1 Introduction

This project deals with forms of student assessment which are based on oral interaction between students and teachers. The motivation for choosing this topic comes from my own experience during university studies. During my undergraduate/master studies at the University of Vienna, about half of the exams I had to take were conducted orally. In addition to traditional exams, student assessment was based on solving problems (some of which also had to be presented orally) and seminar presentations. The situation seems to be quite different at Uppsala University. From occasional conversations with teachers and students I had gotten the impression that oral exams were used very rarely. Also, aspects specific to oral exams were neither covered in the teacher training course nor in the course book (McKeachie 2002). Thus I decided to explore the use of oral assessment in more detail. A study of the advantages and disadvantages of various forms of oral assessment might also be useful for planning future courses.

This report is based on two types of sources. A few articles can be found on web pages and in journals covering educational subjects. In addition, I was interested in the experiences and opinions of teachers who are currently active at Uppsala University’s Department of Astronomy. I put together a few questions that I asked seven members of our department during individual interviews and incorporated their answers into the following sections. The questions are listed in appendix A.

The web pages and journals referred to are published internationally and three of the interviewed teachers are non-Swedish. This gives the opportunity to address opinions and common practices from different countries: Sweden, Germany, Austria, Australia and Russia.

Oral examination is a natural form of assessment in certain subjects, such as languages, music and other performing disciplines. According to Joughin & Collom (2003), it is also common in law and architecture. In this project I will concentrate on science subjects.

2 Forms of oral assessment

In the Assessment Primer, Brissenden & Slater (2005) describe how the form of assessment in general determines the way in which students are learning during a course. According to them, different assessment techniques should be used to measure how well the students have achieved the different goals of the course. A written exam can easily be designed to obtain quite accurate feedback on the ability of the students to recite facts and solve simple
It is more difficult to assess if students understand the concepts presented in the course and if they are able to apply them in various situations. For goals of this kind, oral exams might be more appropriate. In general, a combination of written and oral assessment techniques might be most effective. Such a multi-mode examination has been used for example in an elective semiconductor physics course at Chalmers University of Technology (Göteborg, Sweden) and is described in Lundgren (2001).

I identified three basic forms that oral assessment itself can take on. 1) An exam where one individual student is asked a series of questions. 2) Two or more students are examined at the same time. 3) A student gives a presentation on a course-related topic that has been assigned well in advance. The first two types cover the whole material of a course and usually do not extend beyond it, whereas the third one involves some independent research of relevant literature on the student’s side. In all three cases the evaluation can be done by either only one teacher, several teachers, or even involve other students. All three types of oral assessment have been used by the interviewed members of the Department of Astronomy, though to different extents. The first one has only been used by one person for main student evaluation, in all other cases only as an additional opportunity to improve grades in borderline cases.

A number of additional possible forms of oral assessment came up during the interviews. One teacher has implemented oral assessment into a traditional written exam in the following way: After the exam, students take the questions and their answers home and check and revise them with the help of textbooks. Then they meet with the teacher and discuss their revised answers. In another case, students are divided into groups and each group is given a problem or topic for discussion. The outcome of the discussion is then presented to the whole class. Yet another form of oral exams is commonly used at universities in Russia: The teacher prepares a number of “tickets”, sheets of paper with two questions and one problem written down on each. The students randomly choose one of them and have one hour time to prepare their answers, which they then present orally.

### 3 Potential problems with oral assessment

There are two potential problems that immediately come to mind. 1) For practical reasons, a shorter time is allocated to each student in an oral examination than in a written exam. Each individual exam cannot cover the same amount of course material as in the written form, and different students are given different sets of questions. Thus, an oral exam might be considered less objective than a written one. 2) Special precautions have to be taken if one wants to have evidence for the justification of grading at hand in cases of conflict.

In the interviews, four of the teachers stressed that they regarded written exams to be more fair and objective than oral exams. They could not think of a good solution to overcome this problem and therefore preferred to give written exams for their courses, just as they had preferred to take written exams when they had been students themselves. Two of these four said that a combination of written and oral assessment would be a good alternative. A suggestion for dealing with the problem of objectivity was put forward by several persons: Write down a catalog of questions as well as expected answers and define a marking scheme before the exam, just as for a written exam. One person said that one can easily prepare a number of topics and problems at the same level of difficulty and let
the students choose among them. This probably requires a certain level of experience by the teacher. Another person regarded an oral exam to be more fair, because students can explain where their interests lie and why they know certain areas of the course material better than others.

