

The New York City Reasoning/Thinking Skills Program

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PREFACE

The paper that follows is a report written in 1988 describing a city-wide program that was in effect in New York City from 1985 until 1988. It was intended for publication in a journal, The New York Supervisor which unfortunately ceased to exist during that year. The program described included twelve school districts at its initiation and resulted in a variety of projects which included: a Philosophy for Children project in three districts; a three year effort to integrate critical thinking into the reading, social studies and bilingual curricula in one district; a two year program to integrate thinking skills into a gifted and talented program in yet another; infusion of thinking skills into the reading program in two other districts; a mathematics curriculum for gifted middle school students, a science curriculum for junior high school students, a curriculum based on local history; a program for drop-out prevention; and a program to enhance critical thinking through a media center in five other districts.

Although it is impossible to gauge the final impact of these programs since the project was abandoned when a change in the administration of the School of Education at Queens College, CUNY resulted in the loss of interest in its continuation, it may still serve as a model for a system-wide collaboration between the schools and the university that is rare if not unique.

I am grateful to the editors of Analytic Teaching for the opportunity to present the following to its readers.

The recent interest in developing reasoning and thinking skills in schools expressed itself in New York City in a variety of ways. In response to the New York State Board of Regents guidelines and to the momentum of programs already in place, the Central Board of Education formed a Reasoning Skills Unit to initiate and coordinate thinking skills efforts throughout the system. The purpose of this paper is to describe one of its main projects: The Reasoning/Thinking Skills Program. We believe that this program reflects certain essential aspects of the theoretic and practical realities that must be taken into account if the teaching of higher order cognitive skills is to succeed. We offer this description as a model for others to consider.

I.

The Reasoning/Thinking Skills Program (RTSP) initiated during the school year of 1985-1986 was the joint effort of four kinds of major educational institutions, working together to address the central issue of developing educational strategies to incorporate reasoning and thinking skills instruction into the widely varying contexts that constitute education in a large urban area. The four institutional structures reflected the differing hierarchical functions and perspectives within New York City: the state, the city, the local community and the university. RTSP was a joint project of the Division of Curriculum and Instruction of the City of New York, directed through its Reasoning Skills Unit; the Reasoning Skills Project, a unit within the School of Education at Queens College, CUNY and a consortium of Community School Districts rep-

resenting a wide variety of educational contexts within the city. The program relied for the bulk of its funding on the New York State Department of Education's support of innovative programs through the City-Wide Umbrella Bureau. Each of these afforded a unique perspective reflecting the insights and attitudes characteristic of their respective domains. Together, they took as their goal the development of educational policy and strategies that would enable cognitive growth to occur in all pupils and throughout the curricula. This focus on thinking and reasoning skills ranges across the forms of cognitive education, from programs addressing corrective and remedial needs, to the higher order skills characteristic of educational enrichment programs.

RTSP was developed as a response to our perception of the diversity inherent to recent trends in cognitive education. It became increasingly apparent to us that there is little concordance as to what the cognitive goals of education should be or as to what the most appropriate means are for addressing the goals chosen within a given educational milieu. Available thinking skills programs range across a broad and widely differing terrain. There is little resemblance between, for example, Feuerstein's program Instrumental Enrichment (Feuerstein, 1980) and, say, Lipman's Philosophy for Children (Lipman, et. al, 1980). Further, pedagogical strategies that are strongly advocated are as different as the direct instruction of micro-logical skills (Beyer, 1985) and the molar dialogical approaches favored by others (Paul, 1984, Sadler and Whimby, 1985). Such contrasting stances are presented as desirable or even necessary to the stated ends of the authors and of particular programs. Additional dichotomy is apparent in the general profile of programs; consider the process oriented approach to the reconceptualization of curriculum in Renzulli (Renzulli, 1977) in contrast to the specific thinking skills content found in the texts published by Midwest Publishers (Baron, 1985) or to the careful elaboration of aspects of cognitive processing found in the Structure of Intellect (Meeker, 1969). Some approaches, for example, Mastery Learning (Block, 1974) require teachers to learn a theoretic framework and then design class materials based on standard content but reflecting their newly enriched awareness, others, like Strategic Reasoning (Glade and Citron, 1985), encapsulate a theory in a total program that is furnished to teachers and is classroom ready after a minimum of training. The RTSP addresses this diversity by setting up a procedure that offers maximum assistance to professional educators best situated to make the choices that reflect the

many responsible goals and means recommended for the achievement of cognitive development.

