Essential Learning Skills and the Low Achieving Student at the Secondary Level: A Rating of the Importance of 24 Academic Abilities

by

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ABSTRACT

Students in junior and senior high schools are regularly expected to perform academic tasks which require them to demonstrate proficiency in a variety of requisite learning skills. Low achieving and learning disabled students commonly fail to meet teacher expectations due to deficiencies in areas related to adequate academic performance. A survey was conducted to gather information needed to answer three questions:

1. What academic abilities are valued most by educators?
2. In which skills do low achieving students have the greatest difficulties?
3. What are the most serious problems experienced by teachers?

Of 24 abilities rated, the top five in terms of importance were following directions, recalling information on tests, turning in assignments on time, locating answers to questions, and locating information in a text book. Students were perceived as having the greatest difficulties in the areas of reading, following directions, writing, test taking, and spelling. The most serious problems for teachers were identified as motivating students, individualizing instruction, and assigning grades.

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CHAPTER 1

INTRODUCTION

The nature of group instruction in secondary level public school classrooms dictates sets of rules, routines, and procedures which establish boundaries for both student and teacher behavior. In order to make the large group teaching situation manageable, the teacher is forced to a certain extent, to transact the business of "traditional teaching" This implies a teacher-centered approach where the teacher imparts information, issues directives, assignments, and tests, and passes judgment on the students' performance. The student plays a relatively inactive role as recipient of information.

While there have been movements in the past away from traditional philosophies and techniques, the business of teaching is in many ways the same today as it was decades ago. Indeed there has been a swing back toward more basic, traditional instruction in the face of public censure of education for a general decline in achievement scores and an increase in cases of functionally illiterate high school graduates (Handleman, 1979).

The tendency toward cyclical change and yielding to public pressure has long been part of the pattern of public education. When schools were cited by parent groups and the popular press for not teaching "the basics" and for discarding "tried and true" methods in the name of innova-

tion and relevance, the reaction was to cut out curricular frills, impose more rigid standards, and re-establish the classroom teacher's traditional role. The newest innovation, then, was the rejection of innovations. Of course re-establishing the teacher's traditional role meant re-establishing the student's traditional role as primarily a receptive organism, responding to the teacher and to teaching materials. Students who have difficulty learning under such conditions, whether they are learning disabled, emotionally disturbed, or slow learners, sink or swim depending on the amount of special services available to keep them afloat. Still, these students spend the major portion of their school day in regular classes. Schools may be designing curricula more suitable to low achievers by defining the "basics" as what to teach but too few regular class teachers are able to solve the related problem of "how to teach" in order to meet the needs of handicapped and other underachieving students for whom traditional teaching is not effective.

A recent study by Marsh (1979), conducted in a large, suburban public high school revealed considerable emphasis on traditional learning experiences. Among the findings were the following:

1. Many classroom activities were primarily teacher-centered.

2. Although teachers endorsed the desirability of students having the opportunity to work in small groups, there seemed to be little attention given to ensuring that is happened in practice.
3. Although 41% endorsed the view that students should have the opportunity to pursue individual topics, only 12% considered that the opportunity occurred frequently.
4. Opportunities for class discussions were quite rare.
5. Incidence of student initiated questions was quite low.

These observations probably surprise no one, regardless of age, who has attended a public high school. Although the modern comprehensive high school has felt the cyclical changes in the educational current, the day-to-day operations of classes appears to have changed little over time and across settings. How to successfully meet the individualized needs of each member of a large group in a learning situation remains perhaps an insoluble problem.

In their favor, public schools seem to be doing a reasonably good job of educating students with average to above average learning abilities. These are the students who have been able to succeed under conditions that exist in nearly all secondary content classes. Prior school experience has taught them to expect a fairly predictable

set of teacher behaviors, classroom activities, and physical features. They are often able to make accurate assumptions about what generally to expect in a class and have the skills to perform accordingly. In other words, they are proficient in the "basics" of learning. Even if low achieving students make the same assumptions about the learning environment, it is not likely that they will possess learning integrities to guarantee adequate performance.

Secondary teachers, likewise, make assumptions about their students. They expect students to possess independent reading and study skills by the time these students have reached the high school level. Even most junior high school curricula have been designed by teachers oriented toward specific, departmentalized, content instruction and group instructional procedures. The types of skills demanded of students at this level are similar to those required in senior highs.

Student underachievement, then, is a problem faced at both the junior and senior high levels despite the retrenchment that has typified curriculum development in the secondary schools. Many factors have been blamed for the high incidence of underachievement, from too much television to too little parent supervision of children. Others blame the educational system itself. For example, Lee (1970) believes that many learning disabled students are

casualties of the system. He states:

> They come to secondary school with a long report or record of the ways in which they have not met the needs of the elementary system. Little, if any, mention is made of the ways in which the system has failed to meet the needs of the child. (p. 78)

Unless students entering junior or senior high have developed fairly sophisticated strategies for reading, listening, speaking, remembering, and studying, they are going to be poorly prepared to meet many of the demands of the secondary curriculum. Research has shown that learning disabled students encounter difficulties in some or all of these areas in the secondary grades (Deshler, 1978). The mismatch between secondary school demand for efficient use of study skills and/or learning strategies and LD students' and low achievers' ability to meet these demands is an illustration of the problem most junior and senior high schools are having effectively dealing with academically low achieving students. There is a need, therefore, for schools to become sensitive to the needs of students who are incapable of measuring up to the arbitrary standards of classroom teachers and for whom traditional teaching methods have been unsuccessful. Current trends indicate that this sensitivity is arising.

