

Dialogic Inquiry as Collaborative Action Research

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About a quarter of a century ago I had a very salutary experience that changed my approach to research in schools and classrooms. At that time, I had newly arrived at the Ontario Institute for Studies in Education (now OISE/University of Toronto) and was just starting the second year of a longitudinal study; we were following 72 children from different ethnolinguistic backgrounds in order to investigate factors that might be responsible for these groups' differential educational success. At the end of the first year the children moved up a grade and we had to secure the cooperation of a new group of teachers into whose classes these children would be entering in the following year. In all but one case, the new teachers were willing to have us make observations in their classrooms. But one grade three teacher absolutely refused. Immediately I went to talk with her.

Firm in her refusal, this teacher gave the following explanation. Two years earlier she had attended a conference in Toronto at which I had been a guest speaker. Still excited about the longitudinal study I had just completed in England, where I and my colleagues had followed a representative sample of 32 children from 15 months to the age of ten, audio and video recording them in their homes and classrooms (Wells 1986), I had played short extracts from some of the recordings and offered my comments on the opportunities for learning that each provided. About one particular teacher-whole class discussion I had been rather critical, pointing out how the teacher had engaged her grade one children in an extended episode of 'guess what's in teacher's mind.'

"You're not going to do that to me," she insisted. And as I listened to her, I knew she was right. The stance I had taken in the past was both unethical and unproductive. In effect, I had been exploiting my 'subjects', not only giving little in return for their participation

but also criticizing them in public when they had no chance to put their own points of view. But my approach to research was also misguided as a way of trying to understand learning and teaching. Classrooms are communities that, over time, develop ways of acting and interacting that cannot be understood by an outsider who pays occasional visits to collect and take away for analysis limited stretches of observational data, extracted from their organic historical context.

Improving the Quality of Education

It seems incontrovertible that the purpose of research in the field of education is to improve the quality of education that students receive. But how often does research actually improve the educational experiences of those who take part in the research? Clearly, there are many ways in which this goal can be served, including research on equitable provision of resources, modes of governance, and procedures for accountability. However, since research on these issues is usually conducted on a very large scale, often involving statistical analysis of aggregated data from many schools or school districts, the beneficial results are likely to be diffuse and spread over a long period of time. On the other hand, much research is more local in nature for, within whatever organizational framework students receive their education, it is widely recognized that the quality of their experience is dependent on ‘the company they keep and what they do and say together.’¹ A considerable amount of research, therefore, focuses on what happens in particular schools and classrooms and, to this end, teachers and students are asked to allow outsiders to observe, question and interview them and make recordings of these events.

The Ethics of Classroom Research

To ensure that those who are studied in school- and classroom-based research are not harmed as a result of their participation, Institutional Review Boards require that

¹ In these words, I have tried to encapsulate the key ideas in Vygotsky’s theory of learning and development (Wells, G. 1999).

participants should be informed about the purpose of the research and about what their participation will involve; they are then asked to give their 'informed consent'. In practice, this simply means that they are guaranteed that any evaluations based on the data collected will be made in such a way that those evaluated cannot be identified, and where particular events or quotations are cited, real names will be replaced by pseudonyms.

From an ethical point of view, these practices are certainly necessary. But are they sufficient? If the purpose of such research is to lead to improvements in the quality of educational experiences, should not those who agree to be studied receive some benefit from their participation? Should they not at least have the right to know what conclusions the researchers drew from their analysis of the data and the opportunity to discuss how they might act on the basis of the findings? Indeed, should not benefiting the participants ideally be built into the overall design as one of the aims of the research? (Cf. Zeni 2000)

Understanding What Happens in Classrooms

Researchers who only make occasional visits to classrooms for scheduled observations gain a very limited understanding of what they observe. While a lesson may appear to have a clear and specific goal that is (or is not) accomplished within the allotted time, no lesson is self-contained for those who participate in it, as is illustrated by the following anecdote.

Working on a curriculum project in England with Stenhouse in the 1970s, Walker and Adelman (1976) were making a classroom observation one day when a student uttered the word 'strawberries' and the whole class fell apart in laughter. The researchers, extremely puzzled by this event, decided to ask the teacher why the mention of strawberries had such an effect. Apparently, in a previous lesson, strawberries had been the subject of a well-remembered heated debate that, this student was suggesting, was relevant to the current situation.

