

Boys and girls: together or apart?

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Shirley Waghorn is right to prompt us to consider ways in which inequality based on gender may be constructed within the classroom. In our experience however, the situation is complex, and simple manipulations of classroom organisation may not necessarily solve the problem. This is particularly so if the assumptions underlying such manipulations are not subject to careful and critical examination.

The use of same-sex rather than mixed-sex pairs for computer work is suggested by Shirley Waghorn as one method for combatting gender bias. Underlying this suggestion are two separate (although related) assumptions. The first is that mixed-sex pairs are likely to be dominated by boys – either physically or intellectually – to the detriment of girls. The second assumption is that girls are likely to learn more effectively in same sex pairs than in mixed-sex pairs. Our own research provides little support for either of these assumptions.

Over the last few years we have carried out a series of studies in which we have systematically compared children working in same-sex and mixed-sex pairs. All the studies have involved children aged 6-8 years using simple Logo commands to control the movements of a floor turtle. Most of the studies required the children to take the turtle around a specially constructed obstacle track, although in one study the children used the turtle's pen to copy shapes or construct their own designs. The children always worked in pairs of similar ability.

In none of these studies did we find any evidence of boys dominating girls in mixed-sex pairs. Where chairs were placed equidistant from the keyboard, boys did not crowd out the girls. Nor did they monopolise the keyboard and take the lion's share of the keypressing. In one typical study, for example, we found that out of ten mixed-sex pairs, girls were the dominant key-pressers in five pairs, boys were dominant in four pairs, and in the remaining pair the key-pressing was shared on a 50-50 basis. This hardly provides convincing evidence of male domination.

Of course, it could be that the boys dominate mixed-sex pairs intellectually rather than physically – that they operate as the 'thinkists' whilst the girls function as the

'typists' [1]. However, we have found no evidence in our research for such a division of labour. In another typical study [2] we examined in some detail the social interaction surrounding a critical set of moves. In particular, we looked where the moves 'originated' – in other words, who's idea was it? In the mixed pairs we found that the girls originated 58% of the moves while the boys originated 42%. When there was disagreement, the girl's move was entered on 57% of the occasions whilst the boy's suggestion was followed on 43% of occasions. In other words the girls were, if anything, the dominant party in this particular set of decisions.

Needless to say, our concern should not rest solely with classroom organisation and associated interaction processes. The question of outcomes is also of crucial importance. We need to consider how group composition and interaction influence learning and the developments of attitudes.

In the first study we carried out in this area, we found that the girls who worked in same-sex pairs – the type of pairing advocated by Shirley Waghorn – in fact performed substantially worse than the girls who worked in mixed-sex pairs [3]. In subsequent work we have failed to replicate this particular finding. Nevertheless, we have not found in any study that the girls who work in same-sex pairs perform significantly better than girls whose experience was in mixed pairs. Nor, indeed have we found any significant difficulties between boys who worked in either form of pairing. Thus from the point of view of learning outcomes, our research does not favour any particular form of pairing.

The picture for attitude change, however, is somewhat different. In one study, where the children's attitudes were monitored over time, the attitudes of boys who worked in mixed-sex pairs appeared to become less stereotyped. At the start of the study, half the boys in each group (same-sex or mixed-sex) rated girls and boys as equally competent in their work with the turtle, whilst the other half gave the boys a higher rating. At the end of the study, the opinions of boys from same-sex pairs remained unchanged. However, all the boys from mixed-sex pairs rated boys and girls equally. In other words, if our concern is with changing children's attitudes, then mixed-sex pairings may actually be preferable.

The relationship between interaction processes and learning outcomes is also raised in the contribution by Glyn Holt. In proposing that we respect "the child's right to silence" he is indirectly questioning the importance of talk for learning. This is a refreshing approach,

given the generally uncritical acceptance given to the assumption that talk is desirable for learning. Again, our research studies on 6-8 year-olds using the Logo turtle throw some light on this assumption.

In one of our studies, the amount and nature of children's talk during paired sessions was analysed and related to subsequent learning outcomes. Somewhat to our surprise, we were unable to find any positive correlations between aspects of talk and the children's individual performance; indeed, we actually found some negative correlations (similar findings have been reported by Webb, [4]). In other words, just because children are generating large amounts of apparently valuable talk, it does not necessarily mean they are learning what we want them to learn. Moreover, it would appear that in group computer-based activities some children who contribute little to group discussion may learn a significant amount through watching the activities of others.

The findings of the research are by no means definitive or conclusive. They do not 'prove' that mixed-sex pairs are always better than same sex pairs, or that talk is irrelevant to learning. What our findings do show is that some of the assumptions frequently made in discussions of equal opportunities may not necessarily stand up to careful examination. Children's learning is a complex business, to which simplistic solutions may fail to do adequate justice.

References

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