PEDAGOGY AND PHILOSOPHY FOR CHILDREN

The focus of this paper is more pedagogical than philosophical reflecting my involvement in Teacher Education and Professional Development Programs. Teachers are essentially practical people, having to cope with classes of, usually, twenty or more individuals by keeping them engaged in various learning activities lest they become uncontrollable. So they tend to evaluate curriculum innovations in terms of the number and range of structured practical, "hands-on," learning activities which will more fully engage pupil attention. Consequently they tend to be sceptical, even rejecting, of programs, which, to them, seem to be more theoretical, abstract or academic in nature. Philosophy for Children, with its heavy verbal emphasis (dialogical and written) comes into this category and so may not be given the attention it deserves by many practicing teachers. The aim of this paper then, is to examine Philosophy for Children from the perspective of pedagogic theory to see how well it measures up, and to suggest ways in which the program might be made more attractive to both teachers and pupils.

First, some background to provide a context for the discussion. In 1979 John Sandberg, reflecting on fifteen years' experience in teacher education, lamented that teachers as a group are the greatest single obstacle to children's learning. He pointed to three widespread assumptions as the underlying cause of the problem: the mistaken belief that teaching causes learning; the belief that learning can occur only as a result of teaching; and the belief that teaching is synonymous with telling. The first two are readily shown to be false, but it is the third that, although false, is most firmly entrenched in the minds of college students and that much harder to eradicate. Although elementary teacher education students are continually urged to drop 'talk and chalk' in favor of engaging pupils in concrete learning experiences as their modus operandi, few beginning teachers are sufficiently confident enough to withstand the pressure of parents, older teachers and even the pupils themselves, that playing with blocks, etc., is kindergarten stuff and not for them, and revert to giving instruction via the familiar talk and chalk method. This is further reinforced by recent reviews of teacher effectiveness research supporting the adoption of direct instruction as a universal strategy especially suited for beginning teachers (Ross & Kyle, 1987). But such a strategy is in danger of reinforcing and perpetuating the very assumptions which Sandberg warned against as being responsible for creating obstacles to learning. Much of direct instruction appeals to the 'back to basics' ideology misinterpreted as the 'no nonsense, chalk and talk' methodology dissatisfaction with which spurred much of the research effort of the past few decades to find a more effective alternative. It seems that we have come full circle. The justification for accepting the direct instruction recipe of lecture, demonstration, drill and practice, that it works (Rosenshine, 1987), leaves out the proviso that it only works with some pupils for some types of learning tasks. This may be because it rests on an inadequate theory of learning. As a universal strategy suited for all learners and all learning tasks, it is inadequate. Direct instruction is not for beginners. Nor, Philosophy for Children would add, for anyone else. Direct instruction is the antithesis of the Philosophy for Children community of inquiry. Philosophy for Children, however, offers no clear alternative pedagogical theory to support its adoption. But it can. And such support lies in considering the very purpose of teaching itself.

Children are given teachers not as obstacles to their learning but for the very opposite purpose of facilitating their learning. Viewing teaching as facilitating learning is neutral as to how the facilitation is to take place. It implies nothing about telling or giving instruction. It does, however, demand that teachers have a clear idea about that which they are to facilitate, viz: learning. Given this central importance of learning to teaching it is surprising that so little attention has been given to it in teacher education (Evans, 1988). Likewise, Clark and Peterson's review (1986) of teacher thinking about teaching reveals that teachers do not give much consideration to learning theory or pupil

learning processes in their lesson planning. The learning involved here is that which enables pupils to acquire large bodies of knowledge over extended periods of time. And this is the complex rather than simple learning which Rumelhart and Norman (1978) describe as a combination of three complimentary processes, the understanding of which is necessary for anyone who wishes to facilitate the sort of learning involved in classroom practice.

Complex learning involves the acquisition and reorganization of large amounts of information so that it fits one's existing knowledge schema. In classrooms, teachers have to promote this acquisition and reorganization so that it is internalized by pupils. Simple S-R theories of learning do not adequately account for this process. They take a simplistic view of learning as a unitary process of internalization following a period of repetition and reinforcement. This view underlies the direct instruction strategy, but it has only limited success (Ross & Kyle, 1987) and so is inadequate as a universal theory. Rumelhart's and Norman's theory of complex learning is much more adequate for the task. Teaching as facilitating learning involves facilitating three complimentary processes which they call accretion, restructuring and tuning which interact as illustrated in Figure 1.

