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Career-oriented program activities and learning experiences that promote achievement of middle-grade education goals

Hughes, James Matthew, Ph.D.
The Ohio State University, 1993
CAREER-ORIENTED PROGRAM ACTIVITIES AND
LEARNING EXPERIENCES THAT PROMOTE
ACHIEVEMENT OF MIDDLE-GRADE EDUCATION GOALS

A Dissertation

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the
Graduate School of The Ohio State University

by

Matthew Hughes, B.S., M.Ag.

* * * * *

The Ohio State University
1993

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Approved by

Dept. of Agricultural Education
DEDICATION

This study is dedicated:

...to my parents, James and Mary Hughes, for instilling in me the value of education and always supporting me in my endeavors.

...to my wife, Kathy, and daughters, Sarah and Allison, for their love, patience, and understanding during the graduate school experience.
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Barrick, R.K., & Hughes, M. (1992). Responsibilities of vocational teacher education for Ohio vocational teacher professional development. (Summary of Research Series No. SR 67). Columbus: The Ohio State University, Department of Agricultural Education.

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CHAPTER I

INTRODUCTION

Individuals begin to formulate general career interests and goals during the early adolescent years (Super, 1963). To provide students with appropriate information needed in their initial efforts of career preparation, activities of the middle-grade school (grades six through eight) should be based on the characteristics of early adolescents and provide them a variety of opportunities to develop socially, intellectually, emotionally, and vocationally. Much has been learned in recent years regarding the educational needs and characteristics of early adolescents; however, career-oriented educational programs have been criticized for not providing a curriculum sufficient to address those needs and characteristics (Beane, 1990; Harrington-Lueker, 1990).

With emphasis in many states being placed on providing young people experiences that will better prepare them for their future roles in the work place and in the family, it is imperative that effective and appropriate educational programs be provided at the middle-grade level. These programs should provide early adolescents a solid foundation
upon which to base decisions related to future course work and possible career paths.

Early Adolescence

The characteristics of older children and younger adolescents justify designating the period of approximately 10 to 14 years of age as "early adolescence". According to the National Middle School Association (1992):

Each age or developmental level has particular characteristics which seem to warrant a label of unique, but no other age level has so clear and legitimate a claim to the designation of unique as does the period of transition between childhood and full-blown adolescence, roughly ages ten to fourteen (p. 4).

Eichhorn (1966) defined early adolescence as

... the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur for all precisely at the same chronological age in human development, the [early adolescent] designation is based on the many physical, social, emotional, and intellectual changes in body chemistry that appear prior to the puberty cycle to the time in which the body gains a practical degree of stabilization over these complex pubescent changes (p. 3).

The early adolescent period is characterized by rapid and sometimes overwhelming development. The physical, social, intellectual, and emotional development of the period is unparalleled in any other life stage, except during the early days of infancy (McEwin & Thomason, 1989).

Early adolescents have been described as "in-betweenagers" to indicate both the child and adolescent
traits that characterize them (George, 1973; McEwin and Thomason, 1982). Seltzer (1980) stated that "adolescents, who are in the developmental stage of transition and change and are identified with neither child nor adult status, exist in a state of instability and uncertainty" (p. 272). Related to that instability and uncertainty, Eichhorn (1966) stated:

Children of this age are difficult. Their unconventional mannerisms and their unpredictable behaviors make them a very difficult group to research. Teachers find them uncooperative. Parents find them annoying. In general, it is easier to deal with youth that are either younger or older than with the [early adolescent] (p. 150).

**Education for Early Adolescents**

Because of the characteristics of their life stage, early adolescents have unique educational needs requiring special school settings and learning experiences. A learning experience is operationally defined as a planned educational activity in which the student is engaged for the express purpose of developing knowledge, understanding, competence, perceptions, and attitudes.

Citing the need for educational activities and schools specifically designed for early adolescents, the Carnegie Council on Adolescent Development (1989) stated that middle-grade schools "are potentially society's most powerful force to recapture millions of youth adrift, and help every young person thrive during early adolescence" (p. 8). Eichhorn (1966) stated:
Due to cultural factors physical maturation is occurring in individuals at an earlier chronological age than formerly; this trend is accompanied by similar trends in social interests. It is characteristic of American education to develop organizational patterns commensurate with the nature of its students; the current status of human growth and development suggests there is a definite need for designing a middle school to be based on the compatible physical and social traits of the students (p. 1).

According to Denis D. Smith, Executive Director of the National Middle School Association:

If we know the nature of the learner, then we must provide a school to match that nature and thus nurture the adolescent that will emerge from the metamorphic state of human development variously called transescence, early adolescence, or prepubescence (National Middle School Association, 1992, p. v).

The junior high school was created during the early 20th century for the purpose of educating early adolescents. However, the junior high basically became a scaled-down version of the high school and not a unique institution based on the educational needs of early adolescents (Beane, 1990). Another criticism of the junior high was that students were being tracked into either vocational or academic courses very early in their schooling without adequate preparation (Reinhartz & Beach, 1983).

The middle school concept emerged during the 1950s and 1960s largely as a result of the shortcomings of the junior high. Jackson and Bosma (1990) defined the middle school as "a school of some three to five years between the elementary and high school focused on the educational needs of students
in these in-between years and designed to promote continuous educational progress for all concerned" (p. 3). The advent of middle schools "raised eyebrows with talk of a humanistic approach, de-emphasis of interscholastic competition, and the chance to provide a true transformation from the self-contained environment of the elementary school to the departmentalization of the senior high school" (Hertzog, 1984, p. 108).

The National Middle School Association (1992) identified the following elements of a "true" middle school:

1. educators who are knowledgeable about and committed to early adolescents;
2. a balanced curriculum that is based on the needs of early adolescents;
3. use of varied instructional strategies;
4. a full exploratory program;
5. comprehensive advising and counseling of students;
6. provisions made for students to progress at their own rate;
7. evaluation practices compatible with the nature of early adolescents;
8. cooperative planning among faculty, administrators, and specialists; and
9. a positive school climate.

Middle-grade schools include all or some of the middle grades. Although there are middle-grade schools that
include grades five and nine, the six through eight organization appears to be the most common. The term middle-grade school is used in this study to denote a school housing grades six through eight, except when a cited reference uses the specific term middle school or junior high school.

Middle-grade schools continue to receive criticism for not meeting the educational needs of early adolescents. According to Curtiss and Bidwell (1977), middle-grade curricula are often planned without a foundation based in sociology and psychology and does not reflect the needs of its clientele. Sale (1979) criticized middle-grade curricula for focusing too much attention on preparing students for future course work at the expense of current issues or concerns pertinent to early adolescents. Kindred, Wolotkiewicz, Mickelson, Copenlin, and Dyson (1976) warned against the middle-grade school becoming a "training ground" for the high school.

Despite shortcomings, the number of middle-grade schools is increasing and the middle school philosophy has spread beyond the United States. By 1988, there were approximately 12,000 junior high and middle schools in the United States (Alexander, 1988). By the year 2000, the number of middle schools will probably reach 20,000 (George, 1988). Middle schools have been established in Canada as
well as in several European, South American, and Asian countries (George & Oldaker, 1985).

Career-oriented Education in the Middle Grades

Many middle-grade schools offer career-oriented education programs. Career-oriented education is operationally defined as

...planned course work and activities designed specifically to provide students one or more of the following attributes: a) ability to assess occupational aptitude, b) entry-level job skills, c) practical skills (e.g. basic home repairs, "life skills", etc.), d) career awareness, e) knowledge needed to select future course work based on career interests, and f) opportunity to relate education to career roles (Barrick & Hughes, 1992).

Career-oriented education program areas include agriculture, business, general career education, health occupations, home economics, marketing/distribution, technology education, and trade and industrial.

According to Dohner (1990), middle-grade career-oriented programs "should give early adolescents a look at many careers and offer the opportunity to increase self-understanding as they prepare for an eventual occupation" (p. 26). Dohner suggested that middle-grade schools offer a core curriculum that includes three years of exploratory courses which could range from pre-vocational courses in industrial arts, technology education, business education, agriculture, and home economics to fine arts and community service.
In recent years, there has been an increase in the number of career-oriented programs at the middle-grade level, and that trend is expected to continue. From 1968 to 1988, the number of middle schools offering home economics and industrial arts increased, especially those offering the programs to sixth grade students (Alexander & McEwin, 1989). In 1989, 30 percent of all seventh and eighth grade students were enrolled in industrial arts; 28 percent were enrolled in home economics (Epstein & MacIver, 1990). According to Alexander and McEwin, the number of middle schools offering agriculture and general careers courses increased between 1968 and 1988. Eleven percent of the schools in the Alexander and McEwin study offered agricultural course work to eighth grade students in 1988; 23 percent offered a general careers course. Barrick and Hughes (1992) reported that a majority of state directors of vocational education expected an increase in the number of career-oriented programs at the middle-grade level.

Indicating a reason for the increased number of career-oriented programs at the middle-grade level, Alexander and McEwin (1989) stated that

...work in an appropriate career is our hope for every citizen. Therefore, with the ever widening scope of possible careers for both men and women our guidance-interested citizens and educators have pressed for early exposure of children to the work world and careers, especially as they approach choices of specialized preparatory courses in high schools. Hence a variety of required and elective, usually short-term, courses of careers in general (plus specific career-
oriented ones) have been introduced in the middle grades... (p. 18).

Problem Statement

The literature strongly supports basing middle-grade education on the needs and characteristics of early adolescents. While efforts to improve middle-grade education have made progress over the past three decades, those efforts have been concentrated mainly on a better understanding of early adolescents and the organizational structure of middle-grade schools rather than on developing educational programs based on student needs and characteristics (Beane, 1990). Beane and Harrington-Lueker (1990) criticized middle-grade career-oriented education in particular for not being based on the needs and characteristics of early adolescents.

Educators have the opportunity to develop exemplary middle-grade career-oriented programs that are based on the needs and characteristics of early adolescents. To develop exemplary programs, major goals of middle-grade education needed to be defined along with activities and learning experiences that promote achievement of those goals. The problem addressed in this study was the lack of knowledge regarding activities and learning experiences in career-oriented education that promote achievement of major goals of middle-grade education.
Objectives of the Study

Specific objectives of the study were:
1. to identify major goals of middle-grade education as perceived by scholars of early adolescent education; and
2. to identify activities and learning experiences in career-oriented education program areas that are perceived by experts as promoting achievement of major goals of middle-grade education.

Significance of the Study

The middle grades have been ignored in many recent education reform measures (Carnegie Council on Adolescent Development, 1989), and the application of educational research findings to the middle grades is a relatively new phenomenon (Reinhartz and Beach, 1983). According to Curtiss and Bidwell (1977),

...a primary problem arises from a lack of communication between the psychologists and sociologists who have prepared the various guidelines and the practicing administrators who have instituted the programs for emerging adolescents. Few school wide attempts to implement various psychological and sociological guidelines have been highly successful. Those who are most critical of the junior high school have not based their arguments on the efficacy of the principles espoused for the junior high school, but rather have debated the effectiveness of the steps taken to achieve them. The new middle school will be in no better position to achieve the goals of education with emerging adolescents than is the older junior high school unless more concern is given to implementation of those educational practices built around basic principles (p. 45).
The Carnegie Council on Adolescent Development (1989) identified four basic needs of the early adolescent that are often not met by the middle-grade curriculum: a) a caring relationship with adults, b) guidance in facing psychological and physical changes, c) the security of belonging to constructive peer groups, and d) the positive perception of future career and family opportunities. According to the council, "many middle-grade schools pay little attention to the emotional, physical, and social development of their students" (p. 32).

Many middle-grade schools were opened under the guise of providing for the unique educational needs of early adolescents, while the real reasons were to promote desegregation or to accommodate shifting enrollment patterns (George, 1988). George viewed this practice as a threat, and stated that "if the middle school concept is not firmly in place programmatically when the next decade's shifts in priorities occur, middle schools that were created as expedients may disappear and the concept with them" (p. 15).

Based on the educational needs of early adolescents, career-oriented education can play an important role in middle-grade schools. However, for the programs to be effective, they must provide learning experiences that are educationally sound, appropriate for early adolescents, and that promote achievement of the goals of middle-grade education. The programs must be based on needs of students
at the middle-grade level and not simply emulate programs at
the high school level (McEwin, 1984).

Assumptions and Limitations of the Study

The intent of the study was to provide a greater understanding, through opinions expressed by individuals recognized as having high levels of relevant expertise, of how career-oriented education programs can effectively meet educational needs of early adolescents. Therefore, the data generated by this study are reflective of the expertise of the purposively-selected study participants.

A modified Delphi technique was appropriate for accomplishing the purpose of the study. However, the Delphi technique did not provide a clear understanding of factors underlying reported opinions.

As with any study of the type presented, certain assumptions are made. In this study, it was assumed that the review of literature and the opinions of recognized scholars of early adolescent education were sufficient to identify major goals of middle-grade education. It was assumed that the study participants did indeed have high levels of expertise in middle-grade education and provided responses indicative of that expertise.
Summary of Introduction

Early adolescence is characterized by many developmental changes. Because of these changes, the early adolescent has unique educational needs for which the middle-grade school was established.

The number of career-oriented programs at the middle-grade level has increased in recent years, and this trend is expected to continue. However, career-oriented curricula have been criticized for not meeting the educational needs of early adolescents.

The lack of knowledge regarding effective and appropriate middle-grade activities/learning experiences in career-oriented programs is counterproductive to the development of the programs. To provide information needed by decision-makers, goals of middle-grade education were identified along with activities/learning experiences in career-oriented program areas that promote achievement of those goals.
CHAPTER II
REVIEW OF RELATED LITERATURE

This study was designed to identify activities and learning experiences in career-oriented education program areas that promote achievement of middle-grade education goals. The intent of the study was to provide information that would be useful in guiding the development and implementation of career-oriented education activities for early adolescents.

The theoretical and philosophical bases that guided this study are couched in the literature on physiology, psychology, sociology, and education. This chapter includes a review of literature related to: a) characteristics of early adolescents, b) early adolescent education, and c) the Delphi technique. Literature related to the characteristics and education of early adolescents support the identification of the major goals in the section on early adolescent education.

The Early Adolescent

Early adolescence is characterized by numerous developmental changes that have important implications for
education. According to Eichhorn (1966), middle grade education should be based on the unique needs and characteristics of 10 to 14 year old students.

**General Characteristics of Early Adolescents**

Several characteristics common to some degree among early adolescents have been identified. Gallina and Miller (1977), identified nine:

1. resentment of authority figures;
2. ambivalence concerning dependence;
3. transfer of recognition from adults to peers;
4. emancipation from home;
5. fluctuation of emotions;
6. changing values;
7. concern about physical growth;
8. development of self-concept; and
9. identification of sex role and appropriate sex-role behaviors.

Curtiss and Bidwell (1977) identified eight characteristics of early adolescents:

1. stress due to rate of physical development;
2. ambivalence;
3. sex-role conflicts;
4. restlessness;
5. introspection;
6. idealism;
7. enthusiasm for things perceived to be important; and
8. negative attitudes and behaviors.

Individuals undergo changes in thought, appearance, and action as they move from childhood into early adolescence. The New York State School Boards Association (1987) described some of those changes:

Cognitively, the adolescent, who as a child learned to apply logical thought to concrete problems, must learn how to apply logic to abstract problems and to weight consequences not immediately apparent. Physically, there is change in height and weight, development of secondary sex characteristics and overall growth. Socially, there is a marked increase in the desire for autonomy, the importance of the peer group in place of adults, and a search for a sense of values and morality sparked by their own questioning (p. 11).

According to Thornburg (1970), "there is no specific line separating childhood and adolescence. Rather there are gradual developmental and learning changes involving the physical, intellectual, and social life of youth" (p. 150). These "gradual developmental and learning changes" result in individuals of the same age differing greatly in their development (Alexander & George, 1981). The greatest developmental variability among early adolescents usually occurs about age 13 (Hillman, 1991). According to Hillman, ...

...some girls at this age [early adolescence] may already have given birth, while others are still waiting for the onset of puberty. Reading levels range from second grade to early college levels, with thinking ranging from concrete to more mature adult forms (p. 4).
Physical Development

The most obvious change during early adolescence is the rapid physical development associated with the onset of puberty. This growth spurt often causes a lack of coordination and a susceptibility to bone damage (Alexander & George, 1981) and is usually accompanied by a fluctuation in energy level (Gallina & Miller, 1977).

Females typically enter puberty earlier than do males. On average, females experience a growth spurt beginning at age 10, with a peak about age 12. Breast development usually begins at about 10.5 years of age, and menarche (the first menstrual period) at about 12. For females, the growth of pubic hair occurs about age 11 (Thornburg, 1970).

Males usually experience a growth spurt at about 12.5 years of age, and peak about age 14. A period of penis and testes growth occurs about age 12; pubic hair growth begins about age 13 (Thornburg, 1970).

The pituitary gland secretes several hormones important in early adolescent development. A growth stimulating hormone produces the growth spurt while the gonadotrophic hormone stimulates the development of secondary sex characteristics (Gallina & Miller, 1977).

The maturation process has begun about four months earlier with each passing decade since 1830 primarily because of better nutrition (Brazee & Smalley, 1982). There also appears to be a positive relationship between
socioeconomic conditions and early maturation (Eichhorn, 1966). In recent years, there have been indications that the trend toward earlier maturation has slowed or perhaps stopped (Hillman, 1991).

Brain development may not correspond with other physical developments during early adolescence. Between the ages of 12 and 14, there appears to be a period of slow brain growth (Epstein & Topfer, 1978). This plateau in brain growth may disrupt the intellectual development of early adolescents (National Middle School Association, 1992).

**Cognitive Development**

Cognitive development is how the "mental machinery changes with age, presumably as a result of the complex interaction between mental maturation and experience" (Santrock, 1984, p. 139).

Cognitive development appears to occur in stages as individuals pass from lower to higher levels of mental capacity. According to Piaget, cognitive development proceeds through four separate major stages in an orderly, invariate, and systematic manner (Piaget & Inhelder, 1958): 1. sensorimotor stage (first two years of life); 2. egocentric or preoperational stage (two to five years of age); 3. concrete stage (gradual onset between five and eight years of age, giving way to the formal stage during early
adolescence); and

4. formal stage (from early adolescence through adulthood).

Piaget reported that individuals move to progressively higher stages of cognitive ability by a process of assimilation and accommodation. New experiences and knowledge are assimilated within existing cognitive frameworks. If the newly encountered information is not consistent with existing thought processes, individuals modify their thinking to accommodate the information (Piaget & Inhelder, 1958).

Increasingly sophisticated analytical abilities and abstract thought processes emerge as early adolescents advance from the concrete to the formal stage of cognitive development (Piaget & Inhelder, 1958). Perhaps the most significant aspect of the formal stage is the ability to think in terms of "what could be" and not only in terms of "what is" or "what was". Individuals in the formal stage have the ability to think in terms of ideas, hypotheses, and ideologies in addition to thinking about "things". Individuals in the concrete stage are primarily limited to thinking about things and have difficulty understanding abstract concepts and hypothetical situations (Dulit, 1979).

Some learning theorists have suggested that cognitive development is a reflection of what has been learned, and not simply a process that unfolds automatically in a universal and orderly fashion as indicated by Piaget.
According to Eichhorn (1966), experiences and environment play important roles in the advancement from one cognitive level to the next. Eichhorn reported that although this advancement does appear to follow a sequential course, the stages do not begin nor end at set chronological marks and not everyone achieves the same intellectual level.

**Psychological Development**

Hall (1904) described adolescence as time of "sturm and drang" (storm and stress) to illustrate the emotional stresses that sometimes characterize the period. Noar (1961) identified four emotional needs of early adolescents:

1. need for security and affection;
2. need for recognition and reward;
3. need for achievement and success; and
4. need for fun and adventure through new educational and recreational experiences.

Anxieties related to physical appearance, school performance, death, religion, and peer relationships are common among early adolescents. Strategies, and the effectiveness of those strategies, that young people use to cope with anxieties appear to be related to gender and age (Seiffge-Krenke, 1990). Seiffge-Krenke reported research findings in which female adolescents tended to rely more on social resources in solving problems than did male adolescents. According to Rodriguez-Tome and Bariaud (1990), male adolescents tend to cope with anxieties by
revolt or hostility, whereas female adolescents tend to cope more through self-criticism and feelings of inhibition and depression. Tyzkowa (1990) reported that the ability of adolescents to cope with difficult school situations increases with age.

Moods of the preadolescent (early adolescents and older children) are often influenced by external factors (persons being "bad", fun events, receiving items, receiving attention, etc.), whereas moods of the adolescent are influenced more often by internal factors (Kohlberg & Gilligan, 1979). Kohlberg and Gilligan reported that adolescents frequently experience subjective moods. While there can be little tolerance of feelings of love and hate for the same person or of enjoying sadness in preadolescence, the adolescent frequently has such feelings.

Rodriguez-Tome and Bariaud (1990) studied fears and anxieties identified by 90 male and 90 female early adolescents. The researchers reported that between the ages of 12 and 16, there was a marked decrease in statements related to fear of failure in school and of parental punishment. However, there was an increase in statements related to death, war, the world, personal future, and self. Rodriguez-Tome and Bariaud also reported that the anxieties of the males tended to be oriented more toward actions and the external world, whereas anxieties of the females were oriented more toward interpersonal concerns. Rodriguez-Tome
and Bariaud concluded that as individuals pass from childhood to adolescence, their anxieties and fears move from the concrete (usually involving bodily harm, kidnapping, etc.) to the more abstract (world situation, the future, death, etc.).

Early adolescents experience emotions of greater depth and breadth than do children, but the nature of those emotions more closely resembles that of children than that of older adolescents (McEwin & Thomason, 1982). According to McEwin and Thomason (1989), "it is not uncommon for these youth [early adolescents] to lose themselves in anger, love, fear, and other emotions as they experiment with the emergence of more adultlike feelings" (p. 5).

Peer relations play important roles in the emotional adjustment of early adolescents. Kieffer and Johnston (1979) suggested that the attachment of early adolescents to peers is so strong because of a desire for emotional stability. Unacceptable behavior most often occurs when youth do not perceive themselves as being important parts of the people around them, have no commitment to school nor community, and have feelings of little self-worth (Greenberg & Hunter, 1982).

Changes associated with early adolescence are often more psychologically burdensome on females than on males (Thornburg & Glider, 1984). Research indicates that early maturing males tend to be leaders, athletic, more socially
mature, and exhibit confidence, whereas later maturing males tend to be more attention-seeking and have lower self-concepts. Early maturing females are more likely to become involved with older males and are often excluded from peer groups (Hillman, 1991). Physical maturation without accompanying emotional maturation can be problematic in that mature behavior is often expected from a mature appearing person (Brazee & Smalley, 1982).

While usually not producing the same anxiety levels as do physical changes, there is often a period of psychological disequilibrium associated with intellectual change (Eichhorn, 1966). As individuals develop capacity for abstract thought, they are able to view themselves from various perspectives (Van der Werff, 1990). According to Van der Werff, "as soon as capacities of self-reflection and social cognition permit, the individual wants to acquire a clear and true conception of himself" (p. 30).

As individuals develop formal thought capacity, they begin to reflect on how they are perceived by others. Adolescents act as if they are "on stage" and that their thoughts and behaviors preoccupy the attention of other people. This egocentrism causes increased self-consciousness and preoccupation with appearance (Elkind, 1978).

Erikson (1980) referred to the psychological developmental stage corresponding with puberty and
adolescence as the "identity versus role confusion" stage. During this stage, the individual "tries on" various roles and personalities to determine which is best suited. Either the individual accepts a role and emerges from the stage with a new sense of self, or suffers from identity confusion. According to Erikson, youth often become intolerant and cruel in the exclusion of others whom they perceive as "different" as a response to identity confusion. Erikson stated that the overriding influence in youth developing a strong sense of identity is the development of a clear path toward a vocational role.

Self-concept is "the sum total of an individual's feelings and perceptions about himself, including his feelings about areas of competence, interests, and uniqueness" (Santrock, 1984, p. G-9). The development of a positive self-concept and a high level of self-esteem are critical for the psychological well-being of early adolescents.

According to Tyzkowa (1990),

...it may be concluded that the development of an appropriate cognitive approach to oneself and to life situations, as well as the establishment of a relatively high level of self-esteem are of great importance for the formation of stress resistance in adolescence. They are crucial for the development of effective strategies of coping with difficult situations encountered in contexts such as school (p. 201)
However, in a study of North Carolina seventh graders, McEwin, Blanton, and Terry (1979) found no correlation between student self-concept and academic achievement. Seiffge-Krenke (1990) reported research in which adolescent drug abusers were shown to have lower self-concepts in comparison to non-drug abusing adolescents. Thornburg (1970) stated that a healthy self-concept during early adolescence is one of the most effective means of preventing drug abuse.

According to Erikson (1980), the development of self-concept begins prior to adolescence during the "industry versus inferiority" psychological developmental stage. The industry versus inferiority stage includes ages six to twelve. During this stage, individuals either develop a sense of task mastery and competence which contributes to positive self-concept or they fail to do so, resulting in negative self-concept.

Many factors affect the self-concept and self-esteem of early adolescents. Jackson and Bosma (1990) stated that "it might be anticipated that loss of a friend or failure to maintain the same level of school progress as peers, might well have marked effects on self-esteem" (p. 210). Fend (1990) concluded that feelings of loneliness and personal unworthiness are associated with social distance from parents and peers.
Failure during competitive activities with peers has been indicated as negatively affecting the self-concept of early adolescents. Since individuals do not mature at the same rates, Kieffer and Johnston (1979) suggested that self-competition take precedence over competition with others during the middle grades.

Social Development

The manner in which an individual learns to interact with other people and accept social responsibilities can have a strong influence on the well-being of early adolescents and on their later lives. According to Manning and Allen (1987), "changes in social characteristics during this critical period [early adolescence] have the potential for dramatic consequences on self-concept, academic achievement and the kind of person the adolescent finally becomes" (p.172). Eichhorn (1966) stated that "stage level psychologists believe that the principal factor in freeing youngsters from intellectual disequilibrium, which appears at the onset of a more advanced stage of mental development, is social interaction" (p. 70).

Adolescents who effectively handle challenging social interactions assign relatively high priorities to interpersonal goals such as helping others, developing good relationships with parents and friends, and becoming socially involved. They also tend to set personal goals and be self-directed (Ford, 1982).
Physical characteristics that differ from the norm may negatively affect early adolescents' perceptions regarding their ability to interact socially (Thornburg, 1970). How well an early adolescent adjusts to the physical maturation process depends on if growth is normal according to societal expectations and how well the individual has been prepared to deal with puberty (Eichhorn, 1966).

Peer relations play important roles in the social development of youth. Those early adolescents who are judged to be socially competent tend to perceive themselves as having a large social support network (Ford, 1982). Peers serve as a "sounding board" for early adolescents to receive feedback, rehearse roles, and test ideas and behaviors (Santrock, 1984). According to Youniss and Smollar (1990), self-reflection for early adolescents is an essential process, as is the public reflection that takes place in social situations.

A primary social goal of the early adolescent is to learn how to achieve recognition and esteem from peers (McEwin & Thomason, 1989). Early adolescents sometime believe that maintaining allegiance to teachers and parents will result in loss of peer approval and acceptance (Thornburg, 1970). According to Kohut (1988), "while often displaying somewhat emotionally erratic, inconsistent, and unpredictable behavior, the [early adolescent] is highly dependent on peer group acceptance and praise rather than
adult approval" (p. 7). There appears to be a peak in conformity of adolescents to antisocial behavior of peer groups about the end of the ninth grade (Santrock, 1984).

According to Pepitone (1980), "peer group society serves the transitional needs of adolescents and provides a framework within which they can move toward separation from their parents and independent functioning and away from the protective and sometimes intrusive environment of childhood" (p. 259). The move toward independence often results when early adolescents begin to reexamine long-held beliefs (Alexander & George, 1981).

Despite the importance of peer relations and conformity to the peer norm, not all early adolescents desire the same level of independence. Even within individuals, the level of desire varies as moods change (Thornburg, 1970).

Parents continue to play important roles in the lives of early adolescents. Early adolescents rely on adult perceptions for their still developing self-concepts (Brazee & Smalley, 1982). Even though young people assert themselves as individuals, they simultaneously seek parental acceptance and respect for the new individuals that they have become (Youniss & Smollar, 1990).

Peers are not the overriding sources of social influence and personal well-being; quality of relationships with parents is more important (Fend, 1990). Peers cannot compensate for a problematic relationship with parents, but
parents alone are not enough. Fend stated that if good parent-child relationships are not complimented with good peer relationships, healthy emotional development during adolescence does not occur.

Peer influence is greatest in areas related to style, leisure, and moral issues (Seltzer, 1980). However, parents are more influential on issues such as religion, political beliefs, and career plans (Otto, 1988). Kohlberg and Gilligan (1979) stated:

Harold Teen and Andy Hardy's first law was conformity to the norms of the peer group. Beneath this conformity to the peer group, however, was the teenager's recognition that when the chips were down about your future, you listened to dear old Dad (p. 68).

Moral Development

Although early adolescents may be capable of formal thought, they may not possess a corresponding degree of moral maturity (Kohlberg & Gilligan, 1979). Kohlberg (1987) stated that "common sense thinking about moral character traits or virtues like honesty implies that they develop with age, experience, and increased moral socialization" (p. 268). However, Kohlberg pointed out that neither common sense assumptions of gradual moral development with age nor psychoanalytic assumptions of moral development in early life are supported by research.

According to Kohlberg (1987), there are three major levels of moral development: a) the preconventional level which includes childhood, b) the conventional level which
includes most adolescents and adults, and c) the postconventional level which occurs during adulthood, if at all.

The preconventional level is the stage of moral development of most children, some adolescents, and many adolescent and adult criminals. The preconventional level is marked by following the rules of society and exhibiting socially acceptable behavior when doing so is personally beneficial or prevents punishment. Individuals at the preconventional level interpret actions as good or bad in terms of physical consequences or in terms of the physical power of those who label actions as such. Those at the preconventional level generally do not relate two points of view nor do they consider the interests of others.

Most adolescents and adults are at the conventional level of moral development. Moral behavior at the conventional level is typically dictated by the expectations and norms of family and society. Individuals at the conventional level perceive a strong need for law and order to ensure continued functioning of the social system.

According to Kohlberg (1987), most individuals never reach the postconventional level of moral development; those who do usually do so by age 20. The postconventional level is marked by self-chosen ethical principles and strong convictions of universal justice and human rights. Respect for the dignity of all humans is a characteristic of the
postconventional level. When laws of society conflict with self-chosen principles, the postconventional individual acts in accordance with personal principles.

An individual must be capable of formal thought to move from the conventional to the postconventional level. However, moving from the concrete to the formal stage of cognitive development does not automatically result in movement to the postconventional level of moral development (Kohlberg & Gilligan, 1979).

Moral development of children is influenced by values discussions with parents (Kohlberg, 1987). The socialization process also has an important influence on moral development. Kohlberg wrote that "in general, the higher an individual child's participation is in a social group or institution, the more opportunities the child has to take the social perspectives of others" (p. 313). Related to the socialization process, Kohlberg reported that socioeconomic class influences moral development since individuals from the upper social classes generally have more opportunity to interact in social settings.

**Vocational Development**

Vocational development is the "maturation of an individual leading to an increased ability to accurately assess personal aptitudes and interests as related to career role" (Barrick & Hughes, 1992). Early adolescence is a crucial period during the vocational development and
occupational choice processes. According to Erikson (1980), "in general it is primarily the inability to settle on an occupational identity which disturbs young people" (p. 97).

Many difficulties associated with occupational choice are the result of early adolescents desiring immediate gratification, not understanding the complex nature of society, and the emotional stresses accompanying the maturation process (Ginzberg, Ginsburg, Axelrad, and Herma, 1951). In a study of tenth and twelfth grade students, Jyung (1989) concluded that many students do not possess the maturity needed to make solid career and curriculum decisions by the end of their tenth grade year. Jyung stated that "clearly it would be an advantage if the first year of high school could be an exploratory period, when students were able to sample and react to a variety of courses in the manner once envisioned for junior high schools" (p. 117).

Many factors affect the occupational aspirations and preferences of individuals. Super (1957) identified family, religious values, intelligence, self-concept, and socioeconomic level as influencing occupational preference. According to Mitchell and Krumboltz (1984), the occupational choice process is affected by interactions among genetic predisposition, environment, learning experiences, and cognitive, emotional, and performance abilities.
Socioeconomic status is an important factor influencing occupational preference and choice. Besides having a limited amount of capital and credit to be expended on education and training, youth from lower socioeconomic families are often hampered in their vocational achievement by lack of contact with people who are in positions to assist them in reaching career goals (Super, 1957). Because youth from lower socioeconomic levels generally aspire to occupational levels above those of their parents,

...boys and girls from less privileged levels are likely to have no suitable occupational role models in the family, and few family activities related to their aspirations. If they aspire to occupations which are above those of their parents they are dependent upon exceptional relatives, upon the school, and upon fantasy sources such as fiction and the movies, for information as to what it is like, for example, to get a higher education or to work as a lawyer (Super, 1957, p. 243).

Ginzberg et al. (1951) theorized that the occupational choice process begins about age 11 when individuals realize they eventually must make employment-related decisions. According to Ginzberg et al., the process typically takes 10 or more years, with each related decision tied to the experiences of the individual and, in turn, influencing the future of the individual.

The occupational choice process is closely tied to the general maturation process (Ginzberg et al., 1951). Therefore, consideration must be given to the physical, cognitive, psychological, and social development processes in order to better understand the occupational choice
process (Ginzberg, 1978). According to Ginzberg, the key to understanding the process of choosing an occupation is to concentrate on related decisions that individuals make during successive periods of maturation.

From interviews with individuals ranging in age from 11 through early twenties, Ginzberg et al. (1951) constructed a theory of the occupational choice process that includes three periods. The first period is the fantasy period and includes the childhood years up to about age 11. Children in the latter part of the period recognize that they will be working in the future, but their occupational aspirations are often grandiose with little regard for possible limitations.

According to Ginzberg et al. (1951), children of about 10 or 11 years old often are in a suspended state of occupational choice. Realizing that their previous choices were not based on sound judgement, they are no longer satisfied with those choices. However, they have no basis on which to make new occupational choices. Of children this age, Ginzberg et al. stated:

Although many children still approach the question [of occupation] in terms of their father's occupation or by expecting their parents to suggest a solution, they do recognize that they themselves will have to make the decision and they assume that it will be based on their interests. They are dimly aware that their interests, the basis for their choice, may change. However, they are quite unconcerned, since they know that they will not have to make important decisions until many years later (p. 79).
The second period of the occupational choice process is the tentative period and includes the years from about ages 11 to 17. During the tentative period, occupational aspirations are usually based on interests, but capabilities and values are considered also. Ginzberg et al. (1951) stated:

The transition from the period of fantasy choices to the next period, that of tentative choices, is connected with the development of a new attitude toward themselves. For the first time, the individual actually considers himself as an entity which is both stable and changing, an entity which can—in fact, must—evaluate if he is to direct his activities effectively toward his goals (pp. 63-64).

The second period of the process is termed tentative because individuals become aware of barriers and limitations that make occupational choices only tentative. As early adolescents enter the tentative period, they move toward future images that they have of themselves through their tentative choices. Early adolescents begin to realize the link between their present actions and their future (Ginzberg, 1987).

The tentative period is divided into four phases (Ginzberg, 1987). Ages 11 and 12 are included in the interest phase in which occupational choices are based primarily on likes and interests. During the capacity phase, which includes ages 13 and 14, individuals become aware of their capacities, limitations, and personal values. The value phase includes ages 15 and 16, during which time
individuals attempt to identify a place for themselves in society. The transition phase occurs about age 17 and is marked by restrained anxiety about the future. During the transition phase, individuals begin a more concentrated effort toward making occupational decisions.

The third period, the realistic period, begins about age 18 and continues through early adulthood. During the realistic period, the individual seeks to identify opportunities and limitations of occupational choices. Ginzberg et al. (1951) stated:

It is only when the period of conflict and tension comes to an end at about the age of seventeen or eighteen, when the individual has succeeded in channeling anew the manifold emotional pressures upon him, that he finally acquires a solid foundation with which to cope with the problems of adulthood. At this point he is ready to relinquish his earlier tentativeness and finally face the fact that he must make a definitive choice (p. 69).

Like Ginzberg, Donald Super has been instrumental in promoting an understanding of the occupational choice process. According to Super (1957), the term occupational or vocational choice conveys a misleading notion of neatness and precision in time. Super believed that "choice is, in fact, a process rather than an event" (p. 184). Therefore, Super used the term "vocational development" to indicate that the process of choosing an occupation is on-going over a period of several years.

According to Super, vocational development is a stage process closely tied to other human developmental processes.
"Like social development, emotional development, and intellectual development, it [vocational development] has both distinctive characteristics which make focusing on it worthwhile and common characteristics which reveal it as one way in which general development of the individual manifests itself" (Super, 1957, p. 185).

Individuals grow in vocational maturity as they advance through the vocational development process (Super, 1957). Super (1957) defined vocational maturity as "the degree of development, the place reached on the continuum of vocational development from exploratory to decline" (p. 186). People can be classified according to their vocational maturity just as they can be classified by their physical, emotional, or cognitive maturity (Super, 1963).

Super (1963) stated that vocational maturity is determined by vocational developmental tasks accomplished. Havighurst (1972) defined a developmental task as

...a task which arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks (p.2).

Super (1963) identified five developmental tasks that face individuals as they proceed through vocational development:

1. crystallizing a vocational preference;
2. specifying a vocational preference;
3. implementing a vocational preference;
4. stabilizing in a vocation; and
5. consolidating status and advancing in a vocation.

According to Super, vocational developmental tasks can be accomplished either by commitment or a move toward commitment to a vocation or by an academic commitment such as a specialized area of study.

Super (1963), divided vocational development into two main stages. The exploratory stage coincides with early adolescence up to early adult years; the establishment stage coincides with adulthood.

During the exploratory stage, vocational preference crystallization occurs. Crystallization is "the process of formulating a generalized vocational goal" (Super, 1963, p. 84). According to Super, crystallization involves the following behaviors, attitudes, and attributes:
1. awareness of the need to crystallize tentative vocational choices into a more specific vocational area;
2. efficient use of available information resources;
3. awareness of factors to consider when choosing a vocation;
4. awareness of factors that may affect vocational goals;
5. differentiation of interests and values related to vocational goals;
6. awareness of the relationship between present actions and future goals;
7. formulation of a general vocational preference;
8. possessing information about the general vocational preference; and
9. planning for the preferred vocation.

Individuals usually enter the establishment stage and face the task of implementing a vocational choice during late adolescence or early adulthood. This task may be accomplished by entering work or by further education and training.

Early experiences in decision-making and independence training play important roles in preparing young people to enter work. Super (1957) stated that "the youth who has for years been practicing making decisions and taking action has no great difficulty in seeking information himself, in deciding where, when, and how to apply, and in carrying out these decisions" (p. 244).

According to Bujold (1979), the theories of Ginzberg and Super do not clearly indicate the cognitive abilities necessary in choosing a vocational role. Therefore, Bujold advocated a "functional approach" to conceptualizing the vocational choice process. The functional approach suggests that a relationship exists between the vocational choice process and the cognitive abilities and attitudes of individuals.

According to Bujold (1979), it is important to view the process of vocational choice not only from tasks to be accomplished during each developmental stage, but also from
the cognitive abilities that make accomplishment possible. Bujold stated that the functional approach to vocational choice is preferred over other approaches "since it analyzes an individual's behavior in relation to the way he lives his experiences, the way in which his experiences are cognitively processed, the significance he draws from them, and the manner in which he integrates them" (p. 190).

The functional approach is based on the premise that in order to move through progressively higher phases of the vocational choice process, one must be moving upward through progressively higher cognitive levels. Individuals must possess formal thought capacity in order to enter the career exploratory phase. The more aspects of a situation that individuals can comprehend, the more they can increase their occupational knowledge through various career exploratory activities. One must be capable of judging, formulating inferences, interpreting information, tolerating ambiguity, and testing career goals in order to explore vocational choices (Bujold, 1979).

Individuals must be capable of complex thought processes and taking into account several variables simultaneously before being able to crystallize vocational choices. Logical and conceptual thinking abilities are required to sort through knowledge related to vocations and to identify choices congruent with desires, abilities, and interests (Bujold, 1979).
Summary

Early adolescents experience rapid changes associated with the physical, cognitive, psychological, social, moral, and vocational developmental processes. These changes often create many anxieties in early adolescents as they strive to cope with their new bodies and emerging thought processes.

Developmental changes associated with early adolescence have implications for education. Because the changes do not occur at the same age in all individuals, the middle-grade school population will include students from a wide range on the developmental spectrum. Implications that developmental changes have for middle-grade education are reflected in the following section on early adolescent education.

Early Adolescent Education

The school's function is to help [the early adolescent] grow to maturity mentally, socially, and emotionally and to release his potential to the fullest. The particular characteristics of the early adolescent make the middle school a most appropriate vehicle for concentrating on the accomplishments of these goals (Kindred et al, 1976, p. 17).

