THE EXAMINATION GAME REVISITED: AN ANALYSIS OF ASSESSMENT PRACTICES IN ONLINE COURSES

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Abstract

This paper is a contribution to the literature on formative assessment. It comprises an analysis of assessment practices embedded in courses organized through the Swedish Net University. The data for this paper is drawn from course documents and their associated assessment protocols prepared for courses at different levels in a variety of disciplines. The analysis focussed on if, and in what sense assessment in these online courses could be characterised as promoting learning and also on what kind of knowledge and abilities[1] the course assignments expected the students to demonstrate. The conclusion is that in some aspects the analysed course assessments do promote learning, in others they don't and that a majority of the assignments expected the students to comprehend relevant theories and apply them on problems/cases.

If we wish to find out the truth about an educational system,
we must first look to its assessment procedures.
(Rowntree, 1987, p. 1)

Introduction

The Swedish Net University offers IT-supported distance courses and programmes given by 35 Swedish universities and university colleges. The courses are presented through a web portal that among other things contains a searchable data base with more than 3000 courses and study programmes. This is a study form that attracts more and more students and about 80,000 of them will study distance courses (2008). One fifth of all students in Sweden study distance courses and 70% of them are supplied by this web portal (2007). These courses also recruit other groups of students than traditional campus courses: a higher proportion of students with working class backgrounds, students who have children and students living in rural areas. About half of the Internet-based courses have no physical

[1] In this paper the terms "knowledge and abilities" are used instead of the more usual "knowledge and skills" to emphasise the fact that it is abilities that are being considered, e.g., the ability to apply knowledge and the ability to critical assess information.

meetings and hence assess the students online. Even if the courses do have some physical meetings a lot of the examinations take place on the web. So what does the examination game look like in online courses?

Assessment in Higher Education

Since examination and assessment has been a focus for educational researchers for a long time, at least 40 years, and the research in several ways has shown how important it is, this first section will recapitulate some of this research.

Assessment to Control Learning

Assessment in higher education has been a focus for educational researchers for many decades. One fundamental conclusion from the early studies is that assessment is essential to student learning in the sense that the assignments indicate to the student what and how they should learn. This research has also convincingly illustrated that assessment and grades are the main focus for students. In *Making the Grade* Becker et al. (1968) concluded that the grade point average perspective is a dominant influence on the way students approach their academic work. By adopting this perspective the students also adopt "strategies designed to get grades rather than to acquire the knowledge grades are supposed to represent" (p. 132). This "making of the grade" or strategies to pass assessments/assignments has also interested other researchers. Snyder (1968) explores in his book *The Hidden Curriculum* the ways in which MIT students tried to cope with the huge course content, knowing that they couldn't absorb everything they strategically tried to guess what would be assessed and study only that. Although unintended by the Institute this made the students adapt to the hidden curriculum and take short cuts in their learning. Miller and Parlett (1974) made similar findings about "the examination game" when they looked into student strategies for succeeding and passing their grades. A strategy that appeared to be profitable was to be cunning and try to find out the teachers' interests thereby getting a clue as to what will appear on the test. The students that were described as "cue -seekers" and "cue-conscious" succeeded more often with their studies than the ones characterised as "cue-deaf". A few years later Marton et al. (1977) in an experiment showed that they could steer the students' learning, in a course, by giving them assignments with questions focusing knowledge either on surface or on deep levels of the texts. After a few weeks with surface level tests the students in that group were unable to answer question of a more comprehensive nature, since they had focused on remembering only details, such as figures and dates.

Assessment to Promote Learning

Students are eager to succeed with their studies and as a consequence they adapt to the assessment practice they experience. Bearing that in mind, the research focussing on examination/assessment has also both theoretically and empirically tried to develop assessment as a practice that promotes learning, and not only controls student achievement at the end of a course. The concept of formative assessment is an important step in this direction. This involves assessments that formatively during the course give the students feedback and information on their understanding and performance. In his classic article "Formative assessment and the design of instructional systems" Sadler (1989) argues for feedback as a key element in this formative assessment process. With reference to Ramaprasad (1983) Sadler points to the importance of feedback loops; feedback should serve as information about the gap between the actual performance and the expected learning outcome, as well as how to alter this gap. In order to do this the students must obtain some understanding of criteria and standards for the task. The goal of the feedback process is to make students not only understand criteria and standards, but also to be able to compare their actual levels of performance with these standards. Formative assessment and feedback should gradually equip students with the same evaluative skills as their teachers: "A key premise is that, for students to be able to improve, they must develop their capacity to monitor the quality of their own work during actual production" (p. 119).

