt that philosophy of science and qualitative methods were not relevant whilst others asked for more focus on these topic areas. For example, some lecturers assumed that certain topics had already been covered in previous lectures which lead to confusion amongst the students. Conversely, other lectures repeated material from previous lectures. Some students commented that lecturers were not always 'present' and digressed from the core material and therefore were not able to cover the planned content of the lecture; this was frustrating for students. At times students felt that they received different information from different lecturers.

Overall, students appreciate the general benefit of groupwork, but they did not always think it suited the course material. The group work for the STATS sessions were seen to be particularly useful. A number of students also noted that the compulsory nature of the group work meant that the groups often included students who had not been present in the relevant (non-mandatory) lectures.

Evaluation of course content and structure



emneansvarlig sin evaluering:

- This was the first time this 15 sp course was done at CIH. It was a course that merged the prior CIH courses in Epidemiology (INTH302), Research tools and methods (INTH301) and Statistics (HELSTA).
- It was possible to sit in for a selection of lectures covering the prior courses. This was an option chosen for the odontology specialist candidates. They were recommended to sit in on the topics covering the Epidemiology courses and got a separate exam.
- The aim for merging the three courses were multiple, including:
 - a. Reducing administrative burden
 - b. Allow more reading time before the exam
 - c. Avoid content overlap in teaching
 - d. Showing a clear structure where theory of science come prior to other types of method teaching and a stronger emphasis on qualitative methods
- The process in order to achieve the merging of the courses involved input from the prior course coordinators in identifying and sorting the learning outcomes (LO). A team structured the LOs into an agreed pedagogical flow focusing on the following:
 - a. Epidemiology and statistics should teach related topics consecutively so that the teaching mutually benefitted from each other
 - b. In epidemiology, causality and experimental designs should be taught prior to observational and analytical designs
 - c. Qualitative and quantitative methods should be taught prior to the teaching on reasearch tools
 - d. There should be certain value-based topics including ethics and research conduct nested within the entire course

The design was ambitious and had many opportunities for failure. I will mention what I found most relevant and has the largest potential for improvement:

- First, an error was made resulting in shorter time for teaching of theory of science and qualitative methods than originally planned, those two topics were therefor more hampered by time constraints than ideal
- The separate course on protocol design came after INTH315 before the exam. The students were not aware of that an thought they had reading time for the INTH315 exam. That caused some frustration
- The odontology specialist candidates were not fully informed and did not manage to follow the epidemiology teaching fully due to scheduled other UiB-courses and their clinic set-up. That caused some joint frustration as they interrupted classes, struggled to follow the teaching flow and also lost out on important teaching activities themselves.
- Given the complexity of the teaching content and the student groups there were more room for misunderstandings regarding responsibilities and work-load among the staff. This was particularly evident for the odontology students who submitted a separate evaluation on behalf of their group. We have had meetings with the relevant staff and planned for the next year
- The course had one core course-book which naturally would be 'thin' on a variety of the taught topics, many students reported on being confused by a large amount of available material. All the lecturers could maybe use Gordis even more?

The course design also gave some advantages, and I will stress that the following issues were mostly improved from the teacher's point of view:

- The pedagogical structure of the course was well thought through and most teachers reporting a pedagogical logical flow when teaching their topics. This was particularly evident for epidemiology and statistics which previously has had a lot of overlap and gaps. By having experimental designs prior to the analytical analysis, we facilitated for teaching analytical statistics and epidemiology later in the course.
- The course had a clear schedule structure which involved lots of interaction and group work between the students in the afternoons. A lot of that group work involved critical reading which benefitted other thematic areas and the respective methodological design. For the participating students, that was perceived as a great advantage. Even if the students announced that the structure wasn't clear to

them, that could be due to missed messages due to a varying attendance rate. Many did not prioritize qualitative methods and theory of science etc which obviously reached back on them on the exam.

- The course overview and overlap was clearly presented at the beginning of each section, however, it was quite common for students to skip the 'softer introductory parts' and they were more confused and frustrated later in the course. Also, the students seemed exaggerated nervous about the exam compared to prior cohorts. That may be due to the fact that the exam covered more areas than previously.
- The 25% assignment used practical skills and theoretical knowledge. That may have benefitted the students unevenly. Some students struggled a lot with that and reported on being given mixed messages from the teacher-group.
- An introduction to STATA was given, which is good as that is given in the spring term too, but many students struggled with it technically, particularly the IT-set-up of it. It now has to be run through an app function at UiB and certain computers were not compatible with that app/download.
- Student suggestions for improvements, additions and additional comments

Mål for neste evalueringsperiode – forbedringstiltak:

- The collaboration with IKO needs to be fully streamlined. Separate meetings with minutes have taken place and those must be assessed before planning next year's course
- The exams including the 25% assignment and the 75% assignment should continue to be agreed in a teacher group and peer-reviewed.
- The linkage between the MittUiB platform and the schedule must be 100% coherent always also in the future, particularly if we have 'multiple' students groups.'
- The course coordination is important in this longer course and the course greatly benefit from administrative support. If possible in the future, that is recommended.
- The students still complain about overlap, and complexity, there is room for improvement of individual lectures and «across» lectures.
 - Even more «sit-in» could be considered and collegial mentoring should be considered.
- If Stata still should be used in teaching, maybe better preparation from the IT and student point of view should be considered, particularly for those with Macs and more time and assistance should be given during teaching.
- The students may prefer fewer and better books rather than a myriad of papers. However, methodological critical reading of papers should be taught at this level.