At the core of RTSP is the view that the Community School District is best able to determine the goals towards which educational programs in thinking and reasoning should aspire. We believe this for two main reasons. First, it is the Community School District that is directly aware of the specific and concrete contexts within which education takes place. Not only the student population, but parents, teachers and administrators define the set of realities within which educational innovation takes place. Thinking skills programs, extending beyond minimum curriculum concerns, impose on all engaged in the effort new demands of awareness and competence. Program choices must reflect the realities that will determine how these extra burdens can best be addressed. The Community School District is most aware of the weaknesses and strengths of faculty and the philosophies of administrators, and so RTSP turns to the individual districts as the final arbiter of where and how educational innovation is to be implemented. Second, it is the Community School District that reflects the aspirations of the community which it serves. The individual districts are responsible for assessing the appropriate goals to which an enrichment program is to be addressed and they are situated so as to be the best informed as to which methods will be most compatible with the perspectives and educational philosophies of those upon whom the success of new efforts relies: teachers, administrators, parents and students. That is not to say that central authorities, whether city or state, are not appropriate forums where minimal standards or even specific policies may be defined. Rather, the claim is that given the enormous breadth of the options currently available on cognitive skills education and the concomitant lack of uniformity among experts in the field as to goals and strategies, educational innovation should reflect the diverse particulars of the school communities and the practical insights of those most closely linked to the day to day evaluation of curriculum innovation and approaches towards staff development. Central uniformity requires a clear basis in accepted theory. Diversity among the experts in a field points to the need for broad ranging experimentation. But such experimentation, to be educationally defensible, must be carefully constructed to reflect the best interests of the students who participate. Such interests must be seen in the concrete conditions of education, and so become the responsibility of those closest to the scene who have the power to initiate innovation.

District based innovation works best within a collaborative relationship that includes the Central Board of Education and the state, for it is from these that basic policy and continuing support is generated. In New York City the creation of a Reasoning Skills Unit by the Board of Education, Division of Curriculum and Instruction reflected an ongoing commitment to reasoning and thinking skills development. The close association of this unit with curriculum specialists in all of the major curriculum areas, with experts engaged in the education of special children, whether gifted or in need of remedial attention, and the availability of experienced writers and curriculum developers, all offered the necessary knowledge and skills that can turn educational needs and goals into concrete practices. Such a collaborative effort should also include the University with its commitment to theoretical understanding, research and critical evaluation. Without such a broad and impartial perspective educational innovation risks superficiality.

II.

The Reasoning/Thinking Skills Program organizing these educational groups into a working consortium, functioned in the following fashion. The first stage of the program required that Community School Superintendents select a team of five to ten key staff members who will be responsible for constructing the District proposals. These proposals, after consultation and approval by the Superintendent and the Community School Board, constitute the Districts initial effort in thinking skills education. These District teams attended, on a borough wide basis, seven weekly half day seminars conducted by the Director of the Reasoning Skills Unit. These seminars offered the District teams a rich background in the literature that defines recent and classic trends in cognitive skills development. Through interactive meetings, the members generated the information base upon which sound decisions can be determined. This enabled them to begin to sharpen their own responses to the field, responses formed within the crucial context that they know best, the educational realities and ideals that the various Districts represent. After a brief, but extensive, three meeting introduction to theory, the District members began to explore available approaches. Based on a review of the field and with special emphasis on programs that have had some success in New York City, we selected the best available approaches representing the work of curriculum developers as well as school based initiatives. We invited representa-

