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Students' perceptions about evaluation and assessment in higher education: a review[1]

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In educational contexts, understanding the student's learning must take account of the student's construction of reality. Reality as experienced by the student has an important additional value. This assumption also applies to a student's perception of evaluation and assessment. Students' study behaviour is not only determined by the examination or assessment modes that are used. Students' perceptions about evaluation methods also play a significant role. This review aims to examine evaluation and assessment from the student's point of view. Research findings reveal that students' perceptions about assessment significantly influence their approaches to learning and studying. Conversely, students' approaches to study influence the ways in which they perceive evaluation and assessment. Findings suggest that students hold strong views about different assessment and evaluation formats. In this respect students favour multiple-choice format exams to essay type questions. However, when compared with more innovative assessment methods, students call the 'fairness' of these well-known evaluation modes into question.

Purpose of this review

This review was prompted by Entwistle's (1991) finding that the student's perception of the learning environment determines how s/he learns and not necessarily the educational context in itself. Reality as experienced by the often forgotten student, is an intervening variable, which cannot be neglected if full understanding of student learning is the purpose of our educational research and practices. However, student learning is related to evaluation practices. This provides the rationale for the primary focus of the present inquiry into student's perceptions about evaluation practices and assessment methods in our current learning environments. This paper aims, therefore, to present a comprehensive review of students' perceptions about assessment, which will make a significant contribution to our current understanding in the field.

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Methodology for the review

The Educational Resources Information Center (ERIC), the Web of Science and PsychINFO, were searched online between the years 1980 and 2002. The keywords 'student perception' and 'assessment' were combined. This search yielded 508 hits in the databases of ERIC and PsycINFO and 37 hits within the Web of Science. When this search was limited with the additional keywords 'higher education', only 171 and 10 hits respectively remained. Relevant documents were sought and selected in the libraries and the e-library of the University of Leuven: 35 documents met our criteria, in which 36 empirical studies are discussed. Both qualitative and quantitative investigations were selected for inclusion.

Students' perceptions about assessment

The repertoire of assessment methods in use in higher education has expanded considerably in recent years. New modes of assessment have enriched the 'conventional' evaluation setting, formerly characterized by both the multiple-choice examination and the traditional evaluation by essay (Sambell *et al.*, 1997). More recently, portfolios, self and peer assessment, simulations and other innovative methods were introduced in higher educational contexts. These concepts make up the current evaluation context. Students' perceptions about these recent formats of assessment and the more common multiple-choice and essay examinations constitute an important part of this review. However, the paper firstly examines the relationship between assessment and students' approaches to learning.

Assessment and students' approaches to learning

As educators, actively involved in evaluation practices, we would argue that assessment has an important influence on students' learning. We also propose that the nature of student learning in turn is very closely related to the student's approach to learning. The way in which a student thinks about learning and studying, determines the way in which he tackles assignments and evaluation tasks. Conversely, the learner's experience of evaluation and assessment determines the way in which the student approaches (future) learning. Assessment is thus logically, but also empirically, one of the defining features of students' approaches to learning (see Entwistle & Entwistle, 1991; Marton & Säljö, 1997; Ramsden, 1997). In this part of the review, an attempt is made to gain insight into the relations between (perceived) assessment properties and students' approaches to learning and studying.

Approaches to learning.   When students are asked about their perceptions of learning, three main approaches to learning are identified.

Surface approaches to learning describe an intention to complete the learning task with little personal engagement, seeing the work as an unwelcome external imposition. This intention is often associated with routine and unreflective memorization

and procedural problem solving, with restricted conceptual understanding being an inevitable outcome (Entwistle & Ramsden, 1983; Trigwell & Prosser, 1991; Entwistle *et al.*, 2001).

Deep approaches to learning, in contrast, lead from an intention to understand, to active conceptual analysis and, if carried out thoroughly, generally result in a deep level of understanding. This approach is related to high quality learning outcomes (Entwistle & Ramsden, 1983; Trigwell & Prosser, 1991).

