

## THE CONCEPT OF TEACHER AUTONOMY IN CURRICULUM MATERIALS: AN OPERATIVE INTERPRETATION

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Teachers have been required to play alternative roles in the implementation of curricular innovations.<sup>1</sup> They have been viewed as faithful transmitters of curricular ideas introduced into schools from outside agencies.<sup>2</sup> Another view recognizes the considerable influence teachers have on the implementation of curricular ideas.<sup>3</sup> Yet a third approach to the interaction between teachers and materials, using a mutual adaptation perspective,<sup>4</sup> assumes teachers to be full partners in the process of curriculum development as "user-developers"<sup>5</sup> and as creative interpreters of curricular guidelines and materials.<sup>6</sup> In various circumstances, teachers are expected to function either as autonomous consumers of ready-made curriculums or as producers of their own curriculums.<sup>7</sup> Schwab claims that teachers must be involved in deliberations and decisions about what and how to teach.<sup>8</sup> If teachers are to act as

<sup>1</sup>F. Michael Connelly and Miriam Ben-Peretz, "Teachers' Roles in the Using and Doing of Research and Curriculum Development," *Journal of Curriculum Studies* 12 (April-June 1980): 95-107; Michael Fullan, *The Meaning of Educational Change* (New York: Teachers College Press, 1982).

<sup>2</sup>W. James Popham, "Validated Instructional Materials as the Focus of Effective Curriculum Development Strategy," in *Strategies for Curriculum Development*, ed. Jon Schaffarzick and David H. Hampson (Berkeley, Calif.: McCutcheon, 1975), pp. 89-103.

<sup>3</sup>Paul Berman and Milbury McLaughlin, *Federal Programs Supporting Educational Change Volume VII, Factors Affecting Implementation and Continuation, Volume VIII, Implementing and Sustaining Innovations* (Santa Monica, Calif.: Rand Corporation, 1977, 1978).

<sup>4</sup>Michael Fullan and Alan Pomfret, "Research on Curriculum and Instruction Implementation," *Review of Educational Research* 47 (Spring 1977): 335-397.

<sup>5</sup>F. Michael Connelly, "The Functions of Curriculum Development," *Interchange* 3 (Nos. 2-3, 1972): 161-177.

<sup>6</sup>Miriam Ben-Peretz, "The Concept of Curriculum Potential," *Curriculum Theory Network* 5 (No. 2, 1975): 151-159; Miriam Ben-Peretz, Sarah Katz, and Moshe Silberstein, "Curriculum Interpretation and Its Place in Teacher Education Programs," *Interchange* 13 (No. 4, 1982): 47-55.

<sup>7</sup>Moshe Silberstein, "Curriculum Development in Israel in the Eighties: A Process of Dialogue between Teachers and Professional Developers" (Paper presented at the International Seminar on School Based Curriculum Development, Tel Aviv University, School of Education, Shefayim, December 1984).

<sup>8</sup>Joseph J. Schwab, "The Practical: 4 Something for Curriculum Professors to Do," *Curriculum Inquiry* 13 (Fall 1983): 239-265.

decision makers in curriculum implementation, they must understand the nature of the curricular innovation and the reasons for its specific characteristics.<sup>9</sup> Making teaching professional is often accomplished by claiming autonomy for teachers.<sup>10</sup>

Goodlad reports that teachers at all school levels believe they have a large measure of control over the choice of goals, topics, teaching techniques, and learning activities.<sup>11</sup> Jackson identifies autonomy as a central theme in teachers' perception of their profession. According to him, there are two main threats to teacher autonomy: an inflexible curriculum and external evaluation by administrative superiors.<sup>12</sup> Lortie, speculating on future changes in the teaching profession, states that teachers "will have to select from a growing number of options resulting from research and development and find ways to adapt and refine ideas and practices in light of their interests."<sup>13</sup> In spite of the widely accepted view on the necessity and desirability of teacher autonomy in curricular decisions, teacher educators in Israel demonstrate much confusion when asked to determine the operative meaning of autonomy for teacher competencies.<sup>14</sup>

This paper presents a framework for conceptualizing teacher autonomy in relation to the curriculum. Curriculum analysis that is guided by a conceptual framework articulating categories of teacher autonomy may provide a possible link between the notion of teacher autonomy and teachers' daily professional activities. The following components are suggested as part of the conceptual framework:

1. Awareness of the reasons leading to certain curricular decisions by the developers is essential if teachers are to exercise their own judgment on the validity of these decisions in their specific educational situation.<sup>15</sup> Thus, one category for analyzing curriculum materials to reveal teacher autonomy is information about developers' considerations and reasons for curricular decisions.