tives of major curriculum developers to attend and present their materials. These included, Strategic Reasoning (Glade and Citron, 1985), Instrumental Enrichment (Feuerstein, 1980), Odyssey (Wright, 1985), CoRT (de Bono, 1980), Philosophy for Children (Lipman, et. al., 1980) and Structure of Intellect (Meeker, 1969). We invited school and central board staff experienced in the Renzulli Triad (Renzulli, 1977), Talents Unlimited (Schlicter, 1981) and Mastery Learning (Block, 1974). Programs designed by school staff, including programs in writing, mathematics and science were represented by teachers and supervisors. These meetings gave the District teams the opportunity to discuss the approaches with the presenters, including the problems peculiar to the particular cognitive skills development model presented. Previous experience with many of these, as well as a careful preparatory exploration through readings and pre-session packets, enabled these encounters to be extremely fruitful. In with these materials were samples of various alternative approaches, including the work of the California and Vermont State Boards of Education, Project Impact from Orange County California (Winokur, 1985), the University of Massachusetts/Boston (Swartz, 1986) and the Shorham-Wading River Cognitive Level Matching Program (Brooks and Fusco, 1984). Samples of curriculum material and especially materials appropriate to school subject areas were made available to participants.

After this intensive overview of the field, RTSP turned to its second stage. The District teams began to develop draft proposals that reflect their mature understanding of the field, an awareness of the options available and a dialectically enriched appreciation of the goals and needs of the pupils they represent. This period of proposal writing was done by each District's team individually. The university liaison supported each District team as did staff from the Division of Curriculum and Instruction. Model proposals were compared or even shared, permitting more efficient as well as more adequate programs to be defined. Additional meetings with program representatives and with specialists from Queens College and the Central Board of Education were arranged as required, as were inter-visitations to Districts in which effective programs were already in place.

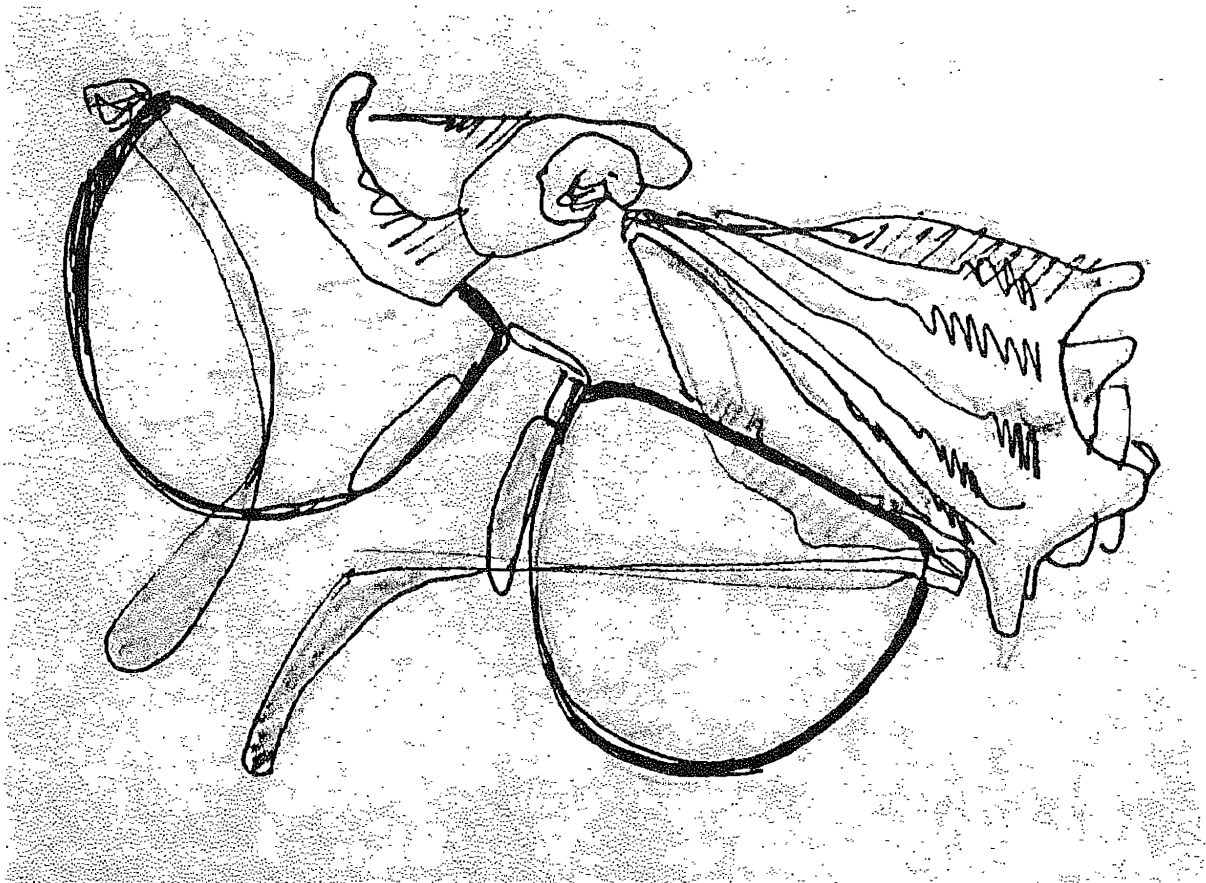
III.

