

**Key Affective Behaviors of Students as
Identified by a Select Group of Secondary School
Teachers Using the SCANS Categories**

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Public schools in the United States have been subjected to heavy criticism by parents, professionals, and the business/industrial community over the past several decades. Perhaps the most well known critique of contemporary American education is found in *A Nation at Risk* (1983). This national alert was followed by similar public pronouncements indicating that student performance is continuing to decline as indicated by such measures as SAT scores. More importantly, from a practical point of view, eroding academic performance has been linked to declines in global workplace competitiveness and subsequent decreases in the U.S. standard of living. Studies such as *America's Choice: High Skills or Low Wages*, by the National Center on Education and the Economy (1990), lament the declining skills of graduates and warn of the global and long-term economical impact. In 1991, the United States Department of Labor, in response to these concerns, published a series of reports labeled, *The Secretary's Commission on Achieving Necessary Skills*, or SCANS. The SCANS report identified essential areas of worker competency and was envisioned, in part, as a mechanism for assisting secondary educators in developing curriculum. It was hoped that this focus would promote increased student performance with basic tasks, and consequently better prepare students to perform in the modern global workplace. The proponents of the SCANS project hoped that

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secondary schools would integrate the teaching of important skills identified in the study into the curriculum.

Identified in the SCANS report are three general areas: *basic skills*, *thinking skills*, and *personal qualities*. The specific personal qualities identified by SCANS are *responsibility*, *self-esteem*, *socialability*, *self-management*, and *integrity/honesty*. Unfortunately, the teaching of such personal qualities presents significant challenges to educational delivery systems. While the idea of focusing on personal qualities has considerable appeal, a lack of precise definitions and observable, teachable competencies often hinders the task of attempting to teach affective skills to students. Research indicates that the teaching of personal qualities, while perceived to be of great importance, has been largely ignored by secondary teachers. Much of this lack of focus can be attributed to a lack of well defined affective behaviors designed to guide teachers in their classrooms (Indiana Department of Workforce Development, 1992). An essential first step in identifying a list of affective behaviors involves grappling with the problems of defining and teaching the affective domain.

Defining and Teaching the Affective Domain

At a basic level, the affective domain focuses on feelings, emotions, and attitudes. Most definitions of the affective area also grapple with important psychological traits such as motivation, self esteem, and socialization. For example, Byrne (1984) reported that self-esteem is closely related to academic achievement; however, it was not clear which factor was the cause and which was the effect. Bloom (1956) contended that defining the affective domain involves a taxonomy that includes changes in interest, attitude, and values, as well as the development of appreciation and adequate adjustments.

Krathwohl (1964) developed a similar classification system for affective behaviors. In his view, affective behaviors exist along a continuum of internalization, from initial awareness of a phenomenon to a pervasive action-oriented outlook on life. Krathwohl's taxonomy was based on a concern with the degree of internalization (i.e., the degree to which an attitude, value, or interest had been incorporated into the personality). Anderson (1981) proposed that the affective dimension of students could be categorized by the characteristics of values, academic self-esteem, anxiety, interest,

locus of control, attitude, and preferences. Anderson further suggested that these affective characteristics must (a) include essential features of involved feelings and emotions, (b) be typical of the thoughts or behaviors of the person, (c) have intensity of strength of feelings, (d) have a positive or negative direction or orientation of feelings, and (e) have a target for which the feeling is directed.

Another problem of injecting the affective domain into the classroom curriculum concerns the difficult problem of how best to teach or influence students to develop and improve their affective behaviors. Walberg (1984) observed that reinforcement, cues and feedback, and cooperative learning were the top three instructional methods for use in the successful teaching of affective behaviors. Sinclair (1985) also spoke to the problem of teaching or influencing affective behavior. He noted that there were three types of student motives related to classroom learning and behavior: (a) maintenance and enhancement of self-esteem; (b) motives, such as curiosity, that are associated with explorative behavior and a need to know and understand; and (c) social motives, such as the need for praise, recognition, and attention. Sinclair's ideas suggest that any successful teaching of affective behaviors takes into consideration the student's sense of his or her own self-worth as well as an understanding on the part of the student of the reasons for developing or improving affective behavior. Martin's work (1989) on teaching the affective domain stressed, among other things, the notion that the teaching of affective behaviors must be conducted within a context of developmental age-appropriateness of students. For example, she suggests that curriculum developers sequence behavioral objectives according to level of internalization and identify cognitive prerequisites.