<sup>9</sup>Leah Adar and Seymour Fox, *An Analysis of the Content and Use of a History Curriculum* (Jerusalem: Hebrew University School of Education, 1978). (Hebrew)

<sup>10</sup>F. Michael Connelly, "The Functions of Curriculum Development," *Interchange* 3 (Nos. 2-3, 1972): 161-177; R. A. MacDonald and Kenneth A. Leithwood, "Toward an Explanation of the Influences on Teachers' Curriculum Decisions," in *Studies in Curriculum Decision Making*, ed. Kenneth A. Leithwood (Toronto: OISE Press, 1982), pp. 35-48; F. Michael Connelly and Miriam Ben-Peretz, "Teachers, Research, and Curriculum Development," in *Studies in Curriculum Decision Making*, ed. Kenneth A. Leithwood (Toronto: OISE Press, 1982), pp. 199-210

<sup>11</sup>John I. Goodlad, *A Place Called School* (New York: McGraw-Hill, 1983)

<sup>12</sup>Philip W. Jackson, *Life in Classrooms* (New York: Holt, Rinehart and Winston, 1968).

<sup>13</sup>Dan C. Lortie, *School Teacher: A Sociological Study* (Chicago: University of Chicago Press, 1975), p. 240.

<sup>14</sup>Moshe Silberstein, "Curriculum Planning in Teacher Education Programs—A Survey Report" (Jerusalem: Curriculum Division and Teacher Preparation Division, Ministry of Education, 1982) (Hebrew)

<sup>15</sup>Miriam Ben-Peretz, "Analysis and Comparison of Some High School Biology Curricula in Israel: Theoretical and Practical Considerations in the Process of Curriculum Development" (Ph.D. dissertation, Hebrew University, Jerusalem, 1977)

2 Curriculum developers may expect teachers to act as faithful implementers or as autonomous consumers and choice makers of externally developed curriculums. Teachers may also be expected to develop, to some degree, their own curriculum materials. Therefore, the expected involvement of teachers as partners in the curriculum enterprise, either as consumers of ready-made curriculum materials or as producers of their own materials, is another category in this analysis.

3 Teachers' professional credibility in the eyes of curriculum developers is a crucial factor in the potential partnership between curriculum developers and teachers. Professional credibility may be a necessary, though not a sufficient, condition for professional autonomy.

An instrument for curriculum analysis was devised on the basis of these categories. This instrument makes it possible to arrive at the Teacher Implementation Autonomy Profile (TIAP) of diverse curriculums. The major goal of this study was to identify what curriculum components are related to developers' views on teacher autonomy (in the curriculum endeavor) and how the developers express these views. More specifically, the objectives were

- to elaborate a conceptual framework and an instrument for curriculum analysis that identifies in curriculum materials (e.g., guidelines and teacher's handbooks) expressions of potential teacher autonomy and the teacher's involvement as a partner in curriculum development and use;
- to analyze and compare curriculums to determine their TIAPs;
- to suggest possible implications of the research for dealing with curriculum innovations in teacher education.

## METHODOLOGY

The scheme of analysis (TIAP) consists of the categories mentioned above.

### *Category 1—Information about Developers' Considerations and Reasons for Curricular Decisions*

In this category, the calculations of an overall information-level index, as well as the calculation of separate values of information level for different decision areas, are suggested. The index is expressed by the ratio of curricular considerations, found in the curriculum, to curricular decisions made by the developers:

$$\frac{\text{Curricular considerations}}{\text{Curricular decisions}} = \text{Information level}$$

Curricular considerations are defined as any reason or cause given for the curricular decisions found in teacher's guides or handbooks. The findings

are presented in two ways: On a continuum with a value ranging from 0 = no reasons given for the curricular decision to 1 = one or more reasons given for every curricular decision. The index numbers are expressed on a 5-degree scale, as well, using the following key: 0.01–0.20 = 1, 0.21–0.40 = 2, 0.41–0.60 = 3, 0.61–0.80 = 4, 0.81–1.00 = 5.

Each decision presented to teachers may be classified according to its appropriate area: content, instructional strategies, and contextual decisions. The following paragraph exemplifies curricular decisions pertaining to different areas of decision supported by related considerations.