What is made clear by this anecdote is that, as a teacher and a class of students spend time together, they construct shared knowledge, not only about the content of the curriculum but also about how they interpreted and acted upon that content. Each class thus has its own unique history, which provides a resource that participants draw on in successive lessons. Green and Dixon (1993) go so far as to argue that, as a result, in any classroom, 'what counts as knowledge' is what has been negotiated over the course of the time spent with their particular teacher. This strongly suggests that it is necessary to make regular visits over a considerable period of time to any classroom if one wants to gain a deep understanding of what happens in a particular lesson.

But simply making observations is still not sufficient. In order to win the trust and active collaboration of teacher and students, it is necessary to be an active participant oneself, joining in activities and treating students and teacher as experts about their own learning and teaching. This was what had been missing from my longitudinal study in Bristol; because I attempted to be a 'fly on the wall', observing but not participating, I never got to know the classrooms I observed from the perspectives of those I was observing. This limited the extent of my understanding of what was happening and put me at risk of misinterpreting the reasons for the behaviors that I observed. What I came to realize, therefore, was that, for a more complete understanding, one needs to become to some significant extent a participating member of the classroom community.

Becoming a Collaborative Action Researcher

It was with these ideas in mind that I decided to abandon my initial stance and to embark on collaborative action research. As I found, however, changing one's role as a researcher in mid-stream is not a simple matter. In the first place, teachers have little experience of collaboration across the school-university divide and many assumed that, despite what I said, I was still intent on evaluating what I observed. One step I took in an attempt to dispel this perception was to adopt the practice of giving copies of the videorecorded observations I had made to the teachers concerned. Then, when they had had a chance to watch them, we met together to view whichever extracts they wished to discuss. This

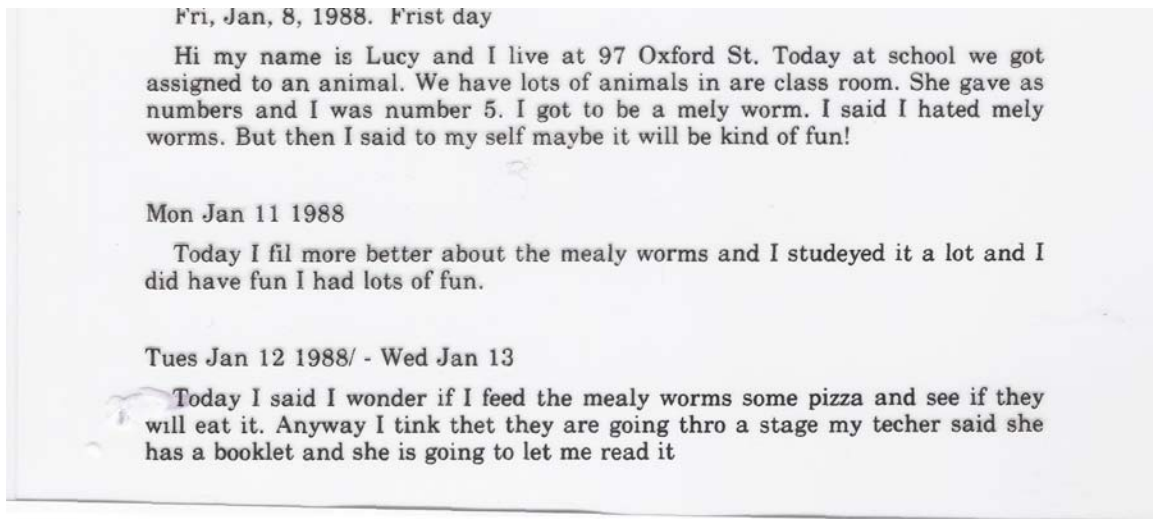
often led to insights on both our parts about the dynamics of particular events and also to a recognition on the part of the teachers of ways in which they might try to improve an aspect of their practice. Reporting teachers' – as opposed to my – evaluations about learning and teaching in their own classrooms proved to be much more effective, for not only did I avoid the risk of antagonizing my audience by engaging in 'teacher bashing', but hearing about how colleagues had taken upon themselves to research their own teaching in order to improve it inspired others to do the same.