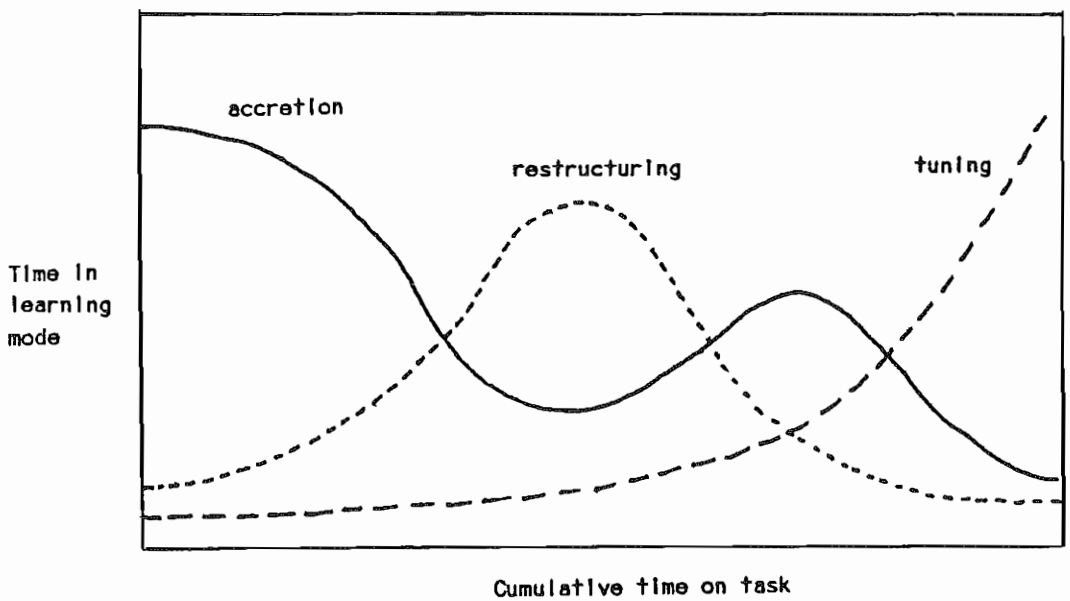


Fig.1. Hypothetical time division of effort during study of a complex topic.

Taken from D.A.Norman, 'Notes towards a theory of complex learning" in Alan M Lesgold et al, Cognitive Psychology and Instruction, New York: Plenum Publishing Corp. 1978, with kind permission of the publishers.

Accretion involves the acquisition of new information or data. Pupils in classrooms are called upon to accumulate much new information in a variety of ways--of which telling is just one, and a counter productive one, if Sandberg is right. Data alone is of little value until something is done with it. This is where the process of restructuring

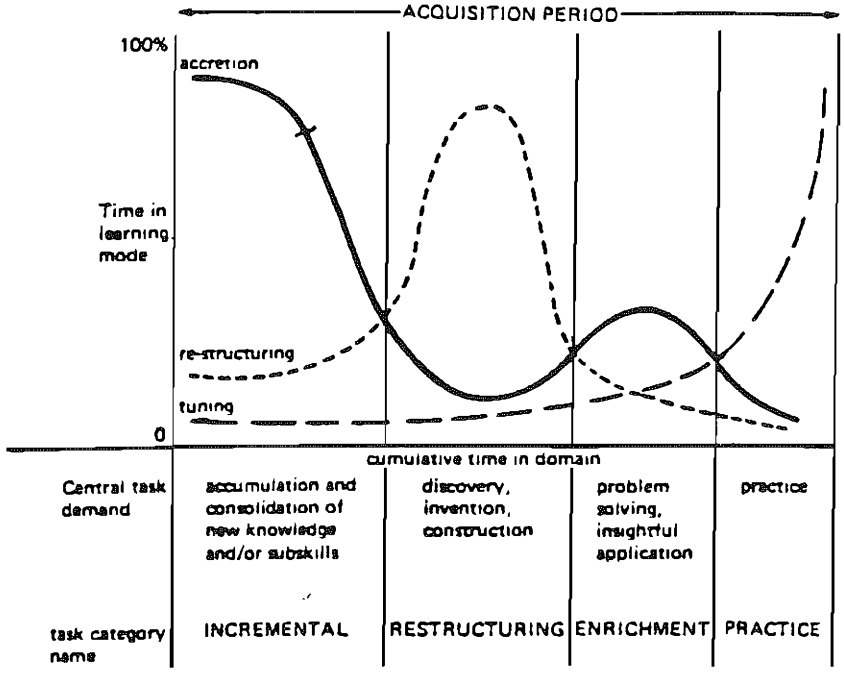
comes into play. Reorganization of the data until a pattern is seen, until a new framework or schema is created, characterizes this phase of the learning process. This brings new insight, the data now makes sense, it is internalized. It is at this stage that learners would exclaim that they understand, that they see it, that it all makes sense. Accretion is acquisition, restructuring is understanding. Restructuring is the most dramatic of the three modes or processes of learning, and arguably the most difficult to facilitate. Teachers, recalling Sandberg, are tempted to hurry this along by simply telling or showing pupils the pattern or principle rather than facilitating its discovery or construction, thus becoming unintentional obstacles to pupil learning. As Norman (1978) remarks, "restructuring requires good teaching." The teacher's knowledge of both pupils and topic is tested during this phase of the learning process. It requires ingenuity, clarity and patience to find the best way of facilitating this understanding in pupils without destroying the joy and pleasure of learning open to them at this stage of the learning process. It is this stage which forms what D. H. Lawrence called the "holy ground" between teacher and pupils which teachers transgress at the risk of alienating pupils. Direct instruction, with its emphasis on teacher demonstration and failure to allow pupils the luxury of discovering, inventing, etc., the organizing principle or pattern for themselves, deprives them of the joy to be had in learning. It tends to reduce learning to the 'no nonsense' chore of acquisition by rote. Philosophy for Children, however, offers much opportunity for children to restructure their own experience as well as the data of the novels.