Before we turn to an examination of the third and fourth stages, the implementation of the various district proposals, a word about the ratio-

nale behind the process. Earlier we spoke of the theoretical and principled concerns that motivated the RTSP program design, but there is an additional pragmatic issue that determined our overall strategy. Educational innovation, especially when university based, frequently has the character of "guerilla warfare". Teachers are exposed to innovative strategies in courses that they take; they then implement them, if they can, in their classrooms. But since the Populations enrolled in college courses are promiscuously drawn from whoever elects to register, teachers influenced by university based on innovation are, most often, thinly dispersed throughout the educational system the university services. Innovation on such a model is, if not surreptitious, outside of the mainstream of educational practices in the school. Individual teachers, influenced by research and significant theoretical advances, can make a difference, but frequently that difference is seen as irrelevant to normal school procedures, or worse, as threat to administrators who have primary responsibility for leadership. RTSP begins at the level of central leadership, using the university to raise the educational consciousness of those designees who, as representatives of the

District, have the authority to make innovation the basis for centralized change.

This raises two issues. The first is the cost to the District of the time and energies of key staff members, many of whom are responsible for a number of educational programs. The second is the alienation of teachers from programs that are imposed on them by central authority. RTSP uses the first as a filter to guarantee the seriousness of participating Districts and responds to the second in the structure of the third stage design. By requiring Districts to select teams composed of staff that is essential to the sound educational functioning of the schools that it oversees, RTSP limits participating Districts to those for whom reasoning/thinking skills are a real priority. This, for example, resulted in the withdrawal, at the second level, of two of the twelve Districts. Both of these districts decided that the cost in staff time was not compatible with other educational priorities. Such an outcome is consistent with RTSP philosophy. For we would rather that a District not implement a new and possibly controversial addition to its educational offerings, than engage in a halfhearted and potentially self defeating program whose



failure will limit the District's future willingness to explore thinking and reasoning projects. For those that continue, the next levels of the process have a completely different character, one that addresses the second issue of teacher alienation from centrally imposed innovation.

Districts that decide to engage in the ambitious task of curriculum design are counseled to begin with a narrowly defined focus, frequently as limited as a curriculum area and a grade. This permits the District process to be assigned to the member or members of the team that have that curriculum area as their specialization, limiting the need for continued participation by the high level staff involved in the first two stages of the program. The member chosen to oversee this third stage of curriculum design is not, however, seen as working on a private project, incompatible with the views of the other members of the District team, for the program design is the result of the considered opinion of all of the members designated by the District. In this fashion the basic concept of District involvement and compliance is implemented, but without the active participation of most of the original team, now freed to concentrate on their other duties.