The Middle-grade School

Indicating the magnitude and variety of functions of the middle-grade school, Kindred et al. (1976) stated:

The child of middle school age has reached a stage in his development where it is possible to teach him to recognize and understand his needs, the reasons for his attitudes and behavior, and why one direction he might go is preferable to another. He can begin to make intelligent decisions about himself and his future. The
middle school must provide him with the opportunities to act independently and to do creative work, and, at the same time, ensure that he has time to read, to discover the world about him, and finally, to discover himself (p. 15).

According to Toepfer (1988), "the effectiveness of middle-level schools depends upon the degree to which they respond to the developmental needs and characteristics of students at that age" (p. 110). Griffiths (in foreword of Eichhorn, 1966) stated that the middle-grade school

...is not a mere mechanical arrangement of grades, but is a careful integration of an education program resulting from cultural forces, mental, emotional, and physical growth factors, together with administrative variables, guidance activities, and teaching requirements. The middle school is seen as an organic whole with all the relevant factors focusing upon the growth of the child (pp. vii-vii).

The role of the middle-grade school is to "meet the needs of students who are 'in-between' in cognitive, affective, and social development" (McEwin et al., 1979, p. 15). However, there is disagreement over what grades should be included in a school for "in-between" students. Experts generally agree that grades six through eight should be included, but questions exist over the inclusion of grades five and nine (Jackson & Bosma, 1990). There are no specific middle-grade standards and policies in many states, but the two most dominant features are some form of individualized instruction and team teaching (Kohut, 1988).
Several characteristics of effective middle-grade schools have been identified. George, Stevenson, Thomason, and Beane (1992) stated that "effective middle schools work to provide a balance between attention to the basics, adequate coverage of necessary skills and knowledge, and the need for students to explore a wide variety of interests and experiences" (p. 63). According to Alexander and George (1981), effective middle-grade schools must not only build upon the progress that students made in earlier grades and anticipate the progress that will occur in later grades, but also must focus efforts on current problems and interests of students.

According to Doda, George, and McEwin (1987), effective middle-grade schools:
1. work to reduce the size of the group to which students belong;
2. are more like elementary than high schools;
3. provide means for students and teachers to spend time together in non-instructional settings;
4. have broad and varied systems of rewarding students;
5. foster teacher fellowship, interdependence, and staff consensus;
6. teach lessons that bring students as close to reality as possible;
7. have teachers with a sense of humor; and
8. have teachers who work to gain student trust and affection.

Lipsitz (1984) studied four successful middle-grade schools and identified the following characteristics common to each:
1. periodic evaluation of school response to student developmental needs;
2. a curriculum that emphasizes opportunities for student success and achievement;
3. opportunities for students to explore personal interests;
4. opportunities for social interaction among students; and
5. opportunities for participation in student activities.

According to Lounsbury and Vars (1978), middle-grade schools should provide opportunities for students to:
1. have at least one adult who knows them personally and is responsible for helping them deal with problems of early adolescence;
2. deal directly with personal and social problems;
3. progress at their own rate through a non-graded and continuous (if appropriate) curriculum; and
4. participate in a wide variety of required and elective exploratory activities.

Alexander, Williams, Compton, Hines, and Prescott (1968) stated that "the middle school aims to help the pupil understand himself as a unique individual with personal needs and shared social responsibilities" (p. 84). Related
to those aims, Curtiss and Bidwell (1977) identified a goal of the middle-grade school as providing an environment conducive to personal, social, and emotional growth of students as well as to extending basic skills and exploring new interests.

Curtiss and Bidwell (1977) identified three primary functions of the middle-grade school: "a) development of a cultural transition from childhood to later adolescence, b) establishment of an educational transition from elementary to secondary school philosophies, and c) recognition of and appropriate consideration for the extreme variabilities within and among the emerging adolescent group" (p. 3).

The Carnegie Council on Adolescent Development (1989) identified five qualities of a 15 year old that has been well-served by middle-grade education. According to the council, that individual will be:
1. intellectually reflective;
2. enroute to a lifetime of meaningful work;
3. a good citizen;
4. caring and ethical; and
5. healthy.

Effective middle-grade schools are characterized by practices based on the needs and characteristics of early adolescents. Curricular functions aimed at carrying out these practices are examined in the following section.
The Middle-grade Curriculum

The curriculum includes all student experiences for which the school accepts responsibility (Sale, 1979). McDonough (1991) defined an effective middle-grade curriculum as "that which encompasses the dynamic interaction of all experiences during the young adolescent's school day. This includes the instructional strategies, organizational arrangements, integrated curricular content, and cultural environment experienced by the young adolescent" (p. 29).

Many organizational patterns and instructional methods unique to middle-grade education have been instituted with the characteristics of early adolescents in mind; it only follows that the curriculum should be guided by those same principles (Beane, 1990). However, the middle-grade curriculum is often planned and implemented without a foundation based in adolescent psychology and sociology (Curtiss and Bidwell, 1977).

The Nature of the Curriculum

Although curricula vary from one middle-grade school to another, the following common components appear to be important (Alexander et al., 1968):

1. student investigations that lead to better understandings of basic concepts;
2. application of mathematics, language, science, and social studies to common activities and problems;
3. relationships of people and cultures to each other and their environments;
4. organized knowledge leading to understanding of people and their cultures;
5. the role of literature and the arts in the development of culture and communication; and
6. critical thinking skills.

Based on research studies and observations, Sale (1979) reported that the following curricular-related trends are common among middle-grade schools:
1. a six through eight grade organization;
2. the requirement of English, mathematics, science, social studies, health, and physical education at all grade levels;
3. instrumental music, vocal music, and foreign languages as the most common electives;
4. most common outside-class activities were music and athletics;
5. an increase in the offering of mini-courses based on student interests; and
6. emphasis placed on comprehensive, personalized health and physical education programs.

Criticisms have been levied at the middle-grade curriculum. Beane (1990) criticized the curriculum as being a collection of educational programs intended to meet all expectations and special interests. According to Beane, the
middle-grade school has been viewed primarily as a school reorganization effort and secondarily as a comprehensive school reform measure. Factors identified by Beane as contributing to middle-grade curriculum weaknesses include traditions, interests of subject area specialists, and parental expectations of old junior high practices in present-day middle-grade schools.

According to Beane (1990), the middle-grade curriculum has traditionally been framed around separate subject areas and has not been based on the characteristics of early adolescents. Beane stated that the curriculum framework is a result of special interest groups promoting specific courses and of state mandated curriculum content. According to Beane:

Middle school advocates have claimed from the beginning that their primary concern is with the characteristics of early adolescence. If these characteristics are extended into a discussion of the curriculum, it becomes apparent that the persistent organization around a collection of academic and 'special' courses, with emphasis on the former, is not a developmentally appropriate nor responsive approach to the curriculum (p. 2).

Increasingly stringent graduation requirements have pushed advanced placement and introductory high school courses into the middle grades. Critical of this situation, Toepfer (1988) stated that, "contemporary infatuation with improving performance in academic achievement overlooks the affective, self-concept, and self-esteem needs of youth. The literature of the national reports has largely lost
contact with concern for the developmental needs of youth" (p. 110).

Suggestions have been made to place equal emphasis on the cognitive, affective, and psychomotor domains within the middle-grade curriculum (Curtiss & Bidwell, 1977; Sale, 1979). According to Sale:

In the cognitive area, emphasis should be given to mastery of the basic skills with specific attention to life-long learning skills. In the affective area, the students' development of a personal value system and positive self-concept should be emphasized. In the psychomotor area, the significant physiological changes of [early adolescence] require a personalized health and physical education program that emphasizes physical fitness, personal hygiene, family-life education, and carry-over sports for all students (p. 189).

According to Beane (1990), the cognitive dimension of the middle-grade curriculum has been placed in "academic" subjects while the affective dimension has been placed in the "soft" side of the curriculum. This separation of cognitive and affective dimensions does not reflect reality in which cognition and affect are inseparable. Beane stated that "the academic subject approach has helped to create the incorrect belief that cognition and affect can and ought to be separated in the curriculum" (p. 30). According to Beane (1991), "it is time we faced the fact that subject areas or disciplines of knowledge around which the [middle-grade] curriculum has traditionally been organized are actually territorial spaces carved out by academic scholars for their own purposes" (p. 9).
McDonough (1991) also criticized the separate subject approach to the middle-grade curriculum. Promoting a more integrated approach to the curriculum, McDonough stated that

...a curriculum which values young adolescents' search for self and social meanings cannot be comprised of a series of separate subjects or occasional shared topics that cross subject lines. Traditional subject boundaries inhibit the discovery of relationships in the exploration of powerful and relevant meanings....As experienced, life is an integrated whole and the middle-level curriculum should model this unity (p. 33).

Consideration: Integrated Components

Subject-area boundaries limit early adolescents' understanding of broader meanings and concepts; therefore an integrated curriculum is needed at the middle-grade level (Beane, 1991). According to Beane, an integrated or interdisciplinary curriculum is more reflective of reality in which problems are addressed by calling on a wide range of knowledge which crosses subject boundaries.

Staffing patterns in middle-grade schools are often not reflective of an integrated curriculum. Non-core subject staff such as physical education, foreign language, and elective/exploratory teachers are often excluded in the interdisciplinary team organization (National Middle School Association, 1992). The National Middle School Association recommended that middle-grade schools ensure that the non-core staff are part of the team organization.

Middle-grade curricula often do not reflect what is known about the educational and emotional needs of early

According to Capelluti and Brazee (1992):

Middle-level curricula consists of courses, activities, and expectations; many exist, not for their inherent worth, but because they always have been there! Most curriculum for middle-level schools is not based on what we know about young adolescents, principles of learning, the nature of various disciplines, or other important curriculum considerations (p. 11).

McDonough (1991) reported that the middle-grade curriculum is "neither effective nor appropriate for young adolescents", and that the curriculum "results in isolated and fragmented content, alienated and passive students, underdeveloped social skills, and low-level intellectual development" (p. 29).

Consideration: Student Characteristics

The middle-grade curriculum should be developmentally appropriate for early adolescents based on their characteristics and needs. Havighurst (1972) identified seven developmental tasks that face early adolescents:

1. achieving more mature relationships with peers of both sexes;
2. achieving an appropriate sex-role;
3. achieving acceptance of personal appearance;
4. achieving emotional independence from parents and other adults;
5. preparing for a career;
6. developing a set of personal values; and
7. desiring and achieving behavior that is socially responsible.

Kindred et al. (1976) suggested that the developmental tasks identified by Havighurst would be an appropriate foundation for the middle-grade curriculum. According to Kindred et al., a curriculum that is beyond the developmental level or experience of students often results in student frustration, rejection, alienation, and possibly failure.

Because of wide variations in the physical and cognitive abilities among early adolescents, instruction, physical skill goals, and evaluation processes should be individualized for middle-grade students (Kieffer & Johnston, 1979). Kieffer and Johnston suggested that middle-grade education avoid establishing criteria and instructional practices that require all students, representing a wide range of developmental levels, to achieve at the same level. Kieffer and Johnston also suggested that middle-grade schools provide a variety of means for students to demonstrate achievement and receive recognition.

Middle-grade teachers should help students evaluate personal academic achievement. Curtiss and Bidwell (1977) suggested that students objectively determine their strengths and weaknesses as means of self-evaluation, improvement, and development of positive self-concept.
Progress of middle-grade students should be judged on individual improvement and not in comparison to the achievement of other students (Curtiss & Bidwell, 1977; Sale, 1979).

Middle-grade learning experiences should be within the mental capability of early adolescents. According to Eichhorn (1966), "if the [middle-grade] curriculum is founded on the awareness of the nature of changing patterns of intellectual growth and their various needs, a favorable learning environment is obtained" (p. 37).

Although all children display some capacity for logical reasoning, not all (nor a large proportion of adults) reach a complete stage of formal thought capability (Kohlberg & Gilligan, 1979). Eichhorn (1966) suggested that to promote the development of higher-order thought processes, and because early adolescents vary widely in their cognitive abilities, middle-grade curricula should be structured to move from the concrete to the theoretical. Cognitive development appears to be a continually expanding process with present capacity being dependent upon past experiences. Therefore, it is not reasonable to believe that accelerated intellectual development can be accomplished by providing learning experiences that by-pass intermediate, necessary stages of development (Eichhorn, 1966).

Curriculum reforms such as "new math" and "new science" have concentrated on putting more intellectual content into
curricula. The focus of curriculum reforms has been on understanding basic assumptions of the disciplines and then applying those assumptions in a critical thinking or problem solving context (Kohlberg & Gilligan, 1979). According to Kohlberg and Gilligan, the new curricula erroneously assumed students to be capable of formal thought, therefore only a sub-group of students have been successful.

Curricula that stress problem solving and critical thinking have been successful in promoting movement to higher levels of cognitive ability (Kohlberg & Gilligan, 1979). McEwin and Thomason (1982) stated that

...the progression toward more formal logic is not a spontaneous part of the maturation process; it must be encouraged, fostered, and its development overseen by a teacher who is first of all competent in formal logic and equipped with skills to aid student progress (p. 9).

McEwin and Thomason emphasized that middle-grade students need high success rates when mastering difficult content requiring higher-order thinking skills.

Consideration: The Community

Characteristics and needs of the local community should be reflected in the middle-grade curriculum (Sale, 1979). According to Beane (1990), because the middle-grade curriculum must consider the needs of early adolescents specific to the local community, curriculum planning should be done at middle-grade schools and involve local professionals, early adolescents, and other community representatives. According to Alexander et al. (1968), the
middle-grade curriculum should also be planned with respect to the preceding elementary programs and to the high school programs that follow. Alexander et al. stated that the middle-grade curriculum plan...

...must be one, we think, that fits into the community's total program of schooling, anticipates the characteristics of the population served, and squares off with the realities of personnel and physical facilities. Thus, it is best made by the faculty of a particular middle school for that school (p. 64).

If the middle-grade curriculum is to reflect democracy, then its content cannot be selective, but must include the views and contributions of a diversity of people (Beane, 1990). Beane stated that the education profession must...

...do whatever is necessary to involve those who are non-privileged and frequently excluded from curriculum decisions just as they are from the academic curriculum itself. By creating such broad participation we can demonstrate in discussions those interests and concerns that are truly common in society rather than those that emerge from particular class interests (p. 53).

Consideration: Student and Societal Concerns

Lounsbury and Vars (1978), Toepfer (1988), and Beane (1990) supported the concept of social issues and problems driving middle-grade curriculum content. According to Toepfer, "the development of a safe, sane, and desirable future depends on the degree to which today's [early adolescents] develop an awareness of those future-oriented problems which they will have to deal in their adult lives" (p. 112). Beane stated:
Problems like poverty, homelessness, pollution, and racism are not abstract categories for early adolescents; many of these young people experience these problems every day of their lives. Moreover, as we have seen, these issues are 'marginalized' by the typical academic-centered, subject area curriculum both in terms of the narrow view of what it presents and by what it leaves out. An adequately framed general education must thus address these issues or risk collapsing under the weight of its own irrelevancy (p. 39).

According to Beane (1990), the middle-grade curriculum should provide a general education based upon the concerns of students and society. Beane identified three aspects that should guide middle-grade general education: a) curriculum themes related to the personal concerns of early adolescents and the concerns of society, b) skills needed to explore and understand those themes, and c) concepts common to a democratic society.

Beane (1990) contended that the personal concerns common to early adolescents represent a microcosm of societal concerns. Reflecting this belief, Beane proposed that the overlap or commonalities between the personal concerns of early adolescents and the concerns of society be the themes upon which the middle-grade curriculum is based (Figure 1, page 57). Because the curriculum would be based on common concerns of early adolescents, Beane suggested that students be heterogeneously grouped in the middle grades.
<table>
<thead>
<tr>
<th>EARLY ADOLESCENT CONCERNS</th>
<th>CURRICULUM THEMES</th>
<th>SOCIAL CONCERNS</th>
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<td>Living in a changing world</td>
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<tr>
<td>Developing a personal identity</td>
<td>IDENTITIES</td>
<td>Cultural diversity</td>
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<td>Finding a place in the group</td>
<td>INTERDEPENDENCE</td>
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<td>Personal fitness</td>
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<td>Personal friendships</td>
<td>CARING</td>
<td>Social welfare</td>
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<tr>
<td>Living in the school</td>
<td>INSTITUTIONS</td>
<td>Social institutions</td>
</tr>
</tbody>
</table>

**Figure 1.** Intersections of personal and social concerns

*Note. From A Middle School Curriculum (p. 41) by J.A. Beane, 1990, Columbus, OH: National Middle School Association. Copyright 1990 by National Middle School Association. Reprinted with permission (appendix A, page 312).*
In reference to his curriculum proposal, Beane (1990) stated:

In the intersections between the two categories, then, we may discover a promising way of conceptualizing a general education that serves the dual purpose of addressing the personal issues, needs, and problems of early adolescents and the concerns of the larger world, including the particular society in which they live. It is here that we may find the themes that ought to drive the curriculum of the middle school as a general education program. And it is here that we may finally find a way of positioning subject matter so that it presents a justifiable and compelling source of study for early adolescents and the adults who they work with (p. 40).

Beane (1990) stated that his proposed curriculum would require students to employ practical skills that go beyond the usual communication, computation, and research skills. Beane identified seven skills that would be required:

1. reflective thinking about ideas and behaviors and their meanings and consequences;
2. making moral judgements;
3. problem solving;
4. identifying and clarifying personal values;
5. identifying and evaluating personal aspirations and interests;
6. working within a group to solve problems; and
7. striving to view the "big picture" of a situation and to understand the point of view of others.

The curriculum framework proposed by Beane includes content that has relevance to students. The need for middle-grade curricula to focus on developmental and social
concerns relevant to early adolescents has been expressed in the literature (Curtiss & Bidwell, 1977; Arnold, 1991; McDonough, 1991). According to Curtiss and Bidwell, "content, no matter what its importance to society, will not be assimilated unless it is perceived by the learners as relevant to their needs and desires..." (p. 158).

According to Arnold (1991), Beane's curriculum proposal has merit; however, separate disciplines cannot be entirely abandoned. Some disciplines (for example, math and foreign languages) do not fit neatly into the theme approach advocated by Beane.

Lounsbury and Vars (1978) proposed that the middle-grade curriculum include three components. The first component, the core, would consist of mostly problem-centered learning activities designed to allow students to examine personal and social problems. The core component would contain the major portion of common learnings—that knowledge perceived to be important for all students. The second component, continuous progress, would consist of course work in which there is logical and sequential organization such as science, reading, mathematics, and foreign languages. Lounsbury and Vars identified the third component as variable. Learning experiences within the variable component would be neither highly sequential nor essentially problem-centered. The activities would be
flexible and include pre-vocational courses, arts, and physical education.

Alexander et al. (1968) suggested that the following questions be asked when evaluating the middle-grade curriculum.

1. Is the curriculum balanced between the programs of the school and the individual?
2. Is there continuity in the curriculum?
3. Is the curriculum flexible to fit situations as they arise?
4. Does the curriculum include provisions for individual differences among students?

The middle-grade curriculum has been criticized for not meeting the needs of early adolescents. Recommendations for improving the curriculum include an integrated approach and basing the curriculum on the characteristics of students and the community, as well as the concerns common to early adolescents and society. Learning experiences within the curriculum are examined in the following section.

Student Learning Experiences

A variety of learning experiences should be used in the middle grades to compensate for developmental differences among early adolescents. Alexander et al. (1968) stated:

Since the pupil population of the middle school brings to the classroom a variety of learning styles, and since the program of the school has varied educational goals, the position that teachers should utilize a range of strategies or methods appears very sound (p. 90).
teachers should utilize a range of strategies or methods appears very sound (p. 90).

Cooperative Learning/Heterogenous Grouping. A hallmark of middle-grade education is to promote cooperative learning in groups of students having diverse ability levels (Harrington-Lueker, 1990). Although research indicates the need to eliminate student tracking and ability grouping, most middle-grade schools continue the practices (George, 1988). George stated that as long as tracking and ability grouping continue, the claim that middle-grade schools deeply care for and place priority on the needs of individual students will be questioned.

Cooperative learning is congruent with the goals of middle-grade education because students are responsible for encouraging and helping each other (Jones, 1990). In support of group learning activities, Beane (1990) stated that

...given the preoccupation over group connections in early adolescence and the idea of collective action that is the hallmark of democracy, for example, we might expect that cooperative learning would be of premium value in exploring major themes or subtopics within them....In doing so, early adolescents might not only see how various issues look through the lens of democracy, but simultaneously experience its workings (p. 54).

Applied Learning. Most early adolescents prefer active involvement in learning and want to learn through hands-on experiences (National Middle School Association, 1992; George et al., 1992). Carnevale and Johnston (1989) recommended that, when possible, middle-grade education be
delivered in an applied context. According to Carnevale and Johnston, "pure reasoning should be deemphasized in favor of learning experiences that imitate real-world situations and involve physically manipulating objects and tools" (p. 15).

The middle-grade curriculum should be interdisciplinary, allowing students to connect knowledge and skills learned in one course to what is presented in other courses (Waidelich, 1990; Hacker, 1990; Zahn, 1990). A curriculum emphasizing learning in an applied context forces students to integrate interdisciplinary knowledge because real situations rarely fit into subject areas or categories (Carnevale & Johnston, 1989).

Weltz (1990) illustrated positive benefits of incorporating applied learning into the middle-grade curriculum. Weltz reported that 40 Illinois middle-grade teachers and their students participated in a study in which educational activities involved hands-on student experiences and contact with community businesses and agencies. Most of the teachers reported having students with poor academic histories who experienced success, and even excelled, with the emphasis on concrete concepts and applied learning.

According to Brazee and Smalley (1982),

...the lecture method, deeply rooted in many teachers, reaches too few. The traditional method (teacher lectures or reads, then asks students to apply what they heard) requires students to think abstractly ...Given the characteristics of middle school students, active learning is the single most important factor in the middle school. Not only does it suit the physical needs of students
who need to move around and use their new energy, it is also appropriate for the many students who are beginning to move from concrete thinking to formal level thinking (p.32).

**Student Activities.** Student activities that are in addition to regular classroom instruction are an important part of the middle-grade curriculum. Student activities provide a means of extending the academic curriculum and providing exploratory experiences. The activities also aid early adolescents in the socialization process, meet the psychological need for recognition, and may provide the impetus needed for some students to remain in school (Kindred et al., 1976).

Alexander et al. (1968) and Kindred et al. (1976) preferred not to use the term "extracurricular" because of the implication that the activities are of a lesser status than the "regular" curriculum. According to Griffin (1988), "the relationship of [middle-grade] student activities to intended learning outcomes must be recognized and student activities given their rightful place as a full and equal part of the total curriculum" (p. 92).

Clubs serve an important function at the middle-grade level. Belonging to school clubs provides early adolescents opportunities to explore interests, develop social skills, and cultivate humanitarian qualities (Lounsbury & Vars, 1978). Membership in a small group can promote self-esteem and a sense of identity in early adolescents (Jones, 1990). The primary reason that early adolescents participate in
student activities and peer groups is to develop personal relationships (Curtiss & Bidwell, 1977).

Schools are laboratories for learning social skills (Havighurst, 1972). Manning and Allen (1987) suggested that middle-grade schools encourage social development through clubs, study groups, and other student activities. However, social activities of middle-grade schools should not simply mirror those of high schools. If overly sophisticated activities such as proms, interscholastic sports, and marching bands dominate, many students may experience social adjustment problems (McEwin, 1984). McEwin suggested that social activities at the middle-grade level promote development of social skills and minimize elitism.

The development of social skills through student activities is especially important for students from lower socioeconomic levels (Havighurst, 1972). According to Havighurst,

...for lower-class youth, middle-class manners, party behavior, and social attitudes can seldom be learned anywhere except at school. If the school aims to help some boys and girls to rise in the social scale, it must offer them opportunities to learn social skills (p. 48).

Student activities are important in developing the leadership skills of early adolescents. Miller (1988) stated that the early adolescent "may come to realize his or her own potential for leadership only after being placed in a situation - contrived or real - demanding dominance, forcefulness, and influence" (p. 173).
Middle-grade student activities should emphasize student participation, student election, and student leadership (Curtiss & Bidwell, 1977). Kindred et al. (1976) stated that the activities should be student-centered and that all students should have equal opportunity to participate. In order to encourage participation, Kindred et al. recommended that there be little or no costs to students and that provisions be made for less talented students to participate. Eichhorn (1966) suggested that student "interest activity programs" be a regular part of the middle-grade curriculum and that the programs center on activity rather than on club-type procedural meetings.

Kindred et al. (1976) stated that a goal of the middle-grade school should be that every student participate in at least one outside-class student activity. Activities that exclude students from participation based on ability do not work toward that goal (Barnhart, 1987). Griffin (1991) indicated that the same was true if students are excluded from participation based on academic performance. According to Griffin, "academic eligibility represents a Pandora's box of dilemmas. If student activities represent valuable learning opportunities, is it fair or even constructive to deny students these opportunities based on nonachievement in academic classes?" (p. 91).

Curtiss and Bidwell (1977) stated that student activities at the middle-grade level should:
1. have clear and accepted objectives;
2. provide a wide variety of activities for students;
3. have sponsorship that is part of the regular teaching load;
4. take place during regular school hours;
5. encourage participation of all students;
6. avoid excluding students because of expense;
7. accept students regardless of achievement or conduct; and
8. have a periodic evaluation of all aspects.

Lounsbury and Vars (1978) proposed the following guidelines for middle-grade student activities.
1. Time should be provided during the school day for the activities.
2. Participation in the activities should not be restricted by financial status, academic achievement, nor social standing.
3. The activities within student organizations should be flexible.
4. Sponsoring student activities should be considered an integral part of the job of the middle-grade teacher.
5. Students should have central roles in developing and implementing activity programs.
6. The nature and purposes of the programs should be understood by all school faculty members.

Outside-class Assignments. According to Curtiss and Bidwell (1977), there is debate over the merits of outside-
class assignments for middle-grade students. Curtiss and Bidwell suggested that, if required of middle grade students, outside-class assignments should be:

1. cooperatively planned by the teacher and student;
2. based on the perceived needs and desires of the student, if possible;
3. related to work in progress in the class; and
4. supervised by a professional educator, if possible.

**Competition.** Competitive activities (academic and physical) can be negative experiences for early adolescents. For the more talented, competition can enhance self-concept, but for the less talented, competition with peers often results in shame and feelings of little self-worth (Brazee & Smalley, 1982). When middle-grade students are forced to compete academically, attitude toward school and cooperation with teachers often decline (Arth, Freeman, & Lawton, 1984). Because of possible detrimental effects of competition, Brazee and Smalley stated that good middle-grade schools downplay popularity contests, club rivalries, and other social competitions.

The need to develop a positive self-concept dictates that students experience success during the middle grades. Middle-grade students often judge their competence and success based on grades; however, schools often fail to recognize student progress when the grading system is grounded in competition (Ginzberg et al., 1951). Eichhorn
(1966) suggested that letter grades not be used in the middle grades, but rather student evaluation be based on individual progress.

Early adolescents develop intense feelings regarding fairness, honesty, and values (Georgiady & Romano, 1977; McEwin & Thomason, 1989). Activities in which students of vastly differing abilities are forced to compete leave neither the winners nor the losers with respect for the process (Arth et al. 1984). Sale (1979) stated that "the emerging adolescent needs competition; productive and psychologically healthy competition evolves through students competing with their own level of ability" (p. 190).

Arth et al. (1984) suggested that both student and activity characteristics be carefully considered before placing middle-grade students in competitive situations. According to Arth et al.:

A degree of mastery sufficient to succeed is a prerequisite for meaningful competition. One must learn the concepts before one can call upon that knowledge in a competitive situation....If no possibility exists for an individual to be successful in the competition, it cannot be a meaningful learning activity. (p. 64)

Arth et al. suggested that a simple rule should govern middle-grade student competition - Only those who believe they can win should compete.

Many researchers believe that physical growth is the most vital educational concern of the early adolescent period. Because much anxiety is associated with physical
development, the middle-grade learning environment should not emphasize physical standards that can only be attained by the physically talented (Eichhorn, 1966).

Successful middle-grade programs emphasize physical education and intramural activities while de-emphasizing, if not eliminating, interscholastic sports programs (McEwin, 1984). However, the percentage of middle-grade schools offering interscholastic sports for males increased from 52 percent in 1968 to 79 percent in 1988. During the same period, the percentage of middle-grade schools offering interscholastic sports for females increased from 23 percent to 78 percent (Alexander & McEwin, 1989).

Kieffer and Johnston (1979) suggested that competition with self should take precedence over competition with others at the middle-grade level. According to Arth et al. (1984), competition with self teaches early adolescents to examine the influence of outside forces on events. Self-competition can encourage students to attempt advanced tasks or problems when free from peer or teacher pressure.

Brazee and Smalley (1982) stated that "the purpose of middle school extracurricular activities should be participation. Activities that promote the star system or allow only a few to participate increase the insecurities and fears of middle school students" (p. 32). Kieffer and Johnston (1979) suggested that middle-grade education "allow students the security of group membership. To this end,
minimize efforts to make the child 'conspicuous' by requiring constant competition with other students" (p. 79). Arth et al. (1984) stated that "when possible, teachers should encourage student involvement, balance participation and success, emphasize strengths and interests, and make realistic suggestions about other activities students might try" (p.68).

Many middle-grade schools have replaced bands, clubs, interscholastic sports, and cheerleaders with intramural sports, activity days, mini-courses, and exploratory instrumental music in efforts to ensure successful experiences for all students (George, 1988). Taking a position contradictory to what has been promoted in the literature, George stated:

In the last decade, I have come to believe that the interscholastic programs that were condemned were not all bad, and that the heralded replacements were not all good. Granted, many interscholastic programs defeated their own purposes, because they were managed as miniature models of high school athletic programs, and often by the people who were in charge of, and primarily committed to, the success of those high school programs. Too often, however, substitutes for inter-school sports have been bland, spiritless, and short-lived. Many middle schools have, consequently, ended up without sports programs to meet the needs of the most physically talented students. Such schools all too frequently become institutions where nothing of a positive, exciting, or pride-building nature occurs outside the classroom. Intramurals are important and must be preserved, but they have not been successful as a fulltime substitute for interscholastic programs (p. 15).
All early adolescents need to experience success. Because of the wide range of developmental levels represented in a group of early adolescents, middle-grade schools should offer a variety of learning experiences designed to promote student success. Learning experiences should be within the capability of early adolescents based on their developmental levels while, at the same time, promote movement toward higher levels.

Functions of the middle-grade school, its curriculum, and student learning experiences are aimed at achieving goals of middle-grade education. Major goals are examined in the following section.

Goals of Middle-grade Education

Characteristics of the middle-grade school and its curricular functions described in previous sections are aimed at achieving educational goals. Major goals of middle-grade education are identified in this section and are based on literature related to the characteristics and needs of early adolescents. Goals identified are:

1. to help students develop a positive self-concept;
2. to help students develop independent learning skills;
3. to help students develop higher-order thinking skills;
4. to help students develop a sense of independence;
5. to promote the continued development of students' basic academic skills;
6. to help students develop their personal values;
7. to help students develop socially;
8. to help students develop practical skills and knowledge;
9. to help students develop physically;
10. to help students develop an understanding of the various cultures within society;
11. to help students develop a sense of belonging within the local community;
12. to promote parental involvement in the education process;
13. to promote community involvement in the education process;
14. to help students develop an understanding of the world of work; and
15. to promote positive relationships between early adolescents and adults outside the classroom.

Positive Self-concept

Early adolescents need to perceive themselves as important, wanted, successful, and accepted (Kindred et al., 1976). A primary mission of the middle-grade school is to develop a positive self-concept within students (Steffans, 1990). The Carnegie Council on Adolescent Development (1989) reported that:

Middle-grade schools must strive to offer each student opportunities to exhibit excellence and to gain confidence and personal satisfaction of becoming expert or very good at something. For many young people, mastering the core academic program will provide these opportunities. For others, opportunities to exhibit excellence may lie outside the core program in exploratory
courses, athletics, or outside the schoolhouse through youth service or community-based activities (p. 49).

In a study of exemplary middle-grade schools, George and Oldaker (1985) reported that many of the schools awarded students for leadership, good citizenship, and cooperation. According to the researchers, this practice promotes a positive self-concept by allowing students who are not star athletes or honor roll members to receive recognition for their achievements.

**Independent Learning Skills**

Promoting student independent learning skills is an important function of middle-grade education. Independent learning involves students taking the initiative to seek out experiences that arise from their own personal needs and desires (Curtiss & Bidwell, 1977).

Exploratory experiences promote the development of independent learning skills. Providing means of student exploration of academic and avocational interests beyond the beginning stages is an aim of middle-grade education (Alexander et al., 1968). Middle-grade exploratory programs provide all students opportunities for success (Steffans, 1990). According to Steffans, exploratory programs address goals of middle-grade education by: a) meeting the physical, emotional, and intellectual needs of early adolescents; b) allowing for creativity and exploration; and c) promoting the development of positive self-concept.
A significant portion of the school day should be provided for helping students "learn how to learn" (Curtiss & Bidwell, 1977). According to Alexander et al. (1968), "one purpose of the middle school is to assure every pupil a degree of success in understanding the underlying principles and the ways of knowing in the areas of organized learning" (p. 84). Alexander et al. suggested the use of independent study projects, exploratory and laboratory courses, and special interest clubs to promote independent learning skills.

Higher-order Thinking Skills

Society needs individuals who are capable of not only understanding what is, but also what can be (Curtiss & Bidwell, 1977). According to the Carnegie Council on Adolescent Development (1989), the United States economy will demand more workers with greater problem solving abilities, and middle-grade schools should help develop those abilities.

There is disagreement regarding the degree to which the early adolescent is capable of thinking in abstract terms; therefore, there is disagreement regarding how abstract middle-grade curricula should be (Lipsitz, 1984). Many middle-grade curricula are based on the belief that early adolescents are at an "intellectual moratorium" and are incapable of complex, critical thought despite evidence to the contrary (Carnegie Council on Adolescent Development,
According to McEwin and Thomason (1989), the majority of middle-grade students are concrete learners; however, many can function at the formal level of thought. McEwin and Thomason pointed out that the progression toward the formal level of thought is not an automatic part of the maturation process.

Middle-grade curricula should stretch student cognitive ability so that students are required to make accommodations in current thinking (Kindred et al., 1976). To promote higher levels of cognitive ability, middle-grade curricula should give adequate attention to concrete learning experiences through demonstrations and hands-on activities while moving toward the abstract (Curtiss & Bidwell, 1977; McEwin & Thomason, 1989).

**Independence**

Havighurst (1972) identified "the achievement of emotional independence" as a developmental task facing early adolescents. According to Curtiss and Bidwell (1977), "emphasis in the middle school should be upon growth of the learner toward self-reliance, both social and intellectual, which should lead more naturally toward the choice of an appropriate secondary program for each individual" (p. 2).

To promote independence, early adolescents need opportunities to participate in meaningful activities and receive recognition for their achievement. According to McEwin and Thomason (1989), evidence indicates that most
early adolescents range in psychological development between the industry and identity stages identified by Erikson. McEwin and Thomason stated that

...students who operate primarily at the industry stage take great pleasure in what they perceive to be 'real work' and the completion and results of each project ....Students at this stage (industry) undertake tasks for which there are obvious rewards such as merit badges, gold stars, or monetary prizes. This supports their growing need for independence and personal autonomy (p. 22).

Basic Academic Skills

Academic progress and independent learning ability of middle-grade students depend upon the mastery of basic skills in reading, writing, and arithmetic. According to Curtiss and Bidwell (1977):

The child must make the transition from learning to read, write, and do basic arithmetic to using these processes and skills in successively more demanding and sophisticated ways. At the conclusion of middle school, the child is expected to be able to utilize them readily and effectively while building more complex structures in the disciplines included in high school and post-high school curricula. Thus, development and mastery of the basic skills and their application need to be insured through practice. The application of these skills should be further developed to include exploration activities both in and outside of school during the middle school years (p. 168).

Alexander et al. (1968) identified a major purpose of middle-grade education as promoting "maximum individual growth in the basic learning skills. These include communication and computation, social and civic competence, and continued learning" (p. 85). Since learning is a continuous process, the middle-grade curriculum should
emphasize the continuation of basic education in the core subject areas while at the same time prepare students for future education (Kindred et al., 1976).

**Personal Values**

Middle-grade schools should help students to develop a personal value system (Kindred et al., 1976; Curtiss & Bidwell, 1977). The middle-grade curriculum should expose students to prevailing values of society, school community, and various cultures as the students attempt to identify their own values (Curtiss & Bidwell, 1977). However, the curriculum should not teach specific values (Sale, 1979).

Related to values clarification, Sale (1979) recommended that the middle-grade curriculum:

1. help students become aware of beliefs and behaviors that they value;
2. help students consider alternative ways of thinking and behaving;
3. help students understand the relationship between beliefs and behavior; and
4. allow students the opportunity to practice making decisions and evaluating the consequences of those decisions.

**Social Skills**

Socialization is "the gradual process both deliberate and structured whereby the values of the society are developed within each unique individual" (Curtiss & Bidwell,
Curtiss and Bidwell identified four characteristics of the socialization process in early adolescents:

1. search for independence from adults;
2. search for approval and acceptance by peers;
3. search for sophistication through new experiences and knowledge of the "ways of the world"; and
4. search for appropriate social behavior.

Early adolescents need to develop those social skills that are needed for coping with common situations (Carnegie Council on Adolescent Development, 1989). Effective middle-grade schools help students learn proper social behavior, learn to work with others, and develop a respect for others as well as themselves (Sale, 1979; Alexander & George, 1981).

Interest groups and classroom group learning experiences can help early adolescents develop appropriate social skills (Kindred et al., 1976). Beane (1990) suggested that middle-grade schools provide students opportunities to participate in school governance, intramural, and other club activities. Curtiss and Bidwell (1977) emphasized the importance of early adolescents organizing their activities and selecting their leaders as they search for appropriate social behavior.

Middle-grade schools should help early adolescents learn appropriate behavior with the opposite sex as well as
overcome apprehension about the opposite sex (Kindred et al., 1976; McEwin & Thomason, 1989). Kindred et al. stated:

   Just as the development of attitudes and intellectual and motor skills is rooted in experience, so too is the development of the social skills. During the middle school years nearly all boys and girls become pubescent, with all the developmental tasks - particularly heterosexual adjustment - that the particular period implies. Regardless of the position the school may wish to take, young people will attempt to master their tasks. Well conceived is the school whose curricula and teachers are geared to funnel this youthful energy into creative and socially useful channels (p. 47).

   While emphasizing the need for middle-grade schools to help students develop appropriate sex-roles, Kindred et al. (1976) recommended that student activities which purpose is social development not stress male-female relationships. Kindred et al. suggested that the activities emphasize development of personality, self-confidence, and social skills.

   The efforts of middle-grade schools at promoting socialization are often hampered by the various cultures and subcultures and corresponding values of each (Lipsitz, 1984). Lipsitz stated that "as unsure as middle-grade schools are of their academic purposes, they are even less assured about their role in the socialization of children to adulthood" (p. 8).

   Despite the difficulty of doing so, middle-grade schools should help students develop social skills (Curtiss
Successful schools for young adolescents choose to become environments that promote social development. They assume social development to include a multitude of characteristics: self-discipline, industriousness, respect for authority, perseverance, patience, honesty, the ability to work toward goals, a sense of respect for self and others, assertiveness, enthusiasm and interest in learning, confidence, the ability to function in a peer group, individuality, communication skills, generosity toward others, empathy, flexibility, trust, the ability to work with others and alone, an awareness about and concern for larger social issues, the ability to define one's sex role and racial role, the ability to derive strength from oneself, others, the arts, sports, knowledge, beautiful things... (p. 9).

**Practical Skills and Knowledge**

For middle-grade instruction to be most effective, it should be practical and relevant to "real-life" situations. Greenberg and Hunter (1982) suggested that teaching relevant and meaningful skills can positively influence student behavior. According to Eichhorn (1966), "education of youth has little significance apart from the realities of environment" (p. 40). Kohlberg and Gilligan (1979) stated that

if development rather than achievement is to be the aim of education, such development must be meaningful or real to the adolescent himself. In this sense, education must be sensed by the adolescent as aiding him in his search for identity, and must deal with life (p. 93).

Middle-grade education should emphasize both the fine arts and the practical arts (National Middle School Association, 1992). Both males and females should learn
fundamental skills in the industrial arts and in home economics (Curtiss & Bidwell, 1977). Lounsbury and Vars (1978) suggested that music, art, home economics, and industrial arts be required of all middle-grade students.

The middle-grade curriculum should help students become better interpreters of technology and more discriminating consumers (Sale, 1979). According to Curtiss and Bidwell (1977), "emerging adolescents need to prepare themselves to some extent for common tasks in the technological society" (p. 172). Early adolescents need to understand and learn to operate basic tools and machinery with which they will likely come into contact during school and may routinely operate in the future. By operating basic tools and machinery, students will: a) learn to use and manipulate basic physical objects, b) learn transferable principles, and c) learn to operate and repair simple equipment and machines which may be routinely encountered (Curtiss & Bidwell, 1977).