Once data has been sorted and the pattern or principle of organization realized, the learner can go on to become more proficient in its use. The process of fine tuning this new idea or skill Norman calls tuning. It involves practicing this new organization principle or conceptual schema until its use becomes automatic: redundant steps are eliminated, short cuts are found, etc. The three processes of accretion, restructuring and tuning occur together in the course of learning (Figure 1). As one acquires facts, information, one is reorganizing them looking for some pattern, some link with what one already knows. Initially, however, more attention is given to the accretion of data than to its organization, but this gradually takes precedence as one engages in making sense out of the data in hand. As a pattern is formed it influences the acquisition of more data as one tentatively tries out new organizing principles or schema. With success comes confidence and one starts learning how to use it in new ways. One acquires what Norman calls strategic skills of knowing how and when to apply the new organizing principle. Thus practice increases proficiency until one automatically starts to view things from the perspective of the new organizing structure or schema.

This theory of complex learning as the interaction of three complimentary processes offers the foundation for a simple yet powerful theory of teaching. To conceive of teaching as facilitating learning requires that teachers view their task as that of engaging pupils in the three modes of learning--accretion, restructuring and tuning. The extent to which teachers neglect one of them is the extent to which they fail to facilitate learning and thereby become obstacles to pupil learning.

Philosophy for Children illustrates complex learning theory in action: reading the novel provides the stimulus and initial information (accretion phase) for subsequent restructuring in dialogical discussion. Manual exercises provide clarification and refinement of the leading ideas as well as opportunities for practice (tuning) to increase facility and proficiency in using newly acquired schemas with further instances. My own limited experience with Philosophy for Children has shown me instances of pupils applying some of their recently acquired perspectives in practical ways on the playground and at home. This testifies to the potential efficacy of the program. From the standpoint of complex learning theory, the strength of the Philosophy for Children program can be illustrated by contrasting it with "normal" classroom practice as reported by Neville Bennett and associated in England.

Bennett (1984) used Norman's theory to construct a category system of learning task demands which teachers make on pupils in the classroom. Tasks which involve pupils in the acquisition of new facts, skills, rules or procedures, so engaging them in the process of accretion, he called incremental tasks. Tasks which have pupils working with familiar material in order to discover, invent or construct a new way of looking at the data, so engaging them in the restructuring process, he called restructuring tasks. Tasks which develop pupils' strategic skills of how and when to apply the new restructuring principle or framework in unfamiliar contexts, he called enrichment tasks. Tasks which demand repeated and rapid application of familiar knowledge and skills to familiar settings and problems, so tuning and speeding up pupil response until it becomes automatic, he called practice tasks. These four types of tasks are derived directly from Norman's theory as illustrated in Figure 2. Bennett added a fifth type of task demand, that of revision, which does not emanate from Norman's theory but which teachers employ to minimize loss of learning or evoke earlier material as a foundation for learning new material.