(a) "We ought to give up some of the meaningful concepts because the assumed previous knowledge may be lacking" (from Civics—Junior High, p. 25). The decision whether to include certain "meaningful concepts" is a curricular decision pertaining to the area of *content* decision. The clause following the preposition *because* is the supporting reason. (b) "The detailed examples given in the student textbook aim to facilitate the process of learning for slow-learners" (from Civics—Junior High, p. 38). The curricular decision on whether to provide detailed examples in the student textbook pertains to the area of *instructional strategies*. The clause following the word *aim* reveals the supporting reason.

### *Category 2—Expected Involvement of Teachers as Partners in the Curriculum Enterprise*

Two aspects are suggested in this category: teacher opportunities for choice and teacher opportunities for developing curriculum materials.

*Opportunities for teacher choice incorporated in the curriculum* Teachers exercise their professional freedom of choosing elements in the curriculum. The category of choice relates to choices suggested by curriculum developers. The level of allocated freedom for choice is determined on a 5-point scale, taking into consideration the following descriptors for the range of choices explicitly offered to teachers:

- *Scope of choices.* The scope ranges from choice in emphasis on certain content in ready-made curriculum materials (1 on the scale) to choice of a whole package of curriculum materials within the framework of a given curriculum guideline (5 on the scale). For instance, teachers implementing the Bible curriculum program for elementary schools are supposed to focus on concepts and ideas according to their own preference. They are also supposed to select learning activities and units within the chapters, and they are provided with a limited option to choose among the chapters. In the physics-chemistry curriculum program, teachers enjoy limited freedom in selecting questions incorporated in the learning activities.

- *Number of opportunities for choice.* The number of opportunities for choice ranges from 1 = few to 5 = many.

● *Variability of choices.* Curriculums may differ on the kinds of choice suggested to teachers. They may limit or extend the suggestions to the content, modes of teaching and learning, sequences, allocations of time, or some other contextual variables. The variability of choices may be noted on a 5-point scale, ranging from 1 = only one kind to 5 = many kinds. For instance, the range of choices in the Bible program for elementary schools includes choices of content, choices among alternate teaching strategies (e.g., individual learning versus cooperative group learning), contextual choices (e.g., whether to teach the program parallel to certain chapters in ancient history), as well as choices in time allocation for teaching the units.

● *Guidance for choice.* Curriculum materials may or may not provide teachers with guidance on the choices they must make. The number of guidance notes found in the curriculum, as well as their presentation in graphic cues (e.g., specific signs indicating choice availabilities), is noted on a 5-point scale, ranging from 1 = few with graphic cues to 5 = many with graphic cues. For instance, the following sentences guide the teacher: "Working with groups you may wish to engage all of them in the same learning task or in different tasks. When and whether to choose one of the suggested options depends on your immediate goals and the teaching circumstances such. . . ." (Bible—Elementary Program, p. 7).

A composite assessment scale of the choices available to teachers in the curriculum considers all components mentioned above:

1 -----	5
Little teacher involvement in choices: narrow scope, few opportunities, limited kinds of choices, little guidance	Much teacher involvement in choices: wide scope, many opportunities, various kinds of choices, much guidance

A curriculum totally structured, with no opportunities for teacher choice, such as programmed materials, is assigned a grade of 0.

*Opportunities for teachers to develop curricular materials.* The level of anticipated teacher involvement in the development of curricular materials is assessed on a 5-degree scale:

- 1 = Teachers are expected to develop teaching aids (e.g., transparencies and other visual aids) to supplement ready-made curriculum materials.
- 2 = Teachers are expected to develop alternative learning activities.
- 3 = Teachers are expected to develop supplementary, small curricular subunits.
- 4 = Teachers are expected to develop new, large curricular units.
- 5 = Teachers are expected to develop all their curricular materials.

A curriculum without any explicit anticipation of teacher involvement in developing curricular materials is assigned a grade of 0.

*Category 3—Teachers' Professional Credibility in the Developers' Eyes*

Two aspects are analyzed in this category: teachers' image as subject-matter experts and teachers' image as pedagogic experts.

*Teachers' image as subject-matter experts.* The level of expression of teachers' image as subject-matter experts is noted on a 5-point scale using the following descriptors for the extremes.

1 = Very low credit is given to teachers' expertise in the subject-matter area. Elaborated, detailed background subject-matter information is provided to teachers. Detailed answers for questions included in student materials are found in the teacher's guides.