Of course a good deal of the impetus behind current changes in regular education comes from PL 94-142's mandate

that handicapped students be educated in the least restrictive environment. The concept of mainstreaming is forcing regular educators to re-evaluate their philosophies and methods and, to some degree, redefine their roles. Effective mainstreaming will take a careful analysis of two primary aspects of the learning situation:

1) Attributes of the student for whom current methods are failing.

2) The demands of the regular secondary classroom.

Student Characteristics

The low achieving population of students consists in part of students identified as learning disabled who spend most of their school day in regular classes. It also includes a loosely defined group of slow learning or undermotivated students who have difficulty meeting classroom demands but who are not eligible for special education services. While this population is hardly homogeneous, the students within is seem to share general characteristics:

1) A history of failure, especially when faced with the demands of school learning;

2) Absence of knowledge and skill acquisition in academic and social behaviors;

3) Inability to meet the expectations of the regular instructional program.

A problem in painting an accurate picture of the learning disabled adolescent is the paucity of data on the

characteristics of junior and senior high school aged students. Recent research in Learning Disabilities has contributed greatly to knowledge of factors related to conditions of learning disabilities and low achievement in adolescents and young adults. A series of investigations by Alley, Deshler, and Warner (1980, Research Report No. 2) and Alley, Deshler, Mellard, and Warner (1980, Research Report No. 3, 9, 10, and 11) have identified cognitive and academic deficiencies which were reported by LD teachers as being present in 85% of all LD adolescents. These are: disability in writing themes of adequate length, disability in use of study skills, and disability in the organization of written materials.

Several investigators support the position of the LD student as an inactive learner, unwilling or incapable of bringing the active energy to the classroom that efficient, intentional learning requires (Torgeson, 1977, Hallahan, Gajar, Cohen, & Tarver, 1978, Alley & Deshler, 1979). Torgeson also examined the school learning environment where the student must "make things happen in very special, strategic ways. He must develop efficient study habits and must actively create organization and structure. In essence, he must develop and use new techniques of intelligence" (p. 36). He describes the learning disabled as students who have not attained certain qualities which enable them to function efficiently in the school environ-

ment. Torgeson indicates that student failure is not necessarily attributable to defects in psychological processes but could be due to inability to engage the task through the use of efficient learning strategies. The implications of such a theory are important to both regular and special education teachers. It seems apparent that LD students who are expected to perform classroom tasks which require the use of learning strategies which they have not developed or have not been taught, will do less well than those students who can apply efficient learning strategies.

Setting Demands

While reading is generally thought to be the most crucial learning skill needed, the ability to use effective study strategies becomes equally or more important, particularly for students who have a history of poor school performance. Independent study is a major academic activity at the secondary level (Brown, 1978). Students need to know how to function independently in a variety of classes with a variety of teachers, each of whom may stress different learning experiences and have different expectations and standards for success.

Secondary teachers are primarily considered to be content experts and, as such, have as their primary purpose the delivery of content knowledge. Although the instructional approaches used vary from class to class, the nature of the study skills used in the classes do not. A review

of nearly 80 years of study skills literature (Marshak, 1979) indicates that the definition of study skills has remained remarkably constant.

Study skills, then, or learned abilities for acquiring knowledge or competence, can be considered basic at the secondary level. They are skills which, if learned well, can be employed in any number of relevant contexts. As is the case with basic reading, writing, and math skills, study skills are essentials which secondary level students are expected to possess. Unfortunately, basic learning skills are seldom taught in junior or senior high. Teachers automatically assume that some other teacher has taught these basics. Often, however, no one ever gets around to teaching them because there is no clear assignment of responsibility. If a student exhibits deficiencies in a basic skill area, blame is often aimed at the elementary school teachers or middle school teachers for not teaching students how to learn.

The importance of reading, of course, should not be downplayed. In the upper grades reading skills must be applied to content textbooks at several levels of difficulty. Secondary students are expected to demonstrate vocabulary development, comprehension, reading speed, and various content skills, not merely skills in decoding and recognizing words (Alley & Deshler, 1979). Students must read rapidly and flexibly enough to handle a multitude of

assignments and be able to demonstrate comprehension by answering end-of-chapter and in-class questions.

