Barriers to Planning for At-Risk Students
Implications for Teacher Planning

Authors:
B. Keith Lenz, Brenda Kissam, Janet Roth, Janis Bulgren, & Jeff Melvin

The University of Kansas
Center for Research on Learning No. 72

©August, 1992
Barriers to Planning for At-Risk Students
Implications for Teacher Planning

B. Keith Lenz
Brenda Kissam
Janet Roth
Janis Bulgren
Jeff Melvin

The University of Kansas
Center for Research on Learning

©August 1992

Running Head: Barriers to Planning

This research in supported by a grant from the Office of Special Education and Rehabilitative Services (OSERS) within the United States Department of Education (Award #H023E90009) under the research initiative of "Research on General Education Teacher Planning and Adaptation for Students with Handicaps." The views expressed here are those of the Center for Research on Learning, and do not necessarily reflect official positions of the Office of Special Education and Rehabilitative Services, USDE.
Abstract

Most studies to date of teacher planning have focused on teachers at the elementary level. The research reported here seeks to expand our knowledge of teacher planning to include the experiences of secondary teachers planning for academically diverse classes. Specifically, we sought to identify barriers perceived by teachers in their planning for diverse classes which may include learning disabled and other at-risk students.

Data was collected through a collaborative project with 52 secondary science and social studies teachers. These teachers participated in a series of Cooperative Study Groups (CSGs) to discuss questions about barriers to planning for instruction for at-risk students.

Teachers in these groups identified a lack of appropriate instructional materials suitable for all students in their classes as a major barrier to planning for these students. Additionally they reported that time constraints limited their ability to plan adequately for their academically diverse classes and that lack of motivation to learn among their students was also a source of great frustration. Knowing how to individualize instruction for students was identified as another barrier to planning.

As teachers are confronted with the necessity to address diverse student academic needs, they need more time to plan for instruction. One of the tasks that teachers might undertake in any additional planning time is to be more selective about just what content students will learn. Additionally teachers may need to examine their beliefs about whether all students can and must master all the content they teach.
Barriers to Planning for At-Risk Students
Implications for Teacher Planning

Secondary teacher planning today must take into account not only how to present content to students but also how to make that material accessible to an academically diverse group of learners. In recent years, students with disabilities have been placed in general education settings for a major part of the day (Lovitt, 1989), increasing the diversity that teachers encounter in their classrooms. This diversity has been especially problematic at the secondary level where schools are generally organized around a schedule which does not easily accommodate flexible instructional periods. Teachers generally see individual students for only one hour a day. Students requiring additional time or help in completing assignments must often make arrangements outside the school day. Under these circumstances, the planning that teachers do for their academically diverse classes must provide for both effective and efficient instruction within a relatively short time frame for students with differing academic needs.

This study sought to better understand how secondary teachers plan, under these constraints, for their academically diverse classes. The study was carried out as a collaborative research-and-development process involving teachers, administrators, and researchers. It is our belief that teachers' knowledge about their content areas and the students in their classrooms can provide critical insights into the research and development process.

To incorporate teacher knowledge and experience, we revised the traditional research and development process. Specifically, we established a cooperative relationship between our research staff and teachers for the purpose of identifying problems facing teachers of academically diverse classes and conceptualizing studies on teaching that would result in immediately usable information and products related to instructional practice.

This cooperative relationship was carried out through small work groups called Cooperative Study Groups (CSGs), comprised of teachers and investigators representing the research project. These work groups served as the primary force in determining the direction of research and carrying out various research activities. Teachers made a four-year commitment either to serve directly in the cooperative study groups or to support the direction of the groups by carrying out CSG initiatives. In all instances, the primary purpose of the CSGs was to explore teachers' experiences with planning for and teaching in academically diverse secondary science and social studies classrooms.
This report, which presents findings from the initial work of the Cooperative Study Groups, specifically addresses the barriers that teachers face in teaching an academically diverse class.

**Method**

**Initiating the Cooperative Study Group Process.**

An invitation to apply for project participation was extended to all secondary social studies and science teachers in two school districts in eastern Kansas. We sought teachers who were interested in jointly conducting research related to meeting the challenge of planning and teaching in the face of academic diversity.

