

Views of assessment, learning and mind: exploring the links and the implications for emerging trends and perspectives in assessment

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Abstract

This paper considers the fundamental relationship between learning and assessment and also introduces views of mind as a further key concept in understanding assessment practice. These concepts are building blocks for fully understanding emerging trends and practice in assessment. For example, the *Assessment for Learning* movement that promotes different forms of assessment practice tends to focus on the individual student, their learning and how this can be developed through particular assessment practices. This movement has a particular view of learning, the learner and of assessment but the associated view of mind still sees the student as separately analysable after the learning has taken place. This view of practice has been considered a 'paradigm shift' in how we think about assessment practice. I will consider that the 'paradigm shift' actually occurs elsewhere in theoretical positions that consider socio-cultural views of the learner with associated non-local views of mind. From this position we view students' achievements and performance on assessment items and tasks as entangled and in relationship; a student's ability can only be understood in relation to the teacher, the student and the measurement instrument. Thus we cannot explain learning or achievement only describe them in cultural, social and historical context.

Introduction

This paper has been formulated for this conference to bring together some ideas from my recent work. The aim is to illustrate (i) the links that I and others have been exploring between views of assessment, learning and mind and (ii) what these links might have to say about key emerging trends and perspectives in assessment. In this paper the emerging trend of *Assessment for Learning* will be considered and critiqued within a framework that will enable some of these ideas to be explored.

There are two pieces of work that I have written recently which I will draw on in this paper. The first is a chapter written for the SAGE *Gender and Education Handbook* to be published in January 2007 (Elwood, 2007). This chapter considers the research in relation to gender issues in testing and assessment but also offers some new insights into the complex relationship between learning, mind and assessment that demands a different way of looking at gender and its role in understanding achievement. The second piece is a Review Essay which will be published later this year in the journal *Assessment in Education* (Elwood, 2006). This essay is based around the review of two books (CERI, 2005; Wilson (ed.), 2004) that contribute to the debate around tensions between assessment for promoting learning and assessment for accountability. The

review offers critique of some fundamental messages emerging out of the books in relation to formative assessment.

This paper then for the IAEA conference draws on this work to introduce the notion of views of mind and their relevance to views of learning and considerations of assessment practice more generally. These ideas are then used to step beyond conventional models of seeing the world of assessment and testing and to suggest that if we look within the student to understand learning and achievement we are looking in the wrong place. This paper is in three sections: (i) an outline of some links between assessment, learning and mind; (ii) the presentation of a continuum (Elwood, 2007) which acts as a framework to consider these ideas and (iii) how the emerging trend of Assessment for Learning can be considered and critiqued within this framework (Elwood, 2006). In this paper I use the term *assessment* as an umbrella term to include most forms of testing instruments and practices such as tests, examinations, tasks, etc. The notion of formative in relation to assessment is used not as a function of assessment, but as a type of assessment that predominantly happens within classrooms and is ongoing and thus sits along the continuum in contrast to summative assessment which predominantly happens outside classrooms and is at particular end points in a students' educational experience.

Assessment, Learning and Mind: exploring the links

In Elwood (2007) I argue that many researchers in the field of assessment do not as a matter of course articulate the model of the learner or learning that underpins their choice of assessment practice. This is of particular interest because the model of the learner and of learning is fundamental to how the assessment is designed and how we understand responses to the items or tasks set. We cannot review systems of assessment without acknowledging the relationship to the view of learning and of the learner underpinning it.

Furthermore, I argue that In relation to theories of learning there are connected theories of mind (Murphy, 1999) which it can be categorised into two groups: symbolic cognition (Bruner, 1999) and situated cognition (Lave and Wenger, 1991). A symbolic processing or cognition view of mind is concerned with an individual's internal mental processing as the way to understanding learning. The learner is seen as separate from the environment and mind is symbolically represented as somewhere where learning can be stored and retrieved when required (like a computer). A situated view of mind is concerned with the interaction of human knowledge and the environment; the two being seen as inseparable. In this view of mind, learning is integral with the social world.

I have argued further (Elwood, *ibid.*) that these two categories of mind can also be considered as a local model of mind (mind as intrinsic to the learner) and a non-local model of mind (mind between individuals). In relation to a non-local model of mind, this sees nothing about the mind or learning as being located within the individual. This view of mind extends further to suggest that 'the learner and the teacher (or other) are entangled, that learning cannot be viewed in isolation, only in relationship between the learner and teacher (or other) (Elwood, 2007, p.3-4 manuscript).