Another closely related demand is that of using textbooks as a primary source of information. The textbook can be one of the most valuable learning tools available provided the student has the ability to use it effectively. This means possessing a variety of reading and study strategies which allow the student to rapidly and accurately locate and use pertinent information found in a text. A study by Keimig (1980) showed that a group of high school teachers believed textbook usage skills to be highly important for students in their classes. They also agreed that these skills would be relatively easy to teach. A majority of these teachers, however, reported that they do not directly deliver instruction in how to use a textbook even though nearly one fourth of the students are unable to use textbooks with even a minimal level of competency.

In addition, students need to be proficient at attending, listening, remembering, and speaking. The results of a study by Moran (1980) raise some serious questions about the appropriateness of the teaching style in content courses for LD students. Teachers at both the junior and senior high levels were found to lecture frequently, use few advance organizers, and infrequently give direct oral feedback, all of which create a particular need for listening and questioning skills.

The method traditionally used to measure students' content acquisition and understanding is the written test. Difficulty in performing well on tests can be caused by a variety of factors, from reading and writing difficulties to inefficient study habits and test anxiety. Holt (1964) stated that "many children are so paralyzed by their fear of tests that they can't show what they do know, while others who understand clearly what they are doing get confused and scared when they try to put it into words" (p. 104). Although most classroom teachers require students to take tests, it has been found that few teach specific test taking skills (Deshler & Cuthbertson, 1980).

These examples illustrate a dilemma for handicapped and low achieving students attending regular classes. Ability to profit from the types of instruction teachers commonly engage in requires proficiency in numerous academic abilities or learning strategies. While there is a good chance that average and above average ability students will acquire these skills through years of exposure to classrooms, it appears that LD students and others of below average ability require direct instruction in learning skills before they can be expected to meet regular class expectations. With the increasing pressure for individualization and accountability in the classroom, it is the responsibility of general and special educators to ensure that students with learning skill deficits receive the

instruction necessary to make them efficient, independent learners both in the classroom and beyond.

Purpose of the Study

A few of the demands of the secondary school environment have been described. What emerges from this description is an overall picture of the classroom as an unfavorable environment for many students. Heavy doses of content information delivered in a similar format in class after class have questionable value for students who do not have the requisite skills for profiting from group learning experiences. In order to improve school performance among this population of students, it is crucial to direct attention to this problem by answering two basic questions:

1) What skills are needed by students to help them satisfy course requirements?
2) In which of these skills are low achieving students deficient?

A natural first step in developing methodology for teaching essential learning skills is identification and prioritization of those academic abilities that are valued and/or required in the classroom. The purpose of this study was to determine the levels of importance of certain academic abilities and behaviors in secondary regular education classrooms and what abilities present the most serious problems for students having trouble performing well academically.

CHAPTER 2

PROCEDURES

The purpose of the study was to identify skills needed to meet the academic requirements of secondary school classes. Data was collected to determine the relative importance teachers place on abilities and behaviors commonly associated with learning junior and senior high school level subject matter.

The study also sought to identify those academic abilities that teachers believe present the most serious problems for students having difficulty performing adequately in regular classes.

In addition, responses were gathered to determine what elements of teaching present the greatest problems for secondary school teachers.

Instrumentation

Participants were asked to assign numerical values to 24 academic abilities using two separate rating scales. An academic ability was defined as an individual component or skill used in and/or required by school learning. The list of abilities was developed by combining selected skills from the Crucial Learning Skills List compiled by Project STILE, the Kansas Child Service Demonstration Center (1979), and skills chosen arbitrarily to represent the seven areas identified in the National Advisory Committee on Handicapped Children's definition of learning disabili-

ties. These areas are listening, thinking, speaking, reading, writing, spelling, and arithmetic. A separate strand for the area of studying was added to complete the list (Appendix A). Although study skills are closely related to reading skills (Robinson, 1978), they go beyond specific receptive and expressive language skills and can even involve personal and social behaviors (Maxwell, 1980). They include any technique that is used to learn and accomplish school assignments (McKay, 1970). For this reason, they have been included as a separate classification.

Difficulty was found in classifying certain of the abilities under more general headings. For example, "taking notes from lectures" is a function of both listening and writing; "locating textbook information" is a study skill but relies heavily on reading ability. When analyzing the importance of each skill it is possible to break each down into component abilities but such an analysis can easily become frustratingly complex. The intention of the study was to analyze those abilities characteristically used in classrooms which are distinct and specific functions of a more general ability to listen, write, read, spell, speak, think, compute arithmetically, and study.

An effort was made to keep each skill distinct to ensure that there was no duplication or overlap evident to teachers completing the rating scales. Because the list could not be totally comprehensive, an item was included

following the rating scales asking teachers to make any additions to the academic abilities list.

The first rating scale was a 7-point Likert scale. Teachers were asked to quantify each ability by assigning a value of 7 if the ability was considered essential and a value of 1 if it was considered unnecessary. Values from 2-6 were to indicate increasing levels of importance (Appendix B, Part 1).