Despite the formidable challenges associated with defining and teaching the affective domain, it may still be argued that an effort should be made to identify the key affective behaviors. Specifically, if affective behaviors can be identified, then the important task of teaching personal qualities might be better addressed by secondary teachers in the classroom. Once such a list is generated, then the questions of which behaviors are relatively simple to teach and which, because of the complexities of internalization are more difficult to teach, can then be addressed. As a first step in advancing this process, the purpose of this study was to examine the SCANS categories (regarding the general areas of responsibility, self-es-

teem, sociability, self-management, and integrity/honesty), in some depth for more precise definition.

Purpose

The purpose of this study was to provide secondary teachers with a rank-ordered listing of student behaviors applicable to the affective categories of the SCANS report. Such a listing could provide a foundation for secondary schools implementing performance-based curricula grounded on SCANS categories.

Procedures and Methodology

The procedures for the completion of this study included (a) selecting participants, (b) developing and administering two instruments, (c) collecting data, and (d) conducting statistical analysis.

Participants

The participants selected for this study were public secondary education classroom teachers from Greene County, Indiana. The teachers were chosen from the *1992-1993 Directory for Greene County Schools* and included 145 secondary classroom teachers of which 85 were female and 60 were male. Non-classroom staff, such as librarians and guidance counselors, were not included in the sample. Data collection was restricted to obtaining perceptions of those working directly in a classroom environment in grades 7 through 12. The entire secondary classroom teacher population of Greene County, Indiana, (145 teachers) was included in the survey.

Instrumentation

In order to secure the necessary data for this study, two survey instruments were developed and administered to the subjects (referred to as Round 1 and Round 2 instruments). An open-ended format was used for the Round 1 instrument in order to generate the initial set of items. The Round 2 instrument was comprised of lists of refined statements clustered within the five major SCANS categories along with a four point rating scale. Included with the Round 1 instrument was a cover letter explaining the purpose of the study, the significance of each classroom teacher's participation, and assurance of the confidentiality of responses. The objective of the first

survey instrument was to generate a list of student behaviors applicable to the personal qualities listed in the SCANS report. To accomplish this, an open-ended questionnaire was designed which included a set of instructions, examples, and a response section for each of the five areas of the SCANS personal qualities (e.g., responsibility, self-esteem, sociability, self-management, and integrity/honesty). The respondents were asked to provide three student behavior statements they perceived applicable to each of the SCANS personal qualities. Specifically, they were asked to identify student behaviors that they perceived to be important within each category, based on their experience as classroom teachers. A sample behavior statement was included in the directions in order to clarify the classification system. For example, the specific sample item focused on *tolerance*, which was not one of the SCANS categories. Selecting a construct other than one from the SCANS list was necessary in order to reduce the possibility of influencing a response to an actual SCANS category by the power of suggestion.

Prior to actual use in the study, the Round 1 survey instrument was submitted to a panel of selected secondary teachers from the neighboring counties of Clay and Sullivan for review. The primary purpose of the procedure was to assure clarity of instructions and obtain feedback on the overall context and format of the instrument. Based on the recommendation of the panel, an example item was developed and the decision to reduce the requested number of responses per category from five to three was made.

The objective of the Round 2 survey instrument was to collect data which would be used to rank order the composite behavior statements. In order to eliminate researcher bias, a panel of three experts (consisting of one faculty member and two doctoral students from Indiana State University) compiled, organized, and condensed the initial list of behavioral statements generated in Round 1 into a refined set of composite statements. Through this process, the initial list of 491 items (generated in Round 1) was condensed to 57. Almost all of the reduction was due to the strong similarity among items that were initially submitted. The composite statements were then randomly listed within each subsection pertaining to a personal quality.

