Student Name:.....

(Qualitative) Research Methods for the Information Sciences (code 400290)

09 February 2006

FINAL EXAM

Vrije Universiteit Amsterdam (VUA/FEW/I)

IMPORTANT NOTICE: This is a **closed book** exam. You are supposed to answer the questions on your own, i.e. without the use of a computer, books or any other material and without discussing the exam with anyone else. Cheating is not tolerated and will be handled according to strict University policies.

This exam has been designed to test your overall knowledge and understanding of the material covered in the course. It consists of **a set of questions for a total of 100 points**. The exam score is your total number of points divided by 10, and yields 2/3 of the final mark for this course; the remaining 1/3 comes from your score for the MSc review essay assignment.

Please make sure to use *the present form* for your answers, and use the space provided under each question. Answers will be evaluated based on content rather than length. In other words, there are no extra points for providing needlessly long answers. You are free to answer in English or Dutch.

This exam is not meant to be stressful and should not take you much more than one hour to complete if you have carefully studied the course materials. But: **Please make sure that your handwriting is legible and that you have printed your name at the top of each page. Good luck!**

Student Name:.....

Student ID Number:.....

Points:

1)	____	out of 15
2)	____	out of 20
3)	____	out of 30
4)	____	out of 15
5)	____	out of 20
Bonus)	____	out of 10

Points total: ____ out of 100 **(Exam score = points/10)**

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Question 1 (15 points):
The "research design" is one of the key scientific concepts in the early stages of conducting a research study. Give a (concise) definition of what a research design is.

Question 2 (20 points):
There are many different forms of reasoning, and they are variously used in different types of scientific method. This question is on two basic forms of scientific argumentation.

Question 2a (5 points).
Explain what "induction" is. Give a concrete example. Limit your answer to 4 lines.

Question 2b (5 points).
Explain what "deduction" is. Give a concrete example. Limit your answer to 4 lines.

Question 2c (10 points).
The method known as "survey" provides an example of the use of inductive reasoning. Explain clearly (i) what a survey is and (ii) in what *specific* way it uses induction to come to conclusions. Illustrate your explanation with an example. Limit your answer to 10 lines.

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Question 3 (30 points):
In an empirical analysis of how a work process "really goes" in a company, you might consider both the methods of *interviewing* relevant people and of *observation* on the work floor. But in such a study both methods will have advantages and disadvantages. Suppose that you want to make a study of how people have their regular (supposedly every year or six monthly) check-up at their dentist.

Question 3a (15 points).
Discuss: (i) who would you interview?; (ii) the advantages and strong points and (iii) the disadvantages and weak points of using the interview method for this research study. Limit your answer to 12 lines.

Question 3b (15 points).
Discuss: (i) how would you set up the observation process?; (ii) the advantages and strong points and (iii) the disadvantages and weak points of using the method of observation for this research study. Limit your answer to 12 lines.

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Question 4 (15 points):
In writing a final report about a research study, it is always recommended to include an abstract or executive summary. Why? What is (are) its purpose(s)? Limit your answer to 6 lines.

Question 5 (20 points):
The Vrije Universiteit has a general policy encouraging forms of electronic learning. Suppose that the Director of Graduate Studies at the Faculty asks you to carry out a research study to evaluate the usefulness of *BlackBoard* (http://bb.vu.nl) as a tool and information system supporting courses. Come up with a research design for this study, and discuss how it will be adequate to answer your central problem statement. Limit your answer to about 20 lines.

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Bonus Question (6) (10 points):
You can earn bonus points (i.e. above 100) if you answer the following, perhaps a bit unorthodox, research methodology question.

In June 2005, certain statements by the Minister of Education, Culture, and Sciences Ms. M. van der Hoeven, concerning "Intelligent Design" created quite a stir in Holland. Intelligent Design (ID) is a theory about the development of life on Earth that is opposed to the theory of evolution. ID has its roots in the US, where it led to controversies and even court rulings about teaching in schools[1].
According to Wikipedia, Intelligent design (ID) is the concept that "certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection." Leading proponents say that ID is a scientific theory that stands on equal footing with, or is superior to, current evolutionary scientific theories regarding the origin of life. The stated purpose of ID is to investigate whether or not existing empirical evidence implies that life on Earth must have been designed by an intelligent agent or agents. William Dembski, one of ID's leading proponents, has stated that the fundamental claim of intelligent design is that "there are natural systems that cannot be adequately explained in terms of undirected natural forces and that exhibit features which in any other circumstance we would attribute to intelligence."

If ID is to be considered a scientific theory, one has to find ways to test it in order to validate its claims. Come up with some ideas, i.e. elements of an empirical *research design*, to do so.

[1] President Bush said Monday 1 August 2005 he believes schools should discuss "intelligent design" alongside evolution when teaching students about the creation of life. During a round-table interview with reporters from five Texas newspapers, Bush declined to go into detail on his personal views of the origin of life. But he said students should learn about both theories, Knight Ridder Newspapers reported.