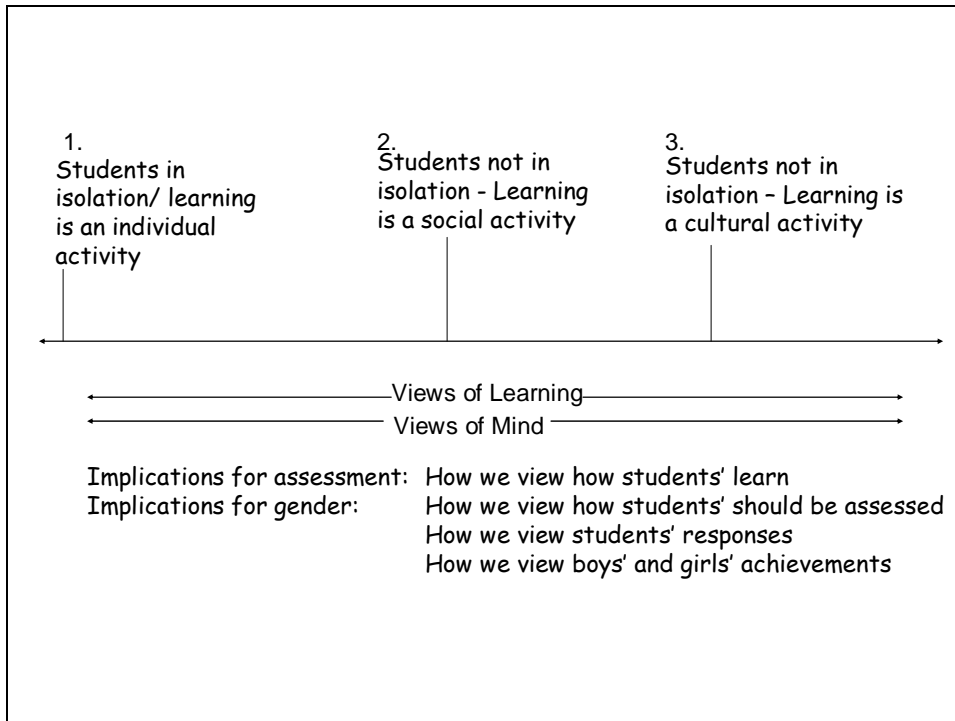
A framework for considering the above links

In Elwood (2007) I presented a continuum as outlined in Figure 1. The continuum shows how differing views of learning, mind and assessment can be represented. In moving

from left to right, there is a shift in how we look at the three concepts. So if we change how we view our understanding of how students learn and start to think of how we view mind in relation to this, then we see there are major implications for how students should be assessed, how we view responses to assessment tasks and how we consider equity in relation to assessment.

At each stage of the continuum I am arguing that there are: (i) particular views of assessment practice and what constitutes the dominant view of how students and knowledge should be assessed; (ii) particular understandings of how children learn and how these views of learning should be reflected in the assessment tasks and practice encountered by students and (iii) particular views of mind aligned ideas of learning which again influence how those who are involved in assessment (either designing or using) understand what they are about and the outcomes obtained. For the purposes of this paper I will briefly outline the main factors for assessment, learning and mind at each stage. The reader is referred to Elwood (2007) for more detail

Figure 1: Continuum of Views of Learning, Mind, Assessment and Gender
From Elwood (2007)



Stage 1: Students in isolation context (figure 1)

Assessment here is viewed as: an activity that takes place in isolation from the classroom, the teacher and other learners; something that is done to an individual to measure learning and to check-up on what students' know.

Learning here is viewed as: something fixed within an individual, something that takes place in isolation and via transmission (uni-directional) and something that gets stored within the student (cf. behaviourist theories of learning)

Mind here is viewed as: something belonging to the student, being located (and isolated) within the head and falling within the symbolic cognition category (as above)

Stage 2: Students in social context (figure 1)

Assessment here is viewed as: a social activity; something that is done with and for the student; an activity in which students are involved through practices of feedback, self- and peer-assessment and that the social context influences what is assessed.

Learning here is viewed as: something that rejects that students do things on their own; that learning is mediated through the social and that learning from others is key and teaching is seen as an intervention in the knowledge construction process (cf. constructivist and social constructivist theories of learning)

Mind here is viewed as: still within the symbolic cognition category; still as something that is located within the individual even though learning is co-constructed. The individual learns through social interaction but this learning then gets located back 'in the head'

Stage 3: Students in cultural context (figure 1)

Assessment here is viewed as: an activity that is culturally mediated; an activity that is influenced by social and cultural contexts in which it occurs and the social and cultural experiences of students

Learning here is viewed as: taking account of the socially constituted nature of individuals; something that happens in social, cultural and historical context (cf. socio-cultural views of learning)

Mind here is viewed as: situated between individuals; is non-local to the individual; showing that the teacher (or other) and the student are entangled and that learning (or achievement) is the product of the relationship between the teacher, the student and the test paper or assessment task.