To deal with the problem of evidence, one possibility would be to take notes during the exam. One could for example write down the points given for each answer on a sheet of paper with a list of questions prepared in advance. In fact, one interviewed teacher pointed out that the evidence provided “automatically” by a written exam is not very strong, if the students are writing with pencils. A student could always accuse a “mean” teacher of having altered the exam during grading. Another possibility would be to have two or more examiners, who would act as witnesses. The best solution is probably a combination of both approaches. This is the standard situation for final exams conducted at German universities (Kehm 2001). Recording the exam on tape was not considered an option by any of the interviewed persons. Having more than one examiner can even help to deal with the problem of objectivity, because the outcome of the exam can be discussed afterwards and more than one opinion can be taken into account for assigning grades. Rudner (1992) states that multiple raters can improve reliability. He lists common sources of rating errors and summarizes how statistical techniques can be used to reduce them. However, I do not think it is possible to implement them in university courses, for practical reasons.

The following further disadvantages of oral examinations were stated by the interviewed teachers. Personality can play a role – shy, nervous students could perform worse than in a written exam. As they do not have much time to think, they could in haste give a wrong answer. That could be corrected later on, but the first words said determine the overall impression. Oral exams are generally regarded to be time-consuming, although that depends on the number of students taking a course. One teacher said it would be difficult to decide how much time should be allowed to answer each question and how much help should be given to the student. Some teachers viewed it as very difficult to ask problems involving calculations. The “ticket” system mentioned in Section 2 might provide a solution to this concern. Some other difficulties with oral assessment are given by Joughin & Collom (2003), but they also give practical tips on how to plan oral assessment, prepare the students, and how to be fair and efficient.

4 Benefits of oral assessment

Some reasons why oral assessment can be useful are described in Joughin & Collom (2003). One rather obvious aspect is that students will encounter situations which require proficiency in oral communication regularly in their future professional lives. Examples are job interviews and presentations at conferences or to co-workers. As pointed out by one of the interviewed teachers, oral exams provide an excellent training in skills required in those situations, such as thinking on the fly and under stress. However, another teacher questioned if it is the purpose of an exam in a university course to teach students those skills.

Joughin & Collom (2003) also state that oral assessment can encourage deep approaches to learning. Students will learn differently for an oral exam, trying to find out what is essential to the course material and to get a thorough understanding. The advan-
tage of an interactive form of assessment was also noted by the interviewed teachers. On the one hand, teachers can reformulate questions or give additional information to make sure the students understand what they are being asked. On the other hand, follow-up questions can be used to get a clearer picture of the student’s understanding. As one interviewed teacher said, in a written exam students probably do not write down everything they know and the teacher has no possibility to check that. In summary, oral exams provide an opportunity for students to demonstrate their understanding by discussion of problems and even to further develop their areas of interest.

As pointed out by Joughin & Collom (2003), plagiarism can be reduced by using a form of oral assessment. One of the interviewed teachers thought that an advantage of an oral exam would be that it takes less time to prepare it. In view of the discussion above this might probably not be the case. Another advantage for students is that they get to know their grades immediately which could increase the efficiency of their studies.

5 Conclusions

In this report, I discussed the difficulties that are associated with various forms of oral assessment. It seems that most of them can be dealt with by appropriate planning, taking into account recommendations found in the literature or obtained by discussing with colleagues. There are advantages of oral over written assessment, most significantly that of providing an interactive exam situation. Therefore I think that oral assessment should be implemented in every university course if it can be done without increasing the teacher's workload. A combination of written and oral assessment would probably be most advantageous for both teachers and students.

References


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Lundgren, P. 2001, Assessment & Evaluation in Higher Education 26, 179


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A  Interview questions

As a teacher:

1. Did you use oral assessment in your courses?

2. What form of oral assessment did you use?
   - Examination of single students
   - Examination of a group of students
   - Student presentation
   - Other

3. How did you ensure
   - objectivity
   - evidence for the justification of grading?

4. In your opinion, what are the advantages and disadvantages of oral examinations compared to written exams?

As a student:

1. Was oral assessment used during your undergraduate studies and in which form?

2. Which form of examination did you prefer and for what reason?