It was assumed that teachers would assign high values to most of the skills since in an ideal situation, students would possess them all. In order to force teachers to make a choice as to which skills were of greater importance than others, an additional "anchor" scale was used. This required participants to assign additional weightings to those abilities they rated 6 or 7 on the Likert scale. The weightings ranged from 1 to 100 with 1 being low or least important and 100 being most important. Between these extremes were quartile rankings of 25, 50, and 75.

The participants were therefore forced to assign an additional value to those skills already considered highly important. This would result in a hierarchy of those skills, forcing to the top those abilities which relate most highly to successful classroom performance (Appendix B, Part II).

The third part of the scale was a questionnaire used to answer three questions:

1. Which of the academic abilities present the most serious problems for low achieving students?
2. What additions should be made to the list of academic abilities?
3. What elements of teaching present the greatest problems to teachers?

The last item did not relate directly to the list of academic skills but rather to teaching abilities and problems (Appendix B, Part III).

Data Collection

The Academic Abilities Rating Scale was completed by 133 participants representing both regular and special education at both the elementary and secondary levels. The scale required approximately 15 minutes to administer and was completed while educators attended either classes or workshops. Some of the participants were confused by the second rating scale. Oral instructions were generally necessary to explain how the abilities were to be re-rated using the 1-100 scale.

The following page contains a breakdown of participants by area and level.

Secondary	Regular education teachers	24	
	Special education teachers	39	
	Administrators (Regular and Special Education)	26	89
Elementary	Regular education teachers	9	
	Special education teachers	12	
	Administrators	3	
Others	Psychologists, consultants university instructors, central office and state department administrators	20	

Average number of years teaching/administrative experience of participants - 10.

Comparison of results of randomly selected groups of regular and special educators using a chi square test indicated no significant difference in types of responses across these two groups.

Data Analysis

Analysis of ratings made on both the Likert scale and the 1-100 anchor scale was reported both by differential weightings of individual abilities and by frequency of high low ratings. To determine weightings, the number of responses under each value was multiplied by that value to yield a total for that ability. The top ten abilities on each scale could then be prioritized. Additional analysis was done by determining the frequency with which the abili-

ties were rated 6-7 (high) or 1-2 (low) on the Likert scale and 100 (high) or 1 (low) on the anchor scale.

Items were then analyzed to determine amount of overlap and discrepancy of items appearing on both scales. Since the anchor scale was used to rank only those abilities rated as highly important on the Likert scale, it was possible to drop out the less essential abilities and further prioritize and then examine those abilities rated highly on both scales. A final list of essential abilities was then formed using the five abilities receiving top ratings on both scales. Each of the three items in Part III of the Scale were analyzed separately. Frequencies for items listed under each item were recorded and responses were then rank ordered.

CHAPTER 3

RESULTS

The instrument used to record responses for this study contained three parts. The results will be presented and discussed in the order that the parts were completed by the participants. Cumulative results will be summarized along with a discussion of the correspondence among the three parts.

Importance and Unimportance of Academic Abilities

Participants were asked to rate the 24 academic abilities along a scale of 1-7, these numbers representing ascending levels of importance. Abilities rated 6 or 7 meant that the participant considered these skills to be essential for successful regular classroom performance. These essential skills were then re-rated on the second part of the instrument.

The data from this first scale was analyzed by first calculating total value of each academic ability by multiplying number of responses under a certain value by that value and figuring the sum. Results are presented in Column A of Table 1.

It was considered appropriate to identify those abilities rated as having little importance as well as those rated highly. Since participants were asked to re-rate the 6's and 7's from the Likert scale, a frequency count was done to determine the skills that most often received this

top rating. A similar count was done to identify abilities which were consistently rated 1 or 2, that is, unnecessary. These frequencies were converted to percentages and appear in Columns B and C of Table 1. From this it is possible to tell what percentage of participants rated skills as essential and what percentage rated skills as unnecessary.

When initially developing the Likert scale it was thought that most of the 24 academic abilities included had the potential of being rated as highly important. Even though a concensus could probably be reached as to which skills were valued most or least, the abilities were more likely to receive high ratings than low ratings. This assumption was borne out. There were indeed those skills which received high total values and a high percentage of scores in the "essential" range.

Table 1

Importance of Academic Abilities

N=133

Academic Abilities	A	B	C	D
Taking notes from lectures	734	.32	.07	776
Skimming reading selections	751	.69	.04	1005
Understanding graphs and charts	551	.21	.05	130
Spelling correctly	638	.33	.03	356
Asking relevant questions	706	.48	.00	2003
Deriving meanings of words	623	.26	.02	127
Sounding out words	643	.36	.02	628
Solving mathematical problems	678	.40	.04	906
Memorizing	601	.28	.08	355
Detecting errors in writing	584	.23	.05	79
Understanding grammatical rules	545	.19	.02	129
Participating in discussions	722	.57	.00	1638
Recalling information for tests	749	.65	.00	2629
Locating information in a textbook	751	.67	.02	1883
Turning in assignments on time	748	.68	.02	2232
Reading at grade level	644	.38	.05	2732
Following oral or written directions	814	.84	.00	5676
Writing an outline	542	.08	.07	151
Expressing ideas through writing	672	.38	.00	2003
Studying for tests	719	.60	.02	983
Locating answers to questions	743	.64	.02	2581
Writing legibly	644	.33	.04	732
Making logical deductions	722	.53	.02	2980
Making speeches	456	.05	.20	84