Not all the teacher participants in the study of children from diverse ethnolinguistic backgrounds referred to above took up the invitation to collaborate in this way. Nevertheless, by the end of the second year, some half dozen were enthusiastically conducting research in their own classrooms and sharing what they discovered with their colleagues. A forthcoming meeting in Toronto of the International Reading Association led to the further step of planning to offer a jointly prepared symposium on the importance of classroom inquiry.

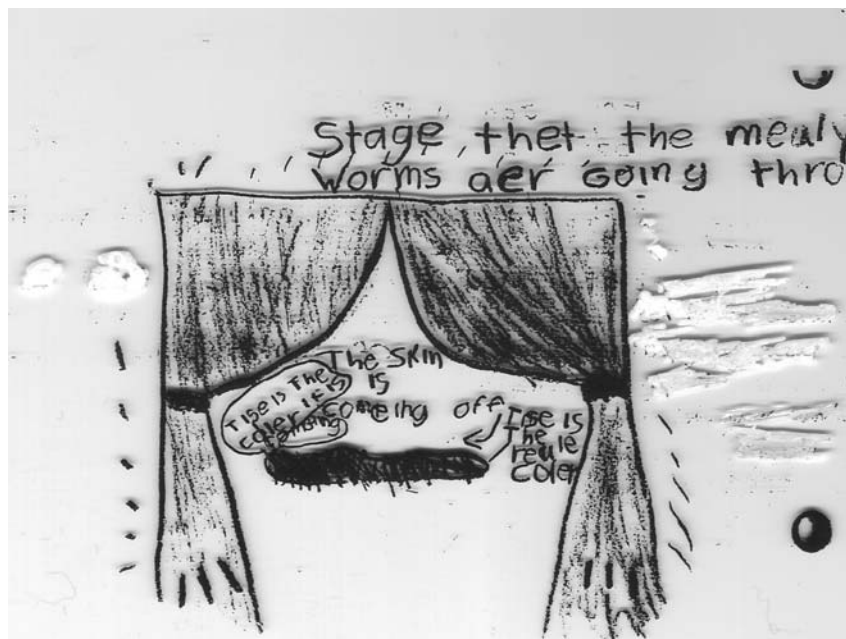
The great insight we achieved together in this process was the close relationship that exists between teacher research and the adoption of an inquiry approach to curriculum. This was particularly well illustrated by an investigation of the value of revision that Ann Maher, a third grade teacher, conducted in her classroom. She herself started with an inquiry into how she could encourage her students to work on revising their written texts. However, it was during a unit on 'living creatures' she was teaching that the connection between her and her children's investigations became clear.

For this unit, she planned to include two forms of investigation. In the first, the children were to spend some days closely observing one of the assortment of living creatures – newts, crickets, a white rat, a Mexican land crab among others – that she had assembled. Believing that close observation of any of these creatures would awaken the children's interest, she had them pick straws to determine which they would study. Lucy, a Portuguese Canadian child, found herself assigned to the mealy worms. "Yuk," she said.

“I hate mealy worms.” However, within a few days she had revised her initial opinion. Here is what she wrote in her journal.



And here is her witty accompanying illustration.



For the second investigation, the children were allowed to choose what living creature they would research. Some had difficulty in making up their mind so, in a whole class

meeting, Maher decided to address this issue by asking them about their writing. What was most important in choosing what to write about?, she asked. After various suggestions, she insisted, "You must care about your topic." She then went on to remind them about the importance of revising, not only their writing, but also what they chose to investigate; they should revise if they did not feel committed to their original idea.

Space does not allow me to go into further detail about the interesting presentations the children made on the basis of their investigations. But the success of this unit was highly significant for both Maher and myself (Wells and Chang-Wells 1992). From this point on, I began to emphasize the importance of teacher as well as student inquiry in the courses I taught in our M.Ed degree for practicing teachers.

The Case for Dialogic Inquiry

From my earliest research on children's oral language development (Wells 1986), I had been concerned by the restricted and restricting quality of interaction in the classroom as compared with that experienced in the homes of all the children we had studied. Whereas, at home, children initiated conversation as often as adults, and adults showed interest in what they had to say and helped and encouraged them to extend their ideas, in the classroom it was the teacher who decided who might talk and what might be talked about, and rarely elicited or responded to children's own ideas.

