

Editorial: Douglas Barnes revisited: If learning floats on a sea of talk, what kind of talk? And what kind of learning?

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This issue of *English Teaching: Practice and Critique* focuses on talk in the classroom. On the basis of his ground-breaking research on classroom talk (Barnes, 1976), Douglas Barnes contended that “learning floats on a sea of talk”. We interpret such wisdom to reflect the complex relationship between communication, the construction of cultural, social and institutional meanings and education. The questions which stimulated this collection of papers by an international group of authors were set in the context of Barnes’ remark: If learning, particularly that which takes place in the classroom, floats on a sea of talk, what kind of talk? And what kind of learning?

Once well recognised as a key aspect of pedagogical knowledge, the centrality of talk for engaging students in learning is again at the forefront of international dialogues around classroom discourse (see, for example, Alexander, 2006; Webb, Nemer & Ing, 2006; Mercer & Hodgkinson, 2008; Howe, 2010). The authors in this issue have investigated how talk functions in the teaching of English (Language Arts) and other content area subjects. Their contributions are framed by a scene-setting essay by Douglas Barnes himself.

Barnes revisits his ideas about talk in the context of classrooms to restate them in a current context, one that is both global and increasingly complex. His brief paper summarises his thoughts about the importance of talk to create a context for what he calls “active learning”. He reflects upon what it means to “talk things through” in order to reshape what you know, and how you know. In this piece, he notes some of the reasons why educators need to allow space for exploratory talk in classrooms in order to create a learning environment that values and accepts instructional risk-taking and the drive to find new and innovative ways to question traditional ideas. Barnes warns that by curtailing talk for learning through the use of closed lines of questioning and an emphasis on teacher talk, the classroom becomes an oppressive space – the antithesis of what good schooling should be like. His emphasis on good questioning provides a useful departing point for the other papers in the issue, as all of them address this strategy in some way. Overall, his most important theme is the function of talk for learning. Rather than have a student rush through a lesson using talk only to share common knowledge so that they “arrive without having travelled”, Barnes recommends that teachers learn how to use talk to allow students to explore unknown social or cognitive territory in order to make meaning that is significant to their personal needs.

The historical narrative of research into talk is univocal and rich with complex examples of studies driven by those who wish to improve the educational outcomes for all students. In the past, core areas of research into talk have been formed around two dominant topics: (1) the link between cognitive development and talk, the social construction of knowledge and the impact of context on instructional discourse; and (2) the socio-cultural influence of talk on gender and identity formation, power relationships (including the ways classroom talk scaffolds the learning experiences of second-language speakers and positions native speakers whose native tongue is a “non-standard” variety of the language of schooling). Analytical tools used to research patterns of interaction in talk have included discourse analysis, conversation analysis and other linguistic approaches employed with large corpus and small case study data samples.

The importance of talk for learning and cognitive development in the lives of young children as they experience their pre-school years is well established (Hart & Risley, 1995; Goswami & Bryant, 2007). The importance of their later experiences with talk in school for their educational and social development has also become increasingly apparent (see, for example, Mercer & Littleton, 2007). There are still a few who argue that school should not seek to change the linguistic repertoire of its students, as this may threaten their social identities (for example, Lambirth, 2009); but it seems safe to say that most educational researchers within language and literacy education, for example, would agree that one of the important responsibilities of school should be to prepare children well for their future lives by developing their use of language for communicating, reasoning and learning within and across contexts. We can summarise what is known about the importance of talk in school under two main headings: teacher-student talk and talk amongst students.

Teacher-student talk

Observational research 35 years ago (Sinclair & Coulthard, 1975) showed that much teacher-student talk in British classrooms consisted of exchanges like this:

Teacher: What is the capital of Peru?
Students: Lima.
Teacher: Yes, quite right.

While researchers of language, literacy and culture have made note of the considerable influence dialogic forms of discourse have on creating robust learning environments, recent evidence suggests that it is still common practice for teachers to rely heavily on such “closed” questions. Smith, Hardman, Wall & Mroz, (2004) reported, “In the whole class sections of literacy and numeracy lessons [in English primary schools] most of the questions asked were of a low cognitive level designed to funnel pupils’ responses towards a required answer” (p. 408). Reviewing an international range of studies on literacy teaching, American researchers Wolf, Crosson & Resnick (2006) concluded that when teachers merely check students’ comprehension by seeking yes-no answers, or frame the question in such a way that the students only have to complete the teacher’s incomplete sentence, this does not help develop students’ high-level reading skills. From this point of view, it has been argued that the very frequent use of “closed” questions by teachers should be discouraged.

But Wolf, Crosson & Resnick, (2006) also concluded that when teachers use questions to encourage students to put the main idea in their own words, and press them to elaborate their ideas (for example by asking, “How did you know that?” “Why?”), this does develop students’ high-level comprehension skills. Teachers can also ask not just one, but several students for reasons and justifications for their views before going into a topic, or ask students to comment on each other’s views (Dawes, 2008). So while teachers’ questions can just require children to guess what answer is in the teacher’s mind, they can also serve other very useful functions in the development of children’s learning, and of their own use of language as a tool for reasoning.