Col. A - Total Value, 1-7 Scale

Col. B - % "Essential"

Col. C - % "Unnecessary"

Col. D - Total Value 1-100 Scale

The top ten abilities in terms of total points awarded on the 7-point scale were:

1. Following oral and written directions
2. Skimming reading selections
3. Locating information in a textbook
4. Recalling information for tests
5. Turning in assignments on time
6. Locating answers to questions
7. Taking notes from lectures
8. Participating in discussions
9. Making logical deductions
10. Studying for tests

There is, or course, a bottom 10, but, as can be seen from the percentage figures in Columns B and C, each of the abilities except one, making speeches, had a higher percentage in the "essential" range than in the "unnecessary" range. Therefore, some skills were considered more important than others but non was considered primarily unnecessary.

What also became apparent was a wide range of variability among participants. A skill rated "essential" by one teacher might be rated "unnecessary by the next. While this is not out of the ordinary for this type of data collection device, it has definite instructional implications which will be discussed in Chapter 4.

The percentage figures in Column B illustrate the likelihood of an ability being rated essential by educators. Since these represent just those items rated "6" or "7" on the scale, there is not a one-to-one correspondence between the top ten in this column and the top ten in terms of total score. It was possible for an ability to receive a high total score but receive relatively few of those points from ratings in the essential range. This effect was noted with only one of the abilities--taking notes from lectures. Generally, if an ability received a high total score, it was because a majority of participants assigned high values to it.

An observation that can be made immediately about the most highly rated abilities is that none can be considered part of the typical content class curriculum. The educators surveyed are saying that a student should possess these skills in order to perform adequately in a classroom situation. Experience has shown that little direct instruction is offered in these essential skills.

It is notable that several of the abilities that are typically taught--reading, writing, math, spelling, formal speaking--were not rated highly by a majority of respondents. An earlier point should be reiterated, however. There were no abilities on the list rated so low as to be considered unimportant. The scale merely indicates those skills which appear to be more highly valued.

A Hierarchy of Essential Skills

Once each participant had determined the importance level for each of the 24 skills, he or she was asked to re-rate five of the skills rated "6" or "7" on a 1-100 scale. Column D of Table 1 is a list of value totals from the second scale. It was hoped that this would produce a hierarchy of essential skills.

The top ten in terms of total value on this scale were the following:

1. Following oral or written directions
2. Making logical deductions
3. Reading at grade level
4. Recalling information for tests
5. Locating answers to questions
6. Turning in assignments on time
7 Asking relevant questions
8. Expressing ideas clearly through writing
9. Locating information in a textbook
10. Participating in discussions

When comparing this list to the list on p. 15, it is apparent that there is a certain degree of overlap and a few notable discrepancies.

"Recalling information for tests", "turning in assignments on time", "locating answers to questions", maintain a fairly equal balance on both lists. This is perhaps some evidence of the strength and stability of study skills.

Participating in discussions also showed up on both lists but, as can be seen in Table 2, most of its points came from the lower half of the scale.

While "skimming" was rated essential by a majority of teachers, it received few "100's" when re-rated. Still, this reading skill was 11th in total value on the anchor scale. Likewise, taking notes and studying for tests did not receive particularly high ratings on the second table.

The opposite was true for three different abilities--"reading at grade level", "expressing ideas through writing", and "asking relevant questions" These three, and particularly "reading at grade level" were rated essential by less than 50% of the respondents but still received ratings of high importance when re-rated.

It appears that while a minority consider grade level reading absolutely essential, those few are convinced that it is a key ingredient for regular class functioning and consistently assign it maximum value. A similar but less dramatic climb was made by writing and questioning but with somewhat larger percentages of participants. This strong importance felt by the minority pushed all three into the essential category.

Among the points to be made regarding the 1-100 scale are the following:

1. This scale is best analyzed for highs and lows rather than for generally establishing a true

hierarchy based on numerical ratings. It is more realistic to examine trends of importance rather than try to overgeneralize and chisel a "skills sequence" in stone.

2. Rather than rank ordering all skills assigned a value of 6 or 7, participants were asked to affix additional "anchor weights" to five of these essential skills. This forced them to decide which abilities should go to the top of the listing and which to the bottom but left the middle a rather gray area. Since a participant might have rated eight skills "essential" but could only re-rate five of them, three were left without an additional score. Most participants did indeed rate more than five abilities 6 or 7 so a number of skills did not receive their true total values when the data was compiled. One assumes that these abilities would have fit in somewhere between 25 and 75. Therefore, the scale would best indicate "favorites" (100's) and "least favorites" (1's).