5 = Teachers are viewed as experts in the subject matter area. Only scientific references and bibliographies are included in the teacher's guides.

*Teachers' image as pedagogic experts.* The level of expression given to the image of teachers as pedagogic experts is noted on a 5-point scale using the following descriptors for the extremes:

1 = Teachers are viewed as lacking pedagogic expertise. Detailed didactic guidance, relating to every unit of instruction, is provided. Teachers are addressed in a prescriptive style.

5 = Teachers are viewed as pedagogic experts. Didactic suggestions are defined in broad terms; mainly in a general introductory chapter. Teachers are approached in a collegial, open style.

The development of the TIAP instrument included two stages. In the first stage, a pilot instrument was developed and applied to a Bible curriculum for the elementary school by four independent, skilled content analyzers. Categories in which interpersonal agreement was less than 75 percent were redefined. The descriptors were revised and elaborated until a basic line agreement was reached. A revised version of the instrument was developed and used in analyzing the six curriculums reported on in this study. The results were content-validated by two to three independent, skilled analyzers.

#### THE ANALYZED CURRICULUMS

Six curriculums were analyzed: one in physics-chemistry and one in mathematics for the junior high school level; two curriculums in the humanities, one in Bible studies for the elementary level and one in Bible studies for the junior high school level, and two curriculum projects in social sciences, one in civics and one in geography for the junior high school level. All these curriculums were developed in the late 1960s by central curriculum development bodies in the Ministry of Education and the Weizmann Institute. All are widely used in the Israel school system. All except one are intended to be taught in 20 to 30 lessons. The physics-chemistry project includes 60 planned

lessons. Each curriculum consists of student textbooks, teaching aids, and teacher's guides.

All teacher's guides have the same structure: a short introduction, about 3 to 6 pages long, followed by several chapters dealing specifically with the various components of the student materials. All introductions were analyzed, as well as a representative sample of the chapters in each teacher's guide. The curriculums investigated in this study represent the first wave of new curriculums in Israel developed in the late-1960s and still used in the schools today.

## FINDINGS

The report of the findings is divided into three parts: First, the information about developer considerations and reasons for curricular decisions conforms to Category 1 in the scheme of analysis. Second, the anticipated partnership of teachers in the curriculum enterprise and their professional credibility in the eyes of curriculum developers refers to characteristics presented in both Categories 2 and 3 in the scheme of analysis. A composite view of the TIAP refers to characteristics represented in the three categories forming the analytical scheme

### *Information about Developer Considerations and Reasons for Curricular Decisions*

Table 1 presents the information-level indices calculated for the investigated curriculums. The number of curricular decisions differs from curriculum to curriculum. The Bible curriculum project for junior high schools presents the fewest curriculum decisions. In this case, the teacher's guide consists mainly of background subject-matter information and offers relatively few curricular decisions. The physics-chemistry project presents the most decisions.

The overall information level index of the investigated curriculum projects ranged from 0.18 to 0.85 (1 to 5 on the scale). Most decisions were in the areas of content and instructional strategies, with only a few contextual decisions.

### *Anticipated Partnership of Teachers in the Curriculum Enterprise and Their Credibility from the Developers' Perspective*

Table 2 presents findings related to the expected involvement of teachers in curriculum implementation and their credibility as experts in the eyes of curriculum developers. The analysis of teacher's guides shows that curriculum developers expect teachers to act as choice makers rather than as participants in the development of their own curriculum materials. The values of teachers as choice makers ranged from 1 to 3.5. In three projects, no explicit expectations of teachers as developers of curriculum material were found. In three

Table 1. Information-Level Indices for Curriculum Decisions

Curriculum project	Decision		Decision		Decision		Total decisions	Overall index	Value on scale of 5
	Content	Index	Instructional strategy	Index	Contextual	Index			
Bible—elementary	36	0.83	38	0.85	1	1	75	0.84	5
Bible—junior high	15	0.86	18	0.55	3	1	36	0.75	4
Civics—junior high	38	0.18	25	0.20	2	0	65	0.18	1
Math—junior high	55	0.44	42	0.40	9	0.11	106	0.39	2
Physics-Chemistry—junior high	83	0.27	109	0.27	31	0.71	223	0.32	2
Geography—junior high	32	0.80	41	0.87	11	0.90	84	0.85	5

Note: The indices were calculated separately for decisions in each of the areas of decision making and compositely as an overall index of information level.