Finally, because of the pervasive evidence of the influence of assessment on learning and studying the strategic or achieving approach to learning was introduced as an additional category. Here the student's intention was to achieve the highest possible grades by using well-organized and conscientious study methods and effective time-management (Entwistle & Ramsden, 1983; Entwistle *et al.*, 2001).

These approaches should not be seen as static concepts. On the contrary an approach to learning is dynamic and becomes constantly modified by the actual context and tasks the learner is experiencing. However, the changes in approaches to learning are often subtle and unnoticed.

Assessment in relation to students' approaches and vice versa.   The Swedish Research Group of Marton and Säljö. These two researchers (Marton & Säljö, 1997) are at the forefront of research on the relation between approaches to learning and assessment. These two researchers conducted a series of studies in which they tried to influence the students towards a deep approach to learning by indicating how to go about learning (Marton & Säljö, 1997).

In his first study, Marton (1976) let students in the experimental group, while reading a text, answer questions of the kind that students who use a deep approach had been found to ask themselves spontaneously (e.g., can you summarize the content of the whole section in one or two sentences?). This attempt to induce a deep approach yielded interesting but contra-intuitive results. At one level, it was obvious that the approach taken was influenced by the treatment to which the experimental group was exposed. However, this influence was not towards a deep approach: instead, it seemed to result in an extreme form of surface learning. The control group, which had not been exposed to any attempts at influencing approach, performed significantly better than the experimental group. The participants invented a way of answering the interspersed questions without engaging in the learning, characteristic of a deep approach. The task was transformed into a rather trivial and mechanical kind of learning. What allowed the participants to transform the learning in this way was the predictability of the task (Marton & Säljö, 1997).

In a second study (Säljö, 1975) the factor varying between two groups was the nature of the questions that the groups were asked after reading. One set of questions was designed to require a precise recollection of what was said in the text. In the second group, the questions were directed towards major lines of reasoning. The crucial idea of this study was that people would respond to the demands of the task that they were exposed to. In the group that was given 'factual' questions, this could

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be clearly seen. They reacted to the questioning through adopting a surface approach. However, in the other group, the reaction did not simply involve moving towards a deep approach. Only about half the group interpreted the demands in the way intended. The other students 'technified' their learning, again concentrating solely on perceived requirements. They could summarize, but could not demonstrate understanding (Marton & Säljö, 1997).

In a third study, Marton and Säljö (1997) asked students to recount how they had managed their learning task and how it appeared to them. The results show clear outcomes: the students who did not understand the text as a whole failed to do so simply because they were not looking for it. The main difference in the process of learning was whether the students focused on the text itself or on the meaning of the text within the author's intention, the main point, and the conclusions to be drawn. In the latter case the text is not considered as an aim in itself, but rather as a means of grasping something which is beyond or underlies it. The depth of processing was related to the quality of outcome in learning (Marton & Säljö, 1997).

The first two studies reveal that the students' perceived assessment requirements have a strong relation with the approach to learning a student adopts when tackling an academic task (Säljö, 1975; Marton & Säljö, 1997). Similar findings emerged from the Lancaster investigation (Ramsden, 1981) in relation to a whole series of academic tasks and also to students' general attitudes towards studying. Students often explained surface approaches or negative attitudes in terms of their experiences of excessive workloads or inappropriate forms of assessment. The experience of learning is diminished by assessment methods which are perceived to be inappropriate. High achievement in conventional terms may mask this dissatisfaction and also hide the fact that students have not understood material they have learned as completely as might appear. Inappropriate assessment procedures encourage surface approaches, yet varying the assessment questions may not be enough to fully evoke deep approaches to learning (Ramsden, 1997).