Since Sadler's influential article a lot of research has been done exploring different aspects and effects of formative assessment and feedback. In a review of more than 250 studies of formative assessment Black and William (1998) summarise that learning and achievement benefited from feedback in varying content areas, knowledge and skill types and levels of education. Recent research building on the concepts of formative assessment and feedback, as described previously, often integrate them with a socio-cultural perspective on assessment (Boud, 2002; Gipps, 2005; Pryor, & Cossouard 2008; Shepard 2000; thereby emphasizing student collaboration and students taking part in each others work, insights and solutions, supervised by tutors helping them to understand the criteria. Shepard (2005) links formative assessment and instructional scaffolding to socio-cultural learning and Vygotsky's (1978) zone of proximal development, "they're essentially the same thing" (p. 66).

The question of what should be assessed is a topic that has engaged educational research and debate over all times. According to Lindström (2005) the focus in recent years has changed from assessing knowledge and skills towards assessing understanding, problem solving, critical thinking, creativity and communication; it has also changed from assessing products towards assessing processes, and from stressing 'the right answers' towards fruitful questions and learning by experience. Blooms' well-known taxonomy from 1956 has been redefined and adapted to the

current debate by his former student and his partner in the original work Anderson and Krathwohl (2001) emphasizing that learning involves an ability to use the acquired knowledge.

Description of the Project

This study aims to describe assessment practices in 50 online courses administered by the Swedish Net University. Can the assessment practice in these courses in some sense be characterised as promoting learning? What kind of knowledge and abilities do the different course assignments ask the students to present?

Collection of Data and Methodology

In order to study assessment practices in online courses, course documents and associated assessment protocols were collected from 50 Net-based courses, which meant all assignments and tasks that were compulsory to pass the course. Courses were selected from the total range of courses administered by the Swedish Net University and with the ambition to study a variety of disciplines, courses at different course levels and course lengths.

The course documents, study guides and assessment protocols were collected through e-mailing course tutors or contact persons at the departments asking them to send the required documents. They also answered questions about if and what kind of feedback the students received and if the students were to communicate with each other during the course. A total of 60 courses were chosen and after reminders to the tutors 40 courses constituted the final selection in this study. Ten courses from a previous study were added to this selection.

The final selection reflects a variety of the Net University's total range of courses within the above-mentioned variables. When categorised into sectors, the largest number of courses selected represented the health care/medical sector, thereafter in a falling scale social science/law, science and humanities/theology. Course level varied from level A (basic) to Master courses, foremost represented by A-level courses, 50% and least from Master level. Concerning course length, the majority (66%) of the courses were 5-week courses, some of them ten weeks and a few lasted the whole semester. Most of the courses (80%) were collected during 2006 and the rest during 2005 and a majority of them, 33 courses, were courses without any physical gatherings.

Analysis of Data

The course documents and assessment protocols were analysed to find out if the assessments mainly aimed to control student achievement or if they could also be considered as promoting learning. This was examined by the way the students were given feedback on their submitted assignments, if the assignments were given regularly over time and not only at the end of the course and by investigating if the students were given criteria for how to realize course goals.

Course documents and assessment protocols were analysed in order to find out what kind of knowledge and abilities they expected the student to demonstrate. Four different analytical categories were used.[2] The different assessment protocols in each course were scrutinized in order to find out if they primarily wanted the student to present:

- basic facts within the discipline, or;
- an understanding i.e. that the student is able to apply knowledge and draw conclusions, or;
- critical thinking abilities i.e. that the student is able to argue for her/his standpoint and to produce "own" knowledge, or;
- using and developing her/his own personality when working with the task.

When a course had several assignments and they expressed different expectations of knowledge and abilities, the most dominant category was chosen.

Results

The analysis of course documents, assessment protocols and tutors' descriptions of feedback provided to the students, resulted in a description of assessment practices in the different courses that could be compared to the statements and recommended practice indicated by the previously described earlier research. The first section concerns the organisation of assessment practice and how this corresponds to earlier research and recommendations. The second section

[2] These analytical categories have been used several times before, see for example A. Hult & A. Olofsson (1998) and Hult (2005, 2007).

addresses the question of what kind of knowledge and abilities the different assignments ask the students to perform.