To help clarify the relationship between the two scales, an additional table has been prepared which shows a distribution of frequencies with which essential skills were categorized along the 1-100 anchor scale (Table 2).

Table 2

"Anchor" Scale Ratings

Academic Abilities	Frequency of Responses				
	100	75	50	25	1
Taking notes from lectures	2	4	4	3	1
Skimming reading selections	3	4	7	2	5
Understanding graphs and charts	0	0	1	3	5
Spelling correctly	1	1	2	3	6
Asking relevant questions	10	7	8	3	3
Deriving meanings of words	0	1	0	2	2
Sounding out words	2	2	3	5	3
Solving mathematical problems	2	4	4	8	6
Memorizing	0	2	3	2	5
Detecting errors in writing	0	0	0	3	4
Understanding grammatical rules	0	0	0	5	4
Participating in discussions	5	4	10	13	13
Recalling information for tests	13	12	6	5	4
Locating information in a textbook	5	4	7	8	8
Turning in assignments on time	9	10	8	7	7
Reading at grade level	18	9	3	4	7
Following oral or written directions	30	18	22	9	1
Writing an outline	1	0	1	0	1
Expressing ideas through writing	5	9	13	7	3
Studying for tests	3	3	5	8	8
Locating answers for tests	8	15	7	12	6
Writing legibly	2	4	2	5	7
Making logical deductions	13	10	14	9	5
Making speeches	0	0	1	1	7

The following list contains those skills which received both a rating of essential by a majority of respondents and the highest number of points in the essential range on both scales:

1. Following oral or written directions
2. Recalling information on tests
3. Turning in assignments on time
4. Locating answers to questions
5. Locating information in a textbook

Implications of this list will be discussed in Chapter 4.

Specific Student Problems

An effort was made to analyze academic difficulties for low achieving students by asking participants to choose three abilities from the list of 24 which, in their opinions, present the greatest problem to students having difficulty performing adequately in regular classes. The ten most frequently mentioned problems are listed in Table 3 with a percentage rating of teachers who considered the skill one of the most serious problems for students.

Table 3

Greatest Problems for Low Achieving Students

	Ability	Percentage Rating
1.	Reading at grade level	.46
2.	Following directions	.33
3.	Expressing ideas through writing	.31
4.	Recalling information for tests	.17
5.	Spelling correctly	.17
6.	Asking relevant questions	.14
7.	Locating answers to questions	.14
8.	Studying for tests	.13
9.	Locating information in a textbook	.13
10.	Turning in assignments on time	.12

It is interesting that three of the top five difficult abilities are those traditionally thought of as "basic skills". Teachers appear to be placing emphasis on activities and assignments which require students to organize, manage time, take tests, locate information, and study effectively but attribute student failure to more general abilities to read, write, and spell correctly. They perhaps do not consider some of the other academic abilities as capable of being remediated or, in most cases, taught developmentally.

Additions to the Academic Abilities List

Item B on Part 3 of the rating scale asked participants to list any other academic abilities which they think

should have been included in the list. Very few participants responded to this item. Those who did either repeated skills that were already on the list or added items that were not primarily academic but rather were in the area of affective student behavior. There was a slight trend toward adding items dealing with student responsibility, relationships to teachers and peers, and self-concept. There were too few responses, however, for further analysis of abilities relating purely to academic functioning.

Problems for Teachers

The final item in Part 3 asked teachers to list elements of teaching which presented the greatest problems to them. The results are categorized and ranked in Table 4.

Table 4

Greatest Problems for Teachers

Category	Percentage Rating
Motivating students	.43
Individualizing instructions	.30
Assigning grades	.26
Classroom management/student discipline	.17
Locating appropriate materials	.10
Development of appropriate curriculum	.08
Problems with administrators	.08

Educators responding to this item (121 of the total sample of 133) expressed a wide variety of problems and difficulties. Some went into surprising detail--describing these problems. Because of the variety, responses were categorized into more general classifications such as "cooperative planning", "mainstreaming", and "pupil attendance" Generally, the responses fit the makeup of the total group, with a representative mix of responses regarding regular education matters and special education matters. Only the most frequently mentioned responses will be discussed.

Alone at the top of the list are three problems which taken together accounted for one-third of all responses to this question.

Chief among the problems identified were those categorized under "student motivation". This was supported not only by the fact that nearly half of all participants listed it, but also because several other related problem classifications were listed. A number of teachers, for example, expressed frustration at failing to teach knowledge and skills which were relevant to students needs. Several expressed feelings of their own underachievement and the difficulty of getting students to work independently. Taken together, these contribute to a general problem of trying to teach "turned off" and undermotivated students.

With the current emphasis on mainstreaming, it was not surprising that 30% of the participants listed individualization as a serious problem. Again, this is a problem category that was reinforced by a high number of responses in related categories. Difficulty in meeting individual student needs was underscored by problems finding appropriate classroom materials, lack of cooperative planning between regular and special educators, and difficulty planning beneficial lessons.