A worthwhile conclusion from these studies is that although in one sense it is relatively easy to influence the approach students adopt when learning, in another sense it appears very difficult (Marton, 1976; Säljö, 1975). It is obviously easy to induce a surface approach, however, when attempting to induce a deep approach the difficulties seem quite profound (Marton & Säljö, 1997). Some students do not look for the meaning of a text or an assignment, understanding is not their purpose. They focus on details, try to memorize parts, and study the layout, with the purpose of meeting the requirements of the task (or evaluation). Some students appear not to gain insight into texts. These findings prompt the following questions: do they prepare their examinations in the same way? As educators, do we have (any) influence on their studying behaviour and approaches to learning?

In reference to the students who shift from a surface approach towards a deep approach: why did they change and their colleagues not? Does this group represent the strategic group of learners? Do they always switch approaches according to their 'perceived' requirements? When they shift towards the deep approach, do they achieve long-term understanding as profound as the intrinsic motivated deep learners? If they

change from the surface to the deep approach, do they have the same purposes as the surface learners, that is understanding to 'fulfil the task requirements', with the extra bonus that their efforts will be amply rewarded by a high(er) score?

It also seems that we, as educators, have an important influence on students' approach to learning. However, it would appear that we do not succeed in providing sufficient or appropriate guidance to students about optimum learning approaches. How can we predict the reaction of our students and what are the consequences if they react in the other direction? Are these changes irreversible?

In addition, assessment methods which are perceived to be inappropriate ones encourage surface approaches, and 'appropriate' evaluation modes are not sufficient to evoke a deep approach to learning. So, how do we push students in the desired direction and more fundamentally what are the student's criteria to perceive an assessment method to be (in)appropriate? The next part of this review attempts to address some important related issues.

Assessment format and methods

Different types of evaluation or assessment tend to determine students' approaches to learning. In this part of the review, we look more in detail at why students learn in the way they do in terms of the (possible) influence of particular evaluation methods on students' approaches to learning. In order to pursue this causal line of inquiry, the following questions might be asked: what do students think about particular evaluation methods? How do they experience certain assessment modes? What methods do they favour and why?

To structure this discussion, we make use of the familiar distinction between, on the one hand, the 'conventional' evaluation methods such as the multiple-choice examination and the essay format and on the other hand, more 'alternative' assessment tasks like portfolios, simulations, case-based evaluation and presentations and alternative assessment methods—mostly related to these tasks—such as self and peer assessment.

Conventional evaluation methods: multiple-choice versus essay examinations. When students' perceptions and expectations about open-ended formats (= essay) are compared to those about multiple-choice formats of examination, some remarkable results occur. These are discussed below in reference to students' preferences, assessment expectations, and approaches to learning.

Students' preferences.   Students prefer the multiple-choice format to the essay type of examination is Zeidner's (1987) conclusion for almost all dimensions of his inventory (i.e., perceived difficulty, anxiety, complexity, success expectancy, feeling at ease), both for boys and girls. There was only one dimension of which students thought that essay exams were more appropriate and thus more favourable than the multiple-choice type namely for the purpose of representing one's knowledge in the subject

matter tested (Zeidner, 1987). Traub and McRury (1990) found similar results. Their students also report more positive attitudes towards multiple-choice tests on the grounds that these examinations seem easier to prepare, easier to take and may produce higher relative scores.

Nevertheless, these results do not apply for the entire group of students. Birenbaum and Feldman (1998) discovered on one hand that students with good learning skills, who have high confidence in their academic ability, tend to prefer the essay type of assessment to the multiple-choices of examinations. Conversely, students with poor learning skills, who tend to have low confidence in their academic ability, prefer the choice over the constructed-response type of assessment. The results also show that low test anxiety measures were related to positive attitudes towards the essay format. Students with high test anxiety, have more unfavourable attitudes towards the open ended format and a preference to the choice-response type. In contrast to Zeidner (1987) this study also indicated gender differences, with males having more favourable attitudes towards the choice response format than females (Birenbaum & Feldman, 1998).