In order to reduce question ordering error, two alternative forms of the survey were constructed. Each form contained the same items, ordered randomly into a total of three different forms. The three different forms of the Round 2 survey instrument were then ran-

domly distributed to the study's participants. Participants were asked to rate how each composite statement related to the corresponding personal quality by using a four-point scale (1 = No Relationship, 2 = Little Relationship, 3 = Good Relationship, and 4 = Strong Relationship). They were asked to rate all items even if they perceived them as having no relationship to the corresponding personal quality.

As with the Round 1 instrument, selected secondary teachers from the neighboring counties were asked to review the items in advance of actual distribution in order to assure clarity of instructions, format, and content. As a result of this pre-administration process, a problem with maintaining visual alignment of items and corresponding statements was detected. To correct this problem, the response area was moved to the left of each statement number. The instrument review panelists also were concerned that some of the *self-management* statements appeared to be somewhat redundant, making the number of items in this section (15) larger than the other sections (which ranged from 9 - 12). Since the panel of experts had closely examined and carefully refined the statements and since, on closer inspection, each statement contained some unique information, the decision was made to retain all of the items that had been generated in each section.

Results

The Round 1 surveys were distributed to each of the 145 secondary classroom teachers in Greene County, Indiana. Of the 145 teachers, 58 returned completed surveys (40% return rate). Each of the participants was asked to prepare three student behaviors statements for each of the five affective areas of the SCANS report. A total of 491 statements were collected from the study's 58 participants and were distributed across the five SCANS categories as indicated in Table 1.

Analysis of the Key Behavior Statements

The teachers were asked to rate each statement according to the degree to which they perceived it related to the corresponding SCANS personal quality on a scale of 1 = no relationship and 4 = Strong Relationship. Weighted mean scores were subsequently calculated by multiplying the Round 2 mean score for each item by the frequency with which that item (or a similarly-worded state-

Table 1
Total Number of Statements per SCANS Category

SCANS Category	Original Number of Statements
Responsibility	123
Self-esteem	103
Sociability	94
Self-management	84
Integrity/Honesty	87
Total	491

ment) had appeared in the Round 1 results. The five statements with the highest weighted means were identified as the key behavior statements.

For example, by examining the frequency scores adjacent to the mean scores for the responsibility statements, a general tendency may be observed. Statements with high frequency scores also have high mean scores. The highest frequency score reported was 25. These were statements concerning turning in assignments on time. The composite statement on the second survey which represented the original 25 statements received the second highest mean score of 3.67. The weighted mean score of 91.75 was the highest weighted mean score among the responsibility statements. Cronbach's coefficient alpha coefficients were calculated for each of the five skill categories. These internal consistency reliability estimates ranged from *responsibility* = .74 to *integrity/honesty* = .89.

Responsibility Statements

Presented in Table 2 are the top five key behavior statements for the responsibility category. All of the items in this category focused on observable behaviors over which students could exercise direct control and which tend to affect the student-teacher interaction. Those items with a less direct effect on in-classroom activity (i.e., "student provides leadership in extra-curricular activities") were perceived to be less directly related to the responsibility category.

Self-Esteem Statements

Presented in Table 3 are top five key behavior statements for the self-esteem category. Each of the highly-rated items is readily observable and is typically associated with positive self-concept.