The central role of language in children's intellectual, social and emotional development is captured in Vygotsky's (1978) metaphor of working in the zone of proximal development: It is in the course of interaction that occurs during jointly undertaken activities that children encounter the concepts, skills and values of the culture in which they are growing up and, with adult assistance, gradually make them their own. As Halliday puts it, "Language has the power to shape our consciousness; and it does so for each human child, by providing the theory that he or she uses to interpret and manipulate their environment" (1993, p. 107). Furthermore, according to Bakhtin (1986), this process

necessarily involves dialogue, in which individuals ‘ventriloquate’ the words and ideas of others on the way to making them their own.

In sum, from their different disciplinary perspectives, all these writers argue that it is in dialogue with others that children – and adults – extend their individual ‘higher mental functions’ by first learning to use the language of others through ‘thinking together’ (Mercer 2002) and then gradually transforming this dialogue into a resource for solo thinking in the mode that Vygotsky (1978) called ‘inner speech.’

Unfortunately, however, although common at home in the preschool years, dialogue of this kind occurs very rarely in the vast majority of classrooms (Nystrand and Gamoran 1991; Galton, Hargreaves et al. 1999). Instead, lessons are enacted according to what Tharp and Gallimore (1988) call the ‘recitation script’, which takes the form of a series of relatively disconnected three-part exchanges (Initiation – Response – Evaluation) concerned to ensure that students show that they can reproduce the information delivered by the teacher or the textbook. Not surprisingly, therefore, there is little opportunity for students to ask questions about what interests them or to voice their own ideas and opinions.

To my mind, therefore, if we want to improve the opportunities for learning in school we must find ways to create the conditions for the dialogue of ‘thinking together’ to become the dominant mode of interaction. These conditions seem to include the following:

- The topic must be of interest to the participants
- Individual students must have relevant ideas, opinions, or experiences that they want to share
- Others must be willing to listen attentively and critically
- The teacher must share control and the right to evaluate with students.

One way of creating these conditions, which has been taken up in a number of recent reform efforts, was first proposed by Dewey in *Experience and Education* (1938). In order for students to engage with a topic, he argued, it must be of interest to them. But it

must also be one that poses problems or raises doubts that will motivate the student to explore further. This led Dewey to place great emphasis on inquiry, both as the motivation for engaging in, and as the organizing principle for the selection of, learning activities. These, he believed, should grow out of first-hand experience and be largely determined by the students themselves, with the teacher acting more as facilitator than as director. While more recent writers in this tradition have placed less emphasis on individual choice of topic for inquiry and, following Vygotsky, more on the guiding role of the teacher, they agree with Dewey in emphasizing that the key characteristic of investigatory activities should be that they take as their object significant and often problematic features of the students' experience and environment and have as their intended outcome a growth in the students' understanding, where this is taken to mean, not simply factual knowledge, but knowledge growing out of, and oriented to, socially relevant and productive action (Cohen, McLaughlin et al. 1993).

However, rather than treating the problem of how to create these conditions in contemporary classrooms as one to be resolved by university researchers and then handed over to teachers for implementation, I believe it is ultimately more productive to tackle it through collaborative action research with a group of interested and informed teachers. How I attempted to achieve this is described below.

The Developing Inquiring Communities in Education Project (DICEP)

Most of the teachers who volunteered to join DICEP had already carried out inquiries in their own classrooms as part of the M. Ed. program at the university; they had also developed some familiarity with Vygotskian ideas about the importance of talk and of providing assistance to learners in their zones of proximal development. We thus had a shared theoretical orientation and some individual experiences of classroom research. What we did not have, at least initially, was a shared idea of how to bridge the university-school divide in order to become a cohesive, collaborating group.

The problem was not simply the difference in status between the members of the group; as principal investigator, I also had the responsibility for ensuring that the objectives set out in the grant proposal were achieved to the satisfaction of the funding agency, while also ensuring that decisions on how to proceed were jointly made.² In the early stages, our attempts at collective planning and decision making were not always easy, and there were occasions when we had difficulty in resolving the tension between individual autonomy and maintaining a common focus. However, two actions taken early in the project were important, in more than symbolic ways, in establishing this new form of school-university collaboration. The first was the decision to have a rotating chairperson for our monthly meetings, with the agenda for each meeting being constructed by the incoming chair on the basis of proposals received from all members of the group. The second was the choice of a new name for the project, arrived at after an extended process of discussion in meetings and via our e-mail network. The name finally chosen, *Developing Inquiring Communities in Education Project*, also served as a form of manifesto, for it made explicit our conviction that inquiry was not only relevant to learning in schools; it applied equally to university classrooms, to preservice and in-service teacher development and, most important, to the work of our own group.