Each teacher’s class schedule and class composition was requested to determine the extent of academic diversity in their classes and to screen for students participating in special education programs. Since our goal was to identify a pool of teachers with whom we could work for the duration of the project, we also identified those teachers who had previously worked with students with mild handicaps and who would likely continue to have these types of students in their classes. Nevertheless, it was impossible to ensure these teachers would always have students with mild handicaps in their classes across the time period of this project.

Approximately 76 teachers expressed an interest in participating. However, phone calls to each applicant explaining the time commitments involved, reduced the pool of teachers to 52. Participating teachers were informed that they would become part of a research team that would meet and discuss problems and solutions as well as identify and implement interventions appropriate to the classroom setting. At the first meeting, teachers were organized into groups of four to eight. These groupings, referred to as Cooperative Study Groups, served as the basis for identifying issues and barriers in planning.

To facilitate the start-up of the Cooperative Study Groups, a set of questions related to the problems of teaching and planning for academically diverse groups of students was developed. The questions and questioning process were first discussed with Dr. Christopher Clark of Michigan State University, who served as a project consultant on teachers’ planning processes, and were then piloted twice.

The first pilot was conducted with project staff, the second involved four teachers in a local school district that was not participating in the study. Based on this pilot, the questions and questioning format were modified and procedures for conducting the CSGs.
were developed and put into written form. Additionally, three project staff members were trained as moderators and six research assistants were trained as note takers and recorder assistants. Finally, the duties and responsibilities of note takers and recorder assistants were specified in writing.

**Subjects**

Fifty-two teachers participated in the first CSG meetings. Of the 51 teachers for whom demographic data was collected, 25 were men and 26 were women. With a mean age of 46 years (range=31-63 years), most were very experienced teachers, having taught for an average of 20 years (range=1-36 years; \( \text{SD} = 8 \) years); only six teachers had taught for less than 10 years. Eleven were middle school science teachers, 18 were high school science teachers, eight were middle school social studies teachers, and 14 were high school social studies teachers. Four of the teachers held part-time positions (i.e., they taught 1-3 classes per day), the remaining taught full time.

The teachers were teaching an average of 4.66 classes per day with a total average student enrollment of 107. They averaged about two class preparations per day (range=1-4) and had one class period for planning within the school day. They reported that an average of 5.7% of the students in their classes were students with learning disabilities; in addition, an average of 11% of their students could be considered at-risk for failure in school.

**Procedures and Measures**

Teachers were asked to meet as a group three times in the spring of 1990. The first set of meetings for 14 groups (ranging in attendance from one to seven participants) was held in February and March. The first time the teachers met for a two-hour period after school in one of the district administration offices or at a meeting room on the campus at the University of Kansas. No meeting was held in the teachers' schools. An attempt to group high school and middle school teachers separately proved feasible for seven of the 14 groups. Teachers received ten dollars in appreciation for their participation in each of the meetings.

At each meeting, participants were asked questions about barriers and issues related to teaching in the face of academic diversity. Each group was to be asked the same set of four questions. Due to time constraints, however, not all groups discussed all four questions. The first question was always presented first to each group. The second, third, and fourth questions, discussed by 12 of the 14 groups, were presented randomly across the groups to ensure that all questions would be covered and to control for
Barriers to Planning

possible order effects. Teachers were asked questions that required them to think of their most academically diverse class. An academically diverse class was defined as "a class comprised of students with widely varying achievement levels such as a class with individuals with learning disabilities, other low-achieving students, as well as average-achieving students." The third question asked, the question reported on here, was "Thinking back on the last year of teaching, what was the biggest barrier in planning to teach science or social studies to at-risk students?" At risk students were defined as those students at risk for school failure in the form of dropping out of school, graduating without a standard diploma, being removed from a school setting for another educational setting, or being expelled from school. The third question was discussed by 42 teachers in 12 groups.

Each question was posed, one at a time, by a researcher who served as a moderator for the group. Also present were two research assistants; one took notes about teachers' responses and the other audiotaped the session. The teachers discussed each question for 15-20 minutes. When responses were no longer forthcoming, the moderator summarized (orally and in list form on a large tablet) the major points. The moderator then asked the group members to check the accuracy of the summarized statements. The teachers also were asked whether they wished to add anything to the listed responses. Any new suggestions were added to the list.

