Welcome to our first newsletter. After a year of work mostly in the background CHERMUG is now achieving a stage in which we are happy to present you with an overview of our achievements so far, a brief introduction on the games designed and early feedback of the users of our games. We hope it will further your interest in our work. If you want more information or want to be involved – as a student, a teacher or an institute – do not hesitate to contact us.

Background

Research methods and statistics pose significant challenges for many students. The material is challenging because it is highly abstract and requires the coordination of different but inter-related issues that are all necessary to develop a coherent and usable skills base. Students have to develop an understanding of how to formulate hypotheses, identify, define and operationalise relevant variables, select an appropriate design and a sample of participants, collect and analyse data, identify relevant ethical issues and interpret and discuss their findings. CHERMUG aims to support the learning of introductory research methods and statistics to nursing and social science students by designing, developing and piloting a set of interconnected serious games.

Achievements

The design of a game for research methods and statistics is a complex task and requires knowledge and skills in serious game design, teaching research methods and statistics to nurses and social scientists and experience in aligning to different curricula. The latter being a specific challenge given the variety of our target audiences with regard to different levels and differences in national and domain specific demands.

We tackled the design with the help of three closely related activities, i.e. a literature review, a user requirements analysis and a cognitive task analysis.

The Literature Review yielded suggestions for further reference and ideas to include in the design (e.g. to have a set of small games instead of one large) and indicated that although there are several games and e-learning applications to teach statistics, there were few which address research methods. The Literature Review yielded suggestions for further reference and ideas to include in the design (e.g. to have a set of small games instead of one large) and indicated that although there are several games and e-learning applications to teach statistics, there were few which address research methods.

The User Requirements Analysis established the attitudes to and acceptance of digital games for research methods and statistics. Tutors and students were consulted concerning their views about and experience with digital games, their attitudes to games-based learning in general as well as their views of and ideas about using games in this particular content area.

The Cognitive Task Analysis involved interviewing experts about their perceptions of the key skills required and difficulties encountered by beginning students in understanding research methods and statistics. It resulted in suggestions to prioritise also the early phase of design of one’s research and to make clear the importance of a structured approach to research.
Serious games for research methods and statistics

The results of the three design studies have been merged into two formal design documents: the requirements and the design specification.

In the Requirement Specification the outcomes of the design studies have been analysed and brought into line with each other and the project plan. The result is a structured set of specific requirements including general game style, contents, tools and technical requirements for the detailed game design. The Design Specification contains the first iteration of the detailed design of our game. The CHERMUG game consists of two sets of mini-games each with a duration of 10-20 minutes. This size should make it easy to use them as an activity in the classroom, as a homework activity or as part of an e-learning course. Set one of the mini-games deals with qualitative research. Students are challenged to think about the characteristics of a qualitative research design and get acquainted with coding text fragments resulting from existing interviews. Set two deals with quantitative research. Here students start with identifying the relevant variables and hypothesis of their study and stepwise get the data to decide whether they should accept or reject their hypothesis. Each mini-game encloses a complete research cycle starting with a research question on case studies accessible for a wide audience with topics such as obesities or food preferences.

Feedback of our users

In the past two months the games have been trialled at different sites by the first groups of students and teachers to assure that the games are easy to use, will work under different computer settings, are free of errors and last but not least to be able to define usage and didactical scenarios based on real user experiences. Despite a lot of small problems the overall impression of our first users is positive: “the contents are quite good: easy introduction, the repetition is good” and “interesting: supports practising”.

What is next?

In our next newsletter we will report in more detail on our games, usage scenarios and user experiences. Meanwhile you can find summaries of and links to all our main reports at our website.

Contact points

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