



pages 113-117 in Myers K and Taylor H (Eds.) (2007), *Genderwatch: Still watching....* Stoke-on-Trent, Trentham Books.

1-85856-401-2

Learning and Teaching

Chris Watkins

■ See also schedules: Classroom Interaction; Assessment; Working with Boys; Working with Girls

Watching learning

here's no way to watch learning but you can watch for some of the things that are known to enhance learning. And this has great importance for what we call teaching.

In England, the Ofsted inspectors will pronounce on the quality of learning in a classroom, but this is simplified to 'response to teaching'. Similarly, in some of our practices in school, we may call a meeting with a student a 'learning review' but it usually turns out to be a performance review.

Keeping a focus on learning

It is surprisingly difficult to keep a focus on learning. The word may be used, but often the talk slides off into talk about teaching or performance or 'work'. Learning = being taught is the dominant folk theory and the dominant perspective of policy-makers. Evidence does not support this view, but one of its effects is to sustain other patterns in society, including gender and other differences.

Learning and gender: the big picture

Do boys and girls go about their learning differently? Much attention has focused on gender differences in pupils' public examination results. Differences are quickly explained by recourse to supposed differences in the ways in which boys and girls learn. But this is a facile explanation with little supporting evidence. We need to consider the range of things which may combine to influence examination results, and then seek evidence on their relationship with gender. If we unpack just some of the elements which come into play (see boxes below), we can include other areas.

Starting at the left, the big picture is that there is not much evidence for gender differences in approach to learning, but the more that we move to the right of this set of elements, the more the gendering in society is reflected. The more that we view learning in a way which reflects social process, contexts and cultural values, the more there are likely to be gendered differences. The same point applies to other differences which our society creates: performance differences which relate to social class remain large; those which relate to ethnicity are next; differences which relate to gender are third (Demack et al, 2000). The more that social relations or social values enter, the more we see a general effect.

Is it a matter of 'learning styles'?

It is fashionable to talk about learning styles – and to suggest that boys and girls differ. But the evidence shows that the concept of learning style has a shaky foundation, unreliable measurement and little impact on pedagogy. In the context of these shortcomings, one study identified a new gender difference – in how unreliable the measure was! (Brew, 2002).

approach to learning preference for tasks and activities view of self as a learner dominant patterns of the typical classroom

attitudes to schooling and achievement performance in public examinations

learning orientation

performance orientation

- we believe that effort can lead to success
- we believe in our ability to improve and learn, and not be fixed or stuck
- we prefer challenging tasks whose outcome reflects our approach
- we gain satisfaction from personally-defined success at difficult tasks
- we talk to ourselves: when engaged in a task we talk ourselves through it

A concern to improve performance

- we believe that ability leads to success
- we are concerned to be seen as able, and to perform well in others' eyes
- we seek satisfaction from doing better than others
- we emphasise competition, public evaluation
- when the task is difficult we display helplessness: 'I can't do X'

A concern to prove performance

Rather than try to squeeze us all into someone else's flimsy pet boxes, it is preferable to consider a well-researched dimension along which we all differ as learners – depending on the context too. The dimension is described above.

Learned helplessness?

Early studies of this dimension suggested that girls might display greater 'learned helplessness' as learners (Dweck et al, 1978). More recent evidence is equivocal, including findings of greater helplessness among boys (Valås, 2001). This is more so with older boys and those facing learning difficulties. A learner's orientation varies according to the context, for example the school subject (Rogers et al, 1998), or the activity (Pajares et al, 2000). Classrooms can promote a learning orientation (Meece, 2003), although there is probably a dominance of the performance orientation, especially in the later years. Most important, the development of a learning orientation contributes to higher levels of performance, whereas a performance orientation can be associated with lower performance (Watkins, 2001).

Learners also differ in their way of viewing learning: for example, some believe learning is quick, others do not. Girls may be less likely to believe in quick learning and fixed ability (Schommer, 1993), which has additional importance because the more students believe in quick learning, the poorer their school performance (Schommer-Aikins, 2005).

Effective learners are not just learning according to a recipe: they are reviewing how things are going and using this to regulate or drive the way things develop.

Some studies report that girls are more effective at being a self-regulated learner (SRL) (Ablard and Lipschultz, 1998; Bouffard *et al.*, 1995).

From this evidence it would be creative to devise credible ways in which boys come to value and develop greater skills of self-regulation.

Preferences for particular tasks in a classroom may also show gender differences, but again the degree of difference and the issues of the wider context are brought to our attention:

Generally girls tended to be more neutral in their responses, and more tolerant of 'seat-bound' activities than boys,' but 'differences between boys and girls were not great. (Stark and Gray, 1999)

Interaction in the classroom has been much examined, although often with an unexamined view that it is pupils' interaction with the teacher which is all-important. But if we move away from the idea that learning equals being taught, our attention might include the culture of peer relations, and their encouragement (or otherwise) of learning and achievement. One recent study of primary schools found:

Boys agreed that you could get away with being clever if you were also seen as fashionably dressed or 'hard'; this was a key area of gender difference. Both boys and girls reported 'less pressure on the girls who do well'. (Duffield *et al.*, 2000).