Next, the teachers were asked to indicate to what degree they agreed with each item or to what degree it represented a specific barrier or problem for them. For this purpose, they wrote down the summarized statements on a special form and indicated their agreement with each item on a 7-point Likert-type scale (ranging from "1" - "I strongly agree" - to "7" - "I strongly disagree"). This process of finalizing the list and rating the responses was referred to as the "Member Check" phase of data collection.

Teacher Evaluation of the Cooperative Study Group Process

Feedback from teachers in the Cooperative Study Group process was overwhelmingly positive. Except for a few personal problems or concerns, all the teachers indicated that they would be interested in participating in this type of research effort in the future. When asked about participating in a summer research effort, 28 volunteered.

Data Analysis

The implementation of the CSGs has yielded several types of information: basic demographic data about the teachers and transcripts of all CSG meetings. Reliability
checks have been performed on the accuracy of these transcriptions. Finally, the data collected through the Member Check process have been compiled and categorized.

The data were analyzed by two methods: transcript evaluation and quantitative compilation. For the transcript evaluation process, the audiotapes of the meeting and the notes taken by the research assistant and the moderator were used to create a transcript of the meeting. These transcripts were used to interpret the meaning of items generated through the Member Check process and to identify themes and trends in the data that were not apparent from the Member Check data. The transcripts were read and major impressions were summarized by two independent readers who had participated in the Cooperative Study Group meetings. These impressions were synthesized, and a set of summary statements was generated.

After all groups had met, project staff developed categories for grouping (sorting) teacher responses. All responses in the Member Checks from the 12 CSG meetings discussing this question were placed on individual 3X5 cards and grouped by the particular question to which they related. Staff then sorted each group of cards into categories. The wide range of responses from teachers made the categorization process difficult. A procedure was developed to establish three overall Category headings: (a) Instructional barriers -- barriers directly related to planning instruction, materials, or assessment that engaged all learners and maintained their engagement and success in the learning process; (b) System/Administration Barriers -- barriers presented by organizational or structural patterns in schools; and (c) Student-Centered Barriers -- barriers rooted in student characteristics, actions, or attitudes.

A project staff member and a research assistant then worked together to devise subcategories within each category as appropriate for each question. One other research assistant then sorted the cards into the developed categories and noted any difficulties they had with individual responses or categories. Some category revisions were made in response to this feedback and some alternate choices (13.85% of all responses for this question) were allowed. Categories and subcategories were finally identified that achieved, for this question, interrater reliabilities of 94% and 94% to verify the sorting of responses. These reliabilities were achieved by having two research assistants, not involved in developing the final categorization, sort responses independently into the developed categories.

Since the teachers had indicated on the Member Check forms their level of personal agreement with each item generated in their group in response to each question, it was possible to determine the relative agreement between the group-generated Member Check items and an individual teacher's viewpoint. Since Member Check items
were not commensurate across groups, a method of determining within-group agreement, or the homogeneity of attitudes toward stated Member Check items within each group, was attempted. A homogeneity index was calculated for each respondent under each question by taking the standard deviation of his or her responses to the Member Check items under each question and then calculating its reciprocal, or dividing one by the standard deviation value. To determine the degree to which individuals in each of the groups were in consensus on each question, the standard deviation of the homogeneity indexes for each respondent was calculated. This calculation was carried out for each of the four questions.

The Member Check ratings also allowed us to calculate teacher agreement with the pooled items in each subcategory. In order to analyze this level of agreement, teachers' numerical ratings for items assigned to a specific subcategory were totaled and divided by the number of teachers who had ranked those items in that subcategory. Items, or responses, with an average rating close to "1" showed that most of the teachers agreed with it (i.e., it held personal meaning for them), whereas responses having an average rating closer to "7" showed that most of the teachers did not agree (i.e., it did not hold personal meaning for them.)

Finally, transcripts of all the cooperative study groups were read and reviewed holistically to assure that issues identified quantitatively in the Member-Check process reflected the qualitative tenor of the discussions in the groups. Where there was extended discussion of issues not highlighted by Member Check data, the nature and quality of those discussions are noted in the Results and Discussion below.