Table 2
Key Responsibility Statements

Composite Statement	<i>f</i>	Weighted	
		Mean	Mean
1. Turns in assignments on time	25	3.67	91.75
2. Brings appropriate materials to class	20	3.63	72.60
3. Is in class on time	19	3.49	66.31
4. Completes makeup work	12	3.76	45.12
5. Accepts consequences of his/her behavior	10	3.53	35.30

Table 3
Key Self-Esteem Statements

Composite Statement	<i>f</i>	Weighted	
		Mean	Mean
1. Often volunteers in class	24	3.18	76.32
2. Often answers questions with confidence	15	3.29	49.35
3. Has a positive attitude	11	3.58	39.38
4. Exhibits pride in his/her work and accomplishments	11	3.38	37.18
5. Accepts criticism as constructive, not threatening	11	3.34	36.74

Sociability Statements

Presented in Table 4 are the top five key behavior statements for the sociability category. The items in this category also tend to be observable and focus on group process and people skills. Of particular interest is the emphasis on sensitive and cooperative interaction with diverse groups. In other words, the concept of sociability was seen to extend beyond interactions among close friends and those with similar interests and backgrounds to include involvement with diverse groups.

Key Self-Management Statements

Presented in Table 5 are the top five key behavior statements for the self-management category. The items selected in this category focused on more comprehensive organizational and self-management skills rather than on highly specific items (e.g., being in their seats when the bell rings). It is also interesting to note that the top

Table 4
Key Sociability Statements

Composite Statement	<i>f</i>	Weighted	
		Mean	Mean
1. Has the ability to interact with other students	27	3.58	96.66
2. Is able to work cooperatively with others	12	3.46	41.52
3. Has the ability to interact with a group	10	3.48	34.80
4. Has the ability to interact with others from different cultures, races, skill levels, etc.	9	3.39	30.51
5. Is sensitive to feelings of others	9	3.34	30.06

Table 5
Key Self-Management Statements

Composite Statement	<i>f</i>	Weighted	
		Mean	Mean
1. Uses study time wisely	12	3.59	43.08
2. Behavior is self-disciplined in the classroom	10	3.44	34.40
3. Completes assignments on time	7	3.74	26.18
4. Keeps all materials in an organized manner	8	3.26	26.08
5. Balances extra-curricular activities with academic requirements well	7	3.55	24.85

rated skills require initiative and active involvement. More passive items (e.g., listening attentively during lectures) were rated as less closely associated with the category.

Key Integrity/Honesty Statements

Presented in Table 6 are the data used to determine the key integrity/honesty statements. The most striking feature of the set of items in this category is their rather negative wording. On reflection, it could be surmised that violations of these types are somewhat typical, overtly problematic, and directly observable in many classrooms than are more positive concepts which tend to be more general (e.g., students are trustworthy and ethical). Thus, it is not surprising that teachers would cast the behaviors in negative terms.

Table 6
Key Integrity/Honesty Statements

Composite Statement	<i>f</i>	Weighted	
		Mean	Mean
1. Does not lie or misrepresent facts	12	3.79	45.48
2. Does not cheat	11	3.80	41.80
3. Can be trusted with others' property	10	3.57	35.70
4. Does his or her own homework	9	3.53	31.77
5. Has the courage of his/her convictions, and is not influenced by peer pressure	8	3.58	28.64

Discussion

In reviewing the key behaviors that were identified by the secondary teachers in this study, several items stand out. First, it is clearly evident that many of the identified behaviors can be easily observed in the classroom. Turning in assignments, volunteering in class, interacting appropriately with other students, and using study time wisely represent behaviors that are easily observed. The question of how teachable these observed behaviors are is more problematic. In many respects, observed behaviors (such as turning in assignments) represent what might be termed "habits of positive conduct." Since positive habit development represents a complex mix of personality traits and learned behavior grounded in numerous experiences and influences that extend beyond the classroom (e.g., parents, civic organizations, sports, etc.), teachers may find it difficult to teach affective behaviors. Simply stated, ease of observation and behavior recognition have little to do with how easy or difficult affective behaviors are to teach and influence. Many affective behaviors are extremely difficult to recognize as well as to teach. As mentioned previously, Krathwohl (1964) noted that affective behaviors tend to be internalized (when they are internalized) in a hierarchical manner, from simple to complex. The obvious point is that many students' affective development is less advanced than others'. Teachers, who choose to identify and emphasize the degree to which students are prepared to accept responsibility and consequences for behavior (responsibility statement #5), should be aware of, and respond to, the reality that not all students have internalized this behavior. In order to assess the degree to which these complex