Peer culture

This alerts us to how young people come to present themselves with their peers, and how this accords (or not) with the school culture of achievement. Schools which take care to notice informal leaders in the student peer groups, and support them in affiliating to achievement, may do a service for a wider group of learners.

In peer relationships in the classroom gender differences can show up and girls seem to bring more effective skills of discussion.

Girls' friendship pairings were found to perform at the highest SRT [science reasoning tasks] levels and boys' friendship pairing performed at the lowest levels. (Kutnick and Kington, 2005)

This is in a situation where no support is given to the processes for working together, and the challenge for educators is to help all our students to learn what many girls may be first to operate. Some studies indicate that when learners are given support to learn about learning together, there are no gender differences in the way that successful small groups operate (Hogan, 1999).

Affiliation to school

Girls generally show higher levels of affiliation to school and a higher sense of school belonging (Voelkl, 1997), perhaps because their social relations help them colonise the school experience. Boys show evidence of significant social anxiety in secondary school and this influences their view of themselves and their engagement with school goals (Reichert and Kuriloff, 2004). Issues of fitting in and fearing failure are ones which school may either amplify or diminish, especially in the way they construct demarcations between winners and losers. Schools and classrooms can, often unwittingly, contribute to boys' social anxiety by emphasising a public dimension to recognition, and the achievement of recognition through public compliance to some norm or image.

There is no reason to assume that all learners are motivated to achieve in public examinations: many socio-economic differences are re-created on just this, and the way some pupils adapt their experiences in secondary school protect them from something which could bring them another experience of failure. Schools can accentuate or reduce this by the extent to which they offer a wide range of future identities, each of which benefit from school achievement in some way.

Towards better gender equity in learning

There are differing stances on intervention:

Stance 1: Spot a difference, view it as a difficulty, and treat by separation.

For example, some people generalise to say that boys are more motivated by competition, so they then say that the learning environment should be 'matched' to this, and they sometimes create separate boys' groups with such a culture. But research suggests this is counter-productive: 'Working-class boys seem to experience particular difficulties in such settings' (Daniels et al, 2001).

Stance 2: Spot a difference, note what's best for everybody and support accordingly.

To continue the above example, once the difference between girls and boys has been spotted we need to inquire into what is best for learning, review the evidence on what works best for most people (for example Panitz, 2000 on collaborative learning) and then support all learners in becoming more effective in it, with an occasional look at the original concern.

Here we are addressing the relation between pupils' socialisation to date and their socialisation in the classroom, knowing that the role of school is to extend beyond what learners bring. So we can pose key questions about any classroom:

- does the way that learning is promoted in this classroom serve to confirm or even accentuate the gendered socialisation which pupils have experienced, especially in relation to their views about learning and themselves as learners?
- or does it extend their repertoire as effective learners?

The learning culture of the classroom

Two principles support the idea of intervention through the classroom learning culture:

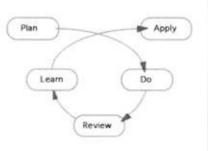
- the classroom is a powerful context which influences people's views of learning, orientation to learning, performances and differences.
- all learners can be helped to learn approaches to their learning which are new to them.

Issues to consider

The complex learning culture of a classroom can be examined through what is known about effective learning, and the four headings overleaf.

Active Learning

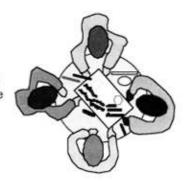
When learning is hands on and actively focuses on review, explanation and application, engagement increases. In countries and cultures where girls have not been socialised into an active role, classrooms can help, and performance also increases. In the UK, some evidence challenges the idea that there is a gender difference in preference for active learning: 'In contrast to the teachers' beliefs, these findings indicate that all of their children preferred active learning styles ..., and that most subjects were equally enjoyed by boys and girls. Where there was a difference, it was by achievement rather than by gender' (Holden, 2002).



- Does this classroom employ tasks which are engaging to all?
- Is the process of reviewing and making meaning from the experience highlighted?
- Do learners feel there is something consequential to be achieved from applying their learning?

Collaborative Learning

When learning is collaborative, new shared products are created through the participation of all. In the process of contributing and reconciling, new meaning and understanding is created. Simply placing males and females together under a collaborative learning structure will not ensure that they will positively interact and learn. Attention has to be given to the design of the task, the way of talking which promotes collaboration and learning, and the structure for developing collaboration and interdependence in the classroom.



- Does the structure in this classroom promote interdependence?
- Do learners review and develop their talk for collaboration?
- Does the peer culture in this classroom accept and support everyone's achievement?

Learner-driven

When classrooms engage learners' purposes through choice and planning, and through review, then learners become more engaged, more responsible and more able to direct their learning activity and assess their learning products.

- Does this classroom promote opportunities for learners to choose, to review, and to have their voice heard?
- Does this classroom promote self-regulation on the part of learners?

Learning about learning

Given that learners' views of learning have such an impact on how they go about learning, it is valuable to create opportunities for surfacing those views and developing them to become richer and more empowered.

- Does this classroom promote a learning orientation, characterised by learners' ability to talk themselves through difficulties, reflect on their strategies, and so on?
- Does this classroom promote the belief that learning is quick, or alternatively that learning sometimes takes time and that it is time well spent?
- Are the stories about learning which circulate in this classroom and school ones which encourage a range of other learners to tell and develop their stories?

Conclusion

There is some evidence that people for whom the typical masculine or feminine attributes are not central to their identity are also people who have a deep, meaning-directed approach to learning (Severiens and ten Dam, 1997). So our learning focus may provide another reason for questioning traditional polarised gender identities.

- An effective learning environment is inclusive: it embraces diversity and becomes a resource for learning, rather than inviting people to fit in
- An effective learning environment is expansive: it helps all people to expand their repertoire, including through learning from each other, rather than keeping them limited by ideas of there being one right way
- An effective learning environment helps all learners become more versatile and empowered as learners who will meet many situations in life for which a rule could not have been anticipated.

References

Ablard, K. E. and Lipschultz, R. E. (1998) Self-regulated learning in high-achieving students: Relations to advanced reasoning, achievement goals, and gender. *Journal of Educational Psychology* 90(1) p94-101

Brew, C. R. (2002) Kolb's learning style instrument: sensitive to gender. Educational and Psychological Measurement 62 (2) p373-390

Daniels, H., Creese, A., Hey, V., Leonard, D. and Smith, M. (2001) Gender and learning: equity, equality and pedagogy. Support for Learning 16 (3) p112-116

Demack, S., Drew, D. and Grimsley, M. (2000) Minding the gap: ethnic, gender and social class differences in attainment at 16, 1988-95. Race Ethnicity and Education 3 (2) p117-143

Duffield, J., Allan, J., Turner, E. and Morris, B. (2000) Pupils' voices on achievement: An alternative to the standards agenda. Cambridge Journal of Education 30 (2) p263-274

Dweck, C. S., Davidson, W., Nelson, S. and Enna, B. (1978) Sex differences in learned helplessness ii. The contingencies of evaluative feedback in the classroom, and iii. An experimental analysis. *Developmental Psychology* 14 (3) p268-276

Hogan, K. (1999) Thinking aloud together: A test of an intervention to foster students' collaborative scientific reasoning. *Journal of Research in Science Teaching* 36 (10) p1085-1109

Holden, C. (2002) Contributing to the debate: The perspectives of children on gender, achievement and literacy, *Journal of Educational Enquiry* 3, (1) p97-110

Kutnick, P. and Kington, A. (2005) Children's Friendships and Learning in School: Cognitive Enhancement Through Social Interaction? *British Journal of Educational* Psychology 75 p521-538

Meece, J. L. (2003) Applying learner-centered principles to middle school education, *Theory into Practice* 42,(2) p109-116

Pajares, F., Britner, S. L. and Valiante, G. (2000) Relation between achievement goals and self-beliefs of middle school students in writing and science. *Contemporary Educational Psychology* 25 p406-422

Panitz, T. (2000) 67 Benefits of Cooperative Learning, home.capecod.net/~tpanitz/tedsarticles/coopbenefits.htm

Rogers, C. G., Galloway, D., Armstrong, D. and Leo, E. (1998) Gender differences in motivational style: A comparison of measures and curriculum area. *British Journal Of Educational Psychology* 68 (2) p189-202

Schommer, M. (1993) Epistemological development and academic-performance among secondary students. *Journal Of Educational Psychology* 85 (3) p406-411

Schommer-Aikins, M., Duell, O. K. and Hutter, R. (2005) Epistemological beliefs, mathematical problem-solving beliefs, and academic performance of middle school students. *The Elementary School Journal* 105 (3) p289-304 Severiens, S. E. and ten Dam, G. T. N. (1997) Gender and Gender Identity Differences in Learning Styles. *Educational Psychology* 17 (1-2) p79-93

Stark, R. and Gray, D. (1999) Research report. Gender preferences in learning science. *International Journal of Science Education* 21 (6) p633-643

Valås, H. (2001) Learned helplessness and psychological adjustment: Effects of age, gender and academic achievement. Scandinavian Journal of Educational Research 45 (1) p71-90

Voelkl, K. E. (1997) Identification with school. American Journal of Education 105 (3) p294-318

Watkins, C. (2001) Learning About Learning Enhances Performance. London: Institute of Education School Improvement Network (Research Matters series No 13)

Further resources

Watkins, C., Carnell, E. and Lodge, C. (2007) Effective Learning in Classrooms. London: Paul Chapman/Sage

Watkins, C. (2003) Learning: a Sense-maker's Guide.
London: Association for Teaching and Learning www.new2
teaching.org.uk/tzone/images/Learning_tcm7-26270.pdf
Claire, H. (ed) (2005) Gender and Learning in the School
Years 2.19 London: Association for Teaching and Learning

Claire, H. (ed) (2005) Gender and Learning in the School Years 3-19. London: Association for Teaching and Learning www.new2teaching.org.uk/tzone/images/Gender_in_ education_ATL_tcm7-26272.pdf

Pickering, J. (1997) Raising Boys' Achievement. Stafford, Network Educational Press.