**Results**

In response to the question, "Thinking back on the last year of teaching, what would you say has been the biggest barrier in planning for at-risk students in your science or social studies classrooms?" our findings indicate that lack of adequate planning time and lack of appropriate instructional materials were the two barriers most frequently identified by teachers in our cooperative study groups. In addition, teachers were concerned about how to motivate at-risk students, how to accommodate their varying abilities, and how to compensate for their frequent absences from school or from class. Appendix 1 shows the results of the Member Check analysis for this question including the subcategories of responses, the number of responses fitting each subcategory, the number of groups contributing responses to the subcategory and the aggregate agreement rating for the items represented by each subcategory.
Instructional Barriers

This category generated the greatest number of responses by teachers in our study groups. In the category, the quality and quantity of instructional materials available to teachers appeared to represent the biggest concern, mentioned 11 times across seven groups. Nationally, teachers seem to believe that instructional materials have improved in recent years (Carnegie Foundation, 1990); however, teachers in our groups still find them lacking, at least for at-risk students. Specifically, teachers indicated that they would like sets of materials suitable for varying ability levels, materials and planning ideas that actively involve students in learning, materials that appeal to and motivate reluctant learners, and materials that, while suitable for different ability levels, are not visibly different from materials used by other students.

Teachers were also concerned about motivating students to become engaged in the educational process. Coping with apathetic students has appeared at or near the top of inventories of new and experienced teachers' problems for some time (Adams, 1982; Broudy, 1990; Goodlad, 1984; Veenman, 1984). The abundance of literature on motivation is matched by an equal abundance on how to deal with the problem or how to proceed with research that might reveal a solution.

For example, Good and Tom (1985) suggested that we need more observational data to better understand motivational processes in the classroom. From another perspective, Berliner (1989) argued that achievement motivation is negatively influenced by the competitive evaluative process used in norm-referenced classrooms. Therefore, as long as students are sorted relative to each other into high, middle, and low achievement groups, there will always be unsuccessful students who are discouraged by their lack of success.

Along a similar line, Glasser (1986; see also Gough, 1987) said that motivation is an internal force that is present when each student's basic need for feeling accepted and significant is satisfied. He also asserted that secondary school activities such as band and athletics are successful because they use a team approach. Consequently, he recommended that the team approach, whereby each member plays an important role, be used in academic classes to give students a greater sense of involvement and control. Similarly, Goodlad (1984) suggested that the academic school day for adolescents be shortened with the remainder of the time used for creative or vocational projects that more actively involve students in learning. Finally, Brophy (1987) offered a set of strategies for teachers to use in developing student motivation, believing that teachers can be "active socialization agents capable of stimulating the general development of student motivation to learn" (p. 41).
How to motivate students is a great dilemma and student motivation is much on the teachers' minds and figures prominently in their planning. At this point, few teachers and few researchers seem to have arrived at satisfactory solutions.

Individualizing instruction to accommodate student learning styles and developmental stages is another major area of concern to teachers. Teachers in our study groups observed that students require varying amounts of time to finish the same task, making it difficult to plan for the whole class. They also pointed out that students have different learning needs and learning styles as well as differing levels of maturity.

For these reasons, teachers have difficulty deciding on appropriate levels of work for some students and difficulty locating and/or developing activities and materials to suit a variety of abilities. As one teacher described it, "The difficulty is coming up with one idea or a set of activities that fit the various ability levels in the class. I struggle with this. Sometimes the needs of these kids are not recognized until the second grading period."

Five responses across four groups indicated that teachers would like to have better information about their students' backgrounds, abilities and prior knowledge, and that the absence of such information acts as a barrier for planning for at-risk students.

Teachers also have some concerns about staying current in their fields and planning for the full coverage of content. Several teachers expressed a need for better options and techniques in dealing with problem students. However, these concerns were less frequent than those mentioned above; also they were not widespread.

**System/Administration Barriers**

The second category to generate the most responses was barriers related to system or administrative issues. Of the 18 items in this category all but one related either directly or indirectly to the quantity or quality of time teachers have to plan for their classes as well as the conditions under which they do their planning. (The one nonrelated item concerned the lack of additional, individualized help for students.)