$\frac{\text{Curricular considerations}}{\text{Curricular decisions}} = \text{Information-level index}$

Value scale  
 0.01–0.20 = 1  
 0.21–0.40 = 2  
 0.41–0.60 = 3  
 0.61–0.80 = 4  
 0.81–1.00 = 5



**Table 2. Anticipated Partnership of Teachers in the Curriculum Enterprise  
(Values on a scale of 5)**

Curriculum project	Teacher image			
	Choice maker	Developer	Subject-matter expert	Pedagogic expert
Bible—elementary	3.5	1	2	3
Bible—junior high	2	1	2	3
Civics—junior high	1	0	1	1.5
Math—junior high	1	0	1	2
Physics-Chemistry—junior high	1	0	1	1
Geography—junior high	3.5	1	1.5	2.5

*Note* Columns 1 and 2 relate to Category 2 of the analysis scheme "expected involvement of teachers as partners in the curriculum enterprise." Columns 3 and 4 relate to Category 3 "teachers' professional credibility in the developers' eyes."

other projects, a low value of 1 was found. Teachers' credibility as pedagogic experts was moderate and ranged from 1 to 3; teachers' credibility as subject-matter experts was low, ranging from 1 to 2.

### *Teacher Implementation Autonomy Profile*

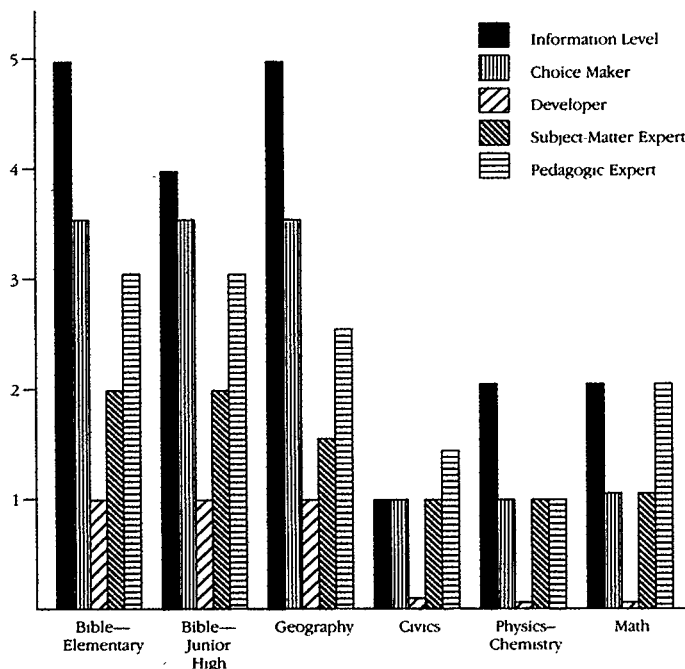
Figure 1 presents a composite view of the TIAP, as revealed by the analysis of teacher's guides in various curriculum projects. The profile of each curriculum is represented by the information-level index, teachers' anticipated partnership in implementation as choice makers or developers, as well as their credibility as experts in subject matter and pedagogy. Figure 2 presents the autonomy profile on each separate category. The values of the analyzed curriculums are presented comparatively, and trends are discernible.

## DISCUSSION

The combination of data in a composite TIAP allows some conclusions on the various curriculum projects studied. In spite of the differences between these projects, each reflects common tendencies. These curriculums represent a generation of curriculum development based on common assumptions and a shared curricular approach.

As anticipated, in the context of external curriculum development, teacher involvement in the curriculum emphasizes choice making rather than production of curriculum materials. Therefore, a clear distinction exists between two clusters of curriculums: those with higher expectations of teacher autonomy and those with lower expectations. The first cluster consists of one geography and two Bible curriculums whose accumulated values on the five categories ranged between 12 and 14.5, the accumulated values of the other three curriculums ranged between 4.5 and 6.