Assessment expectations.   The assessment expectation of a multiple-choice test versus an essay examination prepares students in a distinctive way. The performance of a multiple-choice test by students expecting this type of evaluation is not significantly different from that of students told to expect an essay type examination. However, students expecting an essay performed on this type of test significantly better than students told to expect a multiple-choice test. Thus, studying for an 'expected' essay exam seemed to have prepared students equally well for a multiple-choice or a constructed response test, whereas studying for an 'expected' multiple-choice test did not prepare students to take an essay examination (Traub & MacRury, 1990).

Note-taking behaviour of students is also affected by the assessment expectation. In this scope, Rickards and Friedman (1978) found that reading notes taken by students expecting an essay examination were qualitatively, but not quantitatively, different from those taken by students expecting a multiple-choice test. The latter focused their note-taking efforts on facts and details, while those expecting essay tests concentrated on information of higher structural importance, such as main ideas and topic sentences (Nolen & Haladyna, 1990).

Approaches to learning.   Although students have more favourable attitudes towards the multiple-choice test, the essay type of examination tends to ask 'more' from the student. This is also clearly reflected in the approaches to learning that these different types of evaluation seem to encourage. Multiple-choice formats, or an emphasis on detailed factual answers, push students towards a surface approach, while open, essay-type questions tend to encourage a deep approach (Entwistle & Entwistle, 1991). This result becomes reinforced by the finding that a change from a multiple-choice to essay-type examinations had shifted the overall tendency of the students from a surface approach towards a deep approach (Thomas & Bain, 1984). However,

the reverse relationship between assessment and the student's approach to learning is evidenced. Entwistle and Tait (1990) found that students who reported themselves as adopting surface approaches to learning preferred teaching and assessment procedures which supported that approach, whereas students reporting deep approaches preferred courses which were intellectually challenging and assessment procedures which allowed them to demonstrate their understanding (Entwistle & Tait, 1995). An interesting interpretation is that this result suggests, given the overall tendency of students to favour the multiple-choice examination over the essay type of evaluation, that there are more students adopting surface approaches than students who adopt deep approaches.

It can be concluded that students tend to have more favourable attitudes towards the multiple-choice format. They expect that this type of examination is easier to prepare (the right answer is already written down), questions and answers tend to be less complex than constructed response items, their perceived success rate is higher (some answers may be correct by chance), and incurs less anxiety than the essay type assessment. However, the multiple-choice examination does not seem to invite students to make an in-depth effort to study. Adopting the surface approach tends to be the best solution as evidenced by students when faced with multiple-choice examinations.

If students do not like the essay type examination, do they consider it 'inappropriate'? And is the surface approach then not the obvious study strategy for this type of examination? Probably not, as research results indicate the opposite. Students tend to adopt a deep approach to learning when they study for an essay exam. In addition, there was an 'overall tendency' for the students to switch approaches, when there was a shift from the multiple-choice exam to an essay examination. The main pattern in the alteration of approaches to learning was from a surface approach towards a deep approach. This finding contradicts the findings of Marton and Säljö who experienced profound difficulties when trying to encourage students to adopt a deep approach to learning.

Students' preferences for a particular evaluation method cannot be explained in terms of 'appropriateness', especially not when we assume that students' perceptions constitute the way in which they approach an evaluation assignment. Students' preferences do not seem to match their perceptions about the 'appropriateness' of the evaluation task, since students apply different approaches to learning for examinations than their preferred learning approaches. For example, students using surface approaches tend to prefer multiple-choice examinations, but shift to a deep approach when confronted with an essay examination, which they do not prefer and consider inappropriate. Current research findings are not clear on the relationships between these features.

Alternative assessment methods: students' experiences with different modes of assessment. Since new assessment methods bombarded the evaluation landscape during the last decades, students' perceptions of evaluation and assessment are usually no longer

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restricted to their experiences of multiple-choice examinations and essay modes of evaluation. Sambell and McDowell (1998) and Sambell *et al.* (1997) have done pioneering work in this respect. By means of the case study methodology, they tried to unveil students' interpretations, perceptions and behaviours when experiencing different forms of alternative assessment and more in particular its consequential validity or the effects of assessment on learning and teaching (Sambell *et al.*, 1997; Sambell & McDowell, 1998).