The largest grouping of responses - 10 items across eight groups - concerned the limited amount of time teachers have to plan as adequately or extensively as they would like. Four additional responses described poor environmental conditions for in-school planning. Three of these items, mentioned in three different groups, included complaints about the lack of appropriate places for teachers to work during their planning period. Three additional items consisted of constraints teachers related to too many non-academic chores, having to share materials and resources with others, and too many preparations.
Sufficient planning time and adequate facilities to plan is a concern of teachers nationwide. The Carnegie Foundation's report on *The Condition of Teaching* showed in 1990 that among 17 improvements teachers believed would most improve public schools, the most frequently cited—given "top priority" by 82% of respondents—was for all teachers to have their own classroom. Clearly, not only our group of teachers but teachers nationwide are being asked to teach, work, and plan, at least part of the time, out of a briefcase. According to teachers in our groups, in some cases, a nonclassroom space adequate for teacher planning does not even exist in their schools.

**Student-Centered Barriers**

The category of Student Issues, or barriers to planning for at-risk students stemming from student attitudes or behaviors, included 13 responses. The largest subcategory in this group (four items mentioned across four groups) was poor student motivation, interest, and involvement. If these responses were added to the items related to motivation included under Instructional Barriers, the general problem of student motivation would result in a total of 12 responses across eight groups. This would make it the largest single issue identified as a barrier to planning for at-risk students and underscore its significance as a problem for secondary science and social studies teachers.

The second largest subcategory under Student-Centered factors was absenteeism. Although mentioned in only three groups, this problem was discussed at length and with a great deal of frustration. Further, lack of parental support was mentioned three times across two groups. Three other items brought up under Student-Centered Barriers were students' poor use of time, the burden of their previous school failures, and their short attention span.

**Within-group agreement results.** Based on the indexes of homogeneity of attitudes toward listed Member Check items in each group, the groups can be divided into three categories: most consistent, moderately consistent, and nonconsistent. Table 1 lists the within-group agreement results for the 12 groups with more than one participant. Values are to be interpreted in the same manner as standard deviations, that is, low values indicate less variation and more agreement among group members whereas high values reflect more variation and less agreement. Groups #2, 3, 4, and 6 showed the most consensus. The variability observed in members' indexes was low across items for which there were data.
Table 1

Homogeneity Indexes for Cooperative Study Group 1 Sessions

<table>
<thead>
<tr>
<th>Group</th>
<th>Question 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>*</td>
</tr>
<tr>
<td>Group 2</td>
<td>.26</td>
</tr>
<tr>
<td>Group 3</td>
<td>.33</td>
</tr>
<tr>
<td>Group 4</td>
<td>.19</td>
</tr>
<tr>
<td>Group 5</td>
<td>.47</td>
</tr>
<tr>
<td>Group 6</td>
<td>.19</td>
</tr>
<tr>
<td>Group 7</td>
<td>.36</td>
</tr>
<tr>
<td>Group 8</td>
<td>*</td>
</tr>
<tr>
<td>Group 9</td>
<td>.54</td>
</tr>
<tr>
<td>Group 10</td>
<td>.42</td>
</tr>
<tr>
<td>Group 11</td>
<td>.86</td>
</tr>
<tr>
<td>Group 12</td>
<td>*</td>
</tr>
</tbody>
</table>

* Complete data for only one member. ** Question not discussed by group.

The second category, moderately consistent, included Groups #5, 7 and 10. Moderate variability was found among the indexes for members in each of these groups. Finally, the nonconsistent group was comprised of Groups #9 and 11; the indexes observed for the group members belonging to groups in this category were highly variable.

Discussion

Effective planning for at-risk students is apparently impeded by four distinct problems: First, teachers report a lack of suitable material for these students as well as activities or pedagogical techniques that satisfactorily engage at-risk students in the learning process. This situation is further aggravated by inadequate planning time and environments in which to plan.