Task categories in relation to the growth of knowledge modules.

Fig.2.

Reproduced from N.Bennett, C.Desforges, A.Cockburn & B.Wilkinson, The quality of pupil learning experiences, 1984. With kind permission of the publishers Lawrence Erlbaum Associates.

Bennett's team used this category system to study the quality of pupil learning experiences by noting the actual and intended learning task demands made of pupils by

their teachers (selected as 'better than average') over two school terms. The results tend to confirm Sandberg's claim. Approximately 60% of the task demands made were practice, 25% were incremental, enrichment (6%), revision (6%), and unclassified (3%) made up the bulk of the rest. The teachers almost entirely neglected the vital learning task of restructuring, which made up only 0.5% of the task demands. Since restructuring is a vital learning process catering directly for understanding, the teachers, by neglecting to provide for it in their planning and practice, it seems that these teachers assume that understanding will occur of its own accord if pupils are kept practicing (by rote?) long enough the knowledge provided in the incremental tasks. These better than average teachers are operating on the basis of a naive and erroneous theory of learning in their classroom practice. Likewise direct or explicit teaching, with its emphasis on presentation of material, albeit in small steps, with student practice after each step (Rosenshine, 1987), persists with the same erroneous view about learning.

The strength of Philosophy for Children can be seen, by contrast, in the emphasis it gives to the restructuring phase of the learning process. There is no empirical data available, but since dialogical pupil inquiry into the leading ideas generated from the novel form the instructional agenda for the class, much more than 0.5% of instructional time is devoted to restructuring. My own teaching experience and observation of other MAT students during practice teaching reinforces my belief here. In this regard, Philosophy for Children offers superior pupil learning experience to the usual classroom practice reported by Bennett's study. But while it seems strong on restructuring, Philosophy for Children appears weaker in the tuning phase, providing fewer practice tasks for pupils than the norm. In the MAT classes little provision is made for fine tuning or setting practice tasks for newly acquired schemas or perspectives. This may be because at this level; it is assumed that graduate students are already familiar and practiced in such schema. But little explicit attention is given to this learning phase in these classes, there is a very real danger that it will be neglected in practice in the elementary classroom. And this indeed has been my observation during practice teaching. Little systematic attention is given to what Dewey describes in Experience and Education as reflective review and summary of what has been experienced during class for the purpose of extracting the net meanings which are the capital stock for intelligent dealing with further experiences in subsequent activities. The MAT students tend to shift from one leading idea to another, frequently without using many exercises, and without eliciting from the pupils their impressions of what has been accomplished thus far to see just how many of them understand it.

In terms of complex learning theory, more explicit attention needs to be given to the tuning phase of the learning process. MAT and in-service courses would benefit from more deliberate concentration on the design and provision of practice tasks for the leading ideas.

Complex learning theory also underlies Fraenkel's IODE pedagogy (1973) with which Philosophy for Children may be usefully compared. He argues that not all learning activities serve the same function. Some provide for intake of information; these are essential since pupils must have information to work with or think about before they can be expected to engage in intelligent action. Intake activities, then, engage pupils in the process of accretion. Pupils must have data before they can do anything with it. But raw data must be organized and internalized in anticipation of being used--hence the necessity for a different type of learning activity which facilitates organization of information (the restructuring learning mode or process). A third type of learning activity helps pupils practice and demonstrate what they have learned (thus engaging them in the tuning mode or process). These three activities would involve Bennett's task demands of acquisition, restructuring and practice. Fraenkel's fourth type of activity, the expressive, serves to encourage pupils to use their new understanding in an expressive or creative way to produce some new or different product. This activity would combine elements of

Bennett's practice and enrichment task demands. Fraenkel argues that all four types of activity--intake, organization, demonstration and expressive (IODE), are essential if learning is to take place.