Effects of assessment on the process of learning.   Broadly speaking, Sambell *et al.* (1997) found that students often reacted negatively when they discussed what they regarded as 'normal' or traditional assessment. Many students expressed the opinion that normal assessment methods had a severely detrimental effect on the learning process. Exams had little to do with the more challenging task of trying to make sense and understand their subject. In contrast, when students considered new forms of assessment, their views of the educational worth of assessment changed, often quite dramatically. Alternative assessment was perceived to enable, rather than pollute, the quality of learning achieved. Many made the point that for alternative assessment they were channelling their efforts into trying to understand, rather than simply memorize or routinely document, the material being studied (Sambell *et al.*, 1997).

This conclusion is mirrored in other research about particular forms of alternative assessment. For example, Slater (1996) found that students like *portfolio assessment*. Students thought that they would remember much better and longer what they were learning, compared with material learned for other assessment formats, because they had internalized the material while working with it, thought about the principles and applied concepts creatively and extensively over the duration of the course. Students enjoyed the time they spent on creating portfolios and believed it helped them learn. Segers and Dochy (2001) found similar results in students' perceptions about *self-and peer assessment* in a problem-based learning environment setting. Students reported that these assessment procedures stimulate deep-level learning and critical thinking.

However, some students recognized that there was a gap between their perceptions of the type of learning being demanded and their own actions. Several claimed they simply did not have the time to invest in this level of learning and some freely admitted they did not have the personal motivation (Sambell *et al.*, 1997). Students express that a severe workload tends to alter their efforts in studying. For example, Drew (2001) discovered that a heavy workload tends to affect the depth at which students studied. Students thought that the pressure of work on some courses should be lessened so that 'work doesn't just wash over them'.

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Perceptions of authenticity in assessment.   Many students perceived traditional assessment tasks as arbitrary and irrelevant. This did not make for effective learning, because they only aimed to learn for the purposes of the particular assessment, with no intention of maintaining the knowledge in any long-term way. Normal assessment

was seen as a necessary evil that allowed them to accrue marks. The accompanying activities are described in terms of routine, dull artificial behaviour. Traditional assessment is believed to be inappropriate as a measure, because it appeared simply to measure memory, or in case of essay-writing tasks, to measure ability to marshal lists of facts and details. Alternative assessment was believed to be fairer, because by contrast, it appeared to measure qualities, skills and competences which would be valuable in contexts other than the immediate context of assessment. In some cases, the novelty of the assessment method lay in the lecturer's attempt to produce an activity which would simulate a real life context, so students would clearly perceive the relevance of their academic work to broader situations outside academia. This strategy was effective and the students highly valued these more authentic ways of working (Sambell *et al.*, 1997).

For example, Janssens *et al.* (2002) found that student teachers felt portfolios stimulated them to reflect and demonstrated their professional development as prospective teachers. They saw portfolios as an instrument for progress and improvement on the job and for personal growth.

Alternative assessment enabled students to show the extent of their learning and allowed them to articulate more effectively precisely what they had internalized throughout the learning program (Sambell *et al.*, 1997).

Students' perceptions of the fairness of assessment. Sambell *et al.* (1997) stated that from the student perspective the issue of fairness is important, and includes more than only the possibility of cheating. In this respect, students criticize the more conventional evaluation methods. For instance, students point out that end-point examinations were considerably 'down to luck', especially when taken place only on one day. A second argument, often expressed by these students, was the possibility of leaving out huge amounts of content and still doing well on a writing essay. Also the lack of control over the evaluation process ('examinations were done to them') and the feeling that examinations checked solely the quality of student's notes and the lecturer's handouts, were both considered important arguments for students to believe traditional assessment is an inaccurate, unfair measure of learning. These arguments contrast sharply with students' beliefs about the fairness of new assessment modes:

> Alternative assessment was fair because it was perceived as rewarding those who consistently make the effort to learn rather than those who rely on cramming or a last-minute effort. In addition, students often claimed that alternative assessment represents a marked improvement: firstly in terms of the quality of the feedback students expected to receive, and secondly, in terms of successfully communicating staff expectations. Many felt that openness and clarity were fundamental requirements of a fair and valid assessment system. (Sambell *et al.*, 1997, pp. 362–364)

In order to help them learn, Drew's (2001) students identified a need for clear expectations, clear briefs and clear assessment criteria. Provision of feedback on assessment was considered a valuable form of support for learning. Effective feedback was in their

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view critical to 'build self confidence, help us evaluate ourselves' and students wanted more of it. Students preferred one-to-one tutorials as a method of providing effective feedback, while recognizing that staff pressures made this difficult. While they disliked one-line comments, they considered typed feedback sheets as excellent (Drew, 2001).

Although most assessment formats are perceived to be fairer than their conventional partners, there were some concerns about the reliability of self and peer assessment, even though students valued the activity (Sambell *et al.*, 1997). Also Segers and Dochy (2001) found this concern in students' perceptions about these assessment modes. The students have mixed feelings about being capable of assessing each other fairly. Most of them do not feel comfortable in doing so, in spite of the significantly interrelated correlation values between the peer and the tutor scores (Mires *et al.*, 2001) and to a minor extent between student's self scores and peer and tutor scores (Segers & Dochy, 2001).

The conclusion to be drawn from these findings is that students' perceptions of poor learning, lack of control, arbitrary and irrelevant tasks in relation to traditional assessment contrasted sharply with perceptions of high quality learning, active student participation, feedback opportunities and meaningful tasks in relation to alternative assessment (Sambell *et al.*, 1997).

However, the assessment itself is not enough to evoke efforts from the students. For example, students felt engaged in the portfolio-creating process, but portfolio construction in itself was not sufficient. Evaluation was considered to play an important role. When students did not get grades for their portfolios, much less effort was made in constructing the portfolio (Janssens *et al.*, 2002).

Putting results into perspective?.   Although, overall, students in the research studies scrutinized alternative assessment as fairer and stimulating deep-level learning, some research findings caution against overgeneralization.

Within the research on students' perceptions about alternative assessment, contradictive results are found. For example, although it seemed that peer and tutor scores correlated with each other, Orsmond and Merry (1997) revealed little agreement between student marks and between the student's mark and the tutor scores, with poor students tending to over-mark their work, whilst good students tended to under-mark. Although much disagreement was found, students valued this self-assessing (and evaluating others) exercise. They thought that self-assessment made them think more critical and students felt that they learned more and worked in a more structured way. Mires *et al.* (2001) found significant correlations between student's scores and the tutor score, but students failed to acknowledge the values of self-assessment in terms of feedback and as a learning opportunity, and expressed uncertainty over their marks. Students perceived many more disadvantages (including being more stressful, uncertainty about capability, not knowing how to mark, anxiety about failure, being accused of cheating or marking too low) than advantages (for example seeing mistakes) in the self-marking exercise (Mires *et al.*, 2001). The different task

conditions might explain some of the differences in the research results on self and peer assessment. In the study of Orsmond and Merry (1997) the self-marking exercise concerned a poster assignment which was a part of the practical work that students had to produce during laboratory time. Only general marking guidelines were formulated. It was a relaxed exercise, without serious outcomes. Mires *et al.* (2001), on the other hand, self-assessed an examination with severe evaluative consequences. For each question the correct answer was presented. Students' primary concern during this assessment exercise was whether they failed or not. This stressful pre-occupation with passing and failing is probably the reason why students failed to acknowledge the potential value of the self-marking exercise for feedback purposes or as a learning opportunity. This latter exercise can hardly be considered as an 'alternative' assessment method. Self assessment in this situation equals self-correcting by means of a key with correct answers. The assessment itself is about a traditional test. The contrast with self- and peer assessment concerning authentic, practical, and—generally—collaborative processes and assignments is glaring.