**Physical Development**

The Carnegie Council on Adolescent Development (1989) identified "a healthy student" as a desired outcome of middle-grade education. The middle-grade curriculum should help students develop both the large and small muscles through individualized physical education activities. Large muscle development is important for the self-image of early adolescents. Because a lack of coordination often
accompanies growth during puberty, the middle-grade curriculum should emphasize dexterity and flexibility in developing skills requiring the use of small muscles (Curtiss & Bidwell, 1977).

According to Curtiss and Bidwell (1977), all areas of the middle-grade curriculum should help early adolescents through the pubertal period. Curtiss and Bidwell suggested that the curriculum provide opportunities for: a) recognition and acceptance of rapid physical changes, b) development of an appropriate sex-role, and c) recognition and acceptance of physical capabilities. Curtiss and Bidwell stated that, unless part of the elementary curriculum, the middle-grade school should teach students about human sexual development and reproduction.

Understanding of Various Cultures

Middle-grade education should strive to develop the talents of all young people. Activities of middle-grade schools should promote the understanding, value, and respect of those who are culturally or racially different (Kindred et al., 1976; McDonough, 1991; National Middle School Association, 1992) and should not lead students to view one gender as superior or inferior to another (Curtiss & Bidwell, 1977). As a means of promoting an understanding of the various cultures in society, the Carnegie Forum on Education and the Economy (1986) suggested bringing minority
professionals into middle-grade schools as resource persons and role models.

Awareness of cultural differences increases during the early adolescent years (George et al., 1992). According to Manning (1989), "early adolescents' perceptions of cultural differences and their opinions of others' perceptions play a significant role in their degree of self-worth and self-image" (p. 14). Because of the impact of cultural differences and related perceptions on the lives of early adolescents, Manning recommended that multicultural education be integrated into the middle-grade curriculum.

**Sense of Belonging Within the Community**

Early adolescents need to establish an identity and be a part of the local community. Developing a sense of belonging within the community is an important role of the middle-grade school.

Participation in community service activities helps early adolescents develop a sense of self-worth and belonging (George et al., 1992). Community service work by early adolescents promotes citizenship and a closer relationship between the school and community (National Middle School Association, 1992). According to Hood (1990), the middle-grade school "must help students build a foundation for responsible citizenship. This is when students learn basic values and ideals" (p. 34).
Parental Involvement

Middle-grade schools should gain the support of parents and involve them in the education process. Student attitude and achievement are positively related to home/school collaboration (National Middle School Association, 1992). The Carnegie Council on Adolescent Development (1989) stated that "no middle-grade school can successfully serve youth and the community if families do not agree with the school's goals and reinforce them at home" (p. 67). Despite the importance of parental involvement, the Carnegie Council on Adolescent Development reported that parents often disengage themselves from the education of middle-grade students in the belief that early adolescents should be independent.

The Carnegie Council on Adolescent Development (1989) suggested that middle-grade schools inform parents of school activities and student progress and provide them opportunities to support the learning process at home. Seeing parents involved in school activities signals the importance of school to early adolescents and promotes positive student behavior (Greenberg & Hunter, 1982; Carnegie Council on Adolescent Development, 1989).

Community Involvement

The community should play a major role in the education of early adolescents. Effective middle-grade schools involve local communities in educational activities (Sale, 1979). Smith (1983)' suggested that middle-grade schools
encourage student career exploration through the use of school and community resources and that middle-grade teachers work with members of the community to provide vocational-related experiences to students. The Carnegie Council on Adolescent Development (1989) proposed that youth service activities in the community be part of the core program in middle-grade education. The council suggested that middle-grade students volunteer to work in parks and environmental centers as a means of community service.

World of Work

Resolutions adopted by the National Middle School Association (1992) include:

Whereas, early adolescents are not growing up in the world that they will inherit as adults, and Whereas, rapid changes in technology, in family patterns, in demographics of society, and in the environment make knowledge of the future uncertain at best and in part unknowable,

Therefore, be it resolved that NMSA [National Middle School Association] urge middle-level educators to take the lead in focusing the educational experience of early adolescents on preparation for the future (p. 33).

In order to prepare for their future, early adolescents need to participate in activities that help them begin the career selection process (McEwin & Thomason, 1989).

According to Miller (1988),

...research indicates a need for all students in the middle school to be presented with a broader range of occupations in our society. After all, it is unlikely that a student could realistically set as a goal an occupation to which he or she has not been personally exposed (p. 176-177).
Ginzberg et al. (1951) stated that for education to be effective, it must recognize the links between the learning process and occupational choice. Linking learning and occupational choice is an important outcome of middle-grade education because failure to settle on an occupational identity is associated with much stress during adolescence (Erikson, 1980).

Greenberg and Hunter (1982) stated that

...if all youth are to leave high school either ready to work or ready for more education/training, then they should enter grades nine and ten with a general career and personal awareness that enables them to take full advantage of vocational offerings, academic courses and guidance related to each (p. 3).

For students to enter grades nine and ten with the knowledge needed to make choices related to occupations and course work, career exploratory activities must be a part of the middle-grade curriculum. According to Super (1957), how individuals choose an occupation is determined in part by the adequacy of the information they have related to occupations and by the extent to which they have been able to observe the work of others. Jyung (1989) recommended that parents discuss and provide career information to their children to help them prepare for making occupational-related decisions.

According to Jyung (1989),

...any program designed to facilitate career development must be conceived as part of a total educational experience aimed at developing a positive self-concept, higher level of mental
ability, scholastic achievement, educational aspiration and vocational aspiration, an understanding of one's own strengths and weaknesses, skills in decision making and problem solving, and appropriate work values (p. 116).

Therefore, Jyung recommended that career education activities be incorporated into the total school curriculum.

Vocational guidance should be an integral part of middle-grade education. Smith (1983) identified the following functions of vocational guidance in Texas middle-grade schools:

1. provide students opportunities to learn about the occupational and educational opportunities available in the community;

2. assist students in evaluating their interests, abilities, values, and needs related to future career plans;

3. provide students opportunities for exploration in selected occupational clusters, leading to selection of a particular cluster for further exploration;

4. make subject matter more relevant through focusing on its relation with career areas;

5. make students aware of curricular programs available to them at the high school level and beyond;

6. promote development of positive attitudes toward all types of socially useful work; and

7. assist students in developing an understanding of themselves that will lead to responsible decisions regarding employment.
According to Sale (1979), middle-grade career exploratory programs should provide students with:

1. a better understanding of themselves;
2. knowledge of the variety of occupations in society;
3. an appreciation of the dignity of work and positive attitudes toward work;
4. guidance relevant to occupational choice; and
5. knowledge of the relationship between academic preparation and work.

Early adolescents should learn that work is both a means of economic survival and an important part of their identity. The middle-grade curriculum should provide students with an awareness of work options without feelings of restrictions based on race, gender, or ethnicity (Carnegie Council on Adolescent Development, 1989).

Sale (1979) recommended that the middle-grade curriculum integrate career exploration and academic course work. However, Sale pointed out that the middle grades are not appropriate for training students for specific employment:

Career education [at the middle-grade level] is not specific job training. Specific job training, or vocational education, may be pursued at the secondary or postsecondary level. It is instead a normal part of the educational process, which provides students with activities and programs designed to help them develop a greater awareness of the knowledge and skills required for living, learning, and working. These activities and programs should provide students with opportunities for expanding their occupational horizons, developing positive attitudes and
appropriate work habits, and exploring the world of work, and they should provide them with information on which they can act in making career choices (p. 271).

Ginzberg et al. (1951) also indicated that the middle grades are not appropriate for specific job training:

Most individuals are unable to relate their occupational choices to their capacities until they are thirteen or fourteen, and their goals and values are not brought within their purview until they are fifteen or sixteen. Clearly, then, the thirteen-year-old who must decide upon the type of course to pursue in high school is ill-fitted to do so (p. 198).

Positive Relationships With Adults

The middle-grade atmosphere should be one of friendliness and trust between early adolescents and adults. This atmosphere allows students to freely seek advice regarding the physical and emotional changes they are experiencing (Eichhorn, 1966).

According to the Carnegie Council on Adolescent Development (1989), middle-grade schools should provide opportunities for students to develop close, trusting relationships with adults outside the classroom setting. McEwin and Thomason (1989) emphasized the importance of early adolescents and their teachers knowing each other on a personal, non-academic basis. The Carnegie Council on Adolescent Development recommended utilizing group learning activities and student/teacher teams to ensure that each middle-grade student is well known by at least one adult.
Summary

Middle-grade education should promote the academic and personal development of students. However, the middle-grade curriculum has been criticized for not being based on sound principles of psychology and sociology and for not meeting the educational needs of early adolescents. Recommendations regarding middle-grade education include: a) eliminating the separate subject approach; b) basing the curriculum on the characteristics and needs of early adolescents and the local community; and c) basing the curriculum on concerns that are common to both early adolescents and society.

Early adolescents cover a wide range on the developmental spectrum. To compensate for developmental differences, middle-grade learning experiences should be designed to provide students a variety of avenues for success.

Participation in student organizations and outside-class activities promotes the social development of early adolescents as well as enhances their self-concept. However, participation in competitive activities at the middle-grade level has been viewed negatively because of the wide range of developmental levels among early adolescents.

The literature on early adolescent development, middle-grade schools, and the middle-grade curriculum provides a basis for identifying major goals of education for early
adolescents. Middle-grade activities and learning experiences should promote achievement of these goals.

The purpose of this study was to identify activities and learning experiences in career-oriented education program areas that promote achievement of major goals of middle-grade education. The Delphi technique was used to accomplish this purpose. That technique is examined in the following section.

The Delphi Technique

The Delphi technique is a procedure used to solicit and refine group opinion. The technique was developed by the Rand Corporation in the early 1950s as a tool for forecasting military events and is used with a group of experts or especially knowledgeable individuals (Dalkey, 1967). This section examines the rationale, applications, and procedures of the Delphi technique.

Rationale

The Delphi technique is based on the old adage that "two heads are better than one" when the issue or decision is one for which exact knowledge is not available (Dalkey, 1969). According to Dalkey (1967):

1. the amount of information (and misinformation) available to a group is at least as great as that available to any individual member of that group, and
2. the median response of group members to a numerical estimate is at least as accurate as the responses of one-half of the individual group members (Figures 2 & 3, page 94).

Figure 2 illustrates that the median response of a group \((M)\) is at least as close to the true answer \((T)\) as the responses provided by one-half of the group members when the range of responses does not include the true answer. Figure 3 shows that when the range does include the true answer, the median response of a group is more accurate than the responses provided by one-half of the group members.

The Delphi technique attempts to overcome weaknesses of generating data through use of a single expert, one-shot group averages, and face-to-face interactions. Psychologists report that major drawbacks of face-to-face interactions in groups include:

1. influence of a dominant individual;
2. "noise" - irrelevant or redundant information that is focused on group and individual interests rather than problem solving; and
3. group pressure that influences compromise from group members (Dalkey, 1967).

According to Dalkey (1967), "the Delphi procedures have been designed to reduce the effects of...undesirable aspects of group interaction. The procedure has three distinctive
characteristics: a) anonymity, b) controlled feedback, and c) statistical 'group response'' (p. 3).

Anonymity reduces the effect of a dominant individual in a group. Anonymity of Delphi study participants is assured by the participants providing separate and private responses to questions. Controlled feedback reduces noise. Over the several iterations (rounds) common in a Delphi study, results of the previous iteration are reported in summarized form to the participants (Dalkey, 1967). By substituting a statistical group response for an agreed-upon majority position, pressure for compromise to the majority is reduced, and large groups of people are not required to convene (Rasp, 1973).

According to Dalkey (1967):

...the results of a Delphi exercise are subject to greater acceptance on the part of the group than are the consensuses arrived at by more direct forms of interaction....features of a Delphi exercise are desirable, especially if the exercise is conducted in the context of policy formulation where group acceptance is an important consideration (p. 17).

Applications

The Delphi technique has a wide range of applications. In the late 1960s, a variety of organizations used the technique as a means of exploring policy decisions related to such areas as education, public transportation, and public health (Dalkey, 1969). "When viewed as a communication process, there are few areas of human endeavor
Figure 2. Illustration of median of group response when true answer lies outside range of responses.

Figure 3. Illustration of median of group response when true answer lies within range of responses.

which are not candidates for application of Delphi" (Linstone & Turoff, 1975, p. 4).

The Delphi technique is a valuable tool for administrators and managers of education. Delphi provides educators a means of making decisions based on more objective data than the "common sense" that is often used (Hostrop, 1983). Delphi is as an effective strategy for use in developing vocational education curricula (Finch & Crunkilton, 1979). According to Hostrop, there are "near endless examples of how the Delphi procedure can be used to determine 'what was', 'what is', 'what should be', and 'what is to become' so as to improve the educational process in and out of the classroom" (p. 76). However, Hostrop warned that Delphi is not a cure-all for education nor is it very helpful in making quick decisions.

Particular circumstances determine the appropriateness of using the Delphi technique. According to Linstone and Turoff (1975), usually one or more of the following situations indicate the need for employing Delphi:

1. precise analytical methods are not suitable for studying the problem, but subjective judgement on a collective basis can provide beneficial information relative to the problem;

2. those individuals who possess information needed for examining the problem represent diverse backgrounds;
3. more individuals are needed to address the problem than can be effectively assembled for face-to-face interaction;
4. time and cost limit frequent group meetings;
5. the efficiency of face-to-face interactions can be increased by a supplemental type of group communication process;
6. face-to-face interaction among individuals who possess needed information must be refereed or anonymity assured because of disagreements among the individuals; and
7. to avoid domination of the group by quantity or by a particularly strong individual, group heterogeneity must be maintained.

Procedures

Linstone and Turoff (1975) identified four aspects common to most Delphi studies:
1. an assessment of group judgement;
2. some form of feedback of individual responses;
3. an opportunity for individuals to revise their responses; and
4. a degree of anonymity for respondents.

Typically, the Delphi technique includes the following steps (Hostrop, 1983).
1. Participants state their opinions on a specific topic such as recommended activities. Opinions are usually
expressed as written statements in response to a questionnaire.

2. Participants rate their statements against a criterion such as "importance".

3. The statements and the ratings are received and summarized by the researcher.

4. The researcher sends the participants a refined list of statements generated by all participants and a summary of the ratings. Participants whose ratings are in the minority are asked to revise their ratings to the majority opinion or provide written comments justifying their remaining in the minority.

5. Ratings and comments are received by the researcher who clarifies, refines, and summarizes them.

6. Participants receive the refined list which includes both an updated summary of ratings and a summary of the comments made by those participants justifying their minority positions. Participants are given a final chance to revise their opinions.

7. The researcher receives the last round of responses and summarizes them in report form.

A statistical index is used to represent group opinion in a Delphi study. According to Dalkey (1967), the median of individual responses is the most useful index. The median responses from the previous Delphi round along with the middle range of responses are reported to study
participants in the succeeding round. Those participants whose responses are in the top or bottom quartile (outside the middle range of responses) with respect to the entire range of responses are requested to change their responses to within the middle range or to provide written justification for not doing so. The comments are edited by the researcher and are reported to the study participants in the following round (Dalkey, 1969). The comments serve to provide information to panelists as they consider their responses.

By reporting the median responses, there is no attempt to arrive at unanimity among respondents; a spread of opinions is normal on the final Delphi round (Dalkey, 1967). If the range of responses includes the true answer, generally the median is closer to the true answer than more than one-half of the responses (Figure 3, page 94).

**Reliability**

Conventional means of establishing reliability are not appropriate in a Delphi study, especially when one considers that a function of Delphi is to encourage study participants to modify their responses in an effort to reach consensus opinion. According to Dalkey (1969),

> For the analyst using expert opinion within a study, reliability can be considered to play somewhat the same role as reproducibility in experimental investigations. It is clearly desirable for a study that another analyst using the same approach (and different experts) arrive at similar results....In general, one would expect in the area of opinion, group responses would be
more reliable than individual opinions, in the simple sense that two groups (of equally competent experts) would be more likely to evidence similar answers to a set of related questions than would two individuals. This "similarity" can be measured by the correlation between the answers of the two groups over a set of questions (p. 10-12).

In experimental studies, the Rand corporation reported that the correlation between answers of two Delphi study groups was positively related to the number of individuals in the groups (Dalkey, 1969). Therefore, reliability of data is a function of group size, with a correlation coefficient approaching .90 with 13 in a group (Figure 4, page 99). Based on the Rand studies, Dalkey stated that "it is clear that there is a definite and monotonic increase in the reliability of the group responses with increasing group size" (p. 12).

Figure 4. Reliability of Delphi as a function of group size.

Summary

The Delphi technique utilizes a series of iterations and controlled feedback as means of soliciting and refining group opinion. The technique is particularly useful when group characteristics or the nature of the study prohibit bringing experts together for face-to-face meetings. The Delphi technique also reduces many problems inherent in such meetings.

Summary of Literature Review

Early adolescence is characterized by many changes associated with the physical, cognitive, psychological, social, moral, and vocational developmental processes. Because of these changes, the early adolescent has unique educational needs for which the middle-grade school was developed. The middle-grade school was designed to be a "transitional" school to assist students as they move from the self-contained elementary school to the departmentalized high school and as they move from childhood into adolescence.

The curriculum of the middle-grade school is designed to promote the academic and personal development of early adolescents. However, the curriculum has been criticized for not being based on the characteristics of early adolescents and not meeting their educational needs. Recommendations for improving the curriculum include
integrating its components across subject boundaries and concentrating on the needs and concerns common to early adolescents, the local community, and society.

Learning experiences in middle-grade education should reflect the need for all students to experience success. Because of the wide range of developmental levels represented in a group of early adolescents, a variety of learning experiences should be available in the middle grades.

Goals of middle-grade education should direct the activities and learning experiences provided for early adolescents. Although most goals of middle-grade education are appropriate for any grade level, the activities and learning experiences aimed at achieving those goals should be specific to the early adolescent.

The Delphi technique is a means of soliciting and refining group opinion. Through a series of iterations or rounds, the Delphi technique is aimed at securing group consensus on issues while avoiding potential negative aspects of face-to-face interactions. Delphi was an appropriate method to use in this study.
CHAPTER III
PROCEDURES

Descriptive-survey methodology was used to accomplish the objectives of the study. The objectives were: a) to identify major goals of middle-grade education and b) to identify activities and learning experiences in middle-grade career-oriented program areas that are perceived by experts as promoting achievement of major goals of middle-grade education. The intent of the researcher was to gather input from knowledgeable individuals throughout all areas and levels of middle-grade education.

Three steps were used to accomplish the objectives of the study. This chapter is organized by those three steps and includes the procedures used in a) participant selection, b) instrument development, and c) data collection, analysis, and interpretation.

All mailed correspondence was printed on stationery bearing The Ohio State University Department of Agricultural Education letterhead and was co-signed by the department chair and the researcher. Mailing procedures identified by Dillman (1978) as improving response rates were used in the study.
Step One: Identify Major Goals

Step one was to identify middle-grade education goals from the literature and have scholars of early adolescent education (the scholars) validate the goals as being major goals of middle-grade education.

Selection of Participants

During July 1992, 43 individuals were identified as scholars of early adolescent education and as possible study participants with assistance from Dr. Tom Dickinson, editor of Middle School Journal, the journal of the National Middle School Association (appendix B, pages 315-317). These individuals were identified as scholars based on one or more of the following criteria: a) high level of knowledge and understanding related to the philosophy of middle-grade education, b) knowledge of research related to middle-grade education, c) exemplary performance as a middle-grade practitioner or administrator, and d) tenure of involvement in middle-grade education.

During July 1992, the scholars were mailed a letter soliciting their participation in steps one and three of the study (appendix C, page 319). A stamped response card was included in the mailing for the scholars to indicate their decision regarding participation (appendix D, page 325). After reminder cards (appendix E, page 329) were mailed to nonrespondents, 40 (93%) scholars returned their response cards; 39 agreed to participate in step one.
**Instrumentation**

The instrument used in step one (the goals instrument) included 15 goals and a six-point Likert-type scale (very strongly disagree, strongly disagree, disagree, agree, strongly agree, very strongly agree) on which the scholars were instructed to indicate their level of agreement regarding each goal being considered as a major goal of middle-grade education based on the characteristics and educational needs of early adolescents (appendix F, page 339-341). The scholars could also identify additional goals through a write-in procedure. The goals included in the instrument were identified from the literature on early adolescent development and middle-grade education (see section "Goals of Middle-grade Education", pages 71-79).

Content and face validity of the goals instrument were assured through a field test with a panel of six Ohio State University graduate students in the Department of Agricultural Education and in the Comprehensive Vocational Education program. Panelists were informed that the purpose of the instrument was to determine the scholars' level of agreement regarding each goal being considered a major goal of middle-grade education. The panelists were instructed to review the instrument for clarity and content sufficient to achieve the purpose. Comments and suggestions regarding clarity and content were solicited from the panel; the instrument was revised accordingly.
Reliability of data provided by the goals instrument was established by a test/retest procedure. The test/retest panel including three middle-grade teachers, two teacher educators, five middle-grade school administrators, and one state supervisor of agricultural education. Panel members were contacted by phone to secure their participation.

For the test portion of the test/retest, panelists were mailed a goals instrument, definitions (appendix G, page 415), stamped return envelope, and a cover letter (appendix H, page 417). Following a reminder card (appendix E, page 330) and a second mailing to nonrespondents, all panelists returned the instruments. The same procedure was followed for the restest portion of test/retest (appendix H, page 416). The time interval between the test and the retest varied from two to four weeks among the panelists, depending upon the promptness in which the instruments were returned.

To assess reliability, the percentage of agreement was calculated for individual items on the instrument and for the items as a whole. The percentage of agreement on individual items ranged from 55 percent to 91 percent; the overall percentage of agreement was 72 percent. When the responses were grouped into "agree" and "disagree" ranges, the percentage of agreement on individual items ranged from 91 to 100 percent, and the overall percentage of agreement was 99 percent.
Data Collection

Each scholar who agreed to participate in step one was mailed a goals instrument, definitions, stamped return envelope, and cover letter (appendix H, pages 419-420) during August 1992. Reminder cards (appendix E, page 331) were mailed to the scholars five days after the initial mailing. Following a second complete mailing to nonrespondents, 34 (87%) usable instruments were returned.

Data Analysis

For analysis purposes, the responses on the Likert-type scale were converted to numerical values (1 = very strongly disagree; 2 = strongly disagree; 3 = disagree; 4 = agree; 5 = strongly agree; 6 = very strongly agree). Those goals receiving a mean score of 4.5 or more were considered to be major goals of middle-grade education. Additional goals identified by scholars were also considered to be major goals if supported in the literature and if different from the 15 goals listed on the instrument. A mean of 4.5 was selected based on the rationale that a goal should receive a score above "agree" to be considered a major goal.

Step Two: Identify Activities and Learning Experiences

Step two was designed to have exemplary middle-grade career-oriented program teachers (the career program teachers) identify activities and learning experiences in
their program areas that they perceived as promoting achievement of the major goals in step one.

Selection of Participants

The intent of step two was to identify activities and learning experiences that would be included in the Delphi instruments of step three. Teachers in eight career-oriented program areas (agriculture, business, general career education, health occupations, home economics, marketing/distribution, technology education, and trade and industrial) participated in this step.

With input from Dr. Tom Dickinson, editor of the Middle School Journal, Florida, North Carolina, and Wisconsin were identified as states from which to select teachers. These states were noted by Dr. Dickinson as being in the forefront of middle-grade education. The states also offered courses in the eight career-oriented program areas.

To establish a frame of career program teachers, state department of education personnel with primary administrative or supervisory responsibilities in each of the eight program areas (the state supervisors) and vocational teacher educators from the selected states were requested to nominate individuals in their respective program areas that they perceived as being exemplary teachers of middle-grade students. State supervisors and teacher educators were included in the study to reduce the possibility of an exemplary teacher being overlooked for...
nomination. The state supervisors and teacher educators were informed that the teachers would be asked to participate in steps two and three of the study.

Twenty-four state supervisors from the three states were identified from professional association directories and U.S. Department of Education directories (Industrial Arts Division/American Vocational Association, 1990; U.S. Department of Education, 1991; National Association of Business Education State Supervisors, 1991; National Association of State Supervisors of Vocational Home Economics, 1991; Vocational Industrial Clubs of America, 1992; Marketing Education Association, 1992; U.S. Department of Education, 1992;). Forty-five vocational teacher educators in Florida and North Carolina were identified from teacher educator directories provided by the Florida Council on Vocational Education (1990) and the North Carolina Department of Public Instruction (1992). Eleven Wisconsin vocational teacher educators were identified from the 1992 Wisconsin Vocational Association membership roster and through telephone contact with the University of Wisconsin - Madison School of Family Resources and Family Sciences, the University of Wisconsin - Madison Department of Continuing and Vocational Education, and the University of Wisconsin - River Falls Department of Agricultural Education. All eight program areas were represented by the supervisors and teacher educators.
During August 1992, the state supervisors and teacher educators were mailed a cover letter (appendix H, page 421), teacher nomination form (appendix I, page 429), and stamped return envelope.

The supervisors and teacher educators were requested to nominate up to 10 teachers in their program areas that they perceived as being exemplary middle-grade teachers. Exemplary teachers were defined as those that not only have a solid grasp on technical content and pedagogy, but also understand middle school philosophy and provide instruction based on the needs and characteristics of early adolescents.

Following a second complete mailing (appendix H, page 422) to nonrespondents, 16 (67%) state supervisors and 26 (46%) teacher educators returned usable teacher nomination forms. One hundred sixty-two career-program teachers representing eight program areas were nominated.

During September and October 1992, the nominated career program teachers were mailed a letter soliciting their participation in steps two and three of the study (appendix C, page 320) and a stamped response card (appendix D, page 326). The teachers were requested to return the response card indicating their decision regarding participation. Reminder cards were mailed to the teachers five days after the initial mailing (appendix E, page 332). Following a second complete mailing to nonrespondents, 78 (48%) teachers
from the eight program areas agreed to participate in step two.

**Instrumentation**

The instrument used in step two (the activities/learning experiences instrument) included the 18 goals identified in step one as major goals of middle-grade education. The career program teachers were instructed to list under each goal those activities and learning experiences within their program areas that they perceived as promoting achievement of the goals.

Two versions of the activities/learning experiences instrument were developed (appendix F, pages 342-351, pages 352-361). Each version had the goals listed in a different order. The researcher reasoned that respondents would likely exert more effort in identifying activities and experiences under the goals listed at the beginning of the instrument than those at the end. By developing two versions, one-half of the instruments had different goals at the beginning thereby increasing the likelihood of greater respondent attention being devoted to all goals.

Content and face validity of the activities/learning experiences instrument were assured through a field test with a panel of six Ohio State University graduate students in the Department of Agricultural Education and in the Comprehensive Vocational Education program. Panelists were informed that the purpose of the instrument was to identify
activities and learning experiences perceived by middle-grade teachers in career-oriented program areas as promoting achievement of each of the goals. The panelists were instructed to review the instrument for clarity and content sufficient to achieve the purpose. Comments and suggestions regarding clarity and content were solicited from the panel; the survey instrument was revised accordingly.

Data Collection

The activities/learning experiences instrument, definitions, cover letter (appendix H, page 423), and stamped return envelope were mailed to the 78 career program teachers during October 1992. Reminder cards were mailed to the teachers five days after the initial mailing (appendix E, page 333). After a second complete mailing (appendix H, page 424) to nonrespondents, 35 (45%) teachers returned usable instruments. Among the 35 respondents were teachers in agriculture, business, general career education, health occupations, home economics, and technology education.

Data Analysis

Responses of the career program teachers were synthesized by the researcher into concise statements. This synthesis was accomplished by combining similar statements and deleting duplicates and those that lacked clarity and substance. The dissertation adviser and two graduate students in The Ohio State University Department of
Agricultural Education and in the Comprehensive Vocational Education program reviewed the synthesis to ensure that there was no deviation from the intent of the teachers' original responses. One hundred three statements were synthesized from the over 3000 that were provided by the career program teachers. These statements comprised the activities/learning experiences that were included in the Delphi instruments of step three.

**Step Three: Modified Delphi Technique**

Step three was designed to use a modified Delphi technique to identify those activities/learning experiences in step two that are perceived by experts as promoting achievement of major goals of middle-grade education.

**Selection of Participants**

The intent of the researcher was to establish a Delphi panel with a high level of expertise related to the education of early adolescents and with members representative of various areas and levels in middle-grade education. Sixty-seven panel members were selected from four groups: a) scholars identified in step one who indicated on the response cards that they would participate in step three; b) career program teachers identified through the nomination process in step two who indicated on the response cards that they would participate in step three; c) principals of exemplary middle-grade schools in Florida,
North Carolina, and Wisconsin; and d) core subject area (includes language arts, mathematics, science, social studies, history) teachers nominated by principals of exemplary middle-grade schools in Florida, North Carolina, and Wisconsin (appendix J, pages 432-439).

Scholars

Thirty-six scholars agreed to participate in step three. Eighteen of those 36 were selected to serve as Delphi panelists based on their promptness in returning the goals instrument and their contribution to the literature on middle-grade education.

Career Program Teachers

Seventy-four career program teachers agreed to participate in step three. Eighteen of those 74 were selected to serve as Delphi panelists based on their promptness in returning the activities/learning experiences instrument. Those teachers nominated by both a teacher educator and a state supervisor were selected over other teachers in their program areas who were nominated only once. Efforts were made to ensure that the three states and eight program areas were represented in the selections; however, there were no marketing/distribution or trade and industrial teachers who agreed to participate.

Principals

Forty-two principals of exemplary middle-grade schools in Florida, North Carolina, and Wisconsin were identified
from the U.S. Department of Education (1991) list of "blue ribbon" schools and through phone contact with middle school association officials from each of the three states. Each principal was mailed a letter (appendix C, pages 321-322) during September 1992 soliciting their participation in step three of the study and requesting that they nominate up to five exemplary core subject area teachers (the "core teachers") from their school to participate in the study. A teacher nomination form was provided (appendix I, page 430). Exemplary teachers were defined as those that not only have a solid grasp on technical content and pedagogy, but also understand middle school philosophy and provide instruction based on the needs and characteristics of early adolescents. Reminder cards were mailed to the principals five days after the initial mailing (appendix E, page 334).

Seventeen principals agreed to participate in step three. Eleven of the 17 were from Wisconsin; five from Florida, and one from North Carolina. All 17 principals were selected to serve as Delphi panelists.

Core Teachers

Eighty-eight core teachers representing 10 subject areas were nominated by the principals. Eighteen of the core teachers were selected to serve as Delphi panelists. Teachers were selected in a manner to ensure representation of the 10 subject areas and the three states.
During October 1992, the 18 core teachers were mailed a letter soliciting their participation in step three (appendix C, page 323). Included with the letter was a stamped response card for the teachers to indicate their decisions regarding participation (appendix D, page 327). Seventeen teachers indicated that they would serve as Delphi panelists.

During October 1992, a letter was sent to the Delphi panelists informing them of the dates of the study (appendix K, page 441). Also included in the mailing were descriptions of the study and the Delphi technique (appendix L, pages 443-446).

**Round One Procedures**

**Instrumentation**

The round one Delphi instrument included the 18 goals identified in step one and the 103 activities/learning experiences (items) identified in step two (appendix F, pages 362-372). From four to fifteen items were listed under each goal.

The round one instrument included a six-point Likert-type scale (very strongly disagree, strongly disagree, disagree, agree, strongly agree, very strongly agree) for the panelists to indicate the degree to which they believed each item promotes achievement of the goal under which it was listed. The panelists could also indicate on the instrument if they believed an item to be inappropriate for
early adolescents. An inappropriate activity/learning experience was defined as one that is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period. Panelists were encouraged to use an attached page to comment on any of the questionnaire items, particularly those they considered to be inappropriate.

Content and face validity of the three Delphi instruments used in the study were assured through a field test with a panel of six Ohio State University graduate students in the Department of Agricultural Education and in the Comprehensive Vocational Education program. The field test panelists were informed that the purpose of the instruments was to determine the degree to which the Delphi panelists believe that the activities/learning experiences promote achievement of major goals of middle-grade education. The field test panelists were instructed to review the instrument for clarity and content sufficient to achieve the purpose. Comments and suggestions regarding clarity and content were solicited, and the instruments were revised accordingly.

**Data Collection**

The round one instrument was mailed to the 67 Delphi panelists during November 1992. Included in the mailing were the instrument, definitions, stamped return envelope,
and a cover letter (appendix H, page 425). A reminder card was mailed to the panelists five days after the initial mailing (appendix E, page 335).

No follow-up contacts were made to nonrespondents of the three Delphi rounds used in the study. Because it is imperative that data collected through the Delphi technique be provided by the most competent and committed panelists, the researcher reasoned that the input of those panelists responding within the allotted time frame would be of the most value.

Fifty-four (81%) round one panelists returned usable instruments. Almost equal numbers of panelists from the four respondent groups (core teachers, principals, scholars, career-program teachers) returned useable instruments. The 54 respondents comprised the second round Delphi panel.

Data Analysis

Descriptive statistics were calculated from the first round responses. For each item, the median response, middle range of responses (25th to 75th percentiles), and the percentage of panelists who indicated that the item is inappropriate for early adolescents were determined.

Round Two Procedures

Instrumentation

The round two Delphi instrument included the same goals, items, and measurement scale as the round one instrument. Included in the round two instrument for each
item were the round one median response, middle range of responses, and the percentage of panelists who indicated the item to be inappropriate for early adolescents. Also included were comments provided by round one panelists. The panelists were instructed to consider the round one comments prior to marking their round two responses.

The round one responses for each item were indicated on the round two instruments for each panelist. If a round one response on an item was outside the middle range of responses for that item, the panelist was instructed to change the response to within the middle range during round two or to provide written justification for not doing so.

**Data Collection**

The round two Delphi instrument was mailed to 58 panelists during December 1992. Included in the mailing were the instrument (appendix F, pages 373-402), definitions, stamped return envelope, and a cover letter (appendix H, page 426). A reminder card was mailed to the panelists five days after the initial mailing (appendix E, page 336). Forty-four (83%) round two panelists returned usable instruments. Almost equal numbers of panelists from the four respondent groups (core teachers, principals, scholars, career-program teachers) returned usable instruments. The 44 respondents comprised the third round Delphi panel.
Data Analysis

Descriptive statistics were calculated from the second round responses. For each item, the median response, middle range of responses, and the percentage of panelists who indicated that the item is inappropriate for early adolescents were determined.

Two criteria were established for determining items for which consensus was reached. Consensus among the panelists was considered to have been achieved for an item which the difference between the 25th and 75th percentiles was no more than one unit on the six-point response scale and which no more than three panelists responded "not appropriate". For those items where consensus was achieved in the second round, round two was the final Delphi round. Those items not meeting the criteria for consensus were included in the round three instrument.

Round Three Procedures

Instrumentation

The round three Delphi instrument included 14 goals and 22 items for which consensus was not achieved in round two. The measurement scale was the same as in the previous Delphi instruments. Included in the round three instrument for each item were the round two median response, middle range of responses, and the percentage of panelists who indicated the item to be inappropriate for early adolescents. Also included were comments provided by round two panelists. The
panelists were instructed to consider the round two comments prior to marking their round three responses.

The round two responses for each item were indicated on the round three instruments for each panelists. If a round two response on an item was outside the middle range of responses for that item, the panelist was instructed to change the response to within the middle range during round three or to provide written justification for not doing so.

**Data Collection**

The round three Delphi instrument was mailed to 44 panelists during December 1992. Included in the mailing were the instrument (appendix F, page 403-413), definitions, stamped return envelope, and a cover letter (appendix H, page 427). A reminder card was mailed to the panelists five days after the initial mailing (appendix E, page 337). Forty-three (98%) round three panelists returned usable instruments. Almost equal numbers of panelists from the four respondent groups (core teachers, principals, scholars, career-program teachers) returned usable instruments.

**Data Analysis**

Descriptive statistics were calculated from the third round responses. For each item, the median response, middle range of responses, and the percentage of panelists who indicated that the item is inappropriate for early adolescents were determined.
Criteria for Data Interpretation

The purpose of utilizing the Delphi technique was to determine the degree to which the panelists believed that each activity/learning experience promotes achievement of the corresponding major goal of middle-grade education. For simplicity of interpretation and reporting, the items were grouped into four levels based on the median responses of the panelists. Items that received median responses of "very strongly disagree" or "strongly disagree" were considered to be in the "strong disagreement" range. Items that received a median response of "disagree" were considered to be in the "moderate disagreement" range. Items that received a median response of "agree" were considered to be in the "moderate agreement" range. Items that received median responses of "very strongly agree" or "strongly agree" were considered to be in the "strong agreement" range.

Response variance for each item was interpreted based on two criteria: a) the middle range of responses and b) the number of panelists responding "not appropriate". If the difference between the 25th and 75th percentiles (the middle range of responses) varied by one unit or less on the six-point response scale and there were no more than three responses of "not appropriate", the panelists were considered to be generally consistent in their views related to that item.
Objective two of the study was to identify those items perceived by experts (the panelists) as promoting achievement of major goals of middle-grade education. The following criteria were established to denote an item as being perceived by the panelists as promoting achievement of its corresponding goal. In the final Delphi round (round two for 81 items; round three for 22 items), the calculations for an item must yield: a) a median response of 4.5 or higher, b) a 25th percentile value of 4.0 or higher, and c) no more than three panelists responding "not appropriate". In setting these criteria, the researcher reasoned that there should be little doubt as to the appropriateness of an item in order for that item to promote achievement of middle-grade education goals. The researcher also reasoned that an item in which more 25 percent of the responses were less than "agree" should not be recommended for use in middle-grade education. These criteria were established after examining the data and comments provided by the panelists. Those items meeting the criteria were generally supported in the literature and received few negative comments from the panelists.

Summary of Procedures

Three steps were used in accomplishing the objectives of the study. Step one was to identify and validate major goals of middle-grade education. Step two was to identify
activities and learning experiences in middle-grade career-oriented program areas perceived by teachers in those areas as promoting achievement of the goals in step one. Step three was to identify through a modified Delphi technique those activities and learning experiences in step two that were perceived by experts as promoting achievement of major goals of middle-grade education. The results of study are presented in chapter four.
CHAPTER IV
RESULTS

Results of the study are reported in chapter IV. This chapter is organized by the objectives of the study and the steps used to accomplish those objectives. The objectives were designed to identify activities and learning experiences in career-oriented education program areas that promote achievement of major goals of middle-grade education.

Objective One

The first objective of the study was to identify major goals of middle-grade education. Step one was designed to accomplish the first objective.

Step One

Step one was to identify major goals of middle-grade education from the literature and have scholars of early adolescent education (the "scholars") validate the goals as being major goals of middle-grade education. The literature from which goals were derived is reviewed in chapter two on pages 71-91. Results of step one are presented in Table 1 on page 127.
Although numerous goals could have been gleaned from the literature related to the education of early adolescents, the following goals were identified as encompassing the major themes and philosophies expressed by writers:

1. to help students develop a positive self-concept;
2. to help students develop independent learning skills;
3. to help students develop higher-order thinking skills;
4. to help students develop a sense of independence;
5. to promote the continued development of students' basic academic skills;
6. to help students develop socially;
7. to help students develop their personal values;
8. to help students develop physically;
9. to help students develop practical skills and knowledge;
10. to help students develop an understanding of the various cultures within society;
11. to help students develop a sense of belonging within the local community;
12. to promote parental involvement in the education process;
13. to promote community involvement in the education process;
14. to help students develop an understanding of the world of work; and
15. to promote positive relationships between early adolescents and adults outside the classroom.

The scholars indicated on a six-point Likert type scale (1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = agree, 5 = strongly agree, 6 = very strongly agree) the degree to which they believed each of these 15 goals should be considered as a major goal of middle-grade education. The scholars could also identify additional goals on the instrument through a write-in procedure.

Mean scores were calculated for each goal and ranged from 4.74 for the goal "to promote positive relationships between early adolescents and adults outside the classroom" to 5.74 for the goal "to help students develop a positive self-concept". Based on the criterion established in chapter three on page 106, all 15 were deemed major goals of middle-grade education.

Additional goal statements were provided by the scholars and synthesized by the researcher into three major goals:
1. to help students develop leadership skills;
2. to help students develop self-assessment abilities; and
3. to help students develop a sense of responsibility.