and rather mature responses are present in students, teachers must know and understand each of their students rather well. This is particularly true when evaluating the self-esteem statements. In the absence of a close relationship, it is often very difficult, impossible, or even inappropriate to attempt to infer self-esteem from overt behavior. For example, some students having low self-esteem may volunteer frequently in class as a mechanism designed to attract attention; yet "volunteering in class" was identified as the best indicator of high self-esteem. However, experienced teachers with a solid knowledge of their students are likely to have some sense of what may be motivating students to speak out in class as well as their relative self-esteem. The value of the behavior statements identified in this study, in many respects, assumes that teachers know their students well enough to understand and interpret behaviors in terms of motives, personality, characteristics, and ego needs.

Another difficulty regarding the complexities involved in interpreting affective behaviors is illustrated in the self-management category. Here the scope of the tasks being observed appears to be rather restricted to the school environment. However, for some students, home and away-from-school environments may strongly influence their self-management priorities, abilities, and overt behavior. This is not to say, however, that for a greater number of students, the five behaviors cannot serve as key indicators for self-management.

Finally, in the Integrity/Honesty section, the first four identified behaviors tend to be extremely difficult to observe. However, with statement five, the presence and strength of peer influence are both obvious and powerful. What is more obscure are the needs and motives that contribute to unique patterns of peer relationships. As with the other categories, teachers' assessment of these behaviors require close relationships with students in order to provide the insight necessary to observe and interpret behavior.

Conclusion

Many interested parties concerned with increasing the work skills of secondary school graduates are convinced that helping students improve personal qualities is of utmost importance. One of the serious difficulties in this area involves difficulties associated with identifying and prioritizing the affective behaviors necessary to

emphasize in school in order to help develop good workers. The SCANS report, while very general, offers some important points of reference for developing a list of such behaviors. This research has attempted to take the next step by trying to develop such a list. In the Results section of this study, the five highest-rated statements in each of the SCANS categories are listed under personal qualities. Several statements reflect an observable and potentially teachable skill. However, it must be acknowledged that simply identifying desirable affective behaviors and characteristics is insufficient. Affective behaviors are often very difficult to understand and teach effectively. Also, more research is needed in order to examine what relationships, if any, may be present between teaching identified affective behaviors in the classroom and an increase in workplace productivity.

Additional serious issues arise and must be considered by teachers when attempting to teach and influence the personal qualities of students. For example, some of these issues involve cultural dimensions where certain affective characteristics may be viewed as either desirable or undesirable depending on one's cultural perspective. Additional research is needed to explore these differences. Martin (1989) has wrestled with the problem of integrating the cultural dimension into the process of choosing which affective behaviors to teach and has developed specific procedures for addressing these differences.

Another area which remains to be addressed is the difficulty of observing and emphasizing affective behaviors that are extremely complex in nature, such as personal responsibility. Additional research exploring how teachers could more sensitively understand their students within the contexts of developmental growth and affective hierarchical theory would be beneficial.

One important feature of this study is that secondary teachers in the classroom were used as the "experts" in developing and prioritizing key affective behaviors. The researcher's role in the project was to clarify the problem and then organize and carry out a strategy for developing a list of the affective behaviors using the SCANS report, based on teachers' perceptions. However, research concerning what affective behaviors need to be encouraged and taught in the secondary classroom should be extended to include the thoughts and beliefs of students, parents, the general community, and the industrial/business community. A final area for further research suggested by this work includes the need for teacher

education programs to better emphasize the teaching of particular affective behaviors. Also, teacher education programs should address the issue of how to teach such behaviors more effectively. After more thorough studies have been conducted, specific curriculum should also be developed to address the identified affective behaviors. It is hoped that this research will provide an important initial step in this process.

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