A Visible Curriculum?

A typical online course in the range of courses offered by the Swedish Net University introduces the students to the course, when admitted, with a study guide that more or less in detail explains what it means to study online. In general, the study guide contains information on the different themes that constitute the course, as well as the various assignments that conclude each theme. The students also get a schedule of when themes and assignments are expected to be carried out and information on possible demands for group work or minimum number of messages to be posted in seminars and group discussions. A typical online course was characterised by a great number of continuous assessments throughout the course. A five-week course could have up to seven different compulsory assessments.

The courses generally have a platform with special conferences for group work, discussions, information from tutors and for submitting student work. Often the students can share each other's work in a group conference or in a conference for the whole study group. The tutors present feedback personally to each student on the different assignments and group feedback to group work. Sometimes the courses have conferences where the students can 'socialise' and discuss things other than course matters. In their answers to the e-mail questions about feedback to students, the tutors answered that the students received feedback on all assignments. Often they also commented on each other's assignments. Since there were a large number of assignments in the courses, the students received a lot of feedback from both tutors and peers.

Unlike the students in the studies of Becker, Miller, and Parlett and of Snyder, the students in these net-based courses don't need to try to find questions and tasks. These students have access to their assignments at the beginning of the course. Does this also mean that the curriculum is visible and that what is expected from the student is clear and transparent? Data for this study was collected before the so-called Bologna process was introduced in Sweden resulting in courses at universities having to include expected learning outcomes in the syllabus. Before this there was a great variation between different disciplines and courses in the quantity and quality of information to students on what they were expected to learn during the course. A syllabus often contained aims that described very general aspirations and sometimes seemed more like wishful thinking than realistic goals to achieve. Neither did these aims give the student much guidance as to how to realize them.

In the courses examined only 8 out of 50 courses gave the students some kind of criteria for different levels of marking and the realization of course goals. In other words, the different course tasks appeared already at the introduction of the course but the students did not get much guidance in understanding the criteria and different levels of performance. Hence the curriculum could still be described as hidden in the sense that students, in spite of knowing what the tasks looked like, had to try to find out what the tutors expected them to accomplish.

Knowledge Asked For

In order to get a clearer picture of the assessments in the 50 courses, course documents and assessment protocols were analysed from the aspect of what kind of knowledge and abilities they expected the student to show. So what do the students get to know about the knowledge required?

Table 1: Expected knowledge and abilities in course assessments

Expected knowledge/abilities	**Number of courses**
Facts	7
Ability to apply knowledge	30
Critical thinking	11
Personality development	2
Total number of courses	50

The result shows that the most common way of assessing students in the net-based courses was to give them problem-solving tasks, where they were expected to apply acquired knowledge. Sixty percent of the courses were dominated by this kind of assignment. This could involve the students reaching an understanding of a specific theory in the current discipline and using it to decide how to handle/solve a case/problem. Tasks that expected the students to reproduce basic facts within the discipline were unusual, only 14 % of the courses predominantly assessed students using this kind of assignment. A little more common were tasks that asked the students for some kind of critical thinking; it was dominant in 22 % of the courses. These tasks could include writing papers where students are expected to review some texts and argue for their standpoint. Assignments where the student was asked to use and develop their personality in order to solve the task were very unusual.

In order to try to examine possible causes for why expected knowledge and abilities differ between courses, they have been divided with respect to course level, discipline and courses with or without physical meetings. With regard to course level no clear patterns were found, there was variation at all levels. The

same goes for discipline, except maybe for the courses dominated by assignments asking the students to reproduce disciplinary facts. Since there are only a few courses in this category it is not possible to state that specific disciplines assess their student in specific ways, but bearing this in mind, out of 7 courses, 3 were in psychology and 3 were courses in medicine. Whether the courses gather the students on campus or not seems to relate in some way to what the courses expect the students to accomplish.