The team member chosen to oversee the curriculum development process had been chosen for his/her active interest in the area to be concentrated on. In most cases another requirement was easily met. The person who had the responsibility of directing the curriculum effort is usually someone who has had experience with innovative curriculum and staff development projects in the area of concentration. This enabled him/her to draw on previous experience with district teaching and administrative staff when selecting a team of curriculum writers to do the actual curriculum design. Such a selection of participants helped guarantee that teachers will be among the most experienced and committed staff available and that their Principals will support their efforts by arranging schedules to accommodate program needs.

The District proposals varied considerably. Of the ten remaining districts three selected a minimal response, participation in already existing staff development structures. Of the others, proposals tended to fall into two categories. The most ambitious districts elected to integrate thinking skills into standard curriculum areas through the development of appropriate support materials. The other, most frequent choice, was to accept an already developed curriculum model for infusion into the District's educational offering, but to monitor it carefully and tailor it to specific curriculum aims and administrative reali-

ties. Both of these options required general strategies to be defined and technical assistance from the Central Board and Queens College to be continued.

Third stage support included the continued participation of the university liaison to assist in the writing and editing of curriculum. Additional models are made available. In our case the recent efforts by Sonoma State University (Paul et. al, 1986) and the outline of the HOTS program (Quellmalz, 1986) proved invaluable as an addition to the various programs already cited. Along with the university support of the writing teams, the continued involvement of the Central Board staff enabled projects to reflect the most informed curriculum models available from the city and state. Thus RTSP remained a coordinated effort designed to maximize the likelihood that results will be appropriate to real school settings.

In all districts the writing teams were primarily made up of teachers, although principals and assistant principals were also involved both as writers and designers of appropriate standards for supervision. These teachers were selected for their interest, experience and skill, but they are, nevertheless, regular classroom teachers. In this fashion RTSP guarantees that the materials designed reflect the perceptions and practices of the actual classroom settings in which they will be employed. Not only does teacher designed curriculum result in appropriate and workable models, it also serves as an example to other teachers. Teachers as curriculum designers raise the professional profile of the teacher. Other teachers seeing what has been done can engage in similar efforts. The curriculum is offered, not as a finished product, but rather as an example to other teachers of the sorts of activities that can strengthen the cognitive development of their pupils. The model is of an evergrowing body of materials and procedures that constitute a broadening and deepening commitment to teaching for thinking.

In order to accomplish the task of ultimate diffusion of reasoning/thinking strategies, the curriculum writing process must include staff development and monitored inclass applications. This is the fourth stage of RTSP. The writing team, composed of classroom teachers, utilized the curricula they develop in their classrooms. This was monitored by the university liaison, central board staff and involved administrators. In addition a second group of teachers participated in this process. This group received training in the materials developed including inclass support. Materials were thus tested by teachers not involved in the original writing process. These

teachers suggested changes in the curriculum, as well as commented on the effectiveness of the staff training models employed. In this way the materials were tested and refined in response to actual classroom needs. By the end of stage four, curriculum had been designed, had been tested by two groups, and a staff development model had been employed and its adequacy verified. But most importantly, a second group of teachers had now been involved in the process. From among this group an additional district resource could be constructed. This second group included at least some teachers who can become inhouse developers for a second round of curriculum refinement and staff development in their schools.

The RTSP functioned in three ways: top down development, insuring that basic policy decisions are supported by District administration; bottomup teacher generated curriculum to maximize the appropriateness of curriculum approaches to the actual classroom settings within the district and finally, horizontal diffusion—a growing pool of teachers that can demonstrate the effectiveness of reasoning thinking strategies and serve as a model in their schools for the increased involvement of additional school staff.