What ultimately gave greatest cohesion to the group, however, was presenting at conferences and writing together. In preparing for these events, we spent time not only in selecting and interpreting data from individual investigations but also in identifying values and practices that seemed to be common to the various inquiries that individual members were carrying out. We also engaged in a common program of reading and discussion of theoretical articles and of the work of other researchers. These collaborative practices led to a special issue of the OISE journal, *Orbit*, and to the founding of *Networks, an On-line Journal for Teacher Research*. At the end of the project we also produced a book together, *Action, Talk, and Text: Learning and Teaching through*

² Between 1991 and 1999, the project was funded by two grants from the Spencer Foundation, the second of which recognized that, if it was to be collaborative, the research to be carried out could only be planned in detail by all the participating members. We were very grateful for their generous and understanding support of this novel request for support.

Inquiry (Wells 2001), which included reports of a variety of individual investigations as well as an overview of the development of the project. We also regularly reviewed our ways of working together, using our project listserv for email discussion and, on two occasions, conducting semiformal interviews with all members of the group.

As they came to be defined, the overall aims of the project were twofold: to explore different approaches to creating classroom communities of inquiry; and to investigate the quality of the discourse that occurred during inquiry-oriented curricular units. Evidence pertaining to the first aim was largely descriptive and appeared in the case studies of individual investigations carried out by project members.³ Some of these also included reflections on the growth in the authors' own understandings of the value of inquiry in promoting greater student engagement and learning.

The following example of such reflection comes from an article written by two teachers and myself following a science unit in their combined grades one and two class, in which the children had experimented with elastic-powered vehicles to answer a number of questions that arose in the course of their experiments.

As classroom teachers, we felt a large responsibility for 'covering the curriculum.' However, what we came to recognize was that we had neglected the fact that we were not alone: that covering the curriculum also required students' active collaboration. The question we then began to ask ourselves was whether we trusted the students enough to guide us in fulfilling this responsibility. Over the preceding two years, we had observed many exciting and authentic learning situations develop when students had an active role in the direction and course of study, but we had been reluctant to trust the implications of these observations. As a result of the present investigation, however, we recognized that a major shift had occurred in our understanding of our curricular responsibilities. As Mary Ann [Van Tassell] wrote:

³ See Wells (Ed.) 2001, pp. 213-215 for a full list of the project's publications.

“We have come to identify that the most important thing we do in our science class is listen. We listen in order to ask questions. Because our focus has shifted to assisting students in their zpds, we are able to listen to the students and to each other. We did not know this was the shift we needed to make, nor did we anticipate it at the outset, but it was the most significant learning for us. ...And, as with all learning, [it has] carried over into all other areas of our teaching.

The change in us, as teachers, was reflected in our interactions with the children and in the changed climate of the classroom. Students' questions and knowledge were as valued in the learning process as those of the teachers. Consequently, the students were supported in their efforts to make sense of their world and were motivated to take risks to further their own understandings. Because of this act of being responsive, both to the students and to each other, the knowledge constructed over the course of the unit was much deeper and more meaningful than we had anticipated.” (Galbraith, Van Tassell et al. 1997, quoted in Wells 1999, pp. 310-311)

Barbara and Mary Ann then went on to discuss the value to them of conducting the research in a collaborative team. Indeed, one of the most commonly reported benefits of taking part in DICEP was the support and encouragement that individual members experienced. Here is how Zoe Donoahue responded in the final interview:

Having a group with whom to talk, share my findings, hear about other people's inquiries, has kept me going with my research. Writing and presenting together, as well as presenting my current work at meetings, gives me a reason to analyze and think about my data on a regular basis. Getting feedback from others, answering their questions and hearing how my thinking links with other members of the group helps me to develop ideas and gives me ideas for future inquiries. (McGlynn-Stewart 2001, pp. 195-196)

Developing Dialogue in the Classroom

The second major aim of the project was to investigate how adopting an inquiry orientation changed the quality of classroom interaction and, in particular, whether it became more dialogic. While this was of general concern to project members, it was not the focus of any of their individual inquiries. In fact, it was only at the end of the second period of funding that we began to address this question through analysis of data. In the preceding years, videorecordings had regularly been made during the teachers' inquiries and these had been transcribed so that the teachers could use them as data to answer their own questions. About half of the recordings that they contributed to the overall database involved small groups of students at work; the remainder involved episodes of teacher-whole class interaction. In all, there were 43 of the latter, spanning grades one through eight and recorded at different points in the teachers' participation in the project.