Philosophy for Children provides much opportunity to engage children in Fraenkel's expressive activities. Unfortunately, however, such opportunities are spoiled by counter productive pedagogy. I have in mind my experience in MAT seminars and observation during teaching practice of the Suki program. This program above all others is promoted as the writing program as it gives explicit attention to creative writing. Yet on the basis of the excerpt from the novel and maybe a poem or extract from a poem, pupils are asked to write their own creative piece of prose or poetry. In terms of Fraenkel's strategy, the instructional sequence is I-E, with no intervening O or D activities. In MAT seminars I was continually being asked to write a poem with no idea or help on how to do so. There was usually no attempt made at explicating the craft of poetry writing: poems were examined for meaning or "feeling" in preference to structure or strategy. Consequently any string of words or phrases was equally revered and accepted, promoting the (erroneous) view that writing poetry is an intuitive gift or art and as such must be revered and not evaluated, as a creative, sacrosanct, even incomprehensible, extension of the mysterious self. The whole process, as well as the product, is clouded in mystery--which I would have thought to be the antithesis of philosophy. If teachers of Philosophy for Children are going to have children appreciating and writing poetry worthy of the name, then let them provide children with Organizing activities which reveal how to do so, and try out (Demonstration) several productions to diagnose how well they measure up, before asking them to write their own. If Philosophy for Children is going to claim to be a worthy program then it must eschew poor pedagogic practice and avoid I-E sequencing.

Fraenkel's strategy and complex learning theory offers teachers a procedure and a rationale for designing a unit of work, be it one or several lessons in length. But this is still incomplete as a theory of teaching as it says nothing about the manner or mode of instruction. Pupils could simply be told the information and told the organizing principle they are to use, then given exercises to practice with. Such an approach is open to Sandberg's charge of creating obstacles to pupil learning because they are not actively engaged in the acquisition and organization learning processes. Fraenkel's approach can benefit by incorporating Bruner's notion of representation. Any idea, concept or information can be represented and/or presented in any one of three fundamental ways: enactive, iconic, or symbolic. These parallel Piaget's three fundamental stages of cognitive development: preoperational, concrete operational, and formal operational. Bruner (1966) recommends using all three modes of representation, and in the sequence enactive, iconic, symbolic to facilitate learning. Rather than telling and requiring that pupils listen, teachers, especially in elementary schools, should be matching the mode of representation or presentation to pupils cognitive development by emphasizing the use of enactive and iconic modes of designing learning activities. So when planning to teach any topic, the theory outlined above suggests that teachers proceed by designing intake/acquisition, organization/restructuring, demonstration/practice, and expressive/enrichment activities utilizing enactive, iconic, and symbolic modes of representation for each type of activity. In this way teachers can be assured that they are indeed facilitating learning and give a sound rationale for their plan and procedure.

In terms of pedagogic theory then, Philosophy for Children over utilizes the symbolic mode of representation and instruction. Iconic and enactive ways of representing the leading ideas are largely ignored. This being so, learning and understanding are made more difficult than need be. The sheer number, let alone time and expense, devoted to the production of icons (images) representing all manner of ideas by advertising companies, government and private agencies to communicate their messages testifies to the importance given to this mode of representation and presentation.

Likewise with the enactive mode: we can be told how to drive a car, operate a computer, word processor, microwave, blender, etc., but we get an entirely different understanding and appreciation when allowed to try it for ourselves and learn in the enactive mode. So why ignore these valuable modes of representation and learning for children? Philosophy for Children is sorely in need of Exercises for children which utilize these mode of instruction. As Matt says, advertisers can take something unimportant and jazz it up to make it seem glamorous and interesting when all they're advertising is a lousy bar of soap (Lipman, 1974). Philosophy for Children has much more to offer. My observation is that the heavy verbal (symbolic) emphasis loses and bores many children. Dialogue, more often than not, holds only the attention of the immediate participants; frequently the majority of the class are not engaged or following the interchange, which may give rise to the complaints similar to Matt's that I've heard, that school take subjects that are really very interesting (e.g., Philosophy) and teach it in such a way as to make it dull and boring. Iconic and enactive activities provide alternative ways of engaging more pupils at once as well as providing other types of stimuli for thinking. Besides, not all pupils are verbal thinkers. Too often the Philosophy for Children strategy of reading and discussion, requiring much listening, is reminiscent of the 'method of the ear' of which Dewey was so critical in The School and Society. Such a pedagogy treats experience as if it were something which goes on exclusively inside the individual's head, and to that extent, he warns in Experience and Education, is misleading and dangerous for the development of the child. If Philosophy for Children is to be a program for all, it must begin to cater more deliberately for the less verbal thinkers in the class.

From the perspective of complex learning theory and instructional strategy, Philosophy for Children measures up pretty well. I have suggested where improvements could be made, especially in the mode of instruction used. The program has much to gain by taking to heart Dewey's credo that the image is the great instrument of instruction and following his injunction (My Pedagogic Creed) to give more explicit attention to training children's power of imagery and seeing to it that they are continually forming definite, vivid and growing images of the leading ideas built into the materials.

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Age 8