Second, teachers are frustrated that at-risk students are often absent, creating what one teacher called a "cafeteria-style classroom." Absenteeism among all students is becoming a nationwide problem. For example, according to the Carnegie Foundation report, The Condition of Teaching (1990), the proportion of teachers who see absenteeism as a "serious" problem increased from 18% to 31% between 1987 and 1990. As one of our teachers observed, "The child has to be in class before you can teach him."
Third, teachers' concerns about the lack of adequate instructional materials and the lack of adequate planning time may be interrelated. Good and Tom (1985) argued that "teachers can promote their effectiveness... [by developing] strategies for altering textbook assignments and [finding] material for enriching the curriculum" (p. 320). However, in a study of middle school teachers' planning, Brown (1988) found that teachers rarely constructed new lessons and did not appear to develop any new units of instruction (p. 78). This is consistent with our data, because teachers in our study groups pointed out that they have little or no time to undertake such planning! Further, nationwide survey results indicate that teachers in our study groups are not unique in the reported time constraints; more than three quarters of all teachers responding to a Carnegie Foundation survey reported that they have one hour or less of planning time daily (Carnegie Foundation, 1990). Given all the other responsibilities teachers have beyond planning for instruction, one hour a day is certainly insufficient for undertaking major curricular innovations.

Finally, a more fundamental issue may be underlying teachers' concerns about planning for at-risk students--teachers' beliefs about curricular objectives for these students. The data collected from our study groups are unclear about those beliefs. On the one hand, some teachers reported that they need more materials and activities "appropriate for all levels of students." On the other hand, it was never clear whether the teachers anticipated that "appropriate" materials or activities for each level would contain the same content and learning objectives.

Discussions in our study groups never turned to the issue of instructional time constraints or flexibility. However, participants did mention that it was difficult to plan activities when some students required more time to finish tasks than did others. The teachers seemed to think that this problem could be solved by designing better activities or materials rather than making curricular adjustments in their classrooms.

Doyle and Carter (1987) found that "individualization works less by adapting to individual characteristics than by arranging time and teacher attention so that all students have access to the main effects of instruction" (p. 201). If this conclusion is correct, it may be useful to examine more closely the barriers cited by teachers in our groups to determine if they are symptoms of a larger structural problem in the way content is delivered in diverse classrooms. That is, do at-risk students require different materials and, indeed, a modified curriculum, or do they simply require more or differently structured classroom time or more instructional attention to accomplish the same instructional tasks as other students?
Conclusion

The study of teachers' concerns about barriers to planning for at-risk students in secondary social studies and science classrooms opens up several promising areas of inquiry. Although instructional materials prompted the greatest number of responses, the greatest concern among teachers overall was how to motivate students and engage them in the learning process. As noted, a number of actions and strategies have been proposed to deal with this problem. Perhaps we should now assess which, if any, of these prescriptions is effective. Once students are motivated and involved, perhaps problems related to instructional materials as well as student absenteeism will be diminished.

The literature on student motivation raises at least two other related questions: How do teachers structure knowledge they chose to teach? And does this have an impact on student engagement in the learning process? In his motivation strategies, Brophy (1987) suggested that an essential precondition for motivating students involves setting meaningful learning objectives. This means that teachers must assess whether or not they are planning to "teach some knowledge or skill that is worth learning, either in its own right or as a step toward a higher objective" (p. 42).

Shavelson and Stern (1981) found that teachers tend to focus on tasks (italics in original) and that these tasks embody concerns about content, students, goals, and so on. These authors also reported that teachers' concerns with subject matter focus less on the structure of the subject matter they wish to teach than on the selection of content for the purpose of building tasks (p. 479). This may be a fundamental flaw in being effective. The emphasis on task over content may be an outgrowth of an information explosion in recent decades, "an era of rapidly expanding opportunities to acquire information but of constricting opportunities to reflect" (Goodlad, 1984, p. 15).

Regardless of their origins, fact-dominated curricula may pose a problem for students both in terms of students' willingness to learn the presented content and in terms of whether or not they can successfully learn material presented in such a manner. More than 30 years ago, Bruner (1960) asserted that "knowledge...acquired without sufficient structure to tie it together is knowledge that is likely to be forgotten" (p. 31). Bruner also observed that "the curriculum of a subject should be determined by the most fundamental understanding that can be achieved of the underlying principles that give structure to that subject" (p. 31). More recently Goodlad (1984) found that learning activities in schools highlighted "topics and not concepts ... reinforced in textbooks and workbooks, and further broken down into facts to be acquired for quizzes. The more important and lasting concepts and principles tend to be obscured...." (p. 291).
Other recent research bears out the usefulness of Bruner's and Goodlad's perspective. For example, Brophy (1986) found as a common theme in teacher influences on student achievement that "students learn more efficiently when their teachers first structure new information for them and help relate it to what they already know" (p. 1076).