The 18 goals identified in step one served as the basis for the activities/learning experiences instrument used in step two.
### Table 1

**Major Goals of Middle-grade Education as Perceived by Scholars of Early Adolescent Education (n=34)**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Mean a</th>
<th>SD b</th>
</tr>
</thead>
<tbody>
<tr>
<td>To help students develop a positive self-concept</td>
<td>5.74</td>
<td>.57</td>
</tr>
<tr>
<td>To help students develop independent learning skills</td>
<td>5.68</td>
<td>.53</td>
</tr>
<tr>
<td>To help students develop higher-order thinking skills</td>
<td>5.56</td>
<td>.61</td>
</tr>
<tr>
<td>To help students develop a sense of independence</td>
<td>5.50</td>
<td>.56</td>
</tr>
<tr>
<td>To promote the continued development of students' basic academic skills</td>
<td>5.38</td>
<td>.74</td>
</tr>
<tr>
<td>To help students develop socially</td>
<td>5.29</td>
<td>.58</td>
</tr>
<tr>
<td>To help students develop their personal values</td>
<td>5.29</td>
<td>.68</td>
</tr>
<tr>
<td>To help students develop physically</td>
<td>5.18</td>
<td>.67</td>
</tr>
<tr>
<td>To help students develop practical skills and knowledge</td>
<td>5.18</td>
<td>.72</td>
</tr>
<tr>
<td>To promote students' understanding of the various cultures within society</td>
<td>5.15</td>
<td>.74</td>
</tr>
<tr>
<td>To help students develop a sense of belonging within the local community</td>
<td>5.15</td>
<td>.78</td>
</tr>
<tr>
<td>To promote parental involvement in the education process</td>
<td>4.91</td>
<td>.71</td>
</tr>
<tr>
<td>To promote community involvement in the education process</td>
<td>4.88</td>
<td>.73</td>
</tr>
<tr>
<td>To promote students' understanding related to the world of work</td>
<td>4.76</td>
<td>.61</td>
</tr>
<tr>
<td>To promote positive relationships between early adolescents and adults outside the classroom</td>
<td>4.74</td>
<td>.71</td>
</tr>
</tbody>
</table>

**Scale a**: 1 = very strongly disagree, 4 = agree, 2 = strongly disagree, 5 = strongly agree, 3 = disagree, 6 = very strongly agree

**Standard Deviation b**
Objective Two

The second objective was to identify activities and learning experiences in middle-grade career-oriented program areas perceived by experts as promoting achievement of major goals of middle-grade education. Steps two and three were included in the second objective.

Step Two

Step two was to have exemplary middle-grade career-program teachers (the career program teachers) identify activities and learning experiences in their program areas that they perceived as promoting achievement of the major goals in step one.

Over 3000 activities/learning experiences were identified by 35 career program teachers as promoting achievement of the 18 goals identified in step one. From the original list of 3000 activities/learning experiences, 103 items were synthesized. These items are presented under corresponding goals in Table 2 on pages 262-283. Although the wording of the original activities/learning experiences identified was changed, the perceived intent of the teachers was captured within the 103 items.

Step Three

Step three was the utilization of a modified Delphi technique to identify those activities and learning experiences in step two that are perceived by experts as
promoting achievement of major goals of middle-grade education.

Three Delphi rounds were used. The 103 items identified in step two were included in the first and second rounds; 22 items for which consensus was not obtained in the second round were included in the third. Results of the Delphi rounds are reported for each item. The items and response variance have been categorized based on criteria established in chapter three on pages 121 and 122. Results of the three Delphi rounds are illustrated in Table 2, pages 262-283.

The reader is reminded that the number of panelists who indicated an item to be inappropriate for early adolescents is not included in the median and percentile calculations. For example, the median response could be relatively high, and yet there could be many panelists who indicated than an item is not appropriate.

Round One Results

GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT

1. Students receive awards for exemplary performance when compared against the performance of other students.

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.
2. Students receive awards for exemplary performance when compared against their past performance.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

3. Students carry out assignments that are individualized in order to increase their chances of success.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.


The panelists indicated strong disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

5. Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to promote a better understanding of concepts presented in class.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents.

2. Students individually carry out planned, hands-on activities during regular school hours that are designed to promote a better understanding of concepts presented in class.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
3. Students follow instructions to produce a finished product.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Student independently research various topics.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS

1. Students participate in activities in which they must solve practical problems.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. Students receive instruction in the decision-making process.
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

3. **Students utilize taxonomic principles in decision-making activities** (e.g., insect identification, "troubleshooting" techniques.)

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

4. **Students develop and test hypotheses.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

**GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE**

1. **Students participate in activities designed to teach practical skills** (e.g., clothing care, small engine maintenance, household repairs).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The
response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

2. Students attend state meetings of their student organization.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.

3. Students attend national meetings of their student organization.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Eleven panelists indicated that the item is inappropriate for early adolescents.

4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS' BASIC ACADEMIC SKILLS

1. Students make speeches in class.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. Students carry out activities that require the application of mathematics, reading, writing, and science principles.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

3. Students compete against other middle-grade students in contests that require the application of academic skills.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students receive awards for having the highest grade point averages.
The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

5. Students receive awards for improving their grade point averages.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Nine panelists indicated that the item is inappropriate for early adolescents.

2. Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

3. Students participate in activities in which they must make value judgements.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
inconsistent in their views. Thirteen panelists indicated that the item is inappropriate for early adolescents.

**GOAL 7: TO HELP STUDENTS DEVELOP socIALLY**

1. **Students participate in activities with students from other schools.**
   
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. **Students attend school-sponsoreD social activities.**
   
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

3. **Students receive instruction on the human relations skills needed by employees.**
   
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

4. **Students receive instruction on social etiquette relative to human sexuality.**
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

1. Students participate in role-play situations in which they must manage aspects of an enterprise (e.g., household, business, farm).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
2. Students receive encouragement to enroll in high school vocational education programs.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Seven panelists indicated that the item is inappropriate for early adolescents.

3. Students "shadow" a high school vocational education class.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

4. Students receive safety instruction.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

5. Students operate equipment used by workers in various occupations. (Note: Tasks are within students' range of abilities).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The
response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.

6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents.

7. Students receive instruction regarding family member roles and responsibilities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

1. Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Tasks are within the students' range of abilities).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.

2. Students receive instruction regarding proper dietary habits.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

3. Students participate in activities that develop their manual dexterity (e.g., keyboarding).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
5. **Students receive instruction on human physical development.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

**GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY**

1. **Students participate in activities with people of various cultural backgrounds.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. **Students receive instruction on aspects of various countries and cultures (e.g., health problems, clothing, economics, agricultural production, social attitudes).**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
3. Students take field trips to facilities and events exhibiting aspects of various cultures.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students make products of various cultures (e.g., foods, clothing, crafts).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

5. Students from various cultures share with their classmates aspects of their culture that are unique (e.g., foods, traditions, clothing).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

6. Students receive instruction on the interdependence of cultures within a global economy.
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

**GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY**

1. **Students participate in community events (e.g., displaying projects at county fair, participating in science fair).**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. **Students volunteer to assist in community activities.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

3. **Community members assist with student activities (e.g., donate resources, serve as chaperons).**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students make presentations at meetings of civic organization.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

1. Parents assist with student activities (e.g., donate resources, serve as chaperons).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. Teachers make home visits to students and their parents.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.
3. **Students complete assignments that require parental input.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

4. **Students "shadow" parents on the job.**

   The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.

**GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS**

1. **Students participate in projects in the community in which they demonstrate skills learned.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. **Community members serve on school committees.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The
Response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

3. Community members serve as resource persons in class.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

4. Students and community members participate in joint activities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

5. Students conduct fund-raising activities in the community.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.
6. **Student activities are publicized through local media.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

7. **Students sponsor activities designed to recognize the support of community members.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

8. **Teachers visit local businesses and community leaders in relation to educational activities.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

**GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK**

1. **Students individually carry out a program of planned, hands-on activities outside regular school hours that are designed to investigate the roles of workers in various occupations.**
The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Thirteen panelists indicated that the item is inappropriate for early adolescents.

2. **Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to investigate the roles of workers in various occupations.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

3. **Students receive instruction aimed at identifying occupations within various career areas.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

4. **Students receive instruction on the influence of international events on the U.S. economy.**

   The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.

5. Students "shadow" workers on the job.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

6. Students receive instruction regarding the roles of workers in various occupations.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

7. Eligible students participate in cooperative job placement programs in businesses and industries.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Twenty-three panelists indicated that the item is inappropriate for early adolescents.

8. Students are taught by teams of teachers that include career-oriented program teachers and core subject teachers.
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.

9. Students compete against other middle-grade students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Sixteen panelists indicated that the item is inappropriate for early adolescents.

11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.
The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Twelve panelists indicated that the item is inappropriate for early adolescents.

12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.

13. Students are members of a career-oriented student organization.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.

14. Students identify occupational areas that match their aptitudes and interests.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents.

15. Students take field trips to businesses and industries.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students serve on committees with adults.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

2. Students contact and make arrangements for guest speakers.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

3. Students participate in projects in which they work in local businesses.
The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Eleven panelists indicated that the item is inappropriate for early adolescents.

4. Students participate in service projects with adults.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

1. Students serve as officers of their student organization.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.
3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Thirteen panelists indicated that the item is inappropriate for early adolescents.
GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

1. Students monitor their own achievement.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. Students assess their occupational aptitudes.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

3. Students assess their occupational interests.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Seven panelists indicated that the item is inappropriate for early adolescents.

4. Students evaluate their appearance.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Six panelists indicated that the item is inappropriate for early adolescents.
5. **Students assess their personality.**

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

6. **Students assess their personal values.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.

**GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY**

1. **Students conduct group projects in which each group member is responsible for specific tasks.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

2. **Students maintain equipment and facilities that are used as part of their educational activities at school.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
inconsistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

3. Students have entrepreneurship projects (e.g., providing secretarial services, raising animals).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents.

4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents.

5. Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.
6. Students conduct community service projects (e.g., beautification projects, food drives, nursing home visits, recycling projects).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

7. Students receive instruction on socially responsible behavior.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Comments From Round One Panelists. The following comments were provided by round one panelists. Comments are listed below corresponding goals and items.

GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

2. Students receive encouragement to enroll in high school vocational education programs.

"Eighth graders - maybe, but not sixth and seventh grade students."
GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING
WITHIN THE LOCAL COMMUNITY

4. Students make presentations at meetings of civic
organizations.

"Presentations at civic organizations may be appropriate for
older students - grades 8 and 9 - but I do not believe it is
an appropriate activity for younger students - grades 5 and
6."

GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION
PROCESS

3. Students complete assignments that require parental
input.

4. Students "shadow" parents on the job.

"These [items three and four] would be appropriate for
students who live with their parents and whose parents work.
We must remember that not all students live with parents,
and some employers would not allow students to shadow their
parents for safety reasons."

GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE
WORLD OF WORK

7. Eligible students participate in cooperative job
placement programs in businesses and industries.

"Let's wait until high school."

General comments:

"Competition needs to be carefully monitored and controlled
at this age."
Summary of Round One. Indicating the panelists' level of agreement regarding the degree to which each item promotes achievement of its corresponding goal, most round one items received responses in the "moderate agreement" to "strong agreement" range. The middle range of responses varied by more than one unit on the six-point response scale for 57 of the 103 items.

Round Two Results

Convergence toward the median response between rounds one and two was observed for most items. Based on the criteria established in chapter three on pages 121-122, consensus was obtained for 81 items in round two, and 54 were perceived as promoting achievement of corresponding goals. The remaining 22 for which consensus was not obtained were included in round three. Round two results are illustrated in Table 2, pages 262-283.

GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT

1. Students receive awards for exemplary performance when compared against the performance of other students.

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views (see page 121 for criteria related to consistency). One panelist indicated that the item is inappropriate for early adolescents. Based on the
on the criteria established in chapter three, this item was included in the third Delphi round.

2. Students receive awards for exemplary performance when compared against their past performance.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

3. Students carry out assignments that are individualized in order to increase their chances of success.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

The panelists indicated strong disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

5. Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that
are designed to promote a better understanding of concepts presented in class.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

2. Students individually carry out planned, hands-on activities during regular school hours that are designed to promote a better understanding of concepts presented in class.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was
perceived by experts as promoting achievement of its corresponding goal.

3. **Students follow instructions to produce a finished product.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. **Student independently research various topics.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

**GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS**
1. Students participate in activities in which they must solve practical problems.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Students receive instruction in the decision-making process.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
3. Students utilize taxonomic principles in decision-making activities (e.g., insect identification, "trouble-shooting" techniques.)

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students develop and test hypotheses.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

2. Students attend state meetings of their student organization.

   The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.

   Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

3. Students attend national meetings of their student organization.
The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Seven panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

4. **Students maintain a notebook/portfolio containing class notes, assignments, and project records.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

**GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS' BASIC ACADEMIC SKILLS**

1. **Students make speeches in class.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Students carry out activities that require the application of mathematics, reading, writing, and science principles.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. Students compete against other middle-grade students in contests that require the application of academic skills.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

4. Students receive awards for having the highest grade point averages.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students receive awards for improving their grade point averages.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. **Student organization state officers visit classes for the purpose of providing a role model for students.**

   The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

2. **Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

   Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. **Students participate in activities in which they must make value judgements.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. **Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

GOAL 7: TO HELP STUDENTS DEVELOP Socially

1. Students participate in activities with students from other schools.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

2. Students attend school-sponsored social activities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

3. Students receive instruction on the human relations skills needed by employees.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was
perceived by experts as promoting achievement of its corresponding goal.

4. Students receive instruction on social etiquette relative to human sexuality.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round.
Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

1. Students participate in role-play situations in which they must manage aspects of an enterprise (e.g., household, business, farm).

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

   Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Students receive encouragement to enroll in high school vocational education programs.

   The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Three panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

3. Students "shadow" a high school vocational education class.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

4. Students receive safety instruction.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early
adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

5. Students operate equipment used by workers in various occupations. (Note: Tasks are within students' range of abilities).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

7. Students receive instruction regarding family member roles and responsibilities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

1. Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Tasks are within the students' range of abilities).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

2. Students receive instruction regarding proper dietary habits.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

3. Students participate in activities that develop their manual dexterity (e.g., keyboarding).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

5. Students receive instruction on human physical development.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY

1. Students participate in activities with people of various cultural backgrounds.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Students receive instruction on aspects of various countries and cultures (e.g., health problems, clothing, economics, agricultural production, social attitudes).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. Students take field trips to facilities and events exhibiting aspects of various cultures.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students make products of various cultures (e.g., foods, clothing, crafts).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students from various cultures share with their classmates aspects of their culture that are unique (e.g., foods, traditions, clothing).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

6. Students receive instruction on the interdependence of cultures within a global economy.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The
response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

**GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING**

**WITHIN THE LOCAL COMMUNITY**

1. Students participate in community events (e.g., displaying projects at county fair, participating in science fair).

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
2. **Students volunteer to assist in community activities.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

   Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. **Community members assist with student activities (e.g., donate resources, serve as chaperons).**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

   Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
4. **Students make presentations at meetings of civic organizations.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

**GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS**

1. **Parents assist with student activities (e.g., donate resources, serve as chaperons).**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was
perceived by experts as promoting achievement of its corresponding goal.

2. Teachers make home visits to students and their parents.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. One panelist indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

3. Students complete assignments that require parental input.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students "shadow" parents on the job.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The
response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

**GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS**

1. **Students participate in projects in the community in which they demonstrate skills learned.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

2. **Community members serve on school committees.**

   The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. Community members serve as resource persons in class.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students and community members participate in joint activities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

5. Students conduct fund-raising activities in the community.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

6. Student activities are publicized through local media.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

7. Students sponsor activities designed to recognize the support of community members.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

8. Teachers visit local businesses and community leaders in relation to educational activities.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early
adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

**GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK**

1. **Students individually carry out a program of planned, hands-on activities outside regular school hours that are designed to investigate the roles of workers in various occupations.**

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

2. **Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to investigate the roles of workers in various occupations.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. Students receive instruction aimed at identifying occupations within various career areas.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students receive instruction on the influence of international events on the U.S. economy.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students "shadow" workers on the job.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

6. Students receive instruction regarding the roles of workers in various occupations.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round.
Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

7. Eligible students participate in cooperative job placement programs in businesses and industries.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Nine panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

8. Students are taught by teams of teachers that include career-oriented program teachers and core subject teachers.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
9. Students compete against other middle-grade students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.
11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Three panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

13. Students are members of a career-oriented student organization.
The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

14. Students identify occupational areas that match their aptitudes and interests.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.
15. Students take field trips to businesses and industries.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students serve on committees with adults.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.
2. Students contact and make arrangements for guest speakers.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

3. Students participate in projects in which they work in local businesses.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

4. Students participate in service projects with adults.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally
consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

1. Students serve as officers of their student organization.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The
response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.
4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

The panelists indicated moderate disagreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Four panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

1. Students monitor their own achievement.
The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

2. **Students assess their occupational aptitudes.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

3. **Students assess their occupational interests.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.
Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

4. Students evaluate their appearance.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students assess their personality.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round.
Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

6. Students assess their personal values.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY

1. Students conduct group projects in which each group member is responsible for specific tasks.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item;
therefore, it was not included in the third Delphi round.
Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

2. Students maintain equipment and facilities that are used as part of their educational activities at school.

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was included in the third Delphi round.

3. Students have entrepreneurship projects (e.g., providing secretarial services, raising animals).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.
4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality).

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not perceived by experts as promoting achievement of its corresponding goal.

5. Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods.

The panelists indicated moderate agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was not
perceived by experts as promoting achievement of its corresponding goal.

6. **Students conduct community service projects (e.g., beautification projects, food drives, nursing home visits, recycling projects).**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round. Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

7. **Students receive instruction on socially responsible behavior.**

The panelists indicated strong agreement that the item promoted achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents.

Based on the criteria established in chapter three, consensus among the panelists was obtained for this item; therefore, it was not included in the third Delphi round.
Also based on the criteria established, this item was perceived by experts as promoting achievement of its corresponding goal.

**Comments From Round Two Delphi Panelists.** The following comments were provided by round two panelists. Comments are listed below corresponding goals and items.

**GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT**

1. **Students receive awards for exemplary performance when compared against the performance of other students.**

   "This kind of competition should be minimized in favor of competition with self. There is already much of this in our schools and society in general."

   "Students should not be compared to each other, only to themselves and the improvement they make. Recognize improvement of self."

   "A regular grading system provides extrinsic rewards. This will ultimately become the most valued part of the program, not learning."

5. **Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).**

   "Passive learning engendered by non-involvement is a basic problem. Students should be actively involved – and presently they are not! You can't teach problem solving without experience in solving problems that are real, etc."
"Only by helping to make such decisions will students invest in the educational enterprise and also learn to think."
"By giving students choices, they take more of an interest, are more motivated, and do better thus improving self-esteem."
"Current trends in curriculum development for middle schools is to have students identify what interests them for study. 'Participate' does mean dictate. Student choice appropriately allowed provides a sense of ownership and belonging."
"Students at [the] middle school level do not have the necessary intelligence to make those decisions."

GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS
1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to promote a better understanding of concepts presented in class.

"Students at this age need the support and guidance from an older individual - i.e. transportation, etc."
"I still disagree based upon the level of maturity of 11, 12, and 13 year olds. I think this should be done beginning [the] second year of high school. to have it work at [the] middle level, there would need to be teacher follow up. I think it could be done during school hours - i.e., shadowing in a business, etc."
"Under middle school concepts, all student activities should be performed in class. Some students may not be able to perform the activities."

3. Students follow instructions to produce a finished product.

"I very strongly believe that listening skills are paramount and following directions are important in all aspects of life."

"I disagree that students should 'follow instructions to complete a finished product'. This does not produce good problem-solving/critical-thinking skills, something students seem to be missing when they enter the world of work!"

GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS

1. Students participate in activities in which they must solve practical problems.

"Higher-order thinking skills and problem solving should be used throughout the middle school curriculum."

3. Students utilize taxonomic principles in decision-making activities (e.g., insect identification, "troubleshooting" techniques).

"Many students are capable of this and metacognitively benefit from practicing these skills."

GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

2. Students attend state meetings of their student organization.
"Funding problems and this activity should be left for older high school students to experience."

"Travel within state may require overnight stay. Travel may be an expense to the student."

"I don't believe this is financially [nor] physically practical in the majority of public/private school districts."

"Young adolescents should be extensively involved in responsible ways in their immediate communities. Save state meetings for high school."

3. Students attend national meetings of their student organization.

"Smaller state meetings are better managed and those students attending will be more apt to learn in smaller conventions. Larger national meetings, as with conventions, become large parties instead."

"Funding and liability problems - This should be left for older high school students to experience."

"National meeting attendance is an activity available and appropriate for high school students."

"...may require overnight stay. May be an expense to the student."

"Students that 'make it' to this level of sophistication and understanding of politics would benefit, but not all students."
"I don't believe this is financially [nor] physically practical in the majority of public/private school districts."

"I do not feel that this is an appropriate use of available financial resources."

"Young adolescents should be extensively involved in responsible ways in their immediate communities. Save state meetings for high school."

"I do not think at the present time 7th and 8th graders have the total development (cognitive, affective) needed to be at national meetings. Also, currently the National FFA does not have activities directed at that age/grade level."

4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.

"Portfolio assessment must be included in any assessment program for students."

GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS' BASIC ACADEMIC SKILLS

1. Students make speeches in class.

"Oral language is sadly neglected."

3. Students compete against other middle-grade students in contests that require the application of academic skills.

"Competition is disadvantageous to some students and may impair their learning."

"Though not beneficial for all, this is highly motivational for many."
"Why must everything be competitive?"

"...under middle school concepts, students should compete in the class, within a team, and with teams in the school. All student activities are performed at the school. Competition between schools on the district, state, and national levels are not part of middle school philosophy. Currently, the student organization[s] do not have their by-laws to meet the needs of middle curriculum."

4. Students receive awards for having the highest grade point averages.

"Grades are so invalid in many cases that rewards should not be based exclusively, or even primarily, on them."

"G.P.A. recognition should be changed to recognizing all those students who achieve the learning outcomes in a grading period."

"Students' achievements need to be recognized. Our society reward those citizens that succeed 'above and beyond' others. This promotes success. I still support this, but believe that recognition based upon improvement compared with their own past record is better."

"Awarding students for highest grade point average causes many students to try harder because it addresses the competitive spirit that many students have."

"GPAs belong in high school - if then. We must focus on LEARNING - not grades."
5. Students receive awards for improving their grade point averages.

"Grades, grades! When will we get beyond them as a measure of one's education?"

"Extrinsic awards ultimately lead to students working for the award."

"Use of grade points creates a class system unnecessary at this level. We need to be teaching for learning/understanding verses grades."

"GPAs belong in high school - if then. We must focus on LEARNING - not grades."

"Students will tend to work for the award and not [the] learning."

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

"At the junior high school level, almost no student has developed a set value system. They are often experimenting and observing older students and adults. Junior high (6-8) students should not set their own standards. This is like the 'blind leading the blind'."

"Don't believe this role model would work at [the] middle level."

"Role models should be developed from within kids' teams/classes where they know and understand each other. Role
model attributes must be attainable for all kids, so standards must be familiar, trustworthy, and real."
"This would be more appropriate for high school level."
"Too often these officers are in their position because they have social status in their communities. Parents can afford to send them to special camps/classes. They often provide a model of the 'upper crust'. Students quickly see through this."

3. Students participate in activities in which they must
   make value judgements.

"I am against neutral (value free) values clarification learning exercises and feel that this statement could allow them to occur."

"Value judgements are normally formed at home. At this level, we cannot instill certain values as these usually are personal from each individual home situation."

4. Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.
"Competition is disadvantageous to some students and may impair their learning."

"The key is non-physical and taught values."

5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.
"I'll stick with NA. Why involve high school kids in competition? The statement is inherently contradictory - 'compete against' as means of promoting teamwork, cooperation, and fair play."

"I agree with all, but don't believe including high school students benefits middle school students to a high enough degree."

"This level of competition is [a] premature and unnecessary emphasis for young adolescents - each of whom needs to succeed often without success coming at the expense of someone else."

"It would not be fair to have middle school and high school students compete against each other. This does not fit in with the middle school concept."

"Should not compare with high school."

GOAL 7: TO HELP STUDENTS DEVELOP SOCIALY

1. Students participate in activities with students from other schools.

"Learning about another school society wither as host or guest requires social skill development at this age."

"I feel students need to participate in activities with students from other schools. Too often, students in one middle school do not know how activities in other middle schools are operated/conducted."

3. Students receive instruction on the human relations skills needed by employees."
"Junior high (6-8) [students] are too young. They still need to learn to get along."

"Practicing these skills, modeled by adults in the school environment, is far more important than formal instruction."

"Not appropriate because I do not think middle level school should provide instruction needed by employees."

"Human relations skills are life-long learning skills and are not needed for just employability."

5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).

"Minor issue that should be handled at about K-3 level."

GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

2. Students receive encouragement to enroll in high school vocational education programs.

"They should be able to receive appropriate experiences where they are."

"Tech ed is where the jobs are going to be. We need to get them into those programs so they understand they aren't for the 'dummies'."

"Should be encouraged for any/all appropriate programs based on [the students'] needs."

"With all the advantages of vocational education, students should be encouraged and introduced to programs. Many new
tech-prep programs will need post-secondary education. Besides, vocational education teaches life-long learning!"
"High school vocational education programs provide specific job skills. Any student, college-bound or otherwise, will obtain better, higher paying work with specific job skills. Most college students require supplemental income -- they will do much better as part-time nursing assistants, medical records coder, computer data entry clerk, etc. than other part-time jobs often provide. Often the beginning knowledge acquired in high school vocational education classes inspires a student to go on to some type of postsecondary education, a goal we should all be shooting for as educators!"
"I strongly believe in high support of vocational education programs in high school. Our county strongly supports this also."
"Students need info about possibilities, but it is not our job to encourage them into a vocation in the middle school."
3. Students shadow a high school vocational education class.
"Tech ed is where the jobs are going to be. We need to get them into those programs so they understand they aren't for the 'dummies'."
"I feel this depends upon the relationships which exist between the middle and high school as well as the number of individuals involved."
"Only if other opportunities are available."
"To shadow is to systematically observe so that questions and inferences emerge naturally. Most young adolescents can learn from shadowing."

"This is exposure and information."

5. Students operate equipment used by workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)

"Tech ed is where the jobs are going to be. We need to get them into those programs so they understand they aren't for the 'dummies'."

"Operating job-oriented equipment accomplishes: a) increased interest or disinterest, both necessary to learn self-assessment, b) a feeling of accomplishment which increases a positive image for the individual and pride in achievement, c) job-skills education, and d) possibly seeing the actual results or their action, thereby promoting relevancy in learning."

6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).

"This may not be proper for those children before grade eight. Children must first be children before they are compelled to cope as an adult in an adult world. They may get the message that they have to grow up too soon. I feel strongly on this."
"Middle school curriculum should be [exploratory] unless the student is exiting school at grade 8 and going to work. These skills can be covered better."

"This allows children to use a variety of communications skills which are important to all parts of life."

7. Students receive instruction regarding family member roles and responsibilities.

"Parenting skills and attentiveness to child, adolescent, and adult needs should be clearly articulated in regard to emotional, intellectual, [and] physical needs."

"Family values and roles are at an all time low. Role models aren't there like they were 20-40 years ago. We need to role model and explain what is needed in a family situation so we have more intact families."

"I believe that discussions, if held, should be individualistic."

"Extremely important in view of the large number of dysfunctional families today."

"Discussions dealing with family should be carefully constructed and be individualistic to the degree possible."

GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

1. Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)

"This smacks of low-level training for low-level jobs."
"One of the best ways to teach middle school students is by having students perform tasks or activities of various occupations. This brings the learning found in books and worksheets to real practice by people in the world of work. Middle school students can learn and understand concepts better doing it than reading a textbook."

4. Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).

"I could change my response only if I know more about what would be taught. For example, I believe sexual abstinence should be taught, and the statement is too broad to be that specific."

"Why? What purpose? Students might not have resources at their disposal."

5. Students receive instruction on human physical development.

"It is clear that recent phenomena such as AIDS have altered this for me philosophically."

GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY

1. Students participate in activities with students from various cultural backgrounds.

"They do this anyway in their normal daily school routine."

"Students are heterogeneously placed in groups to perform various activities. This should occur naturally."
"It seems the more diverse we become, the narrower our views become along with our level of tolerance and acceptance."

4. **Students make products of various cultures (e.g., foods, clothing, crafts).**

"Making these products might be costly to the students."

"It may be fun and some learning of culture can occur. I think it's not sufficient. I would do it, but it's not a priority to meet [the] goal."

**GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY**

1. **Students participate in community events (e.g., displaying projects at county fair, participating in science fair).**

"Financial constraints in some school districts will make this impossible for some students."

"It depends on the amount of pressure placed on these awards. It can be a negative force if not carefully monitored."

2. **Students volunteer to assist in community activities.**

"Caution should be taken to insure that the students will be carefully monitored."

"A number of community activities can be done at the school and off school grounds as a school activity. Community members are encouraged with student activities."

4. **Students make presentations at meetings of civic organizations.**
"My students take great pride in the different presentations they give."

"This may be a little too much for a middle school student to do."

**GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS**

2. Teachers make home visits to students and their parents.

"I am concerned whenever the state or their reps (i.e. teachers and educators) get into our homes. Children need to feel secure at home. That is the family's private sanctuary - that big brother teacher is not always looking over their shoulder. This doesn't foster trust, but rather distrust."

"Promotes [positive] home-school relations."

"It is ideal, but not practical in [the] public school setting. Safety for the teacher is a problem in many areas!"

"In many school districts, such visits would be unwelcome and could place the teacher in a dangerous situation."

"I would agree with this if I were assured that provisions would be made to allow us to do this during the school day as opposed to 'after school' hours."

"Instead of home visits, I make phone calls. Depending on the background, some parents will think that teachers are invading their privacy."
"Depending on the geographic location and/or conditions, I would normally leave home visits up to the Department of Social Services, possibly an instructor in the resource department, attendance director, or the principal."

3. **Students complete assignments that require parental input.**

"Of course, depends on nature of parental involvement and while it sounds appropriate, it would unfairly penalize those with absent/unwilling/incompetent parents. (The kids are already being penalized through no fault of their own.) "I worry about parents who might misinform the student on their assignment."

"Given the living conditions of many at-risk students, I do not believe it would benefit students' self-esteem to have teachers visit their homes. This is a difficult issue for me as I also see many benefits to the concept and I am a proponent of home visits."

4. **Students "shadow" parents on the job.**

"Children might feel compelled to follow their parents' job career without making up their own minds. At the junior high level, kids need to have all possibilities open to them."

"We do this and have found it to be most successful as a career tool and a stronger communication within the family."
"This concept is impractical in a 'blue collar' community such as ours - the paper mill simply won't allow visitors of any kind on the floors."

"Would work to [the] disadvantage of many students simply because of the nature of their parent's job (or lack of one)."

"Students do not have to shadow their parents - this is not always possible, but 4 to 6 students could visit one parent."

**GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS**

5. Students conduct fund-raising activities in the community.

"Fund raisers on a school campus is a great idea - off campus, the students only become the workers or pawns of a activist organization. If it were up to the student to choose which fund raisers, I would agree."

"An overdone activity - puts students in a bad position, PR questionable. Would depend on many factors."

"Students are asked to raise money constantly for different activities. Doing something for [the] community is more worthwhile."

"Fund raising should not be a middle or elementary school activity. Save it for high school."

"Students do too much fund raising. Let's not promote more."
"I sponsor a club (Beta Club), and we do a lot of community activities. [The] students respond well."

**GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK**

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

"The role of the school is to teach and prepare the students. The role of the household for junior high students is to continue this work **AND** to allow students to form family ties **and** to be kids (i.e. play, create, etc.). This is NOT APPROPRIATE for 6-8 grades."

"Yes, but not a school responsibility."

"This is beyond the interest and conceptual scope of young adolescents. Save it for high school and college. Keep the focus concrete, clear, immediate."

"Let children be children! How long of a work day is enough?"

"A lot of students would not have access to planned, hands-on activities regarding various occupations. Some reasons are: a) lack of parental involvement, b) single parent households, c) parents long hours or second jobs, and d) geographic location.

"This can be done through library activities or visits to the mall."
2. **Students individually carry out a program of planned hands-on activities during regular class hours that are designed to investigate the roles of workers in various occupations.**

"Hands-on activities provide relevancy as no other method of instruction. I consider it vital to preparing students to master both life and job skills!"

"I very strongly agree that [this activity] is a very vital aspect of every child's school experience. This should occur across all curricula."

5. **Students "shadow" workers on the job.**

"Job shadowing is an excellent opportunity for students to really experience a job."

"I disagreed with this because I was apprehensive about how the business community would feel about it."

"Middle level students [are] not quite ready for this."

"To shadow is to systematically observe so that questions and inferences emerge naturally. Most young adolescents can learn from shadowing."

"Not appropriate for middle level in many occupations and industries."

"While I marked agree, I do believe students should be experienced to workers in actual work situations. I question how many businesses would allow middle school students to 'shadow' workers. I believe some occupations
are too technical for early adolescents to fully comprehend."

6. **Students receive instruction regarding the roles of workers in various occupations.**

"This is a very vital part of the career exploration program. This, however, should be a vital part of the whole curricula. Every instructor should be teaching in this manner."

7. **Eligible students participate in cooperative job placement programs in businesses and industries.**

"This is not for junior high [students]. Their minds are still open to everything and too young to set in one course."

"Too young at this age."

"I believe this is something [that is] more appropriate to high school."

"Majority of students [are] not ready."

"Co-operative job placement is not appropriate for middle level students!"

"Way beyond middle level students' needs."

"What's the rush? Coops make much better sense for high school."

"Understanding employability skills can best be demonstrated by having cooperative learning within community industries. This alleviates the 'culture shock' that can occur when a person enters the full-time job place. There is no better
way to convey this concept than by having students in the
work place side by side with professionals."
"Children are below age level for external employment."
"Not old enough."
"Students at this age are too young to participate in co-op
job placement programs."
"We need the job opportunities for students at the high
school level. I have concern about young adolescents being
put in the 'work force'."
8. **Students are taught by teams of teachers that include**
   career-oriented program teachers and core subject
teachers.
"I am not convinced that this sort of teaming would be
beneficial."
"This sounded like 'pie-in-the-sky' to me."
9. **Students compete against other middle-grade students in**
   contests that require the use of skills needed by workers
   in various occupational areas (e.g. forestry skills
   contest, computer skills contest).
"Why would you want them to compete? Educate, yes -
compete, no."
"Competition is questionable and when combined with workers' skills become premature and inappropriate for middle level
students."
"Why have an overemphasis on competition?"
10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g. forestry skills contest, computer skills contest).

"I'll stick with NA. Why involve high school kids in competition?"

"Unfair competition."

"Competition against high school students is not appropriate here."

"This level of competition is [a] premature and unnecessary emphasis for young adolescents - each of whom needs to succeed often without success coming at the expense of someone else."

11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.

"Students already have commitments after school. Too many enter work force too soon, takes away from academic time."

"I believe students of middle school age should be exposed to a large variety of career and job skills, but not spend time/effort being trained in specific job skills."

"Depends on whether those students, regardless of age, are ready for abstract cognition."

"This is not appropriate for middle school students because of age and geographic location."
12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.

"Students already have commitments after school. Too many enter work force too soon, takes away from academic time."

"I believe students of middle school age should be exposed to a large variety of career and job skills, but not spend time/effort being trained in specific job skills."

"Developing specific job skills before knowing about [the] vast world of work seems most inappropriate."

"They are only 10-14 years old!"

13. Students are members of career-oriented student organizations.

"None are currently available in our district, so I switched my answer to 'not appropriate'. I personally wouldn't encourage any either."

"I feel very strongly that middle school students need to belong to a vocational student organization. They receive so much leadership from this type of organization."

14. Students identify occupational areas that match their aptitudes and interests.

"At the junior high level, it is not appropriate to tell a student what their aptitude will allow for the future. You risk lowering expectations."

"How can a student effectively plan and accomplish career goals without aggressively participating in self-awareness
studies? To identify strengths, weaknesses, abilities, interests, etc. is the basis for such planning."

**GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM**

2. **Students contact and make arrangements for guest speakers.**

"This will be a good experience, but the students will need support."

3. **Students participate in projects in which they work in local businesses.**

"Middle-level students are pretty young for this. Observe and participate, yes, but 'work'?"

"High school."

"I feel ages 11-14 are inappropriate to be working in local businesses. Their main job 'work' is school and, when not there, should be free to grow, relax, and develop their individual interests."

"Apprenticeships for short terms are an excellent way for young adolescents to learn some of the activities of the adult world. They can also learn valuable lessons about what it means to be human by being an apprentice."

"Understanding employability skills can best be demonstrated by having cooperative learning within community industries. This alleviates the 'culture shock' that can occur when a person enters the full-time job place. There is no better
way to convey this concept than by having students in the work place side by side with professionals."
"Age? Not appropriate."
"Businesses are not receptive to all types of students - eliminates opportunities for all."
"Not old enough."

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled.
"If leadership is to be role modeled, stronger models than high school participants can be found."

3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level.
"Attendance on a regular basis may well take away desire for participation over an extended period of time, as a middle-level student would be attending twice as many sessions."

4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).
"As a debate coach, I can assure you this will aid a student to cope with his/her world more than many other talents taught at school."
"Competition is disadvantageous to some students and may impair their learning."

"I believe in educating, not competing."

5. **Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).**

"Again, as stated in [item four], communication is the cornerstone to all human relations, leadership, cooperation, and societies, law and order."

"Vocational education has perhaps used competition excessively. I still think it's NA."

"Middle school students need to compete against [middle school] students, not high school students."

"I believe in educating, not competing - and not between [middle school and high school]."

"[Middle-grade] students in competition with high school students would be inappropriate."

"This level of competition is [a] premature and unnecessary emphasis for young adolescents - each of whom needs to succeed often without success coming at the expense of someone else."

"Unfair competition."

"Not with high school."
GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

3. **Students assess their occupational aptitudes.**

"...at the junior high level, student should broaden their aptitude then proceed to high school and assess their aptitude."

4. **Students evaluate their appearance (includes physical and clothing).**

"Not at the junior high level. Appearance (acne, sexual maturity or immaturity, makeup or lack of it) is controlled often by genetics and family values. To assess or evaluate would hurt junior high students' fragile egos."

"Sometimes (often) this is an economic issue."

"Students do enough of this on their own, to the detriment of others' self-concept. The school should not institutionalize this practice!"

"At this age of change, students constantly need help in assessing their appearance accurately."

5. **Students assess their personality.**

"Students do enough of this on their own, to the detriment of others' self-concept. The school should not institutionalize this practice!"

"[At this age of change, students constantly need help in assessing their personality accurately] as they constantly experiment with who they want to be."

"I have a difficult time with this because students often misuse this information."
GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY

2. Students maintain equipment and facilities that are used as part of their educational activities at school.

"This is a waste of time. Middle school students do not know how to repair or maintain computer equipment, typewriters, or desks. Students can learn responsibility by bringing to class completed homework, do assignments, paper, pencil, and textbook."

3. Students have entrepreneurship projects (e.g., providing secretarial services, raising animals).

"Not a required project, but entered into by a student based on interest only."

"Many simulations (e.g., micro-society) make issues and concepts real to kids."

"Entrepreneurship projects are not appropriate at the middle school level."

4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality).

"I don't believe you indicate one's progress in academics and these things separately. We aren't making a generation of passive adults."

"I just do not feel like this in an objective way to grade students."

"'Employee attitudes' is an unknown (unknowable) standard nor does it always provide exemplary guidance for students."
"Can't we get past grades as measures of kids' worth?"

5. Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods.

"Enough candy sales, magazine subscriptions, etc. O.K. if students develop as product such as a blue bird house and then market it, etc."

"There are other ways [to promote achievement of this goal] besides fund-raising activities."

"Why?"

"Should not be imposed on students!"

**Summary of Round Two.** Consensus was reached on 81 of the 103 items identified by career program teachers as promoting achievement of major goals of middle-grade education. The remaining 22 items and 14 corresponding goals were included in the third Delphi round. Of the 81 items for which consensus was achieved in round two, 54 were perceived as promoting achievement of corresponding goals.

**Round Three Results**

Convergence toward the median response was noted for items between rounds two and three. Based on the criteria established in chapter three on page 122, 11 round three items were perceived as promoting achievement of corresponding goals.

**GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT**

1. Students receive awards for exemplary performance when compared against the performance of other students.
The panelists indicated moderate disagreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

2. Students receive awards for exemplary performance when compared against their past performance.

The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.


The panelists indicated strong disagreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was
not perceived as promoting achievement of its corresponding goal.

GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students independently research various topics.

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

3. Students attend national meetings of their student organization.
The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.

The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Four panelists indicated that the item is inappropriate for early adolescents. Based on
the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

2. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

The panelists indicated moderate disagreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

GOAL 7: TO HELP STUDENTS DEVELOP SOCIALLY

1. Students attend school-sponsored social activities.

The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.
GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

1. Students receive safety instruction.

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

1. Students receive instruction regarding proper dietary habits.

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

1. Teachers make home visits to students and their parents.
The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS

1. Students participate in projects in the community in which they demonstrate skills learned.

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

2. Teachers visit local businesses and community leaders in relation to educational activities.

   The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. One panelist indicated that the
item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Five panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

2. Eligible students participate in cooperative job placement programs in businesses and industries.

The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally inconsistent in their views. Nine panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not
perceived as promoting achievement of its corresponding goal.

3. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

The panelists indicated strong disagreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Two panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students participate in projects in which they work in local businesses.

The panelists indicated moderate agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Seven panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.
GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS
1. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

The panelists indicated moderate disagreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. Four panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was not perceived as promoting achievement of its corresponding goal.

GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES
1. Students monitor their own achievement.

The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY
1. Students maintain equipment and facilities that are used as part of their educational activities at school.
The panelists indicated strong agreement that the item promotes achievement of its corresponding goal. The response variance showed the panelists to be generally consistent in their views. None of the panelists indicated that the item is inappropriate for early adolescents. Based on the criteria established in chapter three, this item was perceived as promoting achievement of its corresponding goal.