Emerging trend of assessment for learning: implications of the above framework

In Elwood (2006 forthcoming) I argue that as a community of assessment researchers we are not paying enough attention to fundamental considerations of theoretical underpinnings of formative assessment or assessment for learning as it is being considered within many educational systems through out the world (Gardner, 2006; CERI, 2005, Wilson (ed.) 2004). There are exceptions to this (e.g. Moss, 2004; Shepard, 2004 see Wilson, 2004 (ed.)); position pieces that make a welcome contribution to the debate about aligning emerging assessment for learning practice to accountability systems and aligning formative assessment to theoretical positions.

Within work around *Assessment for Learning* (e.g. Gardner (ed.) 2006), *Formative Assessment* (CEDI, 2005) and *Classroom Assessment* (Wilson, 2004) there is generally now an attempt to articulate the views of learning that underpin this type of assessment practice. These views would be those I have associated with Stage 2 of the continuum above. Thus in these debates constructivist and social constructivist views tend to dominate. Researchers who are articulating the benefits of formative assessment (as in

the texts cited above) advocate the characteristics of social constructivist theories of learning to offer support for their key arguments. These arguments tend to emphasise assessment as being something that should be done for and with the student rather than something that is done to them. As I have briefly outlined above, in this view of learning the learner is considered as an active participant in their learning, learning from and with others is key and instruction is seen as intervention in the knowledge-construction process. This change to a social constructivist view of learning and assessing has been considered a 'paradigm shift' in the thinking about how we assess students (especially see Gipps, 1994).

In critiquing a dominant emerging trend in assessment, i.e. Assessment for Learning, through the continuum considered above, I would wish to argue that no 'paradigm shift' in fact has occurred. I argue this in relation to the ideas around views of mind that I have articulated here and elsewhere (Elwood, 2006, 2007). The reason for this is that within a constructivist view of learning, the view of mind underpinning the learner and the assessment practice remains the same. Thus, within formative assessment (or Assessment for Learning) frameworks underpinned by constructivist and social constructivist views of learning, a symbolic view of cognition still prevails; mind is represented still as located 'in the head' (Cobb, 1999: 135). Thus formative assessments are still really measuring something that is the property of the student even though that property (i.e. their learning) has been co-constructed. Their learning may well take place in the social but it is still very much seen as being located within the student:

There is still the assumption that learners 'carry' their learning away with them - they store it somewhere, mapping it onto their existing mental schema which holds their previous learning and then this is used to cause new learning in a reiterating process. Formative assessment is thus still a consideration of what the student can do alone after learning through social interaction. (Elwood, 2006, p. 21 manuscript).

If we position ourselves at Stage 3 on the continuum then we take into consideration other theories of learning and views of mind, and can argue that a 'paradigm shift' in understanding assessment practice can only be considered if mind and learning are seen as non-local (i.e. mind and learning are outside the head, between individuals). (Bennett and Hacker, 2003; Fordor, 2003; Williams, 1999). The non-local view of mind is further supported with reference to Wittgensteinian philosophy (Elwood, 2007). Wittgenstein advocates that psychological attributes are 'not a *something* but they are not a *nothing* either!' (PI, #304, 2003). Thus assessment does not check up on something (say ability, a mental entity) that a student has. Assessment outcomes can only be seen as descriptions of the relationship between the learner, the teacher and the assessment task in the social, historical and cultural context in which the assessment was carried out. If we look to within the student for their learning we are looking in the wrong place.

The implications then for emerging trends and perspectives in assessment of taking such a position are the most radical yet for how we evaluate students' achievements. If we continue to look to within the student for evidence of their learning then we will continue to make the same fundamental mistakes that we have always made e.g:

that total scores on tests can tell us something worthwhile about the students who take these tests;
that looking to within the student to correct deficiencies in attainment is the right place to look rather than into the interaction of the test and the students' cultural experiences of life and of schooling in particular;
the belief that a 'what works' approach to the implementation of any 'new' assessment strategies will work for all teachers and all students in all contexts;
ignoring the very social and cultural practice that assessment is and the major social consequences of this practice for denying students access to knowledge and curriculum content and mediating messages about how they can succeed.

Stage 3 on the continuum offers a more humble approach to what we can actually say about students' achievements and offers a better conception of what we are about when we attempt to 'measure' students' achievements. The implications for emerging trends and perspectives in assessment practice and research are, I would argue, considerable and extensive. How we might integrate such a position into policy and practice more generally is the very interesting next step.

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