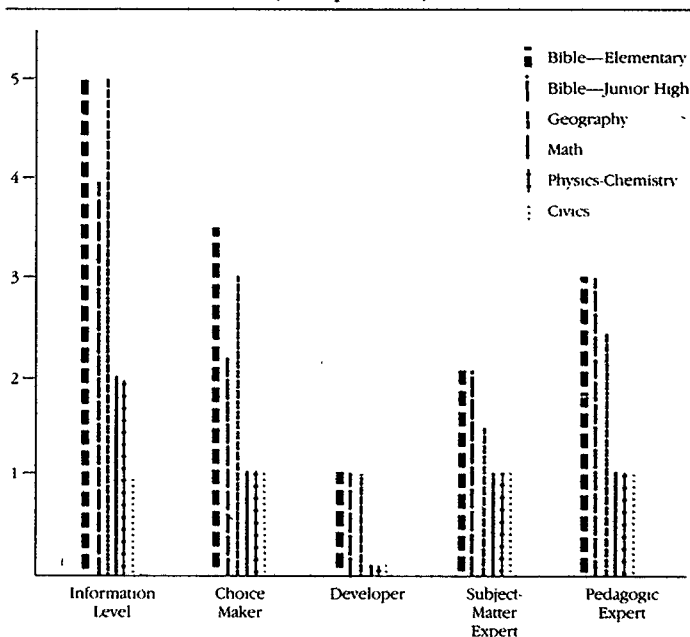
**Figure 1. Teachers' Implementation Autonomy Profile in the Analyzed Curriculums (on a 5-point scale)**



### *Information-Level Index*

The values on a 5-point scale ranged between 1 and 5 for different projects. For three curriculums, low indices were determined. In these projects, developers show little inclination to share their deliberations on, considerations about, and justifications for curricular decisions with teachers. These three projects—math, physics-chemistry, and civics—were among the first new curriculums developed in Israel in the late 1960s. Curriculum developers presented teachers with detailed explanations on how to implement the curriculums but apparently did not see the need to reveal to teachers the reasons behind their own curricular decisions. The developers may have assumed that the teachers would welcome the new curriculums because, in the late-1960s, the prevailing view was that existing syllabi and programs

Figure 2. Autonomy Trends in the Analyzed Curriculums  
(on a 5-point scale)



needed to be replaced with new, updated, and professionally constructed curriculums.

A different picture emerges from the analysis of the two Bible projects and the geography curriculum. The developers of these projects provided teachers with many of their considerations and reasons for curricular decisions. Does this situation reflect the curriculum developers' different stance on teachers and their role as partners in curriculum decision making? Our attempt to answer this question highlights the difficulty of interpreting the data. We assumed that a high information level index allows teachers to adopt a more reflective, critical stance toward the externally developed curriculum, making more informed and defensible decisions on curriculum implementation. In short, we tend to interpret such a high index as reflecting developers' intentions to promote teacher autonomy in curriculum matters.

But this interpretation may not be true. Interviews with the respective curriculum developers revealed that their intentions in providing teachers with insights into the process of curricular deliberations were different from what we expected. The three projects with high information indices intended to introduce innovative instructional strategies, such as discovery and inquiry learning. Curriculum developers thought that sharing their curricular considerations with teachers was a valid way of convincing them of the worth and importance of these innovations.

Yet interpreting a high information index as being conducive to teacher autonomy is still a valid possibility. Any curriculum, the product of a developmental process, can be viewed as the end product of a creative process, independent of developers' intentions.<sup>16</sup> A curriculum project that shares with teachers the basic assumptions, deliberations, and considerations of its developers allows teachers to become reflective critics of the product itself. The potential of the curriculum to be used autonomously is thus heightened. We must inquire into teachers' perceptions of the different projects, as well as into their actual use of the curriculums, to find out which interpretation is closer to the reality of implementation practices.

Figure 1 shows that the three curriculum projects with a high information-level index also have relatively high values in other areas considered related to teacher autonomy in curriculum implementation—for example, opportunities for choice incorporated in the materials. This situation may be a synergistic factor in an accumulating effect of more openness toward involving teachers as partners in the curriculum enterprise.

### *Teachers as Choice Makers or Developers*

The evidence of the investigated curriculums shows a tendency toward viewing teachers as choice makers.<sup>17</sup> Two distinct groups of curriculums can be distinguished: a cluster of three projects with higher values (two Bible projects and one geography project) and a cluster of three projects with lower values (physics-chemistry, math, and civics). In the first group, the scope and number of choice opportunities are much higher than in the second.

In contrast to the relatively positive view of teachers as choice makers, which is explicitly expressed in the projects, we found a different approach to teachers as developers and producers of curriculum materials. Even the projects that reflect an open stance toward teacher partnership in the curriculum offer only a few opportunities for teachers to create their own materials. In the geography project, teachers are invited to construct "openings" to lessons instead of relying on developers' suggestions. In the Bible projects,

<sup>16</sup>Miriam Ben-Peretz, "The Concept of Curriculum Potential," *Curriculum Theory Network* 5 (No. 2, 1975): 151-159.