Spread over many years, interventional studies have shown that when teachers use contextually responsive dialogue strategies, students’ participation in class and their educational outcomes improve (for example, Brown & Palincsar, 1989; Chinn, Anderson & Waggoner, 2001; Mercer & Littleton, 2007). In a systematic review of 15 studies of talk in mathematics classrooms, Kyriacou & Issitt (2008) found good learning outcomes resulted when teachers uses questions not just to seek right answers, but also to seek reasons and explanations. Rojas-Drummond and Mercer (2004), comparing groups of Mexican teachers whose students achieved good learning outcomes in mathematics and literacy with those who did not, found that the former used question-and-answer sequences, not just to test knowledge, but also to guide the development of children’s understanding; the latter relied on more traditional forms of questioning. Alexander (2001) suggested an association between Russian teachers’ common use of questions to seek extended contributions from students and the high levels of attainment that their students achieved in international comparisons. In a meta-analysis of experimental programmes for teaching science, Murphy (2007) found that the positive effects were greatest when hands-on activity was combined with some form of relevant discussion. Across different subjects, it has been found that when teachers actively engage students in reflective discussions of what they are studying, this helps them learn, develops their understanding and prepares them well for independent learning.

It is very important to note that this research does not imply that teachers should avoid formatively and summatively assessing students understanding, scaffolding them, or correcting their erroneous understandings. It is, of course, vital that they do so. Rather, it is that to get the best results, teachers need to strategically balance what Scott (2007) calls “authoritative” talk (which tends to be the dominant kind of interaction) with “dialogue” (which does not happen enough).

Talk amongst students

It is quite common for teachers to put students in groups to problem solve together. But is this educationally useful? Research provides a paradoxical answer. Across many studies, collaborative learning activities have been shown to be very beneficial to children’s learning and conceptual development in science, mathematics and other subjects (Johnson & Johnson 1997 [in a review of 378 studies]; Howe, McWilliam & Cross, 2005; Slavin, 2009). But many studies have also found that, in most classrooms, group work is not productive. From an educational view, it seems often to

be a waste of time (for example, Bennett & Cass 1989; Galton, Hargreaves, Comber, Wall & Pell 1999; Kutnick & Blatchford, 2003). The explanation of this paradox is that collaborative learning only works when students know how to work well together – and most of them do not. To compound the problem, most teachers do not teach their students how to do so (Webb, Nemer & Ing, 2006), with the result that one of the most important life skills a child could gain is not given much educational priority, in educational policy or practice.

Yet research shows that when students are socialised into the discourses of classroom interactions by teachers – to engage in content specific, reasoned discussions – the quality of group activity and its learning outcomes are greatly improved, to statistically significant levels (Keefer, Zeitz & Resnick, 2000; Baines, Blatchford & Chowne, 2007; Mercer & Littleton, 2007). Moreover, such effective group work also has been shown to improve individual learning outcomes in science and mathematics, and individual children's scores on a standardised test of reasoning (Raven's Progressive Matrices) to statistically significant levels (Mercer & Littleton, 2007). The evidence thus supports the conclusion that shared engagement in high-quality discussion around particular problem-solving events in literacy not only promotes children's learning and communication skills, but also their thinking skills.

Looking at new research

Whilst acknowledging the historical narrative of literacy research when designing this special issue, the editors wanted to open up a dialogue that could reflect new concerns.

In some ways it is not surprising to discover that most of the contributors are still focused on the same issues that researchers were dealing with in the 80s and 90s. The researchers collected here have repositioned talk to reflect contemporary developments in theories of student learning. It is still true that learning occurs as a cultural process through action and talk with others (Gee, 2004), but classrooms have changed over time so it is appropriate that research investigates potential differences in pedagogy. For example, we may now be interested in the educational potential of computer-based online dialogue, but we still need to examine how powerful learning opportunities are set up by regulated patterns of interaction.

The contributors in this edition have addressed the place of dialogic teaching in current classroom pedagogy, the role of talk in learning and teaching, the pre-service education of teachers to use talk effectively and the impact of educational policy on the perceived value of classroom talk. To achieve this, they have examined ways in which, through talk, children are able to collaborate and so learn together in ways that they would not do with a teacher (Barnes & Todd, 1977; Mercer & Littleton, 2007; Webb & Mastergeorge, 2003).

All the papers are based on examples of situated talk in educational contexts as authors lay out their analysis of patterns of interaction to demonstrate talk for learning through grounded classroom examples. Spread across ages ranging from primary/elementary to senior secondary school, and illustrating practice from the UK, Australia and USA, the research provides insights into the importance of talk for children's learning and social well-being and of the need for teachers be aware of this

importance and act accordingly. We see that in one science classroom, students use “exploratory talk” to share their tentative ideas, whilst in another, the process of talking together supports the social construction of knowledge. In another paper, we see how the online context of literary discussion in English gives other students the chance to build a discussion around different critical points of view. Professional development allows teachers the opportunity to listen to their student think through problems. And an analysis of the ideology underpinning models of learning highlights the need for ethical teaching practices. Overall, the contents of this special issue make a strong contribution to this well established but fast developing field of research.