Another frequently mentioned problem was assigning grades or measuring student progress. Listed by 26% of the participants, it corresponds closely to problems in individualizing instruction. Several teachers described problems of setting unrealistic standards for students of low ability levels and the need to assign grades which reflect a student's growth in relation to his/her own potential.

The perennial problem of discipline raised its head in this survey, being listed as a serious problem by 17% of the respondents. This percentage actually seems fairly low when compared to the three more frequently listed problems. Of course, the relationship of classroom management and student motivation, while not formally investigated here, may be such that teachers feel plagued by students whose energies are aimed away from learning and toward disruption bred of boredom and apathy.

Looking for overall trends in this broad array of responses was difficult. Problems listed fit generally into three categories:

1. Problems attributed to personal abilities and behaviors, e.g., classroom management, assigning grades, attitude toward students.
2. Problems attributed to student behavior, e.g., student attitude, attendance, motivation.
3. Problems attributed to the setting or teaching situation, e.g., paperwork, support services, administration.

Overall, respondents were one and one-half times more likely to list problems under category 1 than under category 2 and three times more likely to list problems under category 1 than under category 3.

The frustrations teachers feel, then, seem to relate most highly to their own, personal difficulties in designing curricula, lessons, grading systems, and management techniques to deal with the many students who are unmotivated and incapable of doing the work required.

CHAPTER 4

SUMMARY AND CONCLUSIONS

In the opening section of this report, two basic questions were posed which related to the problem of adequately delivering instruction to students in secondary schools who are unable to profit from traditional instructional methods. It was hypothesized that students may experience difficulty because they have not developed or have not been taught how to satisfy academic requirements with which they are continually faced.

The purpose of the present study was to investigate secondary classroom demands and answer those two questions:

1. What skills are needed by students to help them satisfy course requirements?
2. In which of these skills are low achieving students deficient?

In the study, data was collected from experienced educators in the attempt to identify and prioritize essential academic abilities. The results described in Chapter 3 have several important implications for teachers and administrators in both regular and special education.

First, no academic ability can be seen as basically unnecessary or basically essential. Students rarely deal with the "average" teacher and sometimes not even with those that fit in the "majority" The student's job is to meet requirements of a single teacher in a single class at

a given time. That teacher may be the one who deviates most from what is average but that student still has to meet his/her standards to pass the class.

Second, there are those abilities which were clearly shown to be highly related to successful academic performance. These are, most notably, ability to follow directions, ability to demonstrate content understanding in a test situation, ability to locate answers to questions, ability to turn assignments in when due, and ability to locate information contained in a textbook. These top five abilities reflect the demands of the regular classroom environment. The job of learning, as with any other job, is accomplished by performance of many separate functions which are components of the total task. Suggesting that a student can learn without the ability to perform skills such as following directions and using a textbook is like suggesting that a person can cook without the ability to measure quantities or turn on an oven. Students can perform tasks only if they can follow the required steps. They can pass tests only if they know what, when, and how to study. They can turn assignments in on time only if they know how long each assignment will take and if they can or will take the time to do it. They can find the answers to study questions only if they can scan material and discriminate facts and concepts.

Third, there are certain skills, such as reading at grade level, which are valued very highly by a sizable minority of teachers. Others in this category are asking questions and writing. Actually, excluding reading from a list of essential skills is denying the obvious importance placed on this skill as shown by the high instructional priority placed on reading in remedial and special education programs. Interesting to note are the high ratings of two other reading skills - skimming and scanning (locating answers to questions). While these are not generally among the traditional reading skills taught to students in reading programs or resource rooms, they are considered highly important by a large segment of secondary educators and are indicative of the flexible reading habits helpful to students in the secondary grades. This includes students whose test scores indicate reading retardation. This perhaps helps to explain the low ratings received by a basic reading skill - sounding out words.

Redefining the Basics

Possibly the greatest discrepancy in the results of this study was between the identification of essential skills and identification of student problems.

Several of the most serious problems for low achieving students, according to the study, are in the area of what most teachers consider the "basic skills". These are abilities in reading, writing, and spelling. They are familiar

to teachers who offer remedial services to low achieving and LD students. This may explain why they were listed often. Teachers are apparently assuming that keying into these problem areas will improve the students overall school performance. Ironically, none of these three skills is among the list of most essential academic abilities derived from the two rating scales although reading at grade level and writing came close. Directing instruction at these "basics", while it would be of benefit to the student, might be denying the student needed instruction in skills considered by teachers to be more crucial to successful classroom performance. While it is not advisable to downgrade instruction in skills as useful as reading and writing, it is perhaps taking too narrow a view of basic skills to limit remediation to these areas. A redefined group of skills considered basic at the high school level would include the list of essential abilities listed in Chapter 3.