Comments From Round Three Delphi Panelists. The following comments were provided by round three panelists. Comments are listed below corresponding goals and items.

GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT
1. Students receive awards for exemplary performance when compared against the performance of other students.
   "Welcome to the real world. This is a competitive world and will always remain so. This does not mean we can't also reward those who do well compared to their past performance."
   "While I disagree with giving grades at this level, I feel the process should be credible."

GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE
2. Students attend national meetings of their student organization.
"It would be rare to have sufficient resources to send a middle school student to a national meeting. Sessions generally are not appropriate for this age level unless the student has exceptional talent and ability."

"National meetings or any arena in which a large number of participants requires great leadership and control (self control) to organize and achieve objective goals. These mature qualities are not yet fully developed in the middle school level."

"Funding and liability problems - should be left for older high school students."

"I still feel this is not practical in most districts because of financial limitations."

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

"Each school has set their own standards of good values according to their community and the philosophy of each school. These leaders may reflect views and standards inconsistent with those we've set for our children in our community."

"Role models and implicit standards are best identified within a team/class in a way that makes the qualities authentic and achievable by other students."

"I believe it is beneficial to students to see someone their age in a leadership position that allows for travel, etc."
Actually seeing someone their age and being able to talk to them could encourage students to do their best to try to achieve goals.

2. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

"I simply don't believe that middle level students should be expected or encouraged to compete against high school level students. Contradictory to age appropriate and cooperative emphasis of sound middle level programming."

"Preoccupation with competition already exerts destructive forces in schools and societies. What is more unfair than pitting 10-14 year olds 'against' older, more experienced students? How about bringing them together in cooperative ventures e.g., community service?"

GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

1. Teachers make home visits to students and their parents.

"There are several important reasons why teachers should not be required, passively or otherwise, to make home visits unless the parents invite said teachers. 1) Whether we like or not, the government has made every teacher (public and private) an agent of the state and Federal governments. We are required by law (like doctors) to report any abuses or hints of abuses no matter how vague or circumstantial our
evidence is, or else we are punished. We are, in effect, the eyes of the government. We would not be allowed to ignore the physical conditions of their homes, social interactions, and/or condition of each child. We would be required to make a judgement call we are not qualified to do. This should be left to specialists. 2) Teachers don't foster trust when they are perceived by the children and parents as being 'big brother watching'. 3) The home is private and serves many diverse private functions (including religious). The schools, on the other hand, serve one primary function, and that is to educate. If we are to promote better 'home-school' relations, then we need to revitalize the PTA. Parents must take the responsibility to go where their kids are being educated and take a more active role in that primary responsibility therein."

GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK

1. Students carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

"This appears to be more appropriate for high school students. Students need sufficient maturity to understand safety standards, etc. of the work place."

2. Eligible students participate in cooperative job placement programs in businesses and industries.
"Middle school teaches orientation and exploration - not placement. Business insurance regulations prohibits most of this placement anyway."

"They are too young (grades 5-8) for this activity. It pressures them to assume their destiny at too young of an age."

"I am still convinced that this process is a necessity for middle school students. Our rapidly changing work world is entered more efficiently by better prepared students. They can no longer afford to wait until their junior/senior years in high school to make career decisions; too many doors are already closed at that point! To experience specific jobs is not to lock [students] into that area, but help them with their decision-making process. To decide against a job field is equally as important to their planning as is finding areas where their interests and abilities are needed and can be used. These students do not choose to be treated like 'kids', but rather as young adults. They are striving to increase their level of being independent people. They welcome challenges and are often more open to interact in the work setting with professionals than secondary students. I have seen this work. These students enjoy this type of program, and the program enhance the confidence of each person as he/she participates by the consideration and input they receive from the professionals."
"We must be careful not to emphasize prematurely some important issues in the later adolescent years. Save this one for high school."

3. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

"I still question competing against high school students."
"Purpose of education is exploratory - not competitive."
"I do not believe that students should compete by interlevel events."
"Middle school is the perfect place to emphasize success without [it] coming at someone else's expense. Again, why is their such preoccupation with the assumption that competition between unequal parties is good education?"
"Young adolescents should not be involved with senior high school students in this competitive manner. There is no reason to do so."

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students participate in projects in which they work in local businesses.

"Violates child labor laws in most states."
"I disagree with this statement. This is not appropriate for middle school students. They are too young to be on-the-job, even though some do work."
"I can agree that middle level students can benefit from shadowing employees of local businesses. It would help students and also probably be good P.R. with the community."
"I feel middle level students shouldn't be 'working'. Interest activities, hobbies, etc. are not defined as work."
"There are many, many young adolescents who want and need to experience real responsibility alongside a supportive, protective adult. Apprenticeships are perfect for this kind of learning."

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS
1. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

"Students need some kind of medium to help with leadership experiences."
"I am opposed to a philosophy of competition that strictly sees winners or losers. Yet, if the teams are structured so as to include a cross section of grade levels, I wouldn't be opposed."
"Middle school should compete against middle school."
"Communications is the cornerstone of all human civilization. No other skill of tool is more important and vital to every aspect of our lives regardless of the culture we come from. We have competition in sports (that not all students can qualify for nor do the majority win at) yet we would not call this 'unfair competition'! We have spelling
bees, G.P.A.s, elections to office, courts for hearings; yet we would not consider scrapping these institutions because of 'unfair competition'. How ridiculous it seems that the educators of this country would put such a low value on such leadership skills at a time in our nation's history where real leadership is seriously lacking....Competition will sharpen leadership skills and bring forth leaders and role models. Certainly public speaking and parliamentary procedure (student government) is not 'unfair'. These are aspects of our undeniable social behavior as the human race. At our school, students are encouraged to join elective such as debate and public communications as well as student government....They certainly compete with their views, but we as teacher see that the procedure is fair. That's our job....If we don't allow children the opportunity to express themselves in the ways noted in this objective, then we run the severe risk that they will express themselves via their emotions and physical behavior. We may already be seeing the beggings of this folly."

"I don't think it's appropriate - fair - for middle grade students to compete with a high school student....It might prove valuable for middle level students to observe high school participants in debate, etc."

"Again - downplay competition in general and eliminate unfair competition. We need to put competition into perspective in our schools."
General comments:
"The mission of the middle school is exploration. Educators at this level are justified in their actions of turning kids 'on' to many ways and kinds of learning opportunities. We need to avoid pigeon holing kids at a point where they've only completed 1/10 of their life. What's the rush?"

Summary of Round Three. Convergence toward the median response was noted for items between rounds two and three. Eleven round three items were perceived as promoting achievement of corresponding goals.

Summary of Results
Three steps were used to accomplish the objectives of this study. Results of step one are presented in Table 1 on page 127. Results of step three are presented in Table 2, pages 262-283.

Eighteen major goals of middle-grade education were identified in step one. One hundred three activities/learning experiences in career-oriented education program areas perceived by exemplary middle-grade teachers in those areas as promoting achievement of the 18 goals were identified in step two. Step three involved three rounds of a modified Delphi technique in which experts in early adolescent education indicated the degree to which they believed that each of the activities/learning experiences in step two promoted achievement of the major goals.
Convergence toward the median response was noted among the Delphi panelists during subsequent rounds. Based on criteria established in chapter three on page 122, 65 of the 103 activities/learning experiences were perceived as promoting achievement of major goals of middle-grade education. Conclusions and recommendations based on the results are presented in chapter five.
Table 2

Activities/Learning Experiences That Promote Achievement of Major Goals of Middle-grade Education as Perceived by Delphi Panelists

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^a) Round</th>
<th>N</th>
<th>Med.(^b)</th>
<th>P(<em>{25})-P(</em>{75})(^c)</th>
<th>NA(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT</td>
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<tr>
<td>1. Students receive awards for exemplary performance when compared against the performance of other students.</td>
<td>Round 1: 53</td>
<td>3.0</td>
<td>2.0-4.0</td>
<td>5.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>3.0</td>
<td>2.0-4.0</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 42</td>
<td>3.0</td>
<td>2.0-4.0</td>
<td>0%</td>
<td></td>
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<tr>
<td>2. Students receive awards for exemplary performance when compared against their past performance.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>4.75-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 42</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>3. Students carry out assignments that are individualized in order to increase their chances of success.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 41</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>4. Students receive passing grades regardless of performance.</td>
<td>Round 1: 53</td>
<td>2.0</td>
<td>1.0-3.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>2.0</td>
<td>1.0-3.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 42</td>
<td>2.0</td>
<td>1.0-2.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>5. Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi$^a$ Round</th>
<th>N</th>
<th>Med.$^b$</th>
<th>P$<em>{25}$-P$</em>{75}$$^c$</th>
<th>NA$^d$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS</strong></td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to promote a better understanding of concepts presented in class.</td>
<td>Round 2: 42</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>2.4%</td>
<td></td>
</tr>
<tr>
<td>2. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to promote a better understanding of concepts presented in class.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>3. Students follow instructions to produce a finished product.*</td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>4. Students independently research various topics.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-5.5</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 42</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 42</td>
<td>5.0</td>
<td>5.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^a)</th>
<th>N</th>
<th>Med.(^b)</th>
<th>P(<em>{25})-P(</em>{75})(^c)</th>
<th>NA(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students participate in activities in which they must solve practical problems.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>2. Students receive instruction in the decision-making process.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>3. Students utilize taxonomic principles in decision-making activities (e.g., insect identification, &quot;trouble-shooting&quot; techniques).*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>4. Students develop and test hypotheses.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.5-6.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi\textsuperscript{d}</th>
<th>Round</th>
<th>N</th>
<th>Med.\textsuperscript{b}</th>
<th>P\textsubscript{25}–P\textsubscript{75}</th>
<th>NA\textsuperscript{d}</th>
</tr>
</thead>
</table>

**GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE**

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).*

   | Round 1: | 54 | 5.0 | 4.0–6.0 | 1.9% |
   | Round 2: | 43 | 5.0 | 4.0–6.0 | 0%   |
   | Round 3: | 43 | 5.0 | 5.0–5.0 | 0%   |

2. Students attend state meetings of their student organization.

   | Round 1: | 52 | 4.0 | 4.0–5.0 | 11.5% |
   | Round 2: | 44 | 4.0 | 4.0–5.0 | 6.8%  |

3. Students attend national meetings of their student organization.

   | Round 1: | 53 | 4.0 | 3.75–4.25 | 20.8% |
   | Round 2: | 44 | 4.0 | 4.0–4.0 | 20.5% |
   | Round 3: | 43 | 4.0 | 4.0–4.0 | 11.6% |

4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.*

   | Round 1: | 54 | 5.0 | 4.0–6.0 | 0%   |
   | Round 2: | 44 | 5.0 | 4.0–6.0 | 0%   |
   | Round 3: | 43 | 5.0 | 5.0–6.0 | 2.3%  |
### Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal</th>
<th>Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;a&lt;/sup&gt;</th>
<th>N</th>
<th>Med.&lt;sup&gt;b&lt;/sup&gt;</th>
<th>$P_{25}$-$P_{75}$&lt;sup&gt;c&lt;/sup&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 5: To promote the continued development of students' basic academic skills</td>
<td>1. Students make speeches in class.*</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td></td>
<td>4.5</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Students carry out activities that require the application of mathematics, reading, writing, and science skills.*</td>
<td>Round 1: 54</td>
<td>6.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td></td>
<td>6.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Students compete against other middle-grade students in contests that require the application of academic skills.</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td></td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Students receive awards for having the highest grade point averages.</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>2.0-4.25</td>
<td>7.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td></td>
<td>4.0</td>
<td>3.0-4.0</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Students receive awards for improving their grade point averages.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td></td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;a&lt;/sup&gt;</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 6: To help students develop their personal values</td>
<td>Round</td>
<td>N</td>
<td>Med.&lt;sup&gt;b&lt;/sup&gt;</td>
<td>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;</td>
<td>NA&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>1. Student organization state officers visit classes for the purpose of providing a role model for students.</td>
<td>Round 1:</td>
<td>53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>17.0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>18.2%</td>
</tr>
<tr>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>9.3%</td>
</tr>
<tr>
<td>2. Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>3. Students participate in activities in which they must make value judgements.*</td>
<td>Round 1:</td>
<td>53</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>4. Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.</td>
<td>Round 1:</td>
<td>54</td>
<td>3.0</td>
<td>2.0-4.0</td>
<td>24.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>3.0</td>
<td>2.0-4.0</td>
<td>11.4%</td>
</tr>
<tr>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>3.0</td>
<td>3.0-4.0</td>
<td>11.6%</td>
</tr>
</tbody>
</table>
### Table 2 (continued)

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<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;a&lt;/sup&gt; Round</th>
<th>N</th>
<th>Med.</th>
<th>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td><strong>GOAL 7: TO HELP STUDENTS DEVELOP SOCIALLY</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Students participate in activities with students from other schools.</td>
<td>Round 1: 54 4.5 4.0-5.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 4.0 4.0-5.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Students attend school-sponsored social activities.*</td>
<td>Round 1: 54 5.0 4.0-6.0</td>
<td>1.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 5.0 4.0-6.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 43 5.0 5.0-6.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Students receive instruction on the human relations skills needed by employees.*</td>
<td>Round 1: 53 5.0 5.0-6.0</td>
<td>3.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44 5.0 5.0-6.0</td>
<td>4.5%</td>
<td></td>
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</tr>
<tr>
<td>4. Students receive instruction on social etiquette relative to human sexuality.*</td>
<td>Round 1: 52 5.0 4.0-6.0</td>
<td>3.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 5.0 4.75-5.0</td>
<td>2.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).*</td>
<td>Round 1: 53 5.0 4.0-6.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44 5.0 5.0-6.0</td>
<td>2.3%</td>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi\textsuperscript{a} Round N</th>
<th>Med.\textsuperscript{b}</th>
<th>P_{25}-P_{75}\textsuperscript{c}</th>
<th>NA\textsuperscript{d}</th>
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<tbody>
<tr>
<td><strong>GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students participate in role-play situations in which they must manage aspects of an enterprise (e.g., household, business, farm).*</td>
<td>Round 1: 54 5.0 4.0-6.0 0%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Round 2: 44 5.0 4.0-5.0 0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Students receive encouragement to enroll in high school vocational education programs.</td>
<td>Round 1: 52 4.0 4.0-5.5 13.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44 4.0 4.0-5.0 6.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Students &quot;shadow&quot; a high school vocational education class.</td>
<td>Round 1: 53 4.0 4.0-5.0 3.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 4.0 4.0-4.25 2.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Students receive safety instruction.*</td>
<td>Round 1: 52 5.0 4.0-6.0 0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44 5.0 4.0-6.0 2.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 43 5.0 5.0-6.0 2.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Students operate equipment used by workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)*</td>
<td>Round 1: 53 5.0 4.0-5.25 5.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 5.0 4.0-5.0 4.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).*</td>
<td>Round 1: 54 5.0 4.0-6.0 9.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43 5.0 4.0-5.0 4.5%</td>
<td></td>
<td></td>
<td></td>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;ab&lt;/sup&gt;</th>
<th>N</th>
<th>Med.&lt;sup&gt;b&lt;/sup&gt;</th>
<th>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;&lt;sup&gt;c&lt;/sup&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE (cont.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Students receive instruction regarding family member roles and responsibilities.*</td>
<td>Round 1:</td>
<td>53</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>2. Students receive instruction regarding proper dietary habits.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
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<td>4.0-6.0</td>
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<td>43</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>3. Students participate in activities that develop their manual dexterity (e.g., keyboarding).*</td>
<td>Round 1:</td>
<td>54</td>
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<td>4.0-6.0</td>
<td>0%</td>
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<td></td>
<td>Round 2:</td>
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<td>5.0</td>
<td>5.0-5.75</td>
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Table 2 (continued)

<table>
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<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^a) Round</th>
<th>N</th>
<th>Med.(^b)</th>
<th>P(^{25})-P(^{75})(^c)</th>
<th>NA(^d)</th>
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<tr>
<td><strong>GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY</strong> (cont.)</td>
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<td>4. Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).*</td>
<td>Round 1: 54</td>
<td>6.0</td>
<td>5.0-6.0</td>
<td>0%</td>
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<td></td>
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<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
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<tr>
<td>5. Students receive instruction on human physical development.*</td>
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<td>5.0-6.0</td>
<td>0%</td>
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<td></td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
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<tr>
<td><strong>GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Students participate in activities with people of various cultural backgrounds.*</td>
<td>Round 1: 54</td>
<td>5.5</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
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<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.5</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>2. Students receive instruction on aspects of various countries and cultures (e.g., health problems, clothing, economics, agricultural production, social attitudes).*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-5.75</td>
<td>0%</td>
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<th>Delphi ( ^{\text{a}} )</th>
<th>Round</th>
<th>N</th>
<th>Med. ( ^{b} )</th>
<th>( P_{25}-P_{75} )</th>
<th>NA ( ^{d} )</th>
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<tr>
<td>GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY (cont.)</td>
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<tr>
<td>3. Students take field trips to facilities and events exhibiting aspects of various cultures.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0–6.0</td>
<td>0%</td>
<td></td>
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<tr>
<td></td>
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<td>5.0</td>
<td>4.25–5.0</td>
<td>0%</td>
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<tr>
<td>4. Students make products of various cultures (e.g., foods, clothing, crafts).</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0–5.0</td>
<td>1.9%</td>
<td></td>
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<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0–5.0</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>5. Students from various cultures share with their classmates aspects of their culture that are unique (e.g., foods, traditions, clothing).*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0–6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0–6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>6. Students receive instruction on the interdependence of cultures within a global economy.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0–6.0</td>
<td>1.9%</td>
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</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0–6.0</td>
<td>0%</td>
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<th>Goal</th>
<th>Activity/Learning Experience</th>
<th>Delphi ¹ Round</th>
<th>N</th>
<th>Med. ²</th>
<th>P_{25}-P_{75}³</th>
<th>NA ⁴</th>
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<tr>
<td>GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Students participate in community events (e.g., displaying projects at county fair, participating in science fair).*</td>
<td></td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
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<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>2. Students volunteer to assist in community activities.*</td>
<td></td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>3. Community members assist with student activities (e.g., donate resources, serve as chaperons).*</td>
<td></td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>4. Students make presentations at meetings of civic organizations.*</td>
<td></td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-5.25</td>
<td>7.4%</td>
</tr>
<tr>
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<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>4.5%</td>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi$^a$</th>
<th>N</th>
<th>Med.$^b$</th>
<th>P$<em>{25}$-P$</em>{75}$</th>
<th>NA$^d$</th>
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</thead>
<tbody>
<tr>
<td>GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS</td>
<td>Round 1: 54</td>
<td>6.0</td>
<td>4.75-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>1. Parents assist with student activities (e.g., donate resources, serve as chaperons).*</td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>2. Teachers make home visits to students and their parents.</td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>3.0-5.0</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>3. Students complete assignments that require parental input.*</td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>4. Students &quot;shadow&quot; parents on the job.</td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>11.3%</td>
<td></td>
</tr>
<tr>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>6.8%</td>
<td></td>
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<tr>
<td>GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>1. Students participate in projects in the community in which they demonstrate skills learned.*</td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.75</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Round 3: 43</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Community members serve on school committees.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>Round 2: 44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
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</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^a) Round</th>
<th>N</th>
<th>Med.(^b)</th>
<th>P(<em>{25})-P(</em>{75})(^c)</th>
<th>NA(^d)</th>
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<tbody>
<tr>
<td>Goal 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS (cont.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Community members serve as resource persons in class.*</td>
<td>Round 1: 54 6.0 5.0-6.0 0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Students and community members participate in joint activities.*</td>
<td>Round 1: 54 5.0 4.0-6.0 0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Students conduct fund-raising activities in the community.</td>
<td>Round 1: 53 4.0 3.0-5.0 3.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Student activities are publicized through local media.*</td>
<td>Round 1: 54 5.0 4.0-6.0 1.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Students sponsor activities designed to recognize the support of community members.*</td>
<td>Round 1: 53 5.0 4.0-6.0 1.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Teachers visit local businesses and community leaders in relation to educational activities.*</td>
<td>Round 1: 54 5.0 4.0-6.0 1.9%</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi$^a$ Round</th>
<th>N</th>
<th>Med.$^b$</th>
<th>P$<em>{25}$–P$</em>{75}$</th>
<th>NA$^d$</th>
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<tbody>
<tr>
<td>GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>3.0–5.0</td>
<td>24.1%</td>
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<td></td>
<td>Round 2: 43</td>
<td>4.0</td>
<td>3.0–5.0</td>
<td>11.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 43</td>
<td>4.0</td>
<td>3.0–4.0</td>
<td>9.3%</td>
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</tr>
<tr>
<td>2. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to investigate the roles of workers in various occupations.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0–5.0</td>
<td>3.7%</td>
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<td></td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>4.0–5.0</td>
<td>0%</td>
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</tr>
<tr>
<td>3. Students receive instruction aimed at identifying occupations within various career areas.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0–6.0</td>
<td>3.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>5.0</td>
<td>4.0–5.0</td>
<td>0%</td>
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</tr>
<tr>
<td>4. Students receive instruction on the influence of international events on the U.S. economy.</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>4.0–5.0</td>
<td>5.6%</td>
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</tr>
<tr>
<td></td>
<td>Round 2: 43</td>
<td>4.0</td>
<td>4.0–5.0</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>5. Students &quot;shadow&quot; workers on the job.</td>
<td>Round 1: 54</td>
<td>4.0</td>
<td>4.0–5.0</td>
<td>5.25%</td>
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<td>Round 2: 43</td>
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<td>4.0–5.0</td>
<td>6.8%</td>
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Table 2 (continued)

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<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi^ Round</th>
<th>N</th>
<th>Med.</th>
<th>P25-P75</th>
<th>NA^d</th>
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<tr>
<td>GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)</td>
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<tr>
<td>6. Students receive instruction regarding the roles of workers in various occupations.*</td>
<td>Round 1:</td>
<td>53</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>1.9%</td>
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<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.5</td>
<td>4.0-5.0</td>
<td>0%</td>
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<tr>
<td>7. Eligible students participate in cooperative job placement programs in businesses and industries.</td>
<td>Round 1:</td>
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<td>4.0</td>
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<td>42.6%</td>
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<td>3.0-4.0</td>
<td>31.8%</td>
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<td>Round 3:</td>
<td>43</td>
<td>4.0</td>
<td>2.0-4.0</td>
<td>20.9%</td>
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<tr>
<td>8. Students are taught by teams of teachers that include career-oriented program teachers and core subject teachers.*</td>
<td>Round 1:</td>
<td>52</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>5.8%</td>
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<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>9. Students compete against other middle-grade students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>3.0-5.0</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>3.0-4.0</td>
<td>2.3%</td>
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### Table 2 (continued)

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<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^a) Round</th>
<th>N</th>
<th>Med.(^b)</th>
<th>(P_{25}-P_{75})</th>
<th>NA(^d)</th>
</tr>
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<tbody>
<tr>
<td><strong>GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).</td>
<td>Round 1:</td>
<td>54</td>
<td>3.0</td>
<td>1.0-4.0</td>
<td>29.6%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>3.0</td>
<td>1.0-3.75</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>2.0</td>
<td>2.0-3.0</td>
<td>4.7%</td>
</tr>
<tr>
<td>11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.</td>
<td>Round 1:</td>
<td>54</td>
<td>3.0</td>
<td>3.0-4.0</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>3.0</td>
<td>3.0-4.0</td>
<td>7.0%</td>
</tr>
<tr>
<td>12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>4.5%</td>
</tr>
<tr>
<td>13. Students are members of a career-oriented student organization.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>14. Students identify occupational areas that match their aptitudes and interests.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>9.3%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;a&lt;/sup&gt;</th>
<th>N</th>
<th>Med.&lt;sup&gt;b&lt;/sup&gt;</th>
<th>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;&lt;sup&gt;c&lt;/sup&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>15. Students take field trips to businesses and industries.*</td>
<td>Round 1: 54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students serve on committees with adults.</td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>2. Students contact and make arrangements for guest speakers.</td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>3.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>3. Students participate in projects in which they work in local businesses.</td>
<td>Round 1: 53</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>20.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 3: 42</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>16.7%</td>
<td></td>
</tr>
<tr>
<td>4. Students participate in service projects with adults.*</td>
<td>Round 1: 53</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2: 44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi^a</th>
<th>N</th>
<th>Med.^b</th>
<th>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students serve as officers of their student organization.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>3.0-5.0</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>3.0-4.0</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-4.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).</td>
<td>Round 1:</td>
<td>54</td>
<td>3.0</td>
<td>2.5-4.0</td>
<td>24.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>3.0</td>
<td>3.0-4.0</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>3.0</td>
<td>3.0-3.0</td>
<td>9.3%</td>
</tr>
</tbody>
</table>
## Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal Activity/Learning Experience</th>
<th>Delphi(^{a})</th>
<th>N</th>
<th>Med.(^{b})</th>
<th>(P_{25}-P_{75})(^{c})</th>
<th>NA(^{d})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Students monitor their own achievement.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.25-5.75</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
</tr>
<tr>
<td>2. Students assess their occupational interests.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>3.7%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>3. Students assess their occupational aptitudes.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>13.0%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>2.3%</td>
</tr>
<tr>
<td>4. Students evaluate their appearance.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>5. Students assess their personality.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>6. Students assess their personal values.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.0</td>
<td>0%</td>
</tr>
<tr>
<td>Goal</td>
<td>Activity/Learning Experience</td>
<td>Delphi&lt;sup&gt;a&lt;/sup&gt;</td>
<td>N</td>
<td>Med.&lt;sup&gt;b&lt;/sup&gt;</td>
<td>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;&lt;sup&gt;c&lt;/sup&gt;</td>
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<tr>
<td></td>
<td>GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Students conduct group projects in which each group member is responsible for specific tasks.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
</tr>
<tr>
<td>2.</td>
<td>Students maintain equipment and facilities that are used as part of their educational activities at school.*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>4.0-6.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>4.0-5.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 3:</td>
<td>43</td>
<td>5.0</td>
<td>4.0-6.0</td>
</tr>
<tr>
<td>3.</td>
<td>Students have entrepreneurship projects (e.g., providing secretarial services, raising animals).</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td>4.</td>
<td>Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality).</td>
<td>Round 1:</td>
<td>53</td>
<td>4.0</td>
<td>3.25-5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>43</td>
<td>4.0</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td>5.</td>
<td>Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods.</td>
<td>Round 1:</td>
<td>54</td>
<td>4.0</td>
<td>3.0-5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>4.0</td>
<td>3.0-4.0</td>
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</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Goal</th>
<th>Activity/Learning Experience</th>
<th>Delphi&lt;sup&gt;a&lt;/sup&gt; Round</th>
<th>N</th>
<th>Med.&lt;sup&gt;b&lt;/sup&gt;</th>
<th>P&lt;sub&gt;25&lt;/sub&gt;-P&lt;sub&gt;75&lt;/sub&gt;&lt;sup&gt;c&lt;/sup&gt;</th>
<th>NA&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
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<tbody>
<tr>
<td>GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY (cont.)</td>
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</tr>
<tr>
<td>6. Students conduct community service projects (e.g., beautification projects, food drives, nursing home visits, recycling projects).*</td>
<td>Round 1:</td>
<td>54</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>7. Students receive instruction on socially responsible behavior.*</td>
<td>Round 1:</td>
<td>53</td>
<td>5.0</td>
<td>4.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round 2:</td>
<td>44</td>
<td>5.0</td>
<td>5.0-6.0</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

Scale:
1=Very Strongly Disagree 4=Agree
2=Strongly Disagree 5=Strongly Agree
3=Disagree 6=Very Strongly Agree

<sup>a</sup>The third Delphi round included those activities/learning experiences for which consensus was not obtained during round two.
<sup>b</sup>Median score assigned to activity/learning experience by panelists
<sup>c</sup>Middle range of scores (25th to 75th percentiles)
<sup>d</sup>Percentage of panelists indicating that the activity/learning experience was not appropriate for early adolescents

*These activities/learning experiences are perceived by the Delphi panelists as appropriate for early adolescents and as promoting achievement of corresponding major goals of middle-grade education.
The early adolescent period is characterized by many physical, cognitive, psychological, social, and vocational developmental changes. Because of these changes, early adolescents have unique educational needs for which middle-grade schools were designed to meet.

The number of middle-grade career-oriented education programs has increased in recent years (Alexander & McEwin, 1989), and this trend is expected to continue (Barrick & Hughes, 1992). However, the programs have been criticized for not adequately meeting the needs of early adolescents (Beane, 1990; Harrington-Lueker, 1990).

To design career-oriented programs that adequately meet the needs of early adolescents, goals of middle-grade education needed to be defined along with activities/learning experiences within career-oriented program areas that promote achievement of those goals. Through this study, 18 major goals of middle-grade education were identified. Sixty-five activities/learning experiences in career-oriented program areas perceived as meeting those goals were also identified.
Conclusions and Discussion

The objectives of this study were to identify major goals of middle-grade education and to identify activities/learning experiences in career-oriented program areas perceived by experts as promoting achievement of those goals. Conclusions are guided by the objectives of the study and are based on the results reported in chapter four.

Conclusions: Major Goals of Middle-grade Education

Based on related literature and input from scholars of early adolescent education, major goals of middle-grade education include:

1. to help students develop a positive self-concept;
2. to help students develop independent learning skills;
3. to help students develop higher-order thinking skills;
4. to help students develop a sense of independence;
5. to promote the continued development of students' basic academic skills;
6. to help students develop socially;
7. to help students develop their personal values;
8. to help students develop physically;
9. to help students develop practical skills and knowledge;
10. to help students develop an understanding of the various cultures within society;
11. to help students develop a sense of belonging within the local community;
12. to promote parental involvement in the education process;
13. to promote community involvement in the education process;
15. to help students develop an understanding of the world of work;
16. to help students develop leadership skills;
17. to help students develop self-assessment abilities; and
18. to help students develop a sense of responsibility.

Conclusions: Activities and Learning Experiences

Beliefs and perceptions indicated by the Delphi panelists are generally congruent with the literature on middle-grade education. Based on the results of the Delphi technique, 65 of the 103 activities/learning experiences identified by career program teachers are perceived by the panelists as promoting achievement of major goals of middle-grade education. General conclusions are drawn from the positions and comments expressed by the Delphi panelists and are printed in bold.

Activities/learning experiences that help early adolescents prepare for future roles as family members and workers promote achievement of middle-grade education goals. However, these activities/learning experiences do not include specific job training.

Providing activities/learning experiences aimed at preparing early adolescents for their future roles is
supported in the literature and is indicated as an important role of the middle-grade school. Such activities/learning experiences are supported in resolutions adopted by the National Middle School Association (1992) and promote achievement of developmental tasks identified by Havighurst (1972). Toepfer (1988) also expressed the importance of early adolescents developing an awareness of situations that they will face as adults.

Exploratory activities/learning experiences that help early adolescents prepare for their future roles as workers are supported in the literature; however, specific job skills training is not (Ginzberg et al., 1951; Sale, 1979). The lack of support indicated by the panelists for career-oriented student organizations is somewhat contradictory to positions expressed by Lounsbury and Vars (1978) and Jones (1990) which are supportive of clubs and interest groups for middle-grade students.

Helping early adolescents clarify their personal values and become responsible, caring, socially competent individuals who are physically and emotionally healthy promotes achievement of middle-grade education goals.

The position of the panelists is congruent with recommendations and philosophy expressed in the literature related to outcomes of middle-grade education. Assisting early adolescents in defining their personal values is indicated as an important role of the middle-grade school
(Kindred et al., 1976; Curtiss & Bidwell, 1977). Helping early adolescents become responsible and socially competent promotes achievement of developmental tasks described by Havighurst (1972). Lipsitz (1984), Curtiss and Bidwell, and Kindred et al. also expressed the importance of middle-grade schools helping students learn socially acceptable behaviors. The Carnegie Council on Adolescent Development (1989) indicated that middle-grade schools should help students become healthy, caring, and ethical individuals who are good citizens.

Positive self-concept and emotional stability are indicated as essential to the well-being of early adolescents (Kindred et al., 1976, Carnegie Council on Adolescent Development, 1989; Steffans, 1990). Curtiss and Bidwell (1977) stated that middle-grade schools should provide an environment conducive to the personal, social, and emotional growth of students.

Grading practices and activities/learning experiences that are grounded in competition or comparison to other students do not promote achievement of middle-grade education goals.

The position of the panelists is congruent with the philosophy expressed in the literature as it relates to competition and student evaluation. Brazee and Smalley (1982) and Arth et al. (1984) indicated possible negative effects of competition on early adolescents in terms of
their self-esteem and attitude toward school. Because of extreme variations in the developmental levels among early adolescents, Kieffer and Johnston (1979) suggested that middle-grade schools not establish standards that require all students to achieve at the same level and recommended that self-competition take precedence over competition with others in the middle grades. Others have suggested that student progress be judged based on individual improvement and not in comparison to other students (Eichhorn, 1966; Curtiss & Bidwell, 1977; Sale, 1979).

To promote achievement of middle-grade education goals, activities/learning experiences for early adolescents should take place during regular school hours and within the school or local community.

Contradictions are found in the literature regarding activities/learning experiences that occur outside of regular school hours (Curtiss & Bidwell, 1977). The position of the panelists that activities/learning experiences should take place during regular school hours is supported (Curtiss & Bidwell, 1977; Lounsbury & Vars, 1978). Curtiss and Bidwell indicated that middle-grade students need to participate in exploratory activities both in and outside the school. Participation in school clubs and extra curricular activities has also been described as beneficial to early adolescents (Alexander et al., 1968; Kindred et al., 1976; Jones, 1990).
Several comments provided by panel members indicated concern regarding expenses incurred by students as part of school-related activities that require overnight travel. Kindred et al. suggested that middle-grade educators avoid activities in which expenses would prevent students from participating.

An interdisciplinary, applied curriculum that helps develop practical and academic skills needed to be successful in future roles both in and outside the school setting promotes achievement of middle-grade education goals. Providing early adolescents opportunities for appropriate and meaningful input into decisions relative to this curriculum promotes achievement of middle-grade education goals.

The panelists support of an interdisciplinary, applied curriculum is consistent with positions expressed in the literature. Beane (1991) criticized the separate subject approach to middle-grade education and stated that an interdisciplinary curriculum is more reflective of reality. Hands-on learning is indicated in the literature as the preferred learning style of most early adolescents and is a recommended practice for middle-grade schools (Brazee & Smalley, 1982; Carnevale & Johnston, 1989; National Middle School Association, 1992; George et al., 1992).

Supporting the position of the panelists, Curtiss and Bidwell (1977) expressed the need for early adolescents to
learn practical skills that may be commonly used in future situations. Greenberg and Hunter (1982) also indicated the need for middle-grade instruction to be practical and relevant to "real life" situations.

Mastery of basic academic skills during the middle grades is indicated in the literature as essential for success in the higher grade levels. Kindred et al. (1976) and Curtiss and Bidwell (1977) expressed the necessity of students leaving the middle grades with a solid foundation in reading, writing, and mathematics. However, Topfer (1988) stated that increased emphasis on academic achievement has caused middle-grade schools to overlook other important elements of early adolescent development.

Congruent with the position of the panelists, activities/learning experiences that encourage the development of problem solving and decision making skills are supported in the literature. Kohlberg and Gilligan (1979) indicated that problem solving exercises promote movement to higher cognitive levels. Super (1957) stated that practice in making decisions helps prepare young people to enter work later in life.

Like the panelists, the literature supports students having input into school-related decisions. Lounsbury and Vars (1978) recommended that students have a central role in developing and implementing activity programs. Curtiss and
Bidwell (1977) also indicated the importance of students having meaningful input into the education process.

Activities that encourage positive relations between the school and the community and home promote achievement of middle-grade education goals.

Support of activities that involve collaboration between the school and the community and home is consistent with the literature. According to Beane (1990), the middle-grade curriculum should be planned, in part, based on characteristics of the local community and with input from community members. Sale (1979) reported that effective middle-grade schools involve local communities in educational activities. Others have also expressed the benefits of early adolescents participating in community activities (George et al., 1992; National Middle School Association, 1992).

The Carnegie Council on Adolescent Development (1989) and the National Middle School Association (1992) expressed the need to actively involve parents in the activities of middle-grade schools. Greenberg and Hunter (1982) also noted the benefits of parental involvement in the education process.

Exploratory and constructive self-assessment activities promote achievement of middle-grade education goals.

The position of the panelists relative to exploratory and self-assessment activities supports the literature.
Alexander et al. (1968) and Curtiss and Bidwell (1977) stated that a goal of the middle-grade school should be to provide opportunities for students to learn more about themselves through exploring personal, academic, and avocational interests. Curtiss and Bidwell also suggested that early adolescents assess their strengths and weaknesses as a means of improvement through self-evaluation activities. Beane (1990) proposed a middle-grade curriculum that would encourage students to identify and evaluate their personal aspirations and interests.

To promote achievement of middle-grade education goals, the focus of school activities should be to enhance the well-being of early adolescents and not to benefit any particular organization or program area.

Congruent with the belief expressed by the panelists, Eichhorn (1966) stated that the purpose of middle-grade education is to meet the educational needs of early adolescents, and practices of the middle-grade school should be directed toward achieving that purpose. However, it appears that in some instances middle-grade schools have lost sight of this purpose as indicated by the panelists' expressed disfavor toward fund-raising activities and practices designed to encourage early adolescents to enroll in particular high school programs or courses. Beane (1990) criticized the middle-grade curriculum as being a collection
of fragmented, unrelated courses resulting from pressure exerted by special interest groups.

**Activities/learning experiences that encourage positive relations and better understandings between early adolescents of various cultures promote achievement of middle-grade education goals.**

The panelists' position supports the literature related to cultural issues and the socialization of early adolescents. Kindred et al. (1976), McDonough (1991, and the National Middle School Association (1992) recommended that middle-grade schools provide activities that promote the understanding, value, and respect of those who are culturally or racially different. Manning (1989) described the impact that cultural differences and related perceptions have on early adolescents and suggested that multicultural concepts be integrated into the middle-grade curriculum.

**Activities/learning experiences that may cause students to have feelings of shame because of personal or family situations do not promote achievement of middle-grade education goals.**

The panelists expressed concerns regarding activities in which middle-grade students may be embarrassed as a result of real or imagined inadequacies related to personal or family situations. Consistent with the position of the panelists, the importance of schools working to instill a positive self-concept and feelings of self-worth within
early adolescents is supported in the literature (Kindred et al., 1976; Carnegie Council on Adolescent Development, 1989; Steffans, 1990).

**Activities/learning experiences in which middle-grade and high school students participate together do not promote achievement of middle-grade education goals.**

The panelists' views support the literature which describes possible negative effects of early adolescents participating in activities that are designed for older students and that may be of an overly sophisticated nature (McEwin, 1984). Sale (1979) and Arth et al. (1984) stated that activities in which students of vastly differing abilities are forced to compete serve no positive educational function and have a negative impact on early adolescents. The beliefs and comments expressed by the panelists indicate concern over unfair competition and possible negative influences on early adolescents when middle-grade and high school students participate in activities together.

**Recommendations**

Recommendations are made based on the input provided by the Delphi panelists. Areas addressed in the recommendations include:

1. philosophy of middle-grade schools;
2. activities/learning experiences in middle-grade career-oriented programs;
3. education personnel;
4. other agencies/organizations; and
5. further research.

Recommendations: Philosophy of Middle-grade Schools

Practices of middle-grade schools must be educationally sound and aimed at enhancing the well-being of early adolescents. It is strongly recommended that the major goals identified in this study be addressed in the philosophy and actions of middle-grade schools.

Recommendations: Activities/Learning Experiences in Career-oriented Programs

Career-oriented curricula should include activities/learning experiences that are appropriate for early adolescents and that promote achievement of major goals of middle-grade education. Decision-makers should consider incorporating into the curriculum those activities/learning experiences perceived by the Delphi panelists as promoting achievement of major goals of middle-grade education. Activities/learning experiences should be customized to be applicable in specific program areas (e.g., health occupations, technology education).

Family and Employment Roles

Career-oriented programs should help prepare early adolescents to eventually assume the responsibilities of
family and employment. To achieve this objective, the curriculum should include a variety of practices aimed at increasing students' awareness and understanding of the roles and responsibilities of family members and workers. However, specific job skills training should not be included in these practices.

Examples of activities/learning experiences that should receive high priority in increasing early adolescents' awareness and understanding of family member and worker roles are those that:

1. relate to family member and worker roles and responsibilities;
2. promote student contact with local businesses and industries;
3. help students assess their occupational interests and aptitudes and identify occupational areas that match those interests and aptitudes; and
4. promote the development of employability skills (e.g., preparing resumes, conducting job interviews, completing job applications).

**Personal Values, Responsibilities**

Activities/learning experiences in career-oriented programs should help early adolescents clarify their personal values and develop a sense of responsibility and care for themselves, other people, and their surroundings.
However the programs should not promote any particular doctrine (e.g., specific religious beliefs).

Example of activities/learning experiences that should receive high priority in helping early adolescents establish a set of personal values and become responsible, caring individuals are those that:

1. place students in positions of responsibility within groups;
2. require students to complete projects individually and be responsible for their school-related materials and work;
3. involve participation in community activities and service projects; and
4. encourage the development of responsibility a sense of pride for their school.