Sometimes a mismatch can be observed between the formal learning environment as planned by the teachers and the actual learning environment as perceived by the students. For example, Segers and Dochy (2001) were astonished by the results of students on their 'overall' test (that is, a certain type of case based evaluation). Students only tended to master one third of the learning goals for the assessment. Validity issues could not provide a proper explanation. Therefore, students' perceptions of the learning-assessment environment were investigated. Students did not perceive a match between the processes in the tutorial group and the way of questioning in the overall test. Students felt that for the overall test, they had to do more than reproducing knowledge, they had to build knowledge. The tutorial group was perceived as not effectively preparing students for these skills, they had to run from one problem to another without thoroughly discussing the analysis and solution to the problem. Changes to the tutorial group and discussions using questions from the overall test were valued by the students, and helped them improve their preparation for the examination.

Furthermore, different assessment methods tend to assess various skills and competences. Edelstein *et al.* (2000) compared two types of simulation exams with each other and with traditional measures of students' performance. It was found that the two simulation exams had low to moderate significant correlations with each other and with traditional measures of performance, and students' perceptions of the various types varied based on the assessment and valued each method according to its specific purposes. A multidimensional approach to evaluation was seen as the most prudent. This conclusion complies with Challis' (2001) comment that each assessment method simply needs to be seen in terms that recognize its own strengths and its differences from other methods, rather than as a replacement of any other assessment methods and procedures.

Or negate research findings altogether?.   As already mentioned, a mismatch between students' perceptions and teachers' intentions in the formal curriculum might

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occur. Through students' perceptions, these studies stumbled across the hidden curriculum. Sambell and McDowell (1998) tried to problematize the hidden curriculum of assessment, but concluded that it is tremendously hard to do this because students have 'their own individual perspectives, all of which come together to produce many variants on the hidden curriculum. Students' motivations and orientations to study influence the ways in which they perceive and act upon messages about assessment' (Sambell & McDowell, 1998, p. 400). The results of this research are not without implications. If students construct their own version of the hidden curriculum, 'this means that the outcomes of assessment as "lived" by students are never entirely predictable, and the quest for a "perfect" system of assessment is, in one sense, "doomed from the outset"' (Sambell & McDowell, 1998, p. 401).

When these research findings are considered in their entirety, every student has an own personal version of interpretations, perceptions and beliefs on each assessment format and every peculiar evaluation task, which on their turn all serve other purposes. Former experiences, the context and the assessment mode, make the student's approach to learning a very individual approach that changes constantly. In this manner, students' perceptions of assessment become very arbitrary and their value for educational practices should be called in question. However, most research evidence show patterns, tendencies, and relations between students' perceptions, the different assessment methods and student learning that provide useful insights for student educators, although the web of influence is yet far from clear.

Conclusion and discussion

The reviewed studies evidenced that students' perceptions about assessment and their approaches to learning are strongly related. The perceived characteristics of assessment seem to have a considerable impact on students' approaches, and vice versa. These influences can be both positive and/or negative. Especially, assessment procedures that are perceived to be 'inappropriate' ones tend to encourage surface approaches to learning. This finding suggests that a surface approach to learning is easily induced, whereas promoting the deep approach seems to be more problematic (Marton & Säljö, 1997). As educators, we have an important influence on students' approach to learning, but findings suggest that we do not succeed in providing sufficient or appropriate guidance to students about optimum learning approaches. Further research is required to identify the reasons for this.