A larger issue may loom beyond the specific barriers mentioned by teachers in our study groups. In its simplest form, that is the issue of tracking formally or informally. Even when students are grouped heterogeneously, as apparently is often the case in the classrooms of teachers in our study groups, do teachers believe that all students can master the same instructional content? Perhaps teachers and other educators need to examine their beliefs about student learning before we can develop effective ways to address student learning in diverse classrooms.

That teachers nationwide hold diminished expectations of many students is clear from the Carnegie Foundation's report, *The Condition of Teaching* (1990), according to which one of the most "worrisome" findings was that more than a third of all teachers surveyed say they do not expect more than 75% of their students to graduate (pp. ix, 155). In comparison, only three years ago, less than 25% of teachers indicated agreement with that statement, and 43% strongly disagreed with it. The question remains, what are teachers' beliefs about student learning, and how do those beliefs affect planning for at-risk students in secondary science and social studies classrooms?
References


## Appendix 1

### Cooperative Study Group Results for Question #3: Barriers to Planning for At-risk Students

<table>
<thead>
<tr>
<th>Response Categories/Subcategories</th>
<th>No. of Items</th>
<th>No. of Groups (N=12)</th>
<th>Mean Agreement Rating*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructional barriers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding/matching materials to students</td>
<td>11</td>
<td>7</td>
<td>2.11</td>
</tr>
<tr>
<td>Promoting motivation</td>
<td>8</td>
<td>6</td>
<td>1.80</td>
</tr>
<tr>
<td>Individualizing instruction</td>
<td>7</td>
<td>5</td>
<td>2.46</td>
</tr>
<tr>
<td>Lack of knowledge about individual students</td>
<td>5</td>
<td>4</td>
<td>2.09</td>
</tr>
<tr>
<td>Lack of knowledge about techniques</td>
<td>2</td>
<td>2</td>
<td>2.57</td>
</tr>
<tr>
<td>Keeping up with content and students</td>
<td>2</td>
<td>2</td>
<td>1.75</td>
</tr>
<tr>
<td>Keeping current in field</td>
<td>2</td>
<td>2</td>
<td>2.57</td>
</tr>
<tr>
<td>Lack of teacher drive to do more</td>
<td>1</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>System/administration barriers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time constraints</td>
<td>10</td>
<td>8</td>
<td>1.91</td>
</tr>
<tr>
<td>Poor conditions for in-school planning</td>
<td>5</td>
<td>5</td>
<td>2.47</td>
</tr>
<tr>
<td>Problems with team planning</td>
<td>3</td>
<td>3</td>
<td>3.21</td>
</tr>
<tr>
<td>Competing school duties</td>
<td>2</td>
<td>2</td>
<td>1.71</td>
</tr>
<tr>
<td>Too many preparations</td>
<td>1</td>
<td>1</td>
<td>2.86</td>
</tr>
<tr>
<td>Lack of additional help for students</td>
<td>1</td>
<td>1</td>
<td>2.33</td>
</tr>
<tr>
<td><strong>Student-centered barriers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor motivation</td>
<td>4</td>
<td>4</td>
<td>1.94</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>3</td>
<td>3</td>
<td>2.33</td>
</tr>
<tr>
<td>Inadequate parent communication &amp; support</td>
<td>3</td>
<td>2</td>
<td>1.40</td>
</tr>
<tr>
<td>Poor use of time</td>
<td>1</td>
<td>1</td>
<td>2.25</td>
</tr>
<tr>
<td>Negative beliefs</td>
<td>1</td>
<td>1</td>
<td>2.00</td>
</tr>
<tr>
<td>Short attention span</td>
<td>1</td>
<td>1</td>
<td>2.33</td>
</tr>
</tbody>
</table>

*(7 = Low agreement  1 = High agreement)*