Meeting the Needs of Teachers

This study has dealt primarily with the needs of students attending public school classes. The final item, however, is directed more at needs of teachers. Results indicate that teachers are sensitive to changes occurring because of PL 94-142 and that they perceive a need to alter their methods accordingly. Many, however, feel incapable or at least unprepared to make the substantive changes

required to individualize instruction. An even greater concern is teaching students who lack any motivation to learn. Teachers recognize the need to make subject matter relevant and activities meaningful but feel overwhelmed by students who are indifferent to their efforts.

Limitations of the Study

The academic abilities rated in this study were chosen to be representative of the academic areas included in the federal definition of learning disabilities. It was impossible to make this list comprehensive enough to include the total range of abilities needed in a learning situation. The list was apparently acceptable to educators completing the instrument since additions to the list under Item B, Part 3 were too infrequent to merit serious consideration.

The hierarchy of essential skills intended as a result of this study could not be established with any true scientific accuracy because of the nature of the 1-100 scale. Since only five skills could be taken from the Likert scale to be re-rated, some highly important abilities did not receive all the numerical value that could have been assigned if they had been rank ordered. This is suggested as the more suitable technique for any similar studies.

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APPENDIX A

LIST OF ACADEMIC ABILITIES

Area	Abilities
Listening	Following directions
	Taking notes from lectures
Writing	Taking notes from lectures
	Detecting errors
	Understanding grammatical rules
	Expressing ideas through writing
	Writing legibly
	Writing an outline
Reading	Understanding graphs and charts
	Deriving meanings of words
	Sounding out words
	Reading at grade level
	Following directions
	Locating answers to questions
Spelling	Spelling correctly
Speaking	Asking relevant questions
	Participating in discussions
	Making speeches

Area	Abilities
Thinking	Memorizing
	Making logical deductions
Math	Solving math problems
Studying	Recalling information for tests
	Locating textbook information
	Turning in assignments on time
	Writing an outline
	Studying for tests

APPENDIX B

ACADEMIC ABILITIES RATING SCALE

Name_____ Date_____

Position_____ School/Agency_____

Number of years teaching/admin. experience____

grade level ___elem. (K-6)
___sec. (7-12)

The following rating scale will be used in an analysis of the academic requirements of secondary school classes. On Part I you are asked to rate the importance of the abilities or behaviors listed by assigning a numerical value to each. Please rate each according to the bearing it has on successful performance in your own classroom. Choose the level of importance that you think honestly reflects the demands placed on students in classes you teach. If you are not involved in direct instruction, base your rating on the level of importance you feel these abilities have for students in regular secondary classes.

I.

	essential		important				unnecessary
Taking notes from lectures	7	6	5	4	3	2	1
Skimming reading selections	7	6	5	4	3	2	1
Understanding graphs and charts	7	6	5	4	3	2	1
Spelling correctly	7	6	5	4	3	2	1
Asking relevant questions	7	6	5	4	3	2	1
Deriving meanings of difficult words	7	6	5	4	3	2	1
Sounding out words	7	6	5	4	3	2	1
Solving mathematical problems	7	6	5	4	3	2	1
Memorizing	7	6	5	4	3	2	1
Detecting errors in writing	7	6	5	4	3	2	1
Understanding grammatical rules	7	6	5	4	3	2	1
Participating in discussions	7	6	5	4	3	2	1

	essential			important			unnecessary
Recalling information for tests	7	6	5	4	3	2	1
Locating information in a textbook	7	6	5	4	3	2	1
Turning in assignments on time	7	6	5	4	3	2	1
Reading at grade level	7	6	5	4	3	2	1
Following oral or written	7	6	5	4	3	2	1
Writing an outline	7	6	5	4	3	2	1
Expressing ideas clearly	7	6	5	4	3	2	1
Studying for tests	7	6	5	4	3	2	1
Locating answers to questions	7	6	5	4	3	2	1
Writing legibly	7	6	5	4	3	2	1
Making logical deductions	7	6	5	4	3	2	1
Making speeches	7	6	5	4	3	2	1

II. For the second portion of the rating scale, follow these steps:

1. Using only those abilities you rated 6 or 7, choose one that you would assign a value of 100 on a 1-100 scale. (100 is the highest score, that is, most essential). Again, base your choice on the importance the ability has for regular classroom performance.

2. Using the same scale, choose one ability which you would assign a value of 1. ("1" is the lowest score, that is, least essential).

3. Complete the scale by choosing abilities you would assign values of 50, 75, and 25 respectively. REMEMBER TO CHOOSE THESE ONLY FROM THE 6's AND 7's ON THE FIRST SCALE.

(1)_____100

(4)_____ 75

(3)_____ 50

(5)_____ 25

(2)_____ 1

III. Please respond to the following questions:

A. From the list of academic abilities, choose <u>three</u> which you think present the most serious problems for students having trouble performing adequately in regular classes.

_____

_____

_____

B. What additions would you make to the academic abilities list?

C. What elements of teaching present the greatest problems for you? (These do not have to relate directly to the student academic abilities listed but should be areas to teacher ability and behavior, e.g., assigning grades). LIST AT LEAST THREE.

_____

_____

_____