<sup>17</sup>F. Michael Connelly, "The Functions of Curriculum Development," *Interchange* 3 (Nos. 2-3, 1972): 161-177.

teachers are invited to develop an activity dramatizing one of the Bible stories. The developers of all six curriculums seemed to adhere to the approach that curriculum development must be carried out by professional, centralized agencies, not left in the hands of teachers.

There is no ground for assuming an inherent contradiction between the process of external development of curriculum materials and the involvement of teachers, who are to use these materials, in the actual creation of units. There are many ways to produce "half-products," allowing teachers to create parts of the curriculum on their own. Yet, though it is practically possible to combine centralized curriculum construction with development tasks allocated to teachers, the phenomenon is rare in Israel.

There is some evidence that the teachers have high expectations that curriculum materials will provide alternatives.<sup>18</sup> Dori has reported on similar findings among science teachers.<sup>19</sup> They overwhelmingly (94 percent of the respondents,  $N = 113$ ) rejected the option of producing their own materials and preferred ready made curriculums with elaborated alternatives for different levels of learning abilities. It may be of interest to further investigate the question of whether curriculum materials that adopt a view of teachers as choice makers tend to satisfy teacher expectations or whether teacher expectations somehow respond to the characteristics of prevailing curriculum materials.

### *Teachers as Experts*

The data (see Figure 2) leave the impression that curriculum developers do not think highly of teachers' expertise in the subject-matter area or in the pedagogic domain. Still, teachers seem to have greater credibility as pedagogues than as subject-matter experts. The differences between the two groups of curriculum projects is noticeable. All teacher's guides contain detailed answers to student questions, as well as background information on the topics to be learned. This format may be part of the accepted structure of teacher's guides at the time of development.

In the projects that seem to be more open to teacher involvement, other components present, such as reference lists, can be viewed as an expression of the perception that teachers are familiar with resource materials in the subject-matter area. Still, the interpretation of data is complicated. Thus, the geography teacher's guide provides detailed answers to students' questions as well as reference lists for teachers. The reference lists may signify the developers' reliance on the teachers' expertise in the subject-matter area. But giving teachers all the answers to students' questions may reflect the devel-

<sup>18</sup>Miriam Ben Peretz and Pinchas Tamir, "What Teachers Want to Know about Curriculum Materials," *Journal of Curriculum Studies* 13 (January-March 1981): 45-53.

<sup>19</sup>Eli Dori, "Two Interpretations of Teacher Autonomy" (Jerusalem: Israeli Curriculum Center, 1982) (Hebrew).

opers' lack of confidence in the teachers' knowledge. Interviews with developers revealed that they had included the references because of their perception that teachers lacked so much subject matter knowledge that, beyond the limited background material presented in the guide, teachers had to be steered to additional proper sources. In this category, it is easier to arrive at conclusions if the curriculums are characterized by either one of the poles of the descriptors.

It seems natural that teachers' credibility as pedagogues is higher than their credibility as subject-matter experts. General statements related to instructional strategies, written in a collegial, open style, are found in the teacher's guides. For instance, in a geography guide, the following statement is directed at the teacher. "Thank you for reading patiently about things that are generally known by every teacher." The two Bible curriculums contain a mixture of features, and general statements are accompanied by detailed prescriptions of how to carry out instruction in the classroom. The more general statements, which appear mainly in introductory chapters, may be meant to serve as an integration of the more specific comments throughout the guide. Again, teachers' interpretation of the messages transmitted by the curriculum materials probably determine their implementation practices.

### *Some Implications of the Study*

Curriculum development in Israel is moving from a centralized approach to greater involvement of teachers in the process. Curriculums that follow this tendency must be more open to teachers as partners in the development processes. The conceptual framework and methodology presented in this study may serve curriculum developers by casting light on their practices in the realm of teacher involvement. Teacher-education programs could benefit from curriculum analysis that focuses on the teachers' image in the curriculum, using the TIAP findings as an additional data source, in deciding on the content of teacher-education programs.

The findings of the content analysis of the six curriculums, which may be regarded as a representative sample of the commonly used ones in Israel, indicate clearly that the teacher image reflected in those curriculums is an image of a critical-rational consumer of ready-made resource materials. Teachers are expected to make choices and to critically use the resource materials in planning their instructional plans. There is a tendency (expressed more strongly in three of the six curriculums) to inform teachers about the considerations ultimately behind the production of the suggested learning activities in the materials. Teachers also get a great deal of assistance with subject-matter background materials, as well as didactic guidance. Conversely, teachers do not have expectations that they should produce their own curriculum materials as primary sources for instructional planning.