If students' perceptions of the learning environment are such an important intervening variable in student learning, students' views may offer us a way forward for improving our educational practice. Within conventional assessment practices, namely multiple-choice and essay typed examinations, students perceive the multiple-choice format as more favourable than the constructed response/essay items, students' perceptions of the perceived difficulty, lower anxiety and complexity and higher success expectancy give preference to this examination format. Multiple-choice type

tests have been the target of severe public and professional attack. Yet, the overall tendency of students to adopt the accompanying surface approach when tackling a multiple-choice examination, would seem to support such criticism. Nonetheless, within the group of students some remarkable differences were found. For example, students with good learning skills and students with low test anxiety rates seem to favour the essay type exams, while students with poor learning skills and low test anxiety are less favourable towards this assessment mode. It was also found that the essay type of examination invokes deep(er) approaches to learning than multiple-choice formats. Some studies found gender effects, with females being less favourable towards multiple-choice formats than to essay examinations (Birenbaum & Feldman, 1998).

Students' preferences of assessment do not equate with their perceptions about the 'appropriateness' of evaluation, since inappropriate assessment methods tend to urge students towards surface approaches to learning. Students' preferences are not sufficient to evoke deep approaches. On the contrary, the favoured multiple-choice exam elicits surface approaches to learning.

Another criterion of evaluation tends to be students' definition of the 'fairness' of an assessment method. From students' points of view, assessment has a positive effect on their learning and is 'fair' when it: (1) relates to authentic tasks; (2) represents reasonable demands; (3) encourages students to apply knowledge to realistic contexts; (4) emphasizes the need to develop a range of skills; and (5) is perceived to have long-term benefits (Sambell *et al.*, 1997). Alternative assessment is perceived as characterized by these qualities and students report these modes help them to learn in a more in-depth way.

Although students acknowledge the advantages of these methods, some of the students' comments put this overall positive image of alternative assessment methods into perspective. Different task and evaluation conditions may interfere. For example, 'reasonable' workload is a precondition of good studying and deep learning (Chambers, 1992). Sometimes, a mismatch was found between the formal curriculum as intended by the educator and the actual learning environment as perceived by the students. Furthermore, different assessment methods seem to assess various skills and competences. Each assessment method needs to be valued within the learning environment for which it is intended, and taking its purposes and skills to be assessed into consideration. Students' perceptions of assessment and their accompanying approaches to learning are very personal and individual constructions of the learner. The evaluation task, the context, the educator and former experiences all have their substantial influences. The present review has revealed several patterns, tendencies and relations between students' perceptions, the different assessment methods and student learning.

However, the web of influence is yet far from clear. Many questions present themselves. For example, what is the influence of a particular mode of evaluation on students' approaches and on student learning in general? What are the explicit conditions that evoke these influences? What are the causal relations? Are there within-group differences? Do they occur in several educational settings?

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Another type of question concerns the relationship between students' perceptions and students' actions, especially regarding the different alternative assessment modes. Research evidence suggests that students think that alternative assessment modes encourage more in-depth learning, but do students actually use deep approaches to learning when they study for these types of assessment? Don't they merely think, without starting to do something? Do they put their thoughts into action? Under what conditions do these apply?

Even a more fundamental issue is whether the deep approach to learning is, as it seems at first sight? The answer ought to be 'yes', if we refer to the quality of learning. But what if students initially act on the quantity of evaluation? Is the strategic approach to learning not the most desirable in terms of assessment? Strategic learners can alter between both the deep approach and the surface approach, depending on their perceived evaluation requirements. Quantity and quality tend to go together in the strategic approach to learning. Are we not all strategic learners in a way? Do not we all want to 'figure out the teacher'? Do we not have the subconscious urge to seek for information and form opinions about 'what the teacher wants'? The educator has after all the final say on such indicators of academic success as student grades.

Further research is needed in order to answer these questions. But in the expectation of future findings we would like to defend the thesis that students' perceptions of assessment are a worthwhile input in our quest to understand student learning. Consequently, students' perceptions serve the purpose of guiding us in our reflective attempts to improve our educational practices and achieve a higher quality of learning and education for our students.

Note

1. This paper is derived from a presentation at the joint *Northumbria/Earli SIG Assessment and Evaluation Conference: learning communities and assessment cultures*, held at the University of Northumbria at Newcastle in August 2002.

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