As the perspectives and needs of the various Districts are made known, the university begins to generate assistance for programs in in-service teacher training. At every stage university programs are designed to reinforce and complement whatever staff development efforts are available in the Districts, through the Central Board or by independent program developers. All program participants are granted graduate credits for their efforts. The cost to the Districts for the services of the university liaison covers tuition costs for independent study courses whose goals are the various substages of the RTSP. As the program broadens the University responds by offering specialized courses in reasoning and thinking skills instruction. As the schools structure cognitive skills objectives into their regular curriculum, pre-service courses in reasoning and thinking skills can be added to education course offerings as a long range response to the need for professional training in the area of cognitive development. Thus the university serves as the basis for the educational revolution that is at the heart of the recent interest in teaching for thinking.

At every level careful evaluation of curriculum, pedagogical strategies and finally student outcomes gives the District reassurance as to the effectiveness of the techniques employed or as to the need for reevaluation and redesign. The growing interest and the continuing educational

services offered by the university, continuously adds new ideas to the resources available. In addition, the centralized nature of the process enables districts to coordinate their efforts and compare models. Since the approaches vary both in style and in the curriculum areas addressed, programs can be shared and built upon. The efforts of each can become lessons for all.

The RTSP begins with a number of basic assumptions. The first is a commitment to the development of cognitive skills in pupils at all achievement levels and throughout the curriculum. The second is the belief that the diversity of approaches to reasoning and thinking skills education is intrinsic to the complexities of what reasoning and thinking are, as well as to the diversity of school populations—teachers, administrators and students. Third, that the individual school Districts are best aware of the specific needs and goals of the communities they serve. Finally, that the Central Board of Education and the University have a vital role to play in providing direction, expertise, technical assistance and continued educational support to Community School District efforts. RTSP tries to address the realities and ideals that these assumptions reflect, thereby enabling a deep commitment to quality education throughout the development of cognitive skills to become an integral and durable part of education for all students.

POSTSCRIPT:

In confronting the publication of the foregoing I was struck with how much my views have changed during the intervening years. In particular my emphasis on curriculum "packages," programs designed by specialists to be "add-ons" to the regular curriculum, has radically changed. I no longer recommend the purchase of already existing curriculum packages, with the exception of Philosophy for Children, and instead strive to help teachers to redesign the existing curriculum so as to achieve objectives consistent with critical thinking as an education ideal. My emphasis is on affording teachers a framework for analysis and implementation, and to help them to construct classroom interventions that reflect the particulars of their schools, their subject matter and their students. How had I moved to this position?

In part my change of perspective was a result of my becoming a member of a graduate faculty in education and having the leisure to work with teachers within the context of a course for an en-

tire semester. My in-service work could draw on my experience as a teacher educator, and thus I felt more confident in dealing directly with the extent school curriculum. But this is only part of the reason for my changing views. RTSP itself offers the remainder. Although the initial period of the program included the presentation of many curriculum packages, few if any of these were selected. With the exception of Philosophy for Children, most districts elected to infuse thinking skills directly into the curriculum. This set the standard for my later expectations working with teachers. But there is still more.

The experience of working with district staff helped me to see that the most essential experience in critical thinking was not to be found within the particular programs themselves, but rather in the task of understanding, assessing and modifying the approaches that the individual packages represented. The thinking skills most relevant to the district staff were those skills needed to identify what in which programs is most relevant to their educational concerns. This is a significant lesson. The most important critical thinking for educators to master is thinking critically about their own educational practices and the options available to them as educators. This is a far cry from the recent emphasis of expert driven "teacher-proof" curriculum that are to be delivered intact to students by teachers who have little or no role in the design of the curriculum itself. My experience then, and my work since, has pointed to the need to professionalize education by turning the responsibility for curriculum development and assessment back to administrators and teachers. The RTSP afforded my first movement in this direction. It is still relevant to the extent the thinking skills is seen as something to be given to teachers by "training," rather than as the result of professional education that helps teachers to think reasonably about the essential tasks that they have the expertise and obligation to perform.

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