How does the teacher image revealed above actually relate to teacher-education programs? Reviewing teacher-education programs in 30 teachers

colleges in Israel, Silberstein concludes that few instructors of student-teachers incorporate activities into their courses that involve using ready-made curriculum materials. Thus, the instructors neglect the opportunity to cultivate choice-making competencies.<sup>20</sup> Katz reports that most of the teachers and instructors of Jewish studies in teachers colleges in Israel rejected the idea of incorporating any ready-made curriculum materials in their courses, arguing that teacher-preparation programs must aim at preparing teachers who demonstrate competencies in producing their own curriculum materials. In their view, "supplying teachers with ready-made materials is like supplying them with crutches that will prevent them from walking on their own feet."<sup>21</sup>

Therefore, in Israel, a serious gap exists between the image of teachers as reflected in the commonly used curriculum materials and their image as envisioned by teachers' educators and embodied in their teacher-education programs. Goodlad reports on a similar phenomenon in the United States.<sup>22</sup> He calls for closing the gap in teacher-preparation programs by paying more attention to the relationship between the nature of learning and the nature of specific subject-matter domains. This issue was of great interest among curriculum reformers in the 1960s, but it did not find a solid place in teacher education. The innovative curriculums of the 1960s are already fading away, and their innovative characteristics have not been implemented in teacher-preparation programs. In Israel, though both the curriculum developers and the teachers of teachers adhere to the concept of teacher autonomy, clearly the two groups' interpretation of this concept differs.

The conceptual framework suggested in this study and the findings yielded by using the TIAP instrument may contribute an operative interpretation of the concept of teacher autonomy, thus making possible a deliberated, orchestrated effort toward introducing pedagogical and policy innovations, such as teacher autonomy, into the educational system. This background recently prompted the Teacher Preparation Division of the Ministry of Education in Israel to launch a project to encourage teachers colleges to incorporate in their programs special materials oriented toward educating teachers to become autonomous, critical consumers of ready-made materials.

#### SUMMARY

An analytical conceptual framework and an instrument (TIAP) for revealing teacher autonomy in curriculum implementation was suggested. The TIAP instrument was useful for disclosing components that describe the kind and

<sup>20</sup>Moshe Silberstein, "Curriculum Planning in Teacher Education Programs—A Survey Report" (Jerusalem: Curriculum Division and Teacher Preparation Division, Ministry of Education, 1982) (Hebrew).

<sup>21</sup>Prina Katz, "Educating Student Teachers toward Wise Consumers of Curricula" (Master's thesis, School of Education, University of Tel Aviv, 1984), p. 123 (Hebrew).

<sup>22</sup>John I. Goodlad, *A Place Called School* (New York: McGraw-Hill, 1983).

the degree of autonomy expected from teachers. It was useful in differentiating between different types of curriculums. Further elaboration of the perceived components of teacher autonomy in curriculum materials and the specification of some of the descriptors of these components will provide more insights into the complex interaction between teachers and curriculums.

The analysis of a sample of curriculum projects, representing the first generation of new curriculums in Israel, reveals an image of teachers as consumers of centrally developed curriculums who are expected to exercise teacher autonomy mainly as choice makers. The main responsibility assigned to teachers in these projects is to use the resources wisely and to organize them in instructional plans to achieve curriculum objectives.

The analytical scheme used suggests an operative interpretation of the concept of teacher autonomy, thus raising the sensitivity of curriculum developers, teachers, and teacher educators to factors in curriculum materials that may shape the complex interactions among them. The findings derived from using the analytical scheme to analyze innovative curriculum materials massively implemented in different educational systems might lead to the initiation of a long-awaited initial and fruitful discourse between teacher educators and curriculum developers. The discourse may eventually produce a more coordinated effort in introducing curricular innovations into the classroom, thus increasing their potential impact. This discourse may provide valuable data for revising and modifying teacher-education programs and for revising and producing new curriculum materials.

Several questions are suggested for further research:

- Are the teachers' actual perceptions of curriculum materials congruent with the profile that emerges from the TIAP?
- To what extent are teachers' practices influenced by their image as reflected by the curriculum?
- What differences in TIAPs can be detected in different cultures and at different times?

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