The first analysis we carried out was based on categorizing the episodes according to the overall function of each episode in relation to the curriculum unit in which it occurred. Here what we found was that the interaction became more dialogic when the class was engaged in such activities as planning, interpreting or reviewing student inquiries. By contrast, episodes of teacher-led instruction, classroom management, and checking on what had been learned tended to be characterized by shorter sequences of talk on a particular issue and a higher proportion of evaluative responses to student contributions (Nassaji and Wells 2000).

The second analysis divided the recorded episodes according to when they occurred in each teacher's participation in the project. By comparing 'early' with 'late' episodes, we found a number of significant changes, which can be summarized as follows:

- Over the duration of the project, there was a sustained and successful attempt to adopt an inquiry orientation to curriculum and this, in turn, led to a more negotiatory and dialogic style of interaction.

- More specifically, comparing late with early episodes, there was a decrease in the proportion of sequences initiated by a teacher question and, correlatively, a significant increase in student initiation of sequences.
- When the teacher did initiate with a question s/he was more likely to request information that opened up discussion rather than calling for known information.
- Following student answers, there was a significant increase in the frequency with which teachers provided high level evaluation, either by taking up and developing the student's contribution or by inviting the same or a different student to do so. There was also a significant increase in the frequency with which the teachers did not take up the option of giving follow-up, thereby allowing the discourse to proceed in a more dialogic style.

On the basis of these results, we concluded that an inquiry orientation to curriculum does indeed make dialogic interaction involving exploratory talk more likely to occur. We also concluded that the single most important action a teacher can take to shift the interaction from monologic to dialogic is to ask questions to which there are multiple possible answers and then to encourage the students who wish to answer to respond to, and build upon, each other's contributions (Wells and Mejía Arauz 2006).

One particularly exciting development occurred in the very last months of the project as a result of a student's objection to the amount of time that was being spent on class discussion in his classroom. Initially taken aback by this complaint, Karen Hume, his teacher, decided to invite this student and some of his grades six and seven peers to join in a co-investigation of how to make class discussions more productive (Hume 2001). This project was so successful and inspiring that the DICEP group successfully sought another grant from the Spencer Foundation to explore how, in their different settings, they could each find ways of including their students as co-researchers. Their findings and conclusions can be found in a special issue of *Networks* (2003).

Conclusion

Looking back over the last twenty years, I have no doubt that my change of stance as a researcher was for the better. Not only have I learned a great deal more about the challenges that face today's teachers and shared in finding ways to overcome at least some of them; but, more important, I believe that engaging in collaborative research has enabled my research colleagues in a variety of such projects to feel empowered to act as agents of change (Wells 1994). By becoming action researchers in their own classrooms they have been successful in developing new ways of teaching that, based on their own experiences with particular groups of learners, have significantly enriched the learning of their students and, at the same time, given them the evidence to argue for similar changes in the schools and districts in which they work. Indeed, several members of the group have moved to positions as administrators and teacher educators in which they are now able to have an even wider influence.

One thing is clear: To prepare students to be able to act agentively, effectively, and responsibly in recognizing and tackling the problems that they will undoubtedly meet in the years ahead, they need to develop these dispositions and the necessary knowledgeable skills in their formative years at school. And for this to happen, there is a need for teachers to develop the same ways of thinking and acting and to model them for their students by making their classrooms communities of dialogic inquiry. On the evidence of the DICEP experience, collaborative action research is one powerful and empowering way in which this necessary change can be brought about.

What happens in schools today will have significant consequences for our society tomorrow and, indeed, for human life on our planet. Dewey recognized this nearly a century ago when he wrote in *Education and Democracy*

In directing the activities of the young, society determines its own future in determining that of the young. Since the young at a given time will at some later date compose the society of that period, the latter's nature will largely turn upon the direction children's activities were given at an earlier period. (1916/1966, p. 41)

It is time we took his advice seriously.

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