Table 2: Expected knowledge and abilities in courses with and without physical meetings

Expected knowledge/abilities	**Meetings**	**No meetings**
Facts	30 % (5)	6 % (2)
Ability to apply knowledge	52 % (9)	63 % (21)
Critical thinking	12 % (2)	27 % (9)
Personality	6 % (1)	3 % (1)
Total	(17)	(33)

The difference appears when comparing courses dominated by 'facts-assignments' on the one hand and those dominated by critical thinking on the other within the two groups of courses (with and without meetings). Courses that arrange meetings on campus are more often dominated by facts-assignments and less often by critical thinking, than the courses that take place entirely on the Internet.

Conclusion

In her article "Beyond Testing: Towards a Theory of Educational Assessment" Caroline Gipps (1994) made a distinction between assessment *of* learning and assessment *for* learning. Formative assessment has enjoyed considerable attention in research and developmental projects that aim for the latter. Important elements when discussing formative assessment for learning are: criteria/expectations should be communicated in some way to the students, feedback ought to be given to the students continuously during the course and finally, an opportunity to 'close the gap' should be offered to the students.

As stated above only 8 out of 50 courses, 16 % gave the students some criteria for how to decipher the assignments. One conclusion from the study is that concerning this aspect of formative assessment a lot remains to be done in the future for net- based courses in Sweden. The importance of criteria is not considered in the courses studied.

Pryor and Crossouard (2007) discuss the important but problematic nature of formative assessment criteria and a distinction they made earlier between task criteria and quality criteria, which is applicable to the assessment practice studied in this project. Task criteria refer to what should be done to achieve a special task and quality criteria to what counts as doing the task well. The instructions for each assignment defined the task for the students and could be compared to the task criteria. In most of the courses the quality criteria are lacking however. They would have made the students more aware of how they could improve their performance. Even though the Bologna process has involved the formulation of more explicit learning outcomes in the syllabus they only provide the student with a hint of the minimum performance to pass the course. Quality criteria are still probably lacking in many courses.

However, communicating standards or criteria is not an easy task. Sadler pointed to the elusiveness and difficulty of defining criteria, partly because what a criterion means and implies for appraisal is hard to define without concrete examples that possess the property in question, "which in any case is usually only one of many properties. Coming to an understanding of the property is therefore as much an epistemological as a technical matter" (p. 135). Furthermore Sadler argues, criteria cannot be fully defined and transmitted to students, they are as novices by definition unable to fully appreciate implicit criteria for making refined judgements about quality: "Knowledge of criteria is 'caught' through experience, not defined" (p. 135). Students should be offered direct and authentic evaluative experience guided by tutors, enabling them to develop their evaluative knowledge. Pryor and Crossouard elaborates on Sadler's standpoint and suggest a socio-cultural model of formative assessment where observation, questioning and feedback with the purpose of negotiating task and quality criteria has a central place and could help students to take a more active part in their learning process.

Feedback aiming at helping the student to 'close the gap' between actual and desired performance is also an important element of formative assessment. The students in this study were, according to the tutors, continually given personal feedback on their different course assignments. Only 3 courses out of 50 had only one assessment at the end of the course, the other courses organised continuous assessments followed by feedback. However, we might question if this feedback really is formative in the sense that has been put forward in this paper. The course content was most often divided into different themes that were separately assessed one at a time. The feedback then related to one specific theme. It did probably not relate to the goals and criteria for the whole course. Furthermore, if the students didn't pass they presumably got feedback aimed at helping them to 'close the gap' for that theme. But do the students who pass also get feedback that will develop and challenge their understanding? Examining what kind of feedback students

receive and what the consequences for their learning are in net-based courses would be an interesting research task.

The kind of knowledge and abilities asked for in the course assignments illustrate the changes that Lindström observed in the international research and debate. The most common categories were 'applying acquired knowledge' and 'critical thinking'; these categories dominated in 41 out of 50 courses. Lindström points out that international assessment research now advocates a focus on assessing ability to apply and critically examine knowledge instead of assessing knowledge and skills. The fact that most of these courses are net-based seems to have had some impact on this; the courses that arrange campus meetings have a higher degree of facts-assignments and a lower degree of assignments that ask for critical thinking. On campus it is easy to assess the students in an invigilated examination with factual-assignments and control that the students don't use their books or cooperate. This is, however, not as easy to accomplish on Internet and this could be one explanation for this difference. Nevertheless, the number of courses in this study is rather small, and hence this can only be taken as an indication of a possible relationship, further investigation is necessary.

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