Social Skills

Career-oriented programs should include activities/learning experiences that promote the social development of early adolescents. The activities/learning experiences should help early adolescents develop the skills needed to interact in a positive manner with peers and adults.

Examples of activities/learning experiences that should receive high priority in developing early adolescents' social skills are those that:

1. promote teamwork, honesty, cooperation, and fair play;
2. promote the understanding and valuing of all cultures;
3. provide early adolescents opportunities to interact
   socially with other early adolescents;
4. involve early adolescents and adults working together;
   and
5. promote socially acceptable and responsible behaviors.

Physical and Emotional Health

Career-oriented programs should include activities/learning experiences that encourage the physical development and emotional well-being of early adolescents. These activities/learning experiences must be carefully planned with the characteristics of individual students considered.

Examples of activities/learning experiences that should receive high priority in promoting the physical and emotional health of early adolescents are those that:
1. encourage healthy dietary habits;
2. increase students' understanding relative to physical development;
3. develop students' manual dexterity;
4. encourage responsible behaviors aimed at preventing physical health problems; and
5. promote the development of a positive self-concept and feelings of self-worth.

Student Assessment

Indicators of student achievement in career-oriented programs should be individualized based on the
characteristics of the student. However, students should be expected to exert reasonable effort in order to be judged as having attained a satisfactory level of achievement.

Examples of practices that should receive high priority in student assessment are those that:

1. reward students for improvement and
2. judge student achievement in comparison to past performance and not in comparison to other students.

**Competition**

Activities/learning experiences that are part of career-oriented programs or related student organizations should emphasize participation over competition. The programs and student organizations should provide means for all students to experience success and be rewarded for their efforts.

**Time and Location**

Activities/learning experiences of career-oriented programs and related student organizations should occur at such a time and location as not to inhibit student participation. Examples of activities/learning experiences that should receive high priority in providing programs conducive to student participation based on time and location are those that:

1. take place during regular school hours;
2. take place in the local community;
3. minimize student expense; and
4. require no overnight travel.

**Meaningful, Relevant Curriculum**

Career-oriented curricula should be meaningful and relevant to early adolescents. The curricula should demonstrate the connection of knowledge learned in various subject areas and prepare students for future roles both in and outside the school setting.

Examples of activities/learning experiences that should receive high priority in a meaningful, relevant curriculum are those that:

1. emphasize the development of decision-making and problem-solving skills;
2. help students develop basic academic skills;
3. help students develop effective communication skills;
4. are developed and implemented by teams of teachers from both the career program and core subject areas;
5. require students to apply mathematics, reading, communication, and science skills in a variety of situations;
6. teach students practical skills that may be commonly used in future situations at school, home, or work;
7. promote cooperation and team work among students of various cultural backgrounds;
8. provide students opportunities to learn through active, hands-on applications; and
9. promote the development of independent learning skills.
Student Input

Middle-grade students should have opportunities for meaningful and appropriate input into school-related decisions. Examples of activities/learning experiences that should receive high priority in ensuring that students have this input are those that:

1. involve students as organization officers or group leaders;
2. include students at an appropriate level of involvement in decisions relative to classroom and school policies and practices; and
3. involve students as members of school committees.

School/Community/Home Relations and Involvement

Career-oriented programs should promote the notion that education is a joint effort involving the school, community, and the home. Career-oriented programs should include practices aimed at strengthening the relationship of those partners and promoting their active involvement in the education process.

Examples of activities that should receive high priority in promoting involvement and positive school, community, and home relations are those that:

1. involve teacher contact with business and community leaders;
2. utilize the expertise of community members in providing educational activities for students;
3. involve students in community activities and in projects with community members;
4. involve parents and community members on school committees and in school-related decisions;
5. increase public awareness of activities that take place in the school; and
6. involve parents/guardians in student activities and assignments.

**Self-assessment**

Career-oriented programs should help early adolescents develop a better understanding of themselves. Activities/learning experiences that encourage self-assessment should be structured in such a manner as to not accentuate students' inadequacies.

Examples of activities/learning experiences that should receive high priority in developing students' self-understanding are those that:
1. encourage the assessment of personal values;
2. identify occupational aptitudes and interests; and
3. encourage students to monitor their own achievement.

**Focus on the Early Adolescent**

There should be no motive behind practices employed in career-oriented programs other than to promote the well-being of early adolescents. Practices conducted for other motives must be avoided.
Examples of practices that should be avoided in career-oriented programs are those that:
1. involve students in fund-raising activities that are of negligible educational value and
2. are aimed at recruiting students into particular high school programs or course work.

Positive Relations Among Students of Various Backgrounds

Activities/learning experiences in career-oriented programs should promote positive relations among all students. Practices of the programs should not lead students to view any group or culture as inferior to others.

Examples of activities/learning experiences that should receive high priority in promoting positive relations among early adolescents of various backgrounds are those that:
1. promote students' understanding and valuing of all individuals regardless of cultural background;
2. expose students to positive aspects of various cultures;
3. promote the notion of a global community; and
4. include students from different cultural backgrounds.

Students' Personal and Family Situations

Teachers in career-oriented program areas should be sensitive to students' perceptions regarding personal or family inadequacies and not impose activities/learning experiences on students that may accentuate those
inadequacies. Examples of practices that could result in feelings of shame are those that:

1. prevent students participating because of limited financial resources or lack of support from parents/guardians;
2. expose negative family situations;
3. accentuate inadequacies relative to physical characteristics or personality; and
4. cause students to feel inadequate in comparison to their peers.

**Mixed-age Participation**

Activities/learning experiences of career-oriented programs and related student organizations in which middle-grade and high school students participate together should be avoided. Caution should be taken to ensure that early adolescents are not negatively influenced by older students and that they do not become discouraged in their efforts because of participation by older students.

Examples of activities involving mixed-age participation that could have a negative impact on early adolescents are those that:

1. involve competition between middle-grade and high school students;
2. encourage middle-grade students to model their behavior after high school students; and
3. hold middle-grade students to the same performance standards as high school students.

**Recommendations: Education Personnel**

Individuals involved in providing career-oriented education to middle-grade students must have a thorough understanding of early adolescents and of effective middle-grade practices. Those individuals should ensure that the needs and characteristics of early adolescents are the bases upon which career-oriented curricula and practices are developed and implemented. Included in this group of individuals are teacher educators, state education agency personnel, and local education personnel.

**Teacher Educators**

Teacher educators should be in the forefront of increasing the knowledge relative to middle-grade education and preparing individuals to effectively teach early adolescents. Teacher educators in the career-oriented program areas should incorporate aspects of middle-grade educational practices into the curriculum. Teacher educators should be actively involved in developing career-oriented curricula for middle-grade students, providing in-service activities for middle-grade teachers and administrators, and conducting related research. The results of this study should be used in developing pre-service and in-service programs and in guiding research efforts.
State Education Agency Personnel

State education agencies should encourage the continued development and implementation of middle-grade career-oriented programs by providing effective leadership and adequate funding for the programs. State education agencies should also adopt and enforce requirements for certification of middle-grade educators.

State-level officials who have responsibilities for particular program areas (generally referred to as state supervisors or consultants) should be knowledgeable of middle-grade education and ensure that programs under their jurisdiction are providing effective and appropriate activities/learning experiences. The results of this study should be used by state-level officials in assisting local school administrators and teachers provide those activities/learning experiences.

Local Education Personnel

Classroom Teachers. Career program teachers at the middle-grade level must be experts in teaching early adolescents. This expertise should be attained, in part, through pre-service and in-service education programs that contribute toward certification as a middle-grade teacher. Career-program teachers should also work cooperatively with core subject teachers in developing and delivering an interdisciplinary curriculum that demonstrates the connection between education and career. The results of
this study should serve as a guide to classroom teachers as they design and implement activities/learning experiences for early adolescents.

School Administrators. School administrators should be knowledgeable of middle-grade education practices and assist career program teachers in becoming experts in teaching early adolescents. Administrators should require the continued professional development of teachers and provide support for those activities. The results of this study should guide administrators as they assist teachers in providing effective programs for early adolescents.

Recommendations: Other Agencies/Organizations

The support of professional associations is needed for the continued development career-oriented education at the middle-grade level. Through position papers and other means of support, professional associations such as the American Vocational Association and the National Middle School Association should encourage schools to focus curricula on meeting major goals of middle-grade education and to provide career-oriented education for all students.

Although the primary focus of this study is on education in the public school setting, much of the information presented is applicable to a variety of settings including youth organizations, camps, and recreational programs. Decision makers in these settings should consider
the findings and recommendations of this study when planning activities for early adolescents.

**Recommendations: Further Study**

Much information is needed on effective and appropriate means of enhancing the teaching/learning process as it relates to early adolescents. Additional research in middle-grade education is needed to provide solid information on which to base decisions. Other goals of middle-grade education need to be identified along with activities/learning experiences that promote achievement of the goals. Perhaps similar studies pertinent to other grade levels or educational program areas are needed. A next step involving the results of this study should be experimental research designed to indicate the actual impact of the activities/learning experiences identified.

**Summary**

The continued development of career-oriented programs at the middle-grade level depends upon providing effective activities/learning experiences that are appropriate for early adolescents. The programs must be aimed at meeting the educational and developmental needs of early adolescents and achieving the overall goals of middle-grade education. This study identified major goals of middle-grade education and activities/learning experiences deemed by experts as promoting achievement of those goals.
The intent of this study was not to provide exhaustive lists of goals and activities/learning experiences, but to identify those that would form a foundation for the development of career-oriented curricula and educational programs in the middle grades. Although numerous goals and activities/learning experiences could be included in this study, the researcher believes that those identified capture the essence of the philosophy expressed in related literature and the intent of experts expressed through the Delphi technique. These goals and activities/learning experiences should guide the development and implementation of effective career-oriented education programs for early adolescents.
APPENDIX A

PERMISSION TO PRINT COPYRIGHTED MATERIALS
National Middle School Association

Fax Transmittal Sheet

Page 1 of 1
Date 11/29/92

To: Matthew Hughes
CHIO State Univ

FAX #: 614-292-7607

From: Tim Dickinson

Summary: Permission granted to use Figure 4.1 from James Beane monograph, A Middle School Curriculum From Rhetoric to Reality

Tim Dickinson

4807 Evanswood Drive, Columbus, Ohio 43229-6192 (614) 848-4211 FAX (614) 848-4301
REPRINT PERMISSION AGREEMENT

Mr. Matthew Hughes
Department of Agricultural Education
Ohio State University
Fax: 614-292-7007

Permission is hereby granted, royalty free, to MATTHEW HUGHES to reprint the following:

TITLE: The Delphi Method: An Experimental Study of Group Opinion

AUTHOR: Dalkey, N.C.

PUBLISHER: RAND

RAND PUBLICATION NUMBER: RM-5888-PR

PUBLICATION DATE: 1969

PAGES: FIG. 2, P. 8; FIG. 3, P. 9; FIG. 4, P. 11

It is understood that the above-mentioned material will be reprinted in Mr. Hughes' dissertation entitled, "Career Oriented Activities and Learning Experiences that Promote Achievement of Middle Grade Education Goals."

Thank you for including the RAND publication number in the standard academic credit.

Signed,

Denise Woerner, Permissions Editor

Date: 1/27/93
APPENDIX B

SCHOLARS SELECTED TO PARTICIPATE IN THE STUDY
William Alexander
University of Florida
Gainesville, FL

John Arnold
North Carolina State University
Raleigh, NC

Edward Brazee
University of Maine
Orono, ME

Gerald Bourgeois
NH State Department of Education
Concord, NH

John Buckner
University of Kentucky
Lexington, KY

Ross Burkhardt
Wading River, NY

Charlene Carper
Bedford, NH

Claire Cole
VPI & State University
Blacksburg, VA

Thadeus Dumas
CA State Department of Education

Betty Edwards
Kentucky Department of Education
Frankfort, KY

Donald Eichhorn
Lewisburg, PA

Joyce Epstein
John Hopkins University
Baltimore, MD

Thomas Erb
University of Kansas
Lawrence, KS

Nancy Farmer
Pitt County Schools
Greenville, NC
Art Garner  
Memphis State University  
Memphis, TN

James Garvin  
New England League of Middle Schools  
Topsfield, MA

Thomas Gatewood  
VPI & State University  
Blacksburg, VA

James Gautier  
Bay District Schools  
Panama City, FL

Kay Goerss  
Princeton, NJ

Theresa Hinkle  
Griffin Middle School  
High Point, NC

Linda Hopping  
Crabapple Middle School  
Roswell, GA

Judith Irvin  
Florida State University  
Tallahassee, FL

Kathy Jochman  
Waunakee, WI

Deborah Kasak  
University of Illinois  
Champaign, IL

Larry Lewis  
Mansfield, OH

Tedd Levy  
Nathan Hale Middle School  
Norwalk, CT

John Lounsbury  
Georgia College  
Milledgeville, GA

Richard Lipka  
Pittsburgh State University  
Pittsburgh, KS
Douglas Mac Iver
Johns Hopkins University
Baltimore, MD

Ken McEwin
Appalachian State University
Boone, NC

Savario Mungo
Illinois State University
Normal, IL

Santo Pino
Naples, FL

Julia Phelps
Wells Jr. High School
Wells, ME

Ronnie Sheppard
Georgia Southern University
Statesboro, GA

Greg Stafanich
University of Northern Iowa
Cedar Falls, IA

Chris Stevenson
Shelburne, VT

David Strahan
Greensboro, NC

Sue Swaim
Greeley, CO

John Van Hoose
Greensboro, NC

Gordon Vars
Kent State University
Kent, OH

Elizabeth Walker
Frankfurt, Germany

George White
Lehigh University
Bethlehem, PA

Carl Zon
Hillsborough, CA
APPENDIX C

LETTERS SOLICITING PARTICIPATION IN THE STUDY
The number of career-oriented programs has increased at the middle-grade level in recent years, and this trend is expected to continue. For these programs to be effective, they must provide instruction that is appropriate for early adolescents. Because of the increased attention being focused on middle-grade programs, a need exists to identify career-oriented learning experiences and activities which are congruent with, and promote the achievement of, major goals of middle-grade education. To help meet this need, we are conducting a study in which we hope you will play a significant role.

The study is comprised of three parts. We are asking that you participate in parts one and three. Part one will involve rating 15 goals in terms of the degree to which you believe each should be considered a major goal of middle-grade education. Part three will involve a modified Delphi technique in which you will rate student learning experiences and activities in terms of the degree to which each promotes achievement of the goals identified in step one. Each round should take approximately 15 to 30 minutes to complete.

Dr. Tom Dickinson and others at the National Middle School Association have been very helpful in the development of this study, including the identification of possible participants such as yourself. You were selected based on your expertise and reputation as a scholar of middle-grade education. Please indicate your decision regarding participating in the study on the enclosed response card. Please return the card by August 3, 1992 regardless of your decision.

Your assistance in this study will be greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

K. Kirby Barrick, Chair
Dept. of Agricultural Education

Matthew Hughes
Dept. of Agricultural Education

Enclosures
Ms. Mae Whitehurst  
Williston Middle School  
427 W. Noble Ave.  
Williston, FL 32696

Dear Ms. Whitehurst:

You have been nominated by state department of education or university personnel in your state to participate in a study of career-oriented education at the middle-grade level. The purpose of the study is to identify learning experiences and activities which are congruent with, and promote achievement of, major goals of middle-grade education. Your nomination was based upon your expertise in early adolescent education. Because of your expertise, we hope that you will agree to be part of this effort.

The study will provide information needed in developing middle-grade programs and will involve three steps. We are asking that you participate in steps two and three.

In step two, participants will identify student activities and learning experiences in their program areas which they perceive as promoting achievement of approximately 15 goals of middle-grade education. Step two should take about 30 to 45 minutes and will take place in September or October.

Step three will involve a modified Delphi research technique. The Delphi technique is a procedure used to solicit opinions from a panel of individuals having expertise in a particular area. The responses generated from step two will be used to develop the Delphi survey instrument.

Participants in step three will indicate the degree to which they believe specific learning experiences and activities promote achievement of middle-grade education goals. Up to three Delphi rounds will be used in step three as a means of arriving at a consensus opinion. Each round should take approximately 15 to 30 minutes to complete. The Delphi portion of the study will begin around mid-October. If three rounds are necessary, the final round will probably be in December.

Your participation is essential to the success of this study; however, it does involve a commitment of time and effort. Enclosed is a card for you to indicate your decision regarding participation. Please return the card by September 21 regardless of your decision.

Your assistance in this study will be greatly appreciated. If you have any questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Department of Agricultural Education

Matthew Hughes
Department of Agricultural Education
Dear Mr. Heinecke:

The number of career-oriented education programs has increased at
the middle-grade (grades 6-8) level in recent years, and this
trend is expected to continue. For these programs to be
effective, they must provide instruction appropriate for early
adolescents. A need exists to identify career-oriented learning
experiences and activities which are congruent with, and promote
the achievement of, major goals of middle-grade education. To
help meet this need, we are conducting a study in which we hope
that you will play a significant part.

You were selected to participate in this study based on your
reputation as an outstanding administrator and the reputation of
your school as an exemplary middle-grade school. You were
identified either from information provided by the U.S. Department
of Education or by middle school association officials in your
state.

The study will involve a modified Delphi technique. The Delphi
technique is used to gather information from individuals having
expertise in particular areas. This is accomplished through
several iterations or rounds of the survey instrument in which
Delphi panelists state their opinions on certain issues and
provide input useful to other panelists. Obviously, it is
important for panelists to be very knowledgeable in the area of
study and willing to commit the time and effort needed to
participate.

The Delphi instrument in this study will be comprised of career-
oriented learning experiences and activities. Delphi panelists
will rate the experiences and activities in terms of the degree to
which they perceive each as promoting achievement of major goals
of middle-grade education. Panelists will include scholars in
middle school philosophy, middle-grade teachers in career-oriented
program areas, middle-grade teachers in core subject areas
(language arts, social studies, history, mathematics, science),
and middle-grade administrators. Up to three Delphi rounds will be used; each will take approximately 15 to 30 minutes to complete. The procedure will likely begin in October and end in December.

We ask that you serve as a Delphi panelist and that you also help us identify exemplary middle-grade teachers. These teachers should not only have a solid grasp of technical content and pedagogy, but also understand middle school philosophy and base instruction on the needs of early adolescents.

Please indicate your decision regarding participating in this study on the enclosed form. Also list on the form up to five exemplary middle-grade teachers in core subject areas from your school that we may contact about participating in the study. Please return the form by September 23, 1992 in the envelope that is provided.

We realize that your time is limited; however, your input is essential to the success of this study. Your participation will be greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Dept. of Agricultural Education
The Ohio State University

Matthew Hughes
Dept. of Agricultural Education
The Ohio State University
Ms. Peg Blaska
DeForest Middle School
500 S. Cleveland
DeForest, WI 53532

Dear Ms. Blaska:

You have been nominated by your principal to participate in a study of career-oriented education at the middle-grade level. Your nomination was based upon your expertise in early adolescent education. Because of your recognition as an exemplary teacher, we hope that you will agree to be part of this effort.

The purpose of the study is to identify learning experiences and activities that promote achievement of major goals of middle-grade education. Although the study focuses on career-oriented concepts, it is essential that we have input from teachers in the core academic areas.

The study will involve a modified Delphi research technique. The Delphi technique is a procedure used to solicit opinions from a panel of individuals having expertise in a particular area. As a Delphi panelist, you will indicate on a Likert-type scale the degree to which you believe that specific learning experiences and activities promote achievement of middle-grade education goals. Up to three Delphi rounds will be used to arrive at a consensus opinion. Each round will be conducted via mail and should take approximately 15 to 30 minutes to complete. The study will begin around the end of October. If three rounds are necessary, the final round will probably be in December.

Your participation is essential to the success of this study; however, it does involve a commitment of time and effort. Enclosed is a card for you to indicate your decision regarding participation. Please return the card by October 19 regardless of your decision.

Your assistance in this study will be greatly appreciated. If you have any questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick
Professor and Chair

Matthew Hughes
Graduate Research Associate
APPENDIX D

RESPONSE CARDS
Place a check mark (✓) next to the statement indicating your decision regarding participating in this study.

_____ I will participate in both parts of the study.

_____ I will participate in the Delphi only.

_____ I will identify goals only.

_____ I will not participate in the study.

Please return this card by August 3, 1992.
Place a check mark next to the statement indicating your decision regarding participating in this study.

_____ I will participate in both parts of the study.

_____ I will identify learning experiences and student activities only.

_____ I will participate in the Delphi only.

_____ I will not participate in the study.
Place a check mark next to the statement indicating your decision regarding participating in this study.

_____ I will participate in the study.

_____ I will not participate in the study.
APPENDIX E

REMINDER CARDS
By now, you should have received information regarding a study of career-oriented education at the middle-grade level. This card is to remind you to return the response card if you have not done so. If you have any questions, please call Matthew Hughes at (614) 292-1354.

R. Kirby Barrick  
Professor & Chair  
Dept. of Agri. Educ.

Matthew Hughes  
Grad. Research Assoc.  
Dept. of Agri. Educ.
By now, you should have received the test/retest survey instrument. This card is to remind you to return the completed instrument by July 20. Your participation in this effort is greatly appreciated.

If you have questions, please contact Matthew Hughes at (614) 292-1354.

R. Kirby Barrick, Chair  
Dept. of Agricultural Educ.  

Matthew Hughes  
Dept. of Agricultural Educ.
This card is to remind you to return the questionnaire regarding goals of middle-grade education. If you have already done so, please accept our appreciation for assisting in this study. If you have questions or need another questionnaire, please contact Matthew Hughes at (614) 292-1354.

R. Kirby Barrick, Chair
Dept. of Agricultural Educ.

Matthew Hughes
Dept. of Agricultural Educ.
By now, you should have received information regarding a study of career-oriented education at the middle-grade level. As indicated in our letter, the success of the study depends upon input from exemplary middle-grade teachers. This card is to remind you to return your response card by Monday, September 21. Your assistance in this effort will be greatly appreciated. If you have questions, please contact Matthew Hughes at (614) 292-1354.

R. Kirby Barrick, Chair
Dept. of Agricultural Educ.

Matthew Hughes
Dept. of Agricultural Educ.
By now, you should have received the questionnaire on activities and student learning experiences that promote achievement of middle-grade education goals. As indicated in our letter, your responses will be used to develop a Delphi survey instrument; therefore, it is important that the activities and experiences that you identify be stated in very specific terms. This card is to remind you to return your questionnaire by Wednesday, October 21. Your assistance in this effort is greatly appreciated. If you have questions, please contact Matthew Hughes at (614) 292-1354.

R. Kirby Barrick

Matthew Hughes
By now, you should have received information regarding a study of career-oriented education programs at the middle-grade level. As indicated in our letter, the success of the study depends upon input from exemplary middle-grade administrators and teachers in core subject areas. This card is to remind you to return the information requested by Wednesday, September 23. Your assistance in this effort will be greatly appreciated. If you have questions, please contact Matthew Hughes at (614) 292-1354.

R. Kirby Barrick, Chair
Dept. of Agricultural Educ.

Matthew Hughes
Dept. of Agricultural Educ.
Dear Delphi Panelist:

You should have received the round one Delphi instrument by now. This card is to remind you to return the instrument by Tuesday, December 1.

Your participation in this study on middle-grade education is greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

R. Kirby Barrick
Professor & Chair

Matthew Hughes
Graduate Research Associate
Dear Delphi Panelist:

You should have received the round two Delphi instrument by now. This card is to remind you to mail the completed instrument by Monday, December 21.

Your participation in this study on middle-grade education is greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

R. Kirby Barrick  
Professor & Chair

Matthew Hughes  
Graduate Research Associate
Dear Delphi Panelist:

You should have received the round three Delphi instrument by now. This card is to remind you to mail the completed instrument by Friday, January 15.

Your participation in this study on middle-grade education is greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

R. Kirby Barrick
Professor & Chair

Matthew Hughes
Graduate Research Associate
GOALS OF MIDDLE-GRADE EDUCATION

Directions: The following goals were identified from a review of literature. Indicate your level of agreement or disagreement as to whether each should be considered a major goal of middle-grade education based on the needs of early adolescents. Circle the answer that most nearly represents your belief. If there are other goals which you believe should be included, please list them in the space provided on the last page of this questionnaire. Please read the definitions stated on a separate page prior to making your responses.

**SCALE**

<table>
<thead>
<tr>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Strongly Disagree</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td>Very Strongly Agree</td>
</tr>
</tbody>
</table>

**Example:**

To develop students' communication skills. VSD SD D A SA VSA

The response of SA indicates that this individual strongly agreed that a major goal of middle-grade education should be to develop students' communication skills.

**GOAL**

<table>
<thead>
<tr>
<th>Level of Agreement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To promote parental involvement in the education process.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>2. To promote positive relationships between early adolescents and adults outside the classroom.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
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<tr>
<td>3. To promote students' sense of belonging within the community.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
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<tr>
<td>4. To promote community involvement in the education process.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>5. To promote students' understanding of the various cultures in society.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
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<tr>
<td>6. To promote a positive self-concept within students.</td>
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<tr>
<td>VSD SD D A SA VSA</td>
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</table>

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<table>
<thead>
<tr>
<th>GOAL</th>
<th>Level of Agreement:</th>
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</thead>
<tbody>
<tr>
<td>7. To promote students' physical development.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>8. To promote students' social development.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>9. To help students develop their personal values.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>10. To help students develop independence.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>11. To promote students' understanding related to the world of work.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>12. To develop students' practical skills and knowledge.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>13. To develop students' basic academic skills.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>14. To develop students' higher-order thinking skills.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>15. To develop students' independent learning skills.</td>
<td>VSD SD D A SA VSA</td>
</tr>
</tbody>
</table>

Please provide comments and/or additional goals on next page.
Thank you for completing this questionnaire.

Please return to: Matthew Hughes
Department of Agricultural Education
250 Agricultural Administration Building
2120 Fyffe Road
The Ohio State University
Columbus, OH 43210-1099
ACTIVITIES AND LEARNING EXPERIENCES THAT PROMOTE ACHIEVEMENT OF GOALS OF MIDDLE- GRADE EDUCATION

Directions
List activities and student learning experiences within your program area that you believe promote achievement of each of the goals of middle-grade education. List the activities and experiences under each corresponding goal. You may list the same item under more than one goal. There are 18 goals in all; begin with goal one on this page. Read the definitions noted on a separate page prior to making your responses. PLEASE LIST AS MANY EXPERIENCES AND ACTIVITIES AS YOU CAN THINK OF UNDER EACH GOAL.

Example
If you believe that: a) providing parties for members of student organizations, b) teaching students proper table manners, and c) providing opportunities for students to learn in groups through cooperative experiences promote achievement of the goal "to promote the social development of early adolescents", you should respond as illustrated below.

GOAL: To help students develop socially.

GOAL 1: To help students develop a positive self-concept.

Please continue on back of page.
GOAL 2: To help students develop independent learning skills.

GOAL 3: To help students develop higher-order thinking skills.

Please continue on next page.
GOAL 4: To help students develop a sense of independence.

GOAL 5: To promote the continued development of students' basic academic skills.

Please continue on back of page.
GOAL 6: To help students develop their personal values.

GOAL 7: To help students develop socially.

Please continue on next page.
GOAL 8: To help students develop practical skills and knowledge.

GOAL 9: To help students develop physically.

Please continue on back of page.
GOAL 10: To help students develop an understanding of the various cultures within society.

GOAL 11: To help students develop a sense of belonging within the local community.

Please continue on next page.
GOAL 12: To promote parental involvement in the education process.

GOAL 13: To promote community involvement in the education process.

Please continue on back of page.
GOAL 14: To help students develop an understanding of the world of work.

GOAL 15: To promote positive relationships between early adolescents and adults outside the classroom.

Please continue on next page.
Goal 16: To help students develop leadership skills.

Goal 17: To help students develop self-assessment abilities.

Please continue on back of page.
Goal 18: To help students develop a sense of responsibility.

Comments:

Thank you for completing this questionnaire.

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If you believe that: a) providing parties for members of student
organizations, b) teaching students proper table manners, and
c) providing opportunities for students to learn in groups through
cooperative experiences promote achievement of the goal "to promote the
social development of early adolescents", you should respond as
illustrated below.

GOAL: To help students develop socially.

GOAL 1: To help students develop an understanding of the various cultures
in society.

Please continue on back of page.
GOAL 2: To help students develop a sense of belonging within the local community.

GOAL 3: To promote parental involvement in the education process.

Please continue on next page.
GOAL 4: To promote community involvement in the education process.

GOAL 5: To help students develop an understanding of the world of work.

Please continue on back of page.
GOAL 6: To promote positive relations between early adolescents and adults outside the classroom.

GOAL 7: To help students develop leadership skills.

Please continue on next page.
GOAL 8: To help students develop self-assessment abilities.

GOAL 9: To help students develop a sense of responsibility.

Please continue on back of page.
GOAL 10: To help students develop a positive self-concept.

GOAL 11: To help students develop independent learning skills.
GOAL 12: To help students develop higher-order thinking skills.

GOAL 13: To help students develop a sense of independence.

Please continue on back of page.
GOAL 14: To promote the continued development of students' basic academic skills.

Goal 15: To help students develop their personal values.
Goal 16: To help students develop socially.

Goal 17: To help students develop practical skills and knowledge.

Please continue on back of page.
Goal 18: To help students develop physically.

Comments:

Thank you for completing this questionnaire.

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The Ohio State University
2120 Fyffe Road
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ACTIVITIES/LEARNING EXPERIENCES THAT PROMOTE ACHIEVEMENT OF MIDDLE-GRADe EDUCATION GOALS

Directions: Circle the letter(s) on the scale that indicate the degree to which you believe that each activity/learning experience promotes achievement of the goal under which it is listed. If you believe that an activity/experience is inappropriate for early adolescents, place a check mark (✓) in the blank space under "NOT APPROPRIATE". An activity/experience is inappropriate if it is clearly beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period. Use no other criteria for determining if an activity/experience is inappropriate. You are encouraged to use the comment page to clarify any of your responses, especially on those items that you consider to be inappropriate. Your comments may help other panelists clarify their positions on the next Delphi round. Please read the definitions noted on a separate page prior to marking your responses.

SCALE: VSD = Very Strongly Disagree    A = Agree
SD = Strongly Disagree               SA = Strongly Agree
D = Disagree                          VSA = Very Strongly Agree

NOT APPROPRIATE = The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

EXAMPLE 1: If you strongly agree that students receiving instruction on the needs of handicapped persons promotes achievement of the goal "to help students develop socially", you should mark your answer as illustrated below.

GOAL: TO HELP STUDENTS DEVELOP Socially.
Activity/Experience
Students receive instruction on the needs of handicapped persons. VSD SD D A SA VSA

EXAMPLE 2: If you believe that requiring students to run a mile in less than eight minutes as a means of achieving the goal "to help students develop physically" is inappropriate for middle-grade students, you should mark your answer as illustrated below.

GOAL: TO HELP STUDENTS DEVELOP Physically.
Activity/Experience
Students are required to run a mile in less than eight minutes. VSD SD D A SA VSA

Continue on back of page.
### GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT

1. Students receive awards for exemplary performance when *compared against* the performance of other students.

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<tr>
<th>VSD</th>
<th>SD</th>
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</table>

2. Students receive awards for exemplary performance when *compared against* their past performance.

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<tr>
<th>VSD</th>
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</table>

3. Students carry out assignments that are individualized in order to increase their chances of success.

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<th>A</th>
<th>SA</th>
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</table>

5. Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).

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<th>VSD</th>
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</table>

### GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students individually carry out a program of planned, hands-on activities *outside of regular school hours* that are designed to promote a better understanding of concepts presented in class.

<table>
<thead>
<tr>
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</table>

2. Students individually carry out planned, hands-on activities *during regular school hours* that are designed to promote a better understanding of concepts presented in class.

<table>
<thead>
<tr>
<th>VSD</th>
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</table>

3. Students follow instructions to produce a finished product.

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<tr>
<th>VSD</th>
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<th>SA</th>
<th>VSA</th>
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</table>

4. Students independently research various topics.

<table>
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<tr>
<th>VSD</th>
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<th>SA</th>
<th>VSA</th>
</tr>
</thead>
</table>
**SCALE:**

VSD = Very Strongly Disagree  
SD = Strongly Disagree  
D = Disagree  
A = Agree  
SA = Strongly Agree  
VSA = Very Strongly Agree

**NOT APPROPRIATE** = The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

<table>
<thead>
<tr>
<th>GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS</th>
<th>NOT APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students participate in activities in which they must solve practical problems.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>2. Students receive instruction in the decision-making process.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>3. Students utilize taxonomic principles in decision-making activities (e.g., insect identification, &quot;trouble-shooting&quot; techniques).</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>4. Students develop and test hypotheses.</td>
<td>VSD SD D A SA VSA</td>
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<thead>
<tr>
<th>GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE</th>
<th>NOT APPROPRIATE</th>
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</thead>
<tbody>
<tr>
<td>1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>2. Students attend state meetings of their student organization.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>3. Students attend national meetings of their student organization.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.</td>
<td>VSD SD D A SA VSA</td>
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<thead>
<tr>
<th>GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS' BASIC ACADEMIC SKILLS</th>
<th>NOT APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students make speeches in class.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>2. Students carry out activities that require the application of mathematics, reading, writing, and science skills.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>3. Students compete against other middle-grade students in contests that require the application of academic skills.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>4. Students receive awards for having the highest grade point averages.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>5. Students receive awards for improving their grade point averages.</td>
<td>VSD SD D A SA VSA</td>
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<table>
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<tr>
<th>SCALE:</th>
<th>VSD = Very Strongly Disagree</th>
<th>A = Agree</th>
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<tbody>
<tr>
<td></td>
<td>SD = Strongly Disagree</td>
<td>SA = Strongly Agree</td>
</tr>
<tr>
<td></td>
<td>D = Disagree</td>
<td>VSA = Very Strongly Agree</td>
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NOT APPROPRIATE = The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

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<tbody>
<tr>
<td>1. Student organization state officers visit classes for the purpose of providing a role model for students.</td>
<td>VSD</td>
<td>SD</td>
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<td>SA</td>
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<tr>
<td>2. Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
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<tr>
<td>3. Students participate in activities in which they must make value judgements.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>4. Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
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<td>SA</td>
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<tr>
<td>5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.</td>
<td>VSD</td>
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<td>A</td>
<td>SA</td>
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GOAL 7: TO HELP STUDENTS DEVELOP SOCIA LLY

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<tbody>
<tr>
<td>1. Students participate in activities with students from other schools.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>2. Students attend school-sponsored social activities.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>3. Students receive instruction on the human relations skills needed by employees.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>4. Students receive instruction on social etiquette relative to human sexuality.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).</td>
<td>VSD</td>
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### GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

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<tbody>
<tr>
<td>1.</td>
<td>Students participate in role-play situations in which they must manage aspects of an enterprise (e.g., household, business, farm).</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>2.</td>
<td>Students receive encouragement to enroll in high school vocational education programs.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>3.</td>
<td>Students &quot;shadow&quot; a high school vocational education class.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>4.</td>
<td>Students receive safety instruction.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Students operate equipment used by workers in various occupations. Note: Assume tasks to be within the students' range of abilities.</td>
<td>VSD</td>
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<td>A</td>
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<tr>
<td>6.</td>
<td>Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
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<tr>
<td>7.</td>
<td>Students receive instruction regarding family member roles and responsibilities.</td>
<td>VSD</td>
<td>SD</td>
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### GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

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<tbody>
<tr>
<td>1.</td>
<td>Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)</td>
<td>VSD</td>
<td>SD</td>
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<td>A</td>
</tr>
<tr>
<td>2.</td>
<td>Students receive instruction regarding proper dietary habits.</td>
<td>VSD</td>
<td>SD</td>
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<tr>
<td>3.</td>
<td>Students participate in activities that develop their manual dexterity (e.g., keyboarding).</td>
<td>VSD</td>
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<td>A</td>
</tr>
<tr>
<td>4.</td>
<td>Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Students receive instruction on human physical development.</td>
<td>VSD</td>
<td>SD</td>
<td>D</td>
<td>A</td>
</tr>
</tbody>
</table>

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Continue on back of page.
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SD = Strongly Disagree
D = Disagree
A = Agree
SA = Strongly Agree
VSA = Very Strongly Agree

NOT APPROPRIATE: The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY

1. Students participate in activities with people of various cultural backgrounds.
   VSD SD D A SA VSA

2. Students receive instruction on aspects of various countries and cultures (e.g., health problems, clothing, economics, agricultural production, social attitudes).
   VSD SD D A SA VSA

3. Students take field trips to facilities and events exhibiting aspects of various cultures.
   VSD SD D A SA VSA

4. Students make products of various cultures (e.g., foods, clothing, crafts).
   VSD SD D A SA VSA

5. Students from various cultures share with their classmates aspects of their culture that are unique (e.g., foods, traditions, clothing).
   VSD SD D A SA VSA

6. Students receive instruction on the interdependence of cultures within a global economy.
   VSD SD D A SA VSA

GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY

1. Students participate in community events (e.g., displaying projects at county fair, participating in science fair).
   VSD SD D A SA VSA

2. Students volunteer to assist in community activities.
   VSD SD D A SA VSA

3. Community members assist with students activities (e.g., donate resources, serve as chaperones).
   VSD SD D A SA VSA

4. Students make presentations at meetings of civic organizations.
   VSD SD D A SA VSA

Continue on next page.
**SCALE:**

- VSD = Very Strongly Disagree
- SD = Strongly Disagree
- D = Disagree
- A = Agree
- SA = Strongly Agree
- VSA = Very Strongly Agree

**NOT APPROPRIATE** = The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

---

### GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

1. Parents assist with student activities (e.g., donate resources, serve as chaperones).  
2. Teachers make home visits to students and their parents.  
3. Students complete assignments that require parental input.  
4. Students "shadow" parents on the job.

---

### GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS

1. Students participate in projects in the community in which they demonstrate skills learned.  
2. Community members serve on school committees.  
3. Community members serve as resource persons in class.  
4. Students and community members participate in joint activities.  
5. Students conduct fund-raising activities in the community.  
6. Student activities are publicized through local media.  
7. Students sponsor activities designed to recognize the support of community members.  
8. Teachers visit local businesses and community leaders in relation to educational activities.
<table>
<thead>
<tr>
<th>GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK</th>
<th>NOT APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students individually carry out a program of planned, hands-on</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>activities outside of regular school hours that are designed to</td>
<td></td>
</tr>
<tr>
<td>investigate the roles of workers in various occupations.</td>
<td></td>
</tr>
<tr>
<td>2. Students individually carry out a program of planned, hands-on</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>activities during regular school hours that are designed to</td>
<td></td>
</tr>
<tr>
<td>investigate the roles of workers in various occupations.</td>
<td></td>
</tr>
<tr>
<td>3. Students receive instruction aimed at identifying occupations</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>within various career areas.</td>
<td></td>
</tr>
<tr>
<td>4. Students receive instruction on the influence of international</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>events on the U.S. economy.</td>
<td></td>
</tr>
<tr>
<td>5. Students “shadow” workers on the job.</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>6. Students receive instruction regarding the roles of workers</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>in various occupations.</td>
<td></td>
</tr>
<tr>
<td>7. Eligible students participate in cooperative job placement</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>programs in businesses and industries.</td>
<td></td>
</tr>
<tr>
<td>8. Students are taught by teams of teachers that include career-</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>oriented program teachers and core subject teachers.</td>
<td></td>
</tr>
<tr>
<td>9. Students compete against other middle-grade students in contests</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>that require the use of skills needed by workers in various</td>
<td></td>
</tr>
<tr>
<td>occupational areas (e.g., forestry skills contest, computer skills</td>
<td></td>
</tr>
<tr>
<td>contest).</td>
<td></td>
</tr>
<tr>
<td>10. Students compete against middle-grade and high school students in</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>contests that require the use of skills needed by workers in</td>
<td></td>
</tr>
<tr>
<td>various occupational areas (e.g., forestry skills contest, computer</td>
<td></td>
</tr>
<tr>
<td>skills contest).</td>
<td></td>
</tr>
<tr>
<td>11. Students individually carry out a program of planned, hands-on</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>activities outside of regular school hours that are designed to</td>
<td></td>
</tr>
<tr>
<td>develop specific job skills.</td>
<td></td>
</tr>
<tr>
<td>12. Students individually carry out a program of planned, hands-on</td>
<td>VSD SD D A SA VSA</td>
</tr>
<tr>
<td>activities during regular school hours that are designed to</td>
<td></td>
</tr>
<tr>
<td>develop specific job skills.</td>
<td></td>
</tr>
</tbody>
</table>

Continue on next page.
NOT APPROPRIATE: The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)

13. Students are members of a career-oriented student organization. VSD SD D A SA VSA

14. Students identify occupational areas that match their aptitudes and interests. VSD SD D A SA VSA

15. Students take field trips to businesses and industries. VSD SD D A SA VSA

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students serve on committees with adults. VSD SD D A SA VSA

2. Students contact and make arrangements for guest speakers. VSD SD D A SA VSA

3. Students participate in projects in which they work in local businesses. VSD SD D A SA VSA

4. Students participate in service projects with adults. VSD SD D A SA VSA

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

1. Students serve as officers of their student organization. VSD SD D A SA VSA

2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled. VSD SD D A SA VSA

3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level. VSD SD D A SA VSA

4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure). VSD SD D A SA VSA

5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure). VSD SD D A SA VSA

Continue on back of page.
NOT APPROPRIATE = The activity/learning experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

<table>
<thead>
<tr>
<th>GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES</th>
<th>NOT APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students monitor their own achievement. VSD SD D A SA VSA</td>
<td></td>
</tr>
<tr>
<td>2. Students assess their occupational interests. VSD SD D A SA VSA</td>
<td></td>
</tr>
<tr>
<td>3. Students assess their occupational aptitudes. VSD SD D A SA VSA</td>
<td></td>
</tr>
<tr>
<td>4. Students evaluate their appearance. VSD SD D A SA VSA</td>
<td></td>
</tr>
<tr>
<td>5. Students assess their personality. VSD SD D A SA VSA</td>
<td></td>
</tr>
<tr>
<td>6. Students assess their personal values. VSD SD D A SA VSA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students conduct group projects in which each group member is responsible for specific tasks. VSD SD D A SA VSA</td>
</tr>
<tr>
<td>2. Students maintain equipment and facilities that are used as part of their educational activities at school. VSD SD D A SA VSA</td>
</tr>
<tr>
<td>3. Students have entrepreneurship projects (e.g., providing secretarial services, raising animals). VSD SD D A SA VSA</td>
</tr>
<tr>
<td>4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality). VSD SD D A SA VSA</td>
</tr>
<tr>
<td>5. Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods. VSD SD D A SA VSA</td>
</tr>
<tr>
<td>6. Students conduct community service projects (e.g., beautification projects, food drives, nursing home visits, recycling projects). VSD SD D A SA VSA</td>
</tr>
<tr>
<td>7. Students receive instruction on socially responsible behavior. VSD SD D A SA VSA</td>
</tr>
</tbody>
</table>

Thank you for completing this questionnaire. Please return in the envelope provided to:

Matthew Hughes
Department of Agricultural Education
250 Agricultural Administration Building
2120 Fyffe Road
Columbus, OH 43210-1099
COMMENTS

Please identify the items to which your comments are directed by goal and item numbers.
DELPHI ROUND TWO

ACTIVITIES/EXPERIENCES THAT PROMOTE ACHIEVEMENT OF MIDDLE-GRADE EDUCATION GOALS

Directions: Circle the letter(s) on the bold printed scale that indicate the degree to which you believe that each activity/experience promotes achievement of the goal under which it is listed. Respond to each item regardless of your first round response. If you believe that an activity/experience is inappropriate for early adolescents, place a check mark (V) in the blank space under "NOT APPROPRIATE." Certain passages in items have been underlined as a means of highlighting differences in similar items; no other intent is implied. Please read the definitions and round one comments noted on separate pages prior to marking your responses.