REFERENCES

- Alexander, R.J. (2001). *Culture and pedagogy: International comparisons in primary education*. Oxford, England: Blackwell.
- Alexander, R. (2006). *Towards dialogic teaching*. York, England: Dialogos.
- Baines, E., Blatchford, P., & Chowne, A. (2007). Improving the effectiveness of collaborative group work in primary schools: Effects on science attainment. *British Educational Research Journal*, 33(5), 663-680.
- Barnes, D. (1976) *From communication to curriculum*. Harmondsworth, England: Penguin.
- Barnes, D., & Todd, F. (1977). *Communication and learning in small groups*. London: Routledge & Kegan Paul.
- Bennett, N., & Cass, A. (1989). The effects of group composition on group interactive processes and pupil understanding. *British Educational Research Journal*, 15, 119-32.
- Brown, A.L., & Palincsar, A. S. (1989). Guided, co-operative learning and individual knowledge acquisition. In L. B. Resnick (Ed.), *Knowing, learning and instruction* (pp. 393-451). Hillsdale, NJ: Lawrence Erlbaum.
- Chinn, C., Anderson, R., Waggoner, M. (2001). Patterns of discourse in two kinds of literature discussion. *Reading Research Quarterly*, 36(4), 378-411.
- Dawes, L. (2008). Encouraging students’ contribution to dialogue during science. *School Science Review*, 90(331), 101-107.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, T. (1999). Changes in patterns of teacher interaction in primary classrooms: 1976-96. *British Educational Research Journal*, 25(1), 23-38.
- Gee, J. (2004). *Situated language and learning: A critique of traditional schooling*. New York: Routledge.
- Goswami, U., & Bryant, P. (2007). Children’s cognitive development and learning. *Research Report 2/1a: The Primary Review*. Cambridge, England: University of Cambridge.
- Hart, B., & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children*. New York, NY: Brookes.
- Howe, C.J., McWilliam, D. & Cross, G. (2005). Chance favours only the prepared mind: Incubation and the delayed effects of peer collaboration. *British Journal of Psychology*, 96(1), 67-93.
- Howe, C. (2010) *Peer groups and children’s development*. Oxford, England: Wiley-Blackwell.
- Johnson, D. W., & Johnson, F. (1997) *Joining together: Group theory and group skills* (6th Edition). Boston, MA: Allyn and Bacon.

- Keefer, M., Zeitz, C., & Resnick, L. (2000). Judging the quality of peer-led student dialogues. *Cognition and Instruction, 18*, 53-81.
- Kutnick, P., & Blatchford, P. (2003). Developing group work in everyday classrooms. *International Journal of Educational Research, 39*, 1-8.
- Kyriacou, C., & Issitt, J. (2008). What characterizes effective teacher-pupil dialogue to promote conceptual understanding in mathematics lessons in England in Key Stages 2 and 3? *EPPI-Centre Report no. 1604R*. London: England: Social Science Research Unit, Institute of Education, University of London.
- Lambirth, A. (2009). Ground rules for talk: The acceptable face of prescription. *The Curriculum Journal, 20*(4), 423-435.
- Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking*. London: Routledge.
- Mercer, N., & Hodgkinson, S. (Eds.). (2008). *Exploring talk in school*. London, England: Sage.
- Murphy, P. K. (2007). The eye of the beholder: The interplay of social and cognitive components in change. *Educational Psychologist, 42*(1), 41-53.
- Rojas-Drummond, S., & Mercer, N. (2004). Scaffolding the development of effective collaboration and learning. *International Journal of Educational Research, 39*, 99-111.
- Scott, P. (2007). Questions about teachers' goals, learners' roles and the co-construction of knowledge. Forum: A sociocultural perspective on mediated activity in third grade science. *Cultural Studies of Science Education, 1*, 497-515.
- Sinclair, J. M., & Coulthard, R. M. (1975). *Towards an analysis of discourse*. Oxford, England: Oxford University Press.
- Slavin, R. E. (2009). Cooperative learning. In G. McCulloch & D. Crook (Eds.), *International Encyclopedia of Education* (pp. 161-178). Abington, UK: Routledge.
- Smith, F., Hardman, F., Wall, K., & Mroz, M. (2004). Interactive whole-class teaching in the national literacy and numeracy strategies. *British Educational Research Journal, 30*(3), 395-411.
- Webb, N., Nemer, K., & Ing, M. (2006). Small-group reflections: Parallels between teacher discourse and student behavior in peer-directed groups. *Journal of the Learning Sciences, 15*(1), 63-119.
- Webb, N., & Mastergeorge, A. (2003). The development of students' learning in peer-directed small groups. *Cognition and Instruction, 21*, 361-428.
- Wolf, M., Crosson, A., & Resnick, L. (2006). Accountable talk in reading comprehension instruction. *CSE Technical Report 670*. Pittsburgh, PA: Learning and Research Development Center, University of Pittsburgh.