The round one median responses, middle range of responses (25th to 75th percentiles), and the percentage of panelists that indicated an item to be inappropriate are shown below corresponding items. The middle range of responses is represented by the shaded area on the six-point response scale. Responses have been converted to numerical scores for reporting purposes (VSD, SD, D, 4-A, 5-SA, 6-VSA).

Your round one response for an item is denoted by an "X" on the response scale or under "NA" (Not Appropriate) and is highlighted in yellow if it is outside the round one middle range of responses for that item. For those items that your round one response is outside the middle range, you should alter your position in the second round to within the middle range or provide written comments on the appropriate pages to explain your reasoning for not doing so (see pages marked "JUSTIFICATION OF ROUND TWO RESPONSES OUTSIDE THE MIDDLE RANGE").

SCALE:
VSD = Very Strongly Disagree  A = Agree
SD = Strongly Disagree  SA = Strongly Agree
D = Disagree  VSA = Very Strongly Agree

NOT APPROPRIATE = The activity/experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

EXAMPLE 1: In the example below, the panelist's first round response of "SA" was within the middle range of responses. (In this case, "strongly agree" and "very strongly agree" were the responses captured within the middle range as indicated by the "SA" and "VSA" in parentheses.) As indicated, the panelist continues to strongly agree that students receiving instruction on the needs of handicapped persons promotes achievement of the goal "to help students develop socially." Because "strongly agree" is within the middle range of responses from round one, the panelist does not need to provide a written explanation for his or her second round response.

GOAL: TO HELP STUDENTS DEVELOP SOCIALLY.

Activity/Experience
Students receive instruction on the needs of handicapped persons.

This is the second round response.

NOT APPROPRIATE

VSD SD D A SA VSA

Round one results:
Median = 5.0 (SA)
Middle range = 4.25-5.0 (SA-VSA) ---->
1 2 3 4 5 6 0
% indicated "Not Appropriate" = 0%

See example two on back of page.
**SCALE:**

<table>
<thead>
<tr>
<th>VSD = Very Strongly Disagree</th>
<th>A = Agree</th>
<th>VSA = Very Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD = Strongly Disagree</td>
<td>SA = Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>D = Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOT APPROPRIATE** = The activity/experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

**EXAMPLE 2:** In the example below, the panelist’s first round response of "VSA" was outside the middle range of responses; therefore, it is highlighted in yellow on the six-point response scale. As indicated, the panelist now agrees that students participating in a weightlifting program promotes achievement of the goal "to help students develop physically". Because "agree" is outside the middle range of responses from round one, the panelist should provide a written explanation for this response on the page marked "JUSTIFICATION OF SECOND ROUND RESPONSES OUTSIDE THE MIDDLE RANGE". If the panelist had chosen to change his or her position on this activity/experience to within the round one middle range (either SD or D), no explanation would be required.

**GOAL: TO HELP STUDENTS DEVELOP PHYSICALLY.**

Students participate in a weightlifting program.

This is the second round response. 

**Activity/Experience**

<table>
<thead>
<tr>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>BA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
</table>

**Round one results:**

Median = 3.0 (D)

*Middle range = 2.0-3.0 (SD-D) ------>

1 2 3 4 5 X 13%

% indicated "Not Appropriate" = 13%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

**MARK YOUR SECOND ROUND RESPONSE ON THE SCALE PRINTED IN BOLD LETTERS FOR ALL ITEMS REGARDLESS OF WHETHER OR NOT YOUR ROUND ONE RESPONSE WAS WITHIN THE MIDDLE RANGE.**

Begin on next page.
An activity/experience is NOT APPROPRIATE if it is beyond the capacity of middle- grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT

1. Students receive awards for exemplary performance when compared against the performance of other students.

Round one results:
Median = 3.0 (D)  
*Middle range = 2.0-4.0 (D-A)  
% indicated "Not Appropriate" = 5.6%  

2. Students receive awards for exemplary performance when compared against their past performance.

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-6.0 (A to VSA)  
% indicated "Not Appropriate" = 0%

3. Students carry out assignments that are individualized in order to increase their chances of success.

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-6.0 (A to VSA)  
% indicated "Not Appropriate" = 0%


Round one results:
Median = 2.0 (SD)  
*Middle range = 1.0-3.0 (VSD-D)  
% indicated "Not Appropriate" = 1.9%  

5. Students participate in making decisions related to aspects of schooling (e.g., student activities, topics of study, seating arrangements).

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-5.0 (A-SA)  
% indicated "Not Appropriate" = 0%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 21 TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to promote a better understanding of concepts presented in class.

Round one results:

<table>
<thead>
<tr>
<th>Median</th>
<th>4.0 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle range</td>
<td>4.0-5.0 (A-BA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

Round one results:

<table>
<thead>
<tr>
<th>Median</th>
<th>5.0 (BA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle range</td>
<td>4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
<td>0%</td>
</tr>
</tbody>
</table>

3. Students follow instructions to produce a finished product.

Round one results:

<table>
<thead>
<tr>
<th>Median</th>
<th>5.0 (SA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle range</td>
<td>4.0-5.5 (A-BA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

6. Students independently research various topics.

Round one results:

<table>
<thead>
<tr>
<th>Median</th>
<th>5.0 (SA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle range</td>
<td>4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

GOAL 31 TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS

1. Students participate in activities in which they must solve practical problems.

Round one results:

<table>
<thead>
<tr>
<th>Median</th>
<th>5.0 (BA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle range</td>
<td>5.0-5.5 (BA-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
<td>0%</td>
</tr>
</tbody>
</table>

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 3: TO HELP STUDENTS DEVELOP HIGHER ORDER THINKING SKILLS (cont.)

2. Students receive instruction in the decision-making process.

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA)
% indicated "Not Appropriate" = 0%

3. Students utilize taxonomic principles in decision-making activities (e.g., insect identification, "trouble-shooting" techniques).

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-5.0 (A-SA)
% indicated "Not Appropriate" = 1.9%

4. Students develop and test hypotheses.

Round one results:
Median = 5.0 (SA)
*Middle range = 4.5-6.0 (SA-VSA)
% indicated "Not Appropriate" = 1.9%

GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA)
% indicated "Not Appropriate" = 1.9%

2. Students attend state meetings of their student organisation.

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA)
% indicated "Not Appropriate" = 11.1%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE (cont.)

3. Students attend *national meetings* of their student organisation.

Round one results:
Median = 4.0 (A)

*Middle range = 3.75-4.25 (A)***

% indicated "Not Appropriate" = 20.4%

4. Students maintain a notebook/portfolio containing class notes, assignments, and project records.

Round one results:
Median = 5.0 (SA)

*Middle range = 4.0-6.0 (A-VSA)***

% indicated "Not Appropriate" = 0%

GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS' BASIC ACADEMIC SKILLS

1. Students make speeches in class.

Round one results:
Median = 4.0 (A)

*Middle range = 4.0-5.0 (A-SA)***

% indicated "Not Appropriate" = 0%

2. Students carry out activities that require the application of mathematics, reading, writing, and science skills.

Round one results:
Median = 6.0 (VSA)

*Middle range = 5.0-6.0 (SA-VSA)***

% indicated "Not Appropriate" = 0%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 5: TO PROMOTE THE CONTINUOUS DEVELOPMENT OF STUDENTS’ BASIC ACADEMIC SKILLS (cont.)

3. Students compete against other middle-grade students in contests that require the application of academic skills.

Round one results:

<table>
<thead>
<tr>
<th>Median = 4.0 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Middle range = 4.0-5.0 (A-SA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
</tr>
</tbody>
</table>

4. Students receive awards for having the highest grade point averages.

Round one results:

<table>
<thead>
<tr>
<th>Median = 4.0 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Middle range = 2.0-4.25 (SD-A)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
</tr>
</tbody>
</table>

5. Students receive awards for improving their grade point averages.

Round one results:

<table>
<thead>
<tr>
<th>Median = 5.0 (SA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Middle range = 4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
</tr>
</tbody>
</table>

GOAL 4: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

Round one results:

<table>
<thead>
<tr>
<th>Median = 4.0 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Middle range = 4.0-5.0 (A-SA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot;</td>
</tr>
</tbody>
</table>

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

2. Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).

Round one results:
Median = 5.0 (SA)  VSD  SD  D  A  SA  VSA  NA
"Middle range = 4.0-6.0 (A-VSA)"  1  2  3  4  5  6  1.9%
% indicated "Not Appropriate" = 1.9%

3. Students participate in activities in which they must make value judgments.

Round one results:
Median = 5.0 (SA)  VSD  SD  D  A  SA  VSA  NA
"Middle range = 5.0-6.0 (SA-VSA)"  1  2  3  4  5  6  0%
% indicated "Not Appropriate" = 0%

4. Students participate in non-physical team contests against other middle-grade students as a means of promoting teamwork, honesty, cooperation, and fair play.

Round one results:
Median = 5.0 (SA)  VSD  SD  D  A  SA  VSA  NA
"Middle range = 4.0-6.0 (A-VSA)"  1  2  3  4  5  6  0%
% indicated "Not Appropriate" = 0%

5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

Round one results:
Median = 3.0 (D)  VSD  SD  D  A  SA  VSA  NA
"Middle range = 2.0-4.0 (D-A)"  1  2  3  4  5  6  24.1%
% indicated "Not Appropriate" = 24.1%

GOAL 7: TO HELP STUDENTS DEVELOP SOCIALLY

1. Students participate in activities with students from other schools.

Round one results:
Median = 4.5 (A)  VSD  SD  D  A  SA  VSA  NA
"Middle range = 4.0-5.0 (A-SA)"  1  2  3  4  5  6  0%
% indicated "Not Appropriate" = 0%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
### GOAL 7: TO HELP STUDENTS DEVELOP SOCIALLY (cont.)

2. Students attend school-sponsored social activities.

<table>
<thead>
<tr>
<th>Round one results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median = 5.0 (SA)</td>
</tr>
<tr>
<td>*Middle range = 4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot; = 1.9%</td>
</tr>
</tbody>
</table>

3. Students receive instruction on the human relations skills needed by employees.

<table>
<thead>
<tr>
<th>Round one results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median = 5.0 (SA)</td>
</tr>
<tr>
<td>*Middle range = 5.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot; = 3.7%</td>
</tr>
</tbody>
</table>

4. Students receive instruction on social etiquette relative to human sexuality (e.g., socially acceptable dating behavior, socially acceptable sexual behavior).

<table>
<thead>
<tr>
<th>Round one results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median = 5.0 (SA)</td>
</tr>
<tr>
<td>*Middle range = 4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot; = 3.7%</td>
</tr>
</tbody>
</table>

5. Students receive instruction on proper manners (e.g., table manners, phone etiquette, socially acceptable behavior).

<table>
<thead>
<tr>
<th>Round one results:</th>
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</thead>
<tbody>
<tr>
<td>Median = 5.0 (SA)</td>
</tr>
<tr>
<td>*Middle range = 4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot; = 0%</td>
</tr>
</tbody>
</table>

### GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

1. Students participate in role-play situations in which they must manage aspects of an enterprise (e.g., household, business, farm).

<table>
<thead>
<tr>
<th>Round one results:</th>
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</thead>
<tbody>
<tr>
<td>Median = 5.0 (SA)</td>
</tr>
<tr>
<td>*Middle range = 4.0-6.0 (A-VSA)</td>
</tr>
<tr>
<td>% indicated &quot;Not Appropriate&quot; = 0%</td>
</tr>
</tbody>
</table>

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE (cont.)

2. Students receive encouragement to enroll in high school vocational education programs.

Round one results:
Median = 4.0 (A)
Middle range = 4.0-5.5 (A-SA) ----->
1 2 3 4 5 6
% indicated "Not Appropriate" = 13.0%

3. Students "shadow" a high school vocational education class.

Round one results:
Median = 4.0 (A)
Middle range = 4.0-5.0 (A-SA) ----->
1 2 3 4 5 6
% indicated "Not Appropriate" = 3.7%

4. Students receive safety instruction.

Round one results:
Median = 5.0 (SA)
Middle range = 4.0-6.0 (A-VSA) ----->
1 2 3 4 5 6
% indicated "Not Appropriate" = 0%

5. Students operate equipment used by workers in various occupations.
(Note: Assume tasks to be within the students' range of abilities.)

Round one results:
Median = 5.0 (SA)
Middle range = 4.0-5.5 (A-SA) ----->
1 2 3 4 5 6
% indicated "Not Appropriate" = 5.6%

6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).

Round one results:
Median = 5.0 (SA)
Middle range = 4.0-6.0 (A-VSA) ----->
1 2 3 4 5 6
% indicated "Not Appropriate" = 9.3%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
### GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE (cont.)

<table>
<thead>
<tr>
<th>VSD</th>
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<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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</tbody>
</table>

7. Students receive instruction regarding family member roles and responsibilities.

Round one results:

**Goal range = 4.0-5.0 (A-SA)**

1 2 3 4 5 6

% indicated "Not Appropriate" = 1.9%

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### GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

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<tr>
<th>VSD</th>
<th>SD</th>
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<th>SA</th>
<th>VSA</th>
<th>NA</th>
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</table>

1. Students participate in activities in which they perform the physical activities of workers in various occupations. (Note: Assume tasks to be within the students' range of abilities.)

Round one results:

**Goal range = 4.0-5.0 (A-SA)**

1 2 3 4 5 6

% indicated "Not Appropriate" = 11.1%

---

2. Students receive instruction regarding proper dietary habits.

Round one results:

**Goal range = 4.0-5.0 (A-SA)**

1 2 3 4 5 6

% indicated "Not Appropriate" = 0%

---

3. Students participate in activities that develop their manual dexterity (e.g., keyboarding).

Round one results:

**Goal range = 4.0-6.0 (A-VSA)**

1 2 3 4 5 6

% indicated "Not Appropriate" = 0%

---

4. Students receive instruction on personal health (e.g., sexually transmitted diseases, substance abuse).

Round one results:

**Goal range = 5.0-6.0 (SA-VSA)**

1 2 3 4 5 6

% indicated "Not Appropriate" = 0%

---

The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 2: TO HELP STUDENTS DEVELOP PHYSICALLY

5. Students receive instruction on human physical development.

Round one results:
Median = 5.0 (VSA)
*Middle range = 5.0-6.0 (SA-VSA) 1 2 3 4 5 6 0%
% indicated "Not Appropriate" = 0%

GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY

1. Students participate in activities with people of various cultural backgrounds.

Round one results:
Median = 5.5 (SA)
*Middle range = 5.0-6.0 (SA-VSA) 1 2 3 4 5 6 0%
% indicated "Not Appropriate" = 0%

2. Students receive instruction on aspects of various countries and cultures (e.g., health problems, clothing, economics, agricultural production, social attitudes).

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) 1 2 3 4 5 6 0%
% indicated "Not Appropriate" = 0%

3. Students take field trips to facilities and events exhibiting aspects of various cultures.

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) 1 2 3 4 5 6 0%
% indicated "Not Appropriate" = 0%

4. Students make products of various cultures (e.g., foods, clothing, crafts).

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA) 1 2 3 4 5 6 1.9%
% indicated "Not Appropriate" = 1.9%

The middle range includes those scores within the 26th to 76th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 10: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE VARIOUS CULTURES WITHIN SOCIETY (cont.)

5. Students from various cultures share their classmates aspects of their culture that are unique (e.g., foods, traditions, clothing).

Round one results:
Median = 5.0 (SA) VSD SD D A SA VSA NA
"Middle range = 4.0-6.0 (A-VSA) "----> 1 2 3 4 5 6
% indicated "Not Appropriate" = 0%

6. Students receive instruction on the interdependence of cultures within a global economy.

Round one results:
Median = 5.0 (SA) VSD SD D A SA VSA NA
"Middle range = 4.0-6.0 (A-VSA) "----> 1 2 3 4 5 6
% indicated "Not Appropriate" = 1.9%

GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY

1. Students participate in community events (e.g., county fair, participating in science fair).

Round one results:
Median = 5.0 (SA) VSD SD D A SA VSA NA
"Middle range = 5.0-6.0 (SA-VSA) "----> 1 2 3 4 5 6
% indicated "Not Appropriate" = 0%

2. Students volunteer to assist in community activities.

Round one results:
Median = 5.0 (SA) VSD SD D A SA VSA NA
"Middle range = 5.0-6.0 (SA-VSA) "----> 1 2 3 4 5 6
% indicated "Not Appropriate" = 0%

3. Community members assist with student activities (e.g., donate resources, serve as chaperons).

Round one results:
Median = 5.0 (SA) VSD SD D A SA VSA NA
"Middle range = 5.0-6.0 (SA-VSA) "----> 1 2 3 4 5 6
% indicated "Not Appropriate" = 0%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
**GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY (CONT.)**

4. Students make presentations at meetings of civic organizations.

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<th>Median</th>
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<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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<tr>
<td>5.0 (SA)</td>
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</table>

*Middle range = 4.0-5.25 (A-SA)*

% indicated "Not Appropriate" = 7.4%

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**GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS**

1. Parents assist with student activities (e.g., donate resources, serve as chaperones).

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<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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<tbody>
<tr>
<td>6.0 (VSA)</td>
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*Middle range = 4.75-6.0 (SA-VSA)*

% indicated "Not Appropriate" = 0%

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2. Teachers make home visits to students and their parents.

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<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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<tbody>
<tr>
<td>4.0 (A)</td>
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</table>

*Middle range = 3.0-5.0 (D-SA)*

% indicated "Not Appropriate" = 7.4%

---

3. Students complete assignments that require parental input.

<table>
<thead>
<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 (SA)</td>
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</table>

*Middle range = 4.0-6.0 (A-VSA)*

% indicated "Not Appropriate" = 1.9%

---

4. Students "shadow" parents on the job.

<table>
<thead>
<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 (A)</td>
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</tbody>
</table>

*Middle range = 4.0-5.0 (A-SA)*

% indicated "Not Appropriate" = 11.1%

---

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
### Goal 11: To Promote Community Involvement in the Education Process

1. **Students participate in projects in the community in which they demonstrate skills learned.**

   - **Round one results:**
     - Median = 5.0 (SA)
     - *Middle range = 4.0-6.0 (A-VSA)*
     - % indicated "Not Appropriate" = 0%

   - **Middle range:** 1 2 3 4 5 6 0%

2. **Community members serve on school committees.**

   - **Round one results:**
     - Median = 5.0 (SA)
     - *Middle range = 4.0-6.0 (A-VSA)*
     - % indicated "Not Appropriate" = 1.9%

   - **Middle range:** 1 2 3 4 5 6 1.9%

3. **Community members serve as resource persons in class.**

   - **Round one results:**
     - Median = 6.0 (VSA)
     - *Middle range = 5.0-6.0 (VSA-VSA)*
     - % indicated "Not Appropriate" = 0%

   - **Middle range:** 1 2 3 4 5 6 0%

4. **Students and community members participate in joint activities.**

   - **Round one results:**
     - Median = 5.0 (SA)
     - *Middle range = 4.0-6.0 (A-VSA)*
     - % indicated "Not Appropriate" = 0%

   - **Middle range:** 1 2 3 4 5 6 0%

5. **Students conduct fund-raising activities in the community.**

   - **Round one results:**
     - Median = 4.0 (A)
     - *Middle range = 3.0-5.0 (D-SA)*
     - % indicated "Not Appropriate" = 3.7%

   - **Middle range:** 1 2 3 4 5 6 3.7%

6. **Student activities are publicised through local media.**

   - **Round one results:**
     - Median = 5.0 (SA)
     - *Middle range = 4.0-6.0 (A-VSA)*
     - % indicated "Not Appropriate" = 1.9%

   - **Middle range:** 1 2 3 4 5 6 1.9%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA". Continue on back of page.*
GOAL 11: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS (cont.)

7. Students sponsor activities designed to recognize the support of community members.

Round one results:
Median = 5.0 (A) VSD SD D A SA VSA NA
*Middle range = 4.0-6.0 (A-VSA) D A SA VSA NA
% indicated "Not Appropriate" = 1.9% 1 2 3 4 5 6 1.9%

8. Teachers visit local businesses and community leaders in relation to educational activities.

Round one results:
Median = 5.0 (A) VSD SD D A SA VSA NA
*Middle range = 4.0-6.0 (A-VSA) D A SA VSA NA
% indicated "Not Appropriate" = 1.9% 1 2 3 4 5 6 1.9%

GOAL 16: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

Round one results:
Median = 4.0 (A) VSD SD D A SA VSA NA
*Middle range = 3.0-5.0 (A-SA) D A SA VSA NA
% indicated "Not Appropriate" = 24.1% 1 2 3 4 5 6 24.1%

2. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to investigate the roles of workers in various occupations.

Round one results:
Median = 5.0 (A) VSD SD D A SA VSA NA
*Middle range = 4.0-5.0 (A-SA) D A SA VSA NA
% indicated "Not Appropriate" = 3.7% 1 2 3 4 5 6 3.7%

3. Students receive instruction aimed at identifying occupations within various career areas.

Round one results:
Median = 5.0 (A) VSD SD D A SA VSA NA
*Middle range = 4.0-6.0 (A-VSA) D A SA VSA NA
% indicated "Not Appropriate" = 3.7% 1 2 3 4 5 6 3.7%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
4. Students receive instruction on the influence of international events on the U.S. economy.

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA)
% indicated "Not Appropriate" = 5.6%  
1 2 3 4 5 6

5. Students "shadow" workers on the job.

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.25 (A-SA)
% indicated "Not Appropriate" = 9.4%  
1 2 3 4 5 6

6. Students receive instruction regarding the roles of workers in various occupations.

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-5.0 (A-SA)
% indicated "Not Appropriate" = 1.9%  
1 2 3 4 5 6

7. Eligible students participate in cooperative job placement programs in businesses and industries.

Round one results:
Median = 4.0 (A)
*Middle range = 2.0-5.0 (SD-SA)
% indicated "Not Appropriate" = 42.6%  
1 2 3 4 5 6

8. Students are taught by teams of teachers that include career-oriented program teachers and core subject teachers.

Round one results:
Median = 5.0 (SA)
*Middle range = 5.0-6.0 (SA-VSA)
% indicated "Not Appropriate" = 5.6%  
1 2 3 4 5 6

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 11: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)

9. Students compete against other middle-grade students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

<table>
<thead>
<tr>
<th>Round one results:</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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<tbody>
<tr>
<td>Median: 4.0 (A)</td>
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<td>*Middle range: 3.0-5.0 (D-SA)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot;: 7.4%</td>
<td>1 2 3 4 5 6</td>
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</table>

10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

<table>
<thead>
<tr>
<th>Round one results:</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
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<td>Median: 3.0 (D)</td>
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<tr>
<td>*Middle range: 1.0-4.0 (VSD-A)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot;: 29.6%</td>
<td>1 2 3 4 5 6</td>
<td>29.6%</td>
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11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.

<table>
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<tr>
<th>Round one results:</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
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<td>Median: 3.0 (D)</td>
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<td>*Middle range: 3.0-4.0 (D-SA)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot;: 22.9%</td>
<td>1 2 3 4 5 6</td>
<td>22.9%</td>
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12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.

<table>
<thead>
<tr>
<th>Round one results:</th>
<th>VSD</th>
<th>SD</th>
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<td>*Middle range: 4.0-5.0 (A-SA)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot;: 11.1%</td>
<td>1 2 3 4 5 6</td>
<td>11.1%</td>
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13. Students are members of a career-oriented student organization.

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<thead>
<tr>
<th>Round one results:</th>
<th>VSD</th>
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<tr>
<td>*Middle range: 4.0-5.0 (A-SA)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot;: 11.1%</td>
<td>1 2 3 4 5 6</td>
<td>11.1%</td>
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*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)

14. Students identify occupational areas that match their aptitudes and interests. VSD SD D A SA VSA

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-5.0 (A-SA) ——> VSD SD D A SA VSA NA
% indicated "Not Appropriate" = 9.3%

15. Students take field trips to businesses and industries. VSD SD D A SA VSA

Round one results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) ——> VSD SD D A SA VSA NA
% indicated "Not Appropriate" = 1.9%

GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students serve on committees with adults. VSD SD D A SA VSA

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA) ——> VSD SD D A SA VSA NA
% indicated "Not Appropriate" = 1.9%

2. Students contact and make arrangements for guest speakers. VSD SD D A SA VSA

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA) ——> VSD SD D A SA VSA NA
% indicated "Not Appropriate" = 3.7%

3. Students participate in projects in which they work in local businesses. VSD SD D A SA VSA

Round one results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA) ——> VSD SD D A SA VSA NA
% indicated "Not Appropriate" = 20.4%

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
**GOAL 15: TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM (cont.)**

4. Students participate in service projects with adults.

**Round one results:**
- Median = 5.0 (SA)
- *Middle range = 4.0-6.0 (A-VSA)
- % indicated "Not Appropriate" = 1.9%

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**GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS**

1. Students serve as officers of their student organization.

**Round one results:**
- Median = 5.0 (SA)
- *Middle range = 5.0-6.0 (A-VSA)
- % indicated "Not Appropriate" = 1.9%

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2. Middle-grade student organization members observe officers of a high school student organization for the purpose of learning behavior to be modeled.

**Round one results:**
- Median = 6.0 (A)
- *Middle range = 3.0-5.0 (D-SA)
- % indicated "Not Appropriate" = 11.1%

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<tr>
<th>VSD</th>
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3. Middle-grade student organization members attend activities of a high school student organization for the purpose of encouraging continued membership at the high school level.

**Round one results:**
- Median = 4.0 (A)
- *Middle range = 3.0-4.0 (D-A)
- % indicated "Not Appropriate" = 7.4%

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<tr>
<th>VSD</th>
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*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the five-point response range scale or under "NA".

Continue on next page.
GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS (cont.)

4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

Round one results:
Median = 4.0 (A)  
*Middle range = 4.0-6.0 (A-VSA)  
% indicated "Not Appropriate" = 0%  

5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

Round one results:
Median = 3.0 (D)  
*Middle range = 2.5-4.0 (D-H)  
% indicated "Not Appropriate" = 24.1%  

GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

1. Students monitor their own achievement.

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-6.0 (A-VSA)  
% indicated "Not Appropriate" = 0%  

2. Students assess their occupational interests.

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-6.0 (A-VSA)  
% indicated "Not Appropriate" = 3.7%  

3. Students assess their occupational aptitudes.

Round one results:
Median = 5.0 (SA)  
*Middle range = 4.0-5.0 (A-SA)  
% indicated "Not Appropriate" = 13.0%  

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".
### Goal 17: To Help Students Develop Self-Assessment Abilities (cont.)

<table>
<thead>
<tr>
<th>Goal/Activity</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NOT APPROPRIATE</th>
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<tbody>
<tr>
<td><strong>Students evaluate their appearance (includes physical and clothing)</strong>.</td>
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<td>*Middle range = 4.0-5.0 (A-SA)</td>
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<td>% indicated &quot;Not Appropriate&quot; = 11.1%</td>
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<td><strong>Students assess their personality.</strong></td>
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<td>Median = 4.0 (A)</td>
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<td>*Middle range = 4.0-5.0 (A-SA)</td>
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<td>% indicated &quot;Not Appropriate&quot; = 7.4%</td>
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<tr>
<td><strong>Students assess their personal values.</strong></td>
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<td>Median = 5.0 (SA)</td>
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<td>*Middle range = 4.0-6.0 (A-VSA)</td>
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<td>% indicated &quot;Not Appropriate&quot; = 5.6%</td>
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### Goal 18: To Help Students Develop a Sense of Responsibility

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<th>Goal/Activity</th>
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<th>SA</th>
<th>VSA</th>
<th>NOT APPROPRIATE</th>
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<tbody>
<tr>
<td><strong>Students conduct group projects in which each group member is responsible for specific tasks.</strong></td>
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<td>Median = 5.0 (SA)</td>
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<td>*Middle range = 5.0-6.0 (SA-VSA)</td>
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<td>% indicated &quot;Not Appropriate&quot; = 0%</td>
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<tr>
<td><strong>Students maintain equipment and facilities that are used as part of their educational activities at school.</strong></td>
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<td>Median = 5.0 (SA)</td>
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<td>*Middle range = 4.0-6.0 (A-VSA)</td>
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<tr>
<td>% indicated &quot;Not Appropriate&quot; = 3.7%</td>
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*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".*

Continue on next page.
### GOAL 1B: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY (CONT.)

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<tr>
<td>3. Students have entrepreneurship projects (e.g., providing secretarial services, raising animals).</td>
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<td>Round one results:</td>
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<td>Median = 4.0 (A)</td>
<td>1 2 3 4 5 6 7.4%</td>
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<tr>
<td>*Middle range = 4.0-5.0 (A-VSA)</td>
<td>1 2 3 4 5 6 7.4%</td>
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<td>% indicated &quot;Not Appropriate&quot;</td>
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| 4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality). | VSD SD D A SA VSA |
| Round one results: | VSD SD D A SA VSA |
| Median = 4.0 (A) | 1 2 3 4 5 6 9.3% |
| *Middle range = 3.25-5.0 (A-SA) | 1 2 3 4 5 6 9.3% |
| % indicated "Not Appropriate" | 9.3% |

| 5. Students conduct fund-raising projects that include taking orders, collecting money, and distributing goods. | VSD SD D A SA VSA |
| Round one results: | VSD SD D A SA VSA |
| Median = 4.0 (A) | 1 2 3 4 5 6 5.6% |
| *Middle range = 3.0-5.0 (D-SA) | 1 2 3 4 5 6 5.6% |
| % indicated "Not Appropriate" | 5.6% |

| 6. Students conduct community service projects (e.g., beautification projects, food drives, nursing home visits, recycling projects). | VSD SD D A SA VSA |
| Round one results: | VSD SD D A SA VSA |
| Median = 5.0 (SA) | 1 2 3 4 5 6 0% |
| *Middle range = 5.0-6.0 (SA-VSA) | 1 2 3 4 5 6 0% |
| % indicated "Not Appropriate" | 0% |

| 7. Students receive instruction on socially responsible behavior. | VSD SD D A SA VSA |
| Round one results: | VSD SD D A SA VSA |
| Median = 5.0 (SA) | 1 2 3 4 5 6 0% |
| *Middle range = 4.0-6.0 (A-VSA) | 1 2 3 4 5 6 0% |
| % indicated "Not Appropriate" | 0% |

*The middle range includes those scores within the 25th to 75th percentiles. Your first round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Thank you for completing this questionnaire. Please return in the envelope provided.
JUSTIFICATION OF ROUND TWO RESPONSES OUTSIDE THE MIDDLE RANGE

Identify the activity/experience to which your comments are directed by goal and item number. Attach additional pages if necessary.
COMMENTS FROM ROUND ONE

The following comments were provided by round one panelists. Comments are listed below corresponding activities/learning experiences.

GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT

1. Students receive awards for exemplary performance when compared against the performance of other students.

"Students should not be compared to others."

"This would increase the self-concept of a few who succeed over others."

"Student achievement at the middle level should be based on individual student's progress....Competition is fine, and has a place at the middle level, but because of the nature and needs of students, competition between students should be discouraged."

2. Students receive awards for exemplary performance when compared against their past performance.

"This would increase the self-concept of anyone who improved performance."


"Should not encourage apathy."

"They should receive a passing grade regardless of skill performance, such as sewing, etc. They should not receive a passing grade if employability-type performance is below what they can do or if they have not improved."

GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

3. Students follow instructions to produce a finished product.

"I find that [my middle-grade students] cannot comprehend written instructions without help....[I] require them to show me the pattern guidesheet, instructions, recipe....I have learned that mapping skills do not exist, generally, until students are sophomores."

GOAL 3: TO HELP STUDENTS DEVELOP HIGHER-ORDER THINKING SKILLS

2. Students receive instruction in the decision-making process.

"Students need application, not just instruction."

GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).

"Students at this age do not need this information. They are overwhelmed at times with necessary information. This would only add to that."
3. Students attend national meetings of their student organization.
“Students are too young for our national convention.”

GOAL 5: TO PROMOTE THE CONTINUED DEVELOPMENT OF STUDENTS’ BASIC ACADEMIC SKILLS

4. Students receive awards for having the highest grade point averages.

“[This item] is based on the assumption that conventional grading is appropriate at the middle level, and I don’t support that assumption/practice in any form.”

“If rewards mean verbal or written – possibly. However, not plaques or trophies.

“...’honor rolls’ are not appropriate. Give awards to students for individual progress and efforts in academics, citizenship, or special projects.”

5. Students receive awards for improving their grade point averages.

“[This item] is based on the assumption that conventional grading is appropriate at the middle level, and I don’t support that assumption/practice in any form.”

“If rewards mean verbal or written – possibly. However, not plaques or trophies.

GOAL 6: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

2. Students receive instruction on the personal qualities needed by employees (e.g., cooperation, honesty, punctuality).

“I feel that this would be appropriate for eighth grade, but not sixth or seventh. This is something that doesn’t concern many of them at that age.”

5. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

“Middle school students are too intimidated by high school students. There is also the showing-off that takes place when these groups are mixed.”

GOAL 7: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

3. Students receive instruction on the human relations skills needed by employees.

“Human relations skills, yes. What is needed by employees, possibly. [I] do not believe that schools exist to develop “good” (compliant?) workers.”

“This might be age-appropriate for eighth grade.”
GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

2. Students receive encouragement to enroll in high school vocational education programs.

"Eighth graders - maybe, but not sixth and seventh grade students."

6. Students participate in activities in which they perform tasks related to securing a job (e.g., preparing resumes, conducting job interviews, completing job applications).

"Technical, high quality resumes - not appropriate for middle schoolers."

GOAL 11: TO HELP STUDENTS DEVELOP A SENSE OF BELONGING WITHIN THE LOCAL COMMUNITY

4. Students make presentations at meetings of civic organizations.

"Presentations at civic organizations may be appropriate for older students - grades 8 and 9 - but I do not believe it is an appropriate activity for younger students - grades 5 and 6."

GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

2. Teachers make home visits to students and their parents.

"Many areas where students live are unsafe for 'outsiders' to enter - police only enter with a back-up unit. The concept is perfect and many Christian private schools do this, and it creates a bonding unmatched in a public setting."

"A good idea if all could be visited - time would not permit."

3. Students complete assignments that require parental input.

"... would be appropriate for students who live with their parents and whose parents work. We must remember that not all students live with parents, and some employers would not allow students to shadow their parents for safety reasons."

"Be careful on this one. Make sure parent or guardian is willing and able. May be inappropriate in some cases."

"This item would penalize some/many students because of parents, or lack thereof."

4. Students "shadow" parents on the job.

"... would be appropriate for students who live with their parents and whose parents work. We must remember that not all students live with parents, and some employers would not allow students to shadow their parents for safety reasons."

"...not a school responsibility in my opinion. Again, would penalize those students because of status of parent... penalizes laborers and glorifies professionals... This kind of item would help perpetuate a caste system."

"Some students live in a situation where neither parent works (e.g., welfare recipients). Some also have a parent(s) who are involved in drug selling, prostitution, etc."

5. Students conduct fund-raising activities in the community.

"Fund raising must be carefully watched and appropriate to age group and community."

GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS

1. Students participate in projects in the community in which they demonstrate skills learned.

"I personally disagree with demonstrations of technical skills such as sewing, cooking, etc. as 1) middle schooler developmental level does not generally promote high quality, and 2) it should be accompanied by some presentation as to how the skills would be used....Perhaps it is that I do not teach well, but my goal is not skill development, but interest development and pride of accomplishment."

2. Community members serve on school committees.

"Of course [I agree with the statement], but [it is] not a school responsibility/goal/item."

5. Students conduct fund-raising activities in the community.

"Students should have an experience in the real world of financing their activities, however, taking it to the community should be discouraged."

GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

"Good idea, but hard to implement....liability might be a concern."

"This would not be fair to country students, as they do not drive and it would place a burden on parents."

4. Students receive instruction on the influence of international events on the U.S. economy.

"...students should receive instruction on international events, but not always/necessarily how it related to the U.S. economy."

5. Students "shadow" workers on the job.

"I don't believe middle schoolers are old enough to handle [this activity]."

7. Eligible students participate in cooperative job placement programs in businesses and industries.

"Let's wait until high school."

"I don't believe middle schoolers are old enough to handle [this activity]."

9. Students compete against other middle-grade students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest)."
"...competition should be controlled. A better way to accomplish this activity would be to have a "skills fair" where students could demonstrate their ability or skill together with students from other schools."

10. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

"Contest should encourage personal development, but not against older students."

11. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to develop specific job skills.

"Specific job skills training is inappropriate for [the] middle grades. They can do it, but they shouldn't."

"This, plus other items, seems to place school in a position of developing workers. Schools' purpose, to repeat a cliche, is not to teach kids how to make a living, but how to live."

12. Students individually carry out a program of planned, hands-on activities during regular school hours that are designed to develop specific job skills.

"Specific job skills training is inappropriate for [the] middle grades. They can do it, but they shouldn't."

GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

4. Students compete against other middle-grade students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

"Competition must be carefully structured and monitored. Best if everyone who competes wins something."

"Here, and throughout the illustrative items, there seems to be an excessive interest on competitive activities. Overall, this does not provide for the most productive learning atmosphere."

5. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

"Middle school should be for exploration without the stress of competition, especially with high school students."

GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

4. Students evaluate their appearance.

"Social traits should be evaluated and reported separately, not mixed with academic grades."

"Evaluation of appearance is inappropriate at all levels - especially during transcence - as it is equated with (and above) other indicators of self-worth in their minds."
"Students at the middle school level usually are not very accurate on self-assessment of their appearance and other personal characteristics. I believe that students should be exposed to self-assessment, however, they need a lot of structure in interpreting that self-assessment."

6. Students assess their personal values.

"Values clarification should be left with parents. The school should work students through a process that provides them the experience of reviewing items that frustrate them. However, it is the parent's responsibility to establish values for their children."

GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY

4. Students' grades are based on the degree to which they model positive employee attitudes (e.g., cooperation, honesty, punctuality).

"Social traits should be evaluated and reported separately, not mixed with academic grades."

"[This item] is based on the assumption that conventional grading is appropriate at the middle level, and I don't support that assumption/practice in any form."

"The examples, again, seem to imply compliant, order-takers."

General comments:

"I have disagreed with all [items in goal 14 - to help students develop an understanding of the world of work] because of different factors. First, I don't think this is vital information for sixth and possibly seventh graders. Eighth graders would probably benefit from some of this information. Secondly, our daily schedules are full now and by including this type of information, it would strain the curriculum even further. These ideas might work well in a mentorship program that could be developed between school and the community."

"Competition needs to be carefully monitored and controlled at this age."
DELPHI ROUND THREE

ACTIVITIES/EXPERIENCES THAT PROMOTE ACHIEVEMENT OF MIDDLE-GRADE EDUCATION GOALS

Directions: Circle the letter(s) on the bold printed scale that indicate the degree to which you believe that each activity/experience promotes achievement of the goal under which it is listed. Respond to each item regardless of your second round response. If you believe that an activity/experience is inappropriate for early adolescents, place a check mark (X) in the blank space under "NOT APPROPRIATE." Certain passages in items have been underlined as a means of highlighting differences in similar items; no other intent is implied. Please read the definitions noted on a separate page prior to marking your responses.

Round two comments, median responses, middle range of responses (25th to 75th percentiles), and the percentage of panelists that indicated an item to be inappropriate are shown below corresponding items. The middle range of responses is represented by the shaded area on the six-point response scale. Responses have been converted to numerical scores for reporting purposes (1=VSD, 2=SD, 3=D, 4=A, 5=SA, 6=VSA).

Your round two response for an item is denoted by an "X" on the response scale or under "NA" (Not Appropriate) and is highlighted in yellow if it is outside the round two middle range of responses for that item. For those items that your round two responses are outside the middle range, you should alter your position to within the range in the third round or provide justification for not doing so (see pages marked "JUSTIFICATION OF ROUND THREE RESPONSES OUTSIDE THE MIDDLE RANGE"). Do not change your responses to within the middle range if you believe that there is sufficient reason for not doing so. If your reasons for remaining outside the middle range have not changed from round two, simply write "see round two comments" on the comment page.

SCALE:

VSD = Very Strongly Disagree
SD = Strongly Disagree
D = Disagree
A = Agree
SA = Strongly Agree
VSA = Very Strongly Agree

NOT APPROPRIATE = The activity/experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

EXAMPLE 1: In the example below, the panelist’s second round response of "SA" was within the middle range of responses. In this case, "strongly agree" and "very strongly agree" were the responses captured within the middle range as indicated by the "SA" and "VSA" in parentheses. As indicated, the panelist continues to strongly agree that students receiving instruction on the needs of handicapped persons promotes achievement of the goal "to help students develop socially." Because "strongly agree" is within the middle range of responses from round two, the panelist does not need to provide a written explanation for his or her second round response.

GOAL: TO HELP STUDENTS DEVELOP SOCIALLY.

Activity/Experience

Students receive instruction on the needs of handicapped persons.

Round two results:

Median = 5.0 (SA)

Middle range = 4.25-6.0 (SA-VSA)

Indicated "Not Appropriate" = 0%

See example two on back of page.
The activity/experience is inappropriate because it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

**Example 2:** The example below, the panelist’s second round response of “VSA” was outside the middle range of responses; therefore, it is highlighted in yellow on the six-point response scale. As indicated, the panelist now agrees that students participating in a weight lifting program promotes achievement of the goal “to help students develop physically.” Because “agree” is outside the middle range of responses from round two, the panelist should provide a written explanation for this response on the page marked “JUSTIFICATION OF THIRD ROUND RESPONSES OUTSIDE THE MIDDLE RANGE.” If the panelist had chosen to change his or her position on this activity/experience to within the round two middle range (either SD or D), no explanation would be required.

**Goal:** To help students develop physically. This is the third round response. NOT APPROPRIATE

**Activity/Experience:** Students participate in a weight lifting program.

**Round two results:**
- Median = 3.0 (D)
- *“Middle range = 2.0-3.0 [SD-D]”* → VSD SD D A SA VSA NA
- 1 2 3 4 5 6 13.0%

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an “I” marked on the six-point response range scale or under “NA.”

MARK YOUR THIRD ROUND RESPONSE ON THE SCALE PRINTED IN BOLD LETTERS FOR ALL ITEMS REGARDLESS OF WHETHER OR NOT YOUR ROUND TWO RESPONSE WAS WITHIN THE MIDDLE RANGE.

Begin on next page.
An activity/experience is NOT APPROPRIATE if it is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period.

<table>
<thead>
<tr>
<th>GOAL 1: TO HELP STUDENTS DEVELOP A POSITIVE SELF-CONCEPT</th>
<th>NOT APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students receive awards for exemplary performance when compared against the performance of other students.</td>
<td>VSD SD D A SA VSA</td>
</tr>
</tbody>
</table>

Round two results:
Median = 3.0 (SD)  
Middle range = 2.0-4.0 (SD-A)  

2.3% indicated "Not Appropriate"  

% Indicated "Not Appropriate": 2.3%  
1 2 3 4 5 6 2.3%

Comments from round two:
"This kind of competition should be minimized in favor of competition with self. There is already too much of this in our schools and society in general."
"Students should not be compared to each other, only themselves and the improvement they make. Recognize improvement of self."
"A regular grading system provides extrinsic rewards. This will ultimately become the most valued part of the program, not learning."

2. Students receive awards for exemplary performance when compared against their past performance.

Round two results:
Median = 5.0 (SA)  
Middle range = 4.75-6.0 (SA to VSA)  

No comments received for this item during round two.


Round two results:
Median = 2.0 (SD)  
Middle range = 1.0-3.0 (VSD-D)  

No comments received for this item during round two.

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".*
### GOAL 2: TO HELP STUDENTS DEVELOP INDEPENDENT LEARNING SKILLS

1. Students independently research various topics.  

<table>
<thead>
<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 (SA)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Middle range: 4.0-4.25 (A-SA)*

% indicated "Not Appropriate": 0%

1 2 3 4 5 6 0%

No comments received for this item during round two.

### GOAL 3: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE

1. Students participate in activities designed to teach practical skills (e.g., clothing care, small engine maintenance, household repairs).  

<table>
<thead>
<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 (SA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Middle range: 4.0-6.0 (A-VSA)*

% indicated "Not Appropriate": 0%

1 2 3 4 5 6 0%

No comments received for this item during round two.

2. Students attend national meetings of their student organisation.  

<table>
<thead>
<tr>
<th>Median</th>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Middle range: 4.0-4.0 (A)*

% indicated "Not Appropriate": 20.5%

1 2 3 4 5 6 20.5%

Comments from round two:

*"Smaller state meetings are better managed and those students attending will be more apt to learn in smaller conventions. Larger national meetings, as with conventions, become large parties instead."

*Funding and liability problems - This should be left for older high school students to experience."

*Students that 'make it' to this level of sophistication and understanding of politics would benefit, but not all students."

*I do not feel that this is an appropriate use of available financial resources."

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".*

Continue on next page.
GOAL 4: TO HELP STUDENTS DEVELOP A SENSE OF INDEPENDENCE (cont.)

3. Students maintain a notebook/portfolio containing class notes, assignments, and project records.

Round two results:
Median = 5.0 (SA) *Middle range = 4.0-6.0 (A-VSA)  % indicated "Not Appropriate" = 0%
NA 1 2 3 4 5 6 0%

Comments from round two:
"Portfolio assessment must be included in any assessment for students."

GOAL 4: TO HELP STUDENTS DEVELOP THEIR PERSONAL VALUES

1. Student organization state officers visit classes for the purpose of providing a role model for students.

Round two results:
Median = 4.0 (A) *Middle range = 4.0-4.0 (A)  % indicated "Not Appropriate" = 18.2%
NA 1 2 3 4 5 6 18.2%

No comments received for this item during round two.

2. Students participate in non-physical team contests against middle-grade and high school students as a means of promoting teamwork, honesty, cooperation, and fair play.

Round two results:
Median = 3.0 (D) *Middle range = 2.0-4.0 (D-VSA)  % indicated "Not Appropriate" = 11.4%
NA 1 2 3 4 5 6 11.4%

Comments from round two:
"The statement is inherently contradictory - 'compete against' as a means of promoting teamwork, cooperation, and fair play."
"It would not be fair to have middle school and high school students compete against each other. This does not fit in with the middle school concept."

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 7: TO HELP STUDENTS DEVELOP SOCIALLY

1. Students attend school-sponsored social activities.

<table>
<thead>
<tr>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
</table>

Round two results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) ---

% indicated "Not Appropriate" = 0%
1 2 3 4 5 6 0%

No comments received for this item during round two.

GOAL 8: TO HELP STUDENTS DEVELOP PRACTICAL SKILLS AND KNOWLEDGE

1. Students receive safety instruction.

<table>
<thead>
<tr>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
</table>

Round two results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) ---

% indicated "Not Appropriate" = 2.3%
1 2 3 4 5 6 2.3%

No comments received for this item during round two.

GOAL 9: TO HELP STUDENTS DEVELOP PHYSICALLY

1. Students receive instruction regarding proper dietary habits.

<table>
<thead>
<tr>
<th>VSD</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>VSA</th>
<th>NA</th>
</tr>
</thead>
</table>

Round two results:
Median = 5.0 (SA)
*Middle range = 4.0-6.0 (A-VSA) ---

% indicated "Not Appropriate" = 0%
1 2 3 4 5 6 0%

No comments received for this item during round two.

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 12: TO PROMOTE PARENTAL INVOLVEMENT IN THE EDUCATION PROCESS

1. Teachers make home visits to students and their parents.

Round two results:

<table>
<thead>
<tr>
<th>Median range = 3.0-5.0 (D-SA)</th>
</tr>
</thead>
</table>

% indicated "Not Appropriate" = 2.3%

Comments from round two:

"I am concerned whenever the state or their rape (i.e. teachers and educators) get into our homes. Children need to feel secure at home. That is the family's private sanctuary - that big brother is not always looking over their shoulder. This doesn't foster trust, but rather distrust."

"Promotes [positive] home-school relations."

"In many school districts, such visits would be unwelcome and could place the teacher in a dangerous situation."

GOAL 13: TO PROMOTE COMMUNITY INVOLVEMENT IN THE EDUCATION PROCESS

1. Students participate in projects in the community in which they demonstrate skills learned.

Round two results:

<table>
<thead>
<tr>
<th>Median range = 4.0-5.75 (A-SA)</th>
</tr>
</thead>
</table>

% indicated "Not Appropriate" = 0%

No comments received for this item during round two.

2. Teachers visit local businesses and community leaders in relation to educational activities.

Round two results:

<table>
<thead>
<tr>
<th>Median range = 4.0-5.75 (A-SA)</th>
</tr>
</thead>
</table>

% indicated "Not Appropriate" = 0%

No comments received for this item during round two.

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on back of page.
GOAL 14: TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK

1. Students individually carry out a program of planned, hands-on activities outside of regular school hours that are designed to investigate the roles of workers in various occupations.

Round two results:
Median = 4.0 (A)  
*Middle range = 3.0-4.0 (D-A)  
% indicated "Not Appropriate" = 11.4%

Comments from round two:
"The role of the school is to teach and prepare the students. The role of the household for junior high students is to continue this work AND to allow students to form family ties and to be kids (i.e. play, create, etc.) This is NOT APPROPRIATE for 6-8 grades."
"Yes, but not a school responsibility."
"A lot of students would not have access to planned, hands-on activities regarding various occupations. Some reasons are: a) lack of parental involvement, b) single parent households, c) parents' long hours or second jobs, and d) geographic location."

2. Eligible students participate in cooperative job placement programs in businesses and industries.

Round two results:
Median = 4.0 (A)  
*Middle range = 3.0-4.0 (D-A)  
% indicated "Not Appropriate" = 31.8%

Comments from round two:
"Understanding employability skills can best be demonstrated by having cooperative learning within community industries. This alleviates the 'culture shock' that can occur when a person enters the full-time job place. There is no better way to convey this concept than by having students in the work place side by side with professionals."
"Too young at this age."
"This is not for junior high [students]. Their minds are still open to everything and too young to set in one course."
"What's the rush? Co-ops make much better sense for high school."

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".

Continue on next page.
GOAL 11. TO HELP STUDENTS DEVELOP AN UNDERSTANDING OF THE WORLD OF WORK (cont.)

3. Students compete against middle-grade and high school students in contests that require the use of skills needed by workers in various occupational areas (e.g., forestry skills contest, computer skills contest).

Round two results:
Median = 3.0 (D)
*Middle range = 1.0-3.75 (VSD-D) -->
% indicated "Not Appropriate" = 9.1%

Comments from round two:
"Unfair competition."
"This level of competition is premature and unnecessary emphasis for young adolescents - each of whom needs to succeed often with success not coming at the expense of someone else."

GOAL 12. TO PROMOTE POSITIVE RELATIONSHIPS BETWEEN EARLY ADOLESCENTS AND ADULTS OUTSIDE THE CLASSROOM

1. Students participate in projects in which they work in local businesses.

Round two results:
Median = 4.0 (A)
*Middle range = 4.0-5.0 (A-SA) -->
% indicated "Not Appropriate" = 13.6%

Comments from round two:
"Apprenticeships for short terms are an excellent way for young adolescents to learn some of the activities of the adult world. They can also learn valuable lessons about what it means to be human by being an apprentice."
"Middle-level students are pretty young for this. Observe and participate, yes, but "work?"
"I feel ages 11-14 are inappropriate to be working in local businesses. Their main job "work" is school and, when not there, should be free to grow, relax, and develop their individual interests."

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "MA".

Continue as back of page.
### GOAL 16: TO HELP STUDENTS DEVELOP LEADERSHIP SKILLS

1. Students compete against middle-grade and high school students in contests that require the use of leadership skills (e.g., public speaking, parliamentary procedure).

Round two results:
- Median = 3.0 (D)
- Middle range = 3.0-4.0 (D-A)
- % indicated "Not Appropriate" = 9.1%

**Comments from round two:**
- "Again, as stated in a previous item, communication is the cornerstone to all human relations, leadership, cooperation, and societies, law and order."
- "Unfair competition."

### GOAL 17: TO HELP STUDENTS DEVELOP SELF-ASSESSMENT ABILITIES

1. Students monitor their own achievement.

Round two results:
- Median = 5.0 (A)
- Middle range = 4.25-5.75 (A)  
- % indicated "Not Appropriate" = 0%

No comments received for this item during round two.

### GOAL 18: TO HELP STUDENTS DEVELOP A SENSE OF RESPONSIBILITY

1. Students maintain equipment and facilities that are used as part of their educational activities at school.

Round two results:
- Median = 5.0 (A)
- Middle range = 4.0-5.75 (A-B)
- % indicated "Not Appropriate" = 0%

No comments received for this item during round two.

*The middle range includes those scores within the 25th to 75th percentiles. Your second round response is denoted by an "X" marked on the six-point response range scale or under "NA".*

Thank you for completing this questionnaire. Please return in the envelope provided.

Return to: Matthew Hughes  
Department of Agricultural Education  
250 Agricultural Administration Building  
2120 Pyfle Road  
Columbus, OH 43210-1099
JUSTIFICATION OF BOUND THRESH RESPONSES OUTSIDE THE MIDDLE RANGE
APPENDIX G

DEFINITIONS
Definitions

Basic academic skills - Skills that must be present in order for students to effectively communicate, understand scientific principles, and perform computations; e.g., mathematical abilities, language skills, science competencies, communication skills, etc.

Career-oriented education - Planned course work and activities designed specifically to provide students one or more of the following attributes: a) ability to assess occupational aptitude; b) entry-level job skills; c) practical skills; d) career awareness; e) knowledge needed to select future course work based on career interests; and f) opportunity to relate education to career roles

Career-oriented education programs - For the purpose of this study, include agriculture, business education, general career education, health occupations, home economics, marketing/distribution, technology education, and trade and industrial education

Community - The immediate area surrounding the school; may be a neighborhood, town, city, or county

Early adolescent - Individual approximately 10 to 15 years of age

Higher-order thinking skills - Skills needed in solving problems and making decisions through logical analytical processes; generally associated with abstract thought capabilities

Independent learning skills - Skills needed in order to learn one's own; skills needed in life-long learning

Leadership skills - Those skills needed to motivate, influence, and direct the actions of others

Middle grades - Generally considered to be grades six, seven, and eight; may include grades five and nine in some schools

Personal values - Values deemed personally important by the individual

Physical development - Development and maintenance of a healthy body and lifestyle

Practical skills and knowledge - Skills and knowledge which may be employed in common situations; e.g., basic home and mechanical repairs, skills related to family roles, financial management abilities, "life skills", etc.

Self-assessment abilities - Abilities needed to objectively evaluate one's own performance, strengths, and weaknesses

Social development - Development of the skills and knowledge necessary to function among other individuals in a socially acceptable manner; social maturation

World of work - General term that encompasses a wide array of aspects related to employment and employability skills including an awareness and understanding of various occupational areas, the roles and requirements of workers within occupational areas, etc.
July 25, 1992

Mr. Michael Flannigan
Lake City Middle School
Rt. 10, Box 1162
Lake City, Fl. 32355

Dear Mr. Flannigan:

Thank you for participating in the test/retest procedure. Enclosed is a second questionnaire - the retest - for you to complete. As indicated in my previous letter, I will correlate the responses on the first questionnaire with the responses on the second to determine reliability of the data provided. It is important that you fill out the second questionnaire as if you have no knowledge of the first.

Please return the questionnaire by August 10 in the envelope that is provided. Again, thank you for your assistance. If you have questions or comments, please call me at (614) 292-1354.

Sincerely,

[Signature]

Matthew Hughes
July 6, 1992

Mr. Keith Hatcher
3 Caroline Ave.
Lake City, FL 32355

Dear Mr. Hatcher:

Thank you for agreeing to participate in the test/retest of the enclosed survey instrument. The test/retest procedure is designed to estimate reliability of the data generated by survey instruments. The most reliable data are those from instruments which elicit the same or very similar responses from people over a period of time.

To conduct the test/retest procedure, I would like for you to complete the enclosed survey instrument and return it by July 20, 1992 in the envelope that is provided. About 10 days later, I will mail you another instrument to be completed and returned. It is important that you complete the second instrument as if you had no knowledge of the first. From this procedure, I will calculate the percentage of agreement between the two sets of responses. The higher the percentage, the greater the reliability of the data.

Again, I appreciate your help. If you have any questions, please call me at (614) 292-1354. I hope that you have a successful school year.

Sincerely,

Matthew Hughes
August 22, 1992

Dr. John Lounsbury
School of Education
Georgia College
Milledgeville, GA 31061

Dear Dr. Lounsbury:

Thank you for agreeing to participate in the study of career-oriented education in the middle grades. As indicated in our previous letter, the study will involve three steps. The enclosed survey instrument represents step one. You will be contacted later regarding the Delphi study which is step three.

The intent of step one is to identify major goals of middle-grade education. On the enclosed survey instrument are 15 goals that were identified from the literature. We ask that you indicate your level of agreement as to whether each goal should be a major goal of middle-grade education. Please return the survey instrument by September 3, 1992 in the envelope that is provided. If you believe that we have overlooked some important goals, please list them on the last page of the instrument.

As a result of step one, we hope to obtain a valid list of major goals of middle-grade education. In step two of the study, middle-grade teachers will identify career-oriented learning experiences and student activities that they perceive as promoting achievement of the goals. The goals are intentionally broad and general in order to allow for a wide range of responses from the teachers. The teachers' responses will comprise the Delphi instrument in step three.

Your assistance in this effort is greatly appreciated. We believe that the information provided by this study will be beneficial in developing career-oriented programs which serve the needs of early adolescents. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Matthew Hughes
Dept. of Agricultural Educ.  Dept. of Agricultural Educ.

Agricultural Communications  Extension Education  Teacher Education
August 22, 1992

Dr. William Alexander
1625 NW 19th Circle
Gainesville, FL 32605

Dear Dr. Alexander:

Thank you for agreeing to participate in the study of career-oriented education in the middle grades. As indicated in our previous letter, the study will involve three steps. The enclosed survey instrument represents step one in which you indicated that you would participate.

The intent of step one is to identify major goals of middle-grade education. On the enclosed survey instrument are 15 goals that were identified from the literature. We ask that you indicate your level of agreement as to whether each goal should be a major goal of middle-grade education. Please return the survey instrument by September 3, 1992 in the envelope that is provided. If you believe that we have overlooked some important goals, please list them on the last page of the instrument.

As a result of step one, we hope to obtain a valid list of major goals of middle-grade education. In step two of the study, middle-grade teachers will identify career-oriented learning experiences and student activities that they perceive as promoting achievement of the goals. The goals are intentionally broad and general in order to allow for a wide range of responses from the teachers. The teachers' responses will comprise the Delphi instrument in step three.

Your assistance in this effort is greatly appreciated. We believe that the information provided by this study will be beneficial in developing career-oriented programs which serve the needs of early adolescents. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Dept. of Agricultural Educ.

Matthew Hughes
Dept. of Agricultural Educ.
August 10, 1992

Dr. William Blank
University of South Florida
4202 Fowler Ave.
Tampa, FL 33620

Dear Dr. Blank:

The number of career-oriented programs, such as trade & industrial education, has increased at the middle-grade level in recent years, and this trend is expected to continue. For these programs to be effective, they must provide instruction that is appropriate for early adolescents. Because of the increased attention being focused on middle-grade programs, a need exists to identify career-oriented learning experiences and activities which are congruent with, and promote the achievement of, major goals of middle-grade education. To help meet this need, we are conducting a study in which we hope that you will play a significant part.

The study is comprised of three parts. To complete part two, we need to identify exemplary middle-grade trade & industrial education teachers. These teachers will be asked to identify learning experiences and activities in trade & industrial education which they perceive as being congruent with goals of middle-grade education. Obviously, we need input from the very best teachers; this is why we hope that you will assist us. We are asking that you identify up to 10 sixth, seventh, or eighth grade trade & industrial education teachers in your state that you would classify as exemplary middle-grade teachers. Exemplary teachers not only have a solid grasp on technical content and pedagogy, but also understand middle school philosophy and base instruction on the needs of early adolescents.

Please list the names and addresses of these teachers on the enclosed nomination form. Note on the form if there are no middle-grade teachers in your program area. Please return the form in the envelope that is provided by August 21, 1992. The code number on the nomination form will be used to identify nonrespondents.

We realize that your time is limited, however your input is essential to the success of this study. If you are unable to identify these exemplary teachers, please forward the nomination form to someone in your department who can. Your assistance will be greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Dept. of Agricultural Education

Matthew Hughes
Dept. of Agricultural Education

Enclosures
September 11, 1992

Dr. Eddie Butler  
Dept. of Ind. Ed. & Tech.  
Appalachian State Univ.  
Boone, NC 28608

Dear Dr. Butler:

You were recently mailed information regarding a study of career-oriented education at the middle-grade level (6th, 7th, 8th grades). As indicated in our previous letter, the success of this study depends upon input from exemplary middle-grade teachers. We need your help in identifying these teachers.

We ask that you list on the enclosed nomination form up to 10 teachers in your program area that you would classify as exemplary middle-grade teachers. These teachers should not only have a solid grasp on technical content and pedagogy, but also understand middle school philosophy and provide instruction based on the needs of early adolescents. Note on the form if there are no middle-grade teachers in your program area.

If you returned the first nomination form that was mailed, please accept our appreciation for assisting in this study. If you have not responded, please return the enclosed form by September 24, 1992 in the envelope that is provided.

If you have any questions regarding this study, please call Matthew Hughes at (614) 292-1354. Thank you for your help.

Sincerely,

R. Kirby Barrick, Chair  
Dept. of Agricultural Educ.  

Matthew Hughes  
Dept. of Agricultural Educ.
Dear Mr. Turner:

Thank you for agreeing to participate in the study of career-oriented education in the middle grades. As indicated in our previous letter, we need input from middle-grade teachers in two areas of the study. The enclosed survey instrument represents one of those areas. You will be contacted later regarding further participation if you indicated that you would serve on the Delphi panel.

The enclosed instrument is designed to identify activities and student learning experiences that promote the achievement of middle-grade education goals. Eighteen goals are listed on the instrument. We ask that you list under each goal activities and student learning experiences within your program area that you believe promote achievement of the goal. Include activities and experiences within student organizations as well as those that occur in the classroom and laboratory. The activities and experiences must be within your program area (e.g. agriculture, home economics, business, etc.), but do not have to be provided in your particular classes. Attach additional pages if necessary. Please return the instrument by October 21, 1992 in the envelope that is provided.

The activities and experiences that you identify on this questionnaire will be used to develop the Delphi instrument for the next part of this study. Therefore, it is important that your statements be very clear and specific.

Your assistance in this effort is greatly appreciated. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick, Chair
Dept. of Agri. Education

Matthew Hughes
Dept. of Agri. Education
Ms. Karen Hamilton  
Eisenhower Jr. High School  
7620 Big Bend Road  
Gibsonston, FL 33534  

Dear Ms. Hamilton:  

You were recently mailed a questionnaire regarding activities and learning experiences that promote achievement of middle-grade education goals. As indicated in our previous letter, your input is essential to the success of this study.  

If you have returned the first questionnaire that was mailed, please accept our appreciation and disregard this mailing.  
If you have not returned the questionnaire, please complete the one that is enclosed by Tuesday, October 27 and return it in the envelope that is provided. Your responses will be used to develop a Delphi survey instrument. Therefore, it is important that the activities and experiences that you identify be stated in very specific terms.  

If you have any questions, please contact Matthew Hughes at (614) 292-1354. Your participation in this study is greatly appreciated.  

Sincerely,  

R. Kirby Barrick  
Professor and Chair  

Matthew Hughes  
Graduate Research Associate
Mr. Steve Brokari
Price Middle School
Rt. 1, Box 15
Interlachen, FL 32048

Dear Mr. Brokari:

Thank you for agreeing to participate in the study of career-oriented education in the middle grades. Your input is very important. Because we are interested in your opinions, it is important that you not discuss your responses with other individuals, including those from your school or area who may also be serving on the Delphi panel.

The enclosed instrument represents round one of the Delphi procedure. On this instrument, you should rate the activities/learning experiences (items) based on the degree to which you believe that each promotes achievement of the middle-grade education goal under which it is listed. If you believe that an item is inappropriate for early adolescents, place a check mark in the space under the heading "not appropriate". An inappropriate item is one that is beyond the capacity of middle-grade students or places undue hardships on them because of the developmental characteristics associated with the early adolescence period. Please use no other criteria for determining the appropriateness of an item.

The items listed in the instrument were identified by career-oriented program teachers in middle-grade schools. Including extensive detail in each item is not possible. Obviously, there are many teaching techniques and learning experiences that could be included as part of an item that would not be effective or appropriate for middle-grade students. Therefore, you are encouraged not to "read more into" a statement than exists. Assume that each activity/experience occurs within the context of middle-grade education or among middle-grade students unless otherwise stated. Certain passages in items have been underlined as a means of highlighting differences in similar items; no other intent is implied. Please read the instructions and definitions prior to responding to the survey instrument.

Because of the time frame and nature of this study, there will be no follow-up contact of nonrespondents. Returning the completed instrument promptly is very important.

Please return the round one instrument by December 1, 1992 in the envelope that is provided. Median scores, quartile ranges, and panelists' comments will be reported to you during round two. Round two will provide an opportunity for you to rethink your position on each activity/experience based on the responses of the entire Delphi panel.

Again, thank you for participating in this study. If you have questions, please call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick
Professor and Chair

Matthew Hughes
Graduate Research Associate

Agricultural Communications • Extension Education • Teacher Education
Thank you for responding to round one of the Delphi study. Enclosed is the round two instrument. As you complete the second round instrument, keep in mind the intent of the Delphi technique and the purpose of the study.

The Delphi technique is aimed at generating consensus opinion. Greater consensus is gained as the panelists' responses move closer to the median during succeeding Delphi rounds. You should read the panelists' comments and consider your responses in relation to the median and the middle 50% of responses (the 25th to 75th percentiles). If your first round response on an item is outside the middle range, you should alter your position in round two to within the range or provide your reasoning for not doing so. Your comments will be useful to other panelists as they consider their round three responses. Should a third round be necessary, do not move your response to within the middle range if you believe that there is sufficient reason for not doing so. Think of the Delphi as a group discussion conducted through the mail for the purpose of arriving at agreed upon positions.

As indicated in previous correspondence, the purpose of the study is to identify activities and learning experiences in career-oriented programs that are appropriate for early adolescents and that promote achievement of middle-grade education goals. All items on the instrument are not specific to the world of work, but all were identified by teachers as taking place within middle-grade career-oriented programs. The goals were identified from related literature and validated by individuals recognized as scholars in early adolescent education. Assume that each activity/experience occurs within a middle-grade setting or among middle-grade students unless otherwise stated. Do not answer the items as they apply only to your school, but to the degree to which they promote the goals under which they are listed.

Note the percentage of "Not Appropriate" responses for each item, and keep in mind that they do not figure in with the median and percentile calculations. The median response could be relatively high, and yet there may be many panelists who indicated that the activity/experience is not appropriate.

Because of the nature of this study, there will be no follow-up contact of nonrespondents. Returning the completed instrument promptly is very important.

Please remember to mark your response on the scale printed in bold letters adjacent to each item. Respond to all items regardless of your first round response. Return the completed instrument by December 21 in the envelope that is provided.

Again, thank you for participating in this study. If you have any questions, call Matthew Hughes at (614) 292-1354.

Sincerely,

R. Kirby Barrick
Professor and Chair

Graduate Research Associate
Ms. Susan Spicer Gantt  
Alexander Central High School  
241 School Ave.  
Taylorsville, NC 28681  

Dear Ms. Gantt:

Thank you for responding to round two of the Delphi. You have contributed much  
time and effort to this study, and your willingness to participate is greatly  
appreciated.

Enclosed is the FINAL round instrument. You will notice that it contains  
considerably fewer items than did the previous instruments. These items are those  
for which there was less consensus among the round two panelists (consensus being  
indicated by the range of responses or the number of "not appropriate" responses).  
Because generating consensus opinion is the intent of the Delphi technique, you  
are asked to review each item and consider marking your round three response  
within the middle range of responses from round two. Your round two response for  
an item is highlighted in yellow on the instrument if it is outside the middle  
ranges (25th to 75th percentiles) of responses. Greater consensus is achieved the  
closer the responses are to the median score. Mark your responses, same as the  
median only if you agree with the median response. Do not change your answer  
if you feel justified in not doing so. You may provide comments to indicate your  
reasoning regarding any response.

Please read the round two comments listed below corresponding items prior to  
marking your response. The comments listed on the instrument are representative  
of those received from all round two panelists.

Note the percentage of "Not Appropriate" responses for each item, and keep in mind  
that they do not figure in with the median and percentile calculations. The  
median response could be relatively high, and yet there be many panelists who  
indicated that the activity/experience is not appropriate.

Please remember to mark your responses on the scale printed in bold letters  
adjacent to each item. Respond to all items regardless of your second round  
response. Return the completed instrument by January 15 in the envelope that is  
provided.

Again, thank you for participating in this study. You will receive a summary of  
the results in a few weeks. If you have any questions, call Matthew Hughes at  
(614) 292-1354.

Sincerely,

R. Kirby Barrick  
Professor and Chair

Matthew Hughes  
Graduate Research Associate
APPENDIX I

TEACHER NOMINATION FORMS
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<td><strong>Name of Teacher</strong></td>
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Code _______

I. Please indicate your decision regarding participating in this study.

   ____ I will participate in the study.
   ____ I will not participate in the study.

II. Please list below the names of up to five exemplary middle-grade teachers in core subject areas (language arts, social studies, science, mathematics, history) from your school.

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<thead>
<tr>
<th>Name</th>
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Please return this form by September 23 to:

Matthew Hughes
The Ohio State University
Department of Agricultural Education
250 Agricultural Administration Building
2120 Fyffe Road
Columbus, OH 43210-1099
APPENDIX J

DELPHI PANELISTS
Scholars Selected to Serve as Delphi Panelists

Edward Brazee  
University of Maine  
Orono, ME

Charlene Carper  
Bedford, NH

Thadeus Dumas  
CA Department of Education  
Sacramento, CA

Betty Edwards  
Kentucky Department of Education  
Frankfort, KY

Donald Eichhorn  
Lewisburg, PA

Thomas Erb  
University of Kansas  
Lawrence, KS

Thomas Gatewood  
VPI & State University  
Blacksburg, VA

Judith Irvin  
Florida State University  
Tallahassee, FL

Deborah Kasak  
University of Illinois  
Champaign, IL

Tedd Levy  
Nathan Hale Middle School  
Norwalk, CT

Larry Lewis  
Mansfield City Schools  
Mansfield, OH

Richard Lipka  
Pittsburg State University  
Pittsburg, KS
Scholars (cont.)

John Lounsbury
Georgia College
Milledgeville, GA

Ken McEwin
Appalachian State University
Boone, NC

Santo Pino
Collier County Public School
Naples, FL

Greg Stefanich
University of Northern Iowa
Cedar Falls, IA

Chris Stevenson
Shelburne, VT

Gordon Vars
Kent State University
Kent, OH
Career-program Teachers Selected
to Serve as Delphi Panelists

Agriculture

Steve Broker
C.H. Price Middle School
Interlachen, FL

Susan Spicer-Gantt
Alexander Central High School
Taylorsville, NC

Mark Strohschein
Lombardi Middle School
Green Bay, WI

Business

Douglas Peck
Braden River Middle School
Bradenton, FL

General Career Education

Beth Talley
Broward County Schools
Ft. Lauderdale, FL

Chuck Holdsworth
Sun Valley Middle School
Matthews, NC

Carolyn Watford
G.R. Whitfield School
Grimesland, NC

Health Occupations

Claudette Flesch
Greenwood Lakes Middle School
Lake Mary, FL

Marjorie Stuckey
Ridgeview Jr. High School
Orange Park, FL
Career-program Teachers (cont.)

**Home Economics**

Fredna Carter  
Pinellas Park Middle School  
Pinellas Park, FL

Jane Everson  
City Middle School  
Neilsville, WI

Janet Powell  
Orchard Ridge Middle School  
Madison, WI

**Technology Education**

John Dubose  
Indiantown Middle School  
Indiantown, FL

Frank Johnson  
Sligh Middle School  
Tampa, FL
Core Teachers Selected to Serve as Delphi Panelists

**Computer Science**

Jim Ersig  
Sherman Middle School  
Madison, WI

**General (all subject areas)**

Jane Fazio  
Waunakee Middle School  
Waunakee, WI

**Geography**

Gloria Syring  
Bonita Springs Middle School  
Bonita Springs, FL

**Guidance**

Chris Smith  
Ft. Myers Middle School  
Ft. Myers, FL

**History**

Steve Schmikla  
Indian Mound Middle School  
McFarland, WI

George Mello  
Gulliver Academy  
Coral Gables, FL

**Language Arts**

Chrisione Aguando  
Gulliver Academy  
Coral Gables, FL

Peg Blaska  
DeForest Middle School  
DeForest, WI
Core Teachers (cont.)

**Language Arts (cont.)**

Kelli McAdams  
North Davidson Middle School  
Lexington, NC

**Mathematics**

Sandy Giovetti  
Waunakee Middle School  
Waunakee, WI

Anthony Navetta  
Loggers' Run Middle School  
Boca Raton, FL

**Reading**

Cheri Andrus  
Whitefish Bay Middle School  
Whitefish Bay, WI

Joy Rabin  
Coral Springs Middle School  
Coral Springs, FL

**Science**

Thomas Day  
Seymour Middle School  
Seymour, WI

Charles Hatley  
North Davidson Middle School  
Lexington, NC

Charles Whitaker  
C.H. Price Middle School  
Interlachen, FL

**Social Studies**

Kathy Noebel  
Horace Mann Middle School  
Sheboygan, WI

Abby Wessly  
Loggers' Run Middle School  
Boca Raton, FL
Principals Selected to Serve as Delphi Panelists

Florida

Howard Alred
C.H. Price Middle School
Interlachen, FL

Barbara Boling
Gulliver Academy
Coral Gables, FL

Judi Hughes
Ft. Myers Middle School
Ft. Myers, FL

Juanita Lampi
Loggers' Run Middle School
Boca Raton, FL

Frances Vandiver
Coral Springs Middle School
Coral Springs, FL

North Carolina

Steve Teague
North Davidson Middle School
Lexington, NC

Wisconsin

Jerry Adrian
Indian Mound Middle School
McFarland, WI

Robert Battisti
Seymour Middle School
Seymour, WI

Warren Brewer
Horace Mann Middle School
Sheboygan, WI

John Daly
Sherman Middle School
Madison, WI
Principals (cont.)

Roger Noe  
Spooner Middle School  
Spooner, WI

Jack Pautz  
Electa Quinney Middle School  
Kaukauna, WI

Cathy Pomaranski  
Kettle Moraine Middle School  
Dousman, WI

Peg Reinert  
DeForest Middle School  
DeForest, WI

JoAnn Truss  
Whitefish Bay Middle School  
Whitefish Bay, WI

Donald Van Buskirk  
Elmbrook Middle School  
Elm Grove, WI

Shelly Weiss  
Waunakee Middle School  
Waunakee, WI
APPENDIX K

INFORMATION LETTER TO DELPHI PANELISTS
November 2, 1992

Mr. Steve Broker  
Price Middle School  
Rt. 1, Box 15  
Interlachen, FL 32048

Dear Mr. Broker:

Thank you for agreeing to serve as a Delphi panelist in the study of career-oriented education in the middle grades. Your input is very important to the success of this study.

Over 300 individuals were nominated to participate in the study. However, only 67 were selected to serve on the Delphi panel. Your nomination and selection for this panel are indicative of your reputation and exemplary work in middle-grade education. We wish you continued success in your efforts.

Enclosed is a brief description of the study and the Delphi technique. Up to three rounds of the Delphi will be used; round one will be mailed to you in approximately two weeks. If you have any questions regarding this study, please call Matthew Hughes at (614) 392-1354.

Sincerely,

[Signature]
R. Kirby Barrick  
Professor and Chair

[Signature]
Matthew Hughes  
Graduate Research Associate
APPENDIX L

DESCRIPTION OF THE STUDY
DESCRIPTION OF THE STUDY

Introduction

The number of career-oriented education programs (agriculture, business, general career education, health occupations, home economics, marketing/distribution, technology, trade and industrial) has increased at the middle-grade level in recent years, and this trend is expected to continue. However, career-oriented programs have been criticized for not meeting the educational needs of early adolescents.

Educators have the opportunity to develop exemplary career-oriented programs that are based on the needs and characteristics of early adolescents. To develop these programs, goals of middle-grade education must be defined along with activities and learning experiences that promote achievement of those goals.

Objectives of the Study

Objectives of the study are:

1. to identify major goals of middle-grade education as perceived by scholars of early adolescent education; and
2. to identify activities and learning experiences in career-oriented program areas perceived as promoting achievement of major goals of middle-grade education by middle-grade core subject teachers, career-oriented program teachers, principals, and scholars of early adolescent education.

Procedures

The study involves three steps, two of which have already taken place. Step one was the identification of goals from the literature and the validation of those goals by scholars of early adolescent education as worthy of being considered major goals of middle-grade education. Step two was the identification of activities and learning experiences in eight career-oriented program areas perceived by exemplary middle-grade teachers in those areas as promoting achievement of the goals identified in step one. Step three will include a modified Delphi technique in which a panel of individuals recognized for their expertise in
middle-grade education will indicate their level of agreement as to whether each of the activities/learning experiences identified in step two is appropriate for early adolescents and actually promotes achievement of the goal under which it is identified.

The Delphi Technique

The Delphi technique is a procedure that is used in soliciting and refining group opinion. The technique was developed by the Rand Corporation in the early 1950s as a tool for forecasting military events and is used primarily with a group of experts or especially knowledgeable individuals. The rationale on which the Delphi technique is based is the old adage that "two heads are better than one" when the issue or decision is one for which exact knowledge is not available (Dalkey, 1969).

The Delphi technique attempts to overcome weaknesses of data generated through use of a single expert, one-shot group averages, and face-to-face interactions. Psychologists report that major drawbacks of face-to-face interactions in groups include:

1. influence of a dominant individual;
2. "noise" - irrelevant or redundant information that is focused on group and individual interests rather than problem solving; and
3. group pressure that influences compromise from group members (Dalkey, 1967).

According to Dalkey (1967), "the Delphi procedures have been designed to reduce the effects of these undesirable aspects of group interaction. The procedure has three distinctive characteristics: a) anonymity, b) controlled feedback, and c) statistical 'group response'" (p. 3). Anonymity reduces the effect of a dominant individual in a group. Anonymity of Delphi study participants is assured by the participants providing separate and private responses to questions. Controlled feedback reduces noise. Over the several iterations (rounds) common in a Delphi study, results of the previous iteration are reported in summarized form to the participants (Dalkey, 1967). By substituting a statistical group response for an agreed-upon majority position, pressure for compromise to the majority is reduced, and large groups of people are not required to convene (Rasp, 1973).
Linstone and Turoff (1975) identified four aspects common to most Delphi studies:

1. an assessment of group judgement;
2. some form of feedback of individual responses;
3. an opportunity for individuals to revise their responses; and
4. a degree of anonymity for respondents.

A statistical index is used to represent group opinion in a Delphi study. According to Dalkey (1967), the median of individual responses is the most useful index. The median responses from previous Delphi rounds are reported to study participants in succeeding rounds; those participants whose responses are in the top or bottom quartiles (outside the range of majority responses) with respect to the entire range of responses are requested to provide written comments justifying their positions or else change their position to the majority. The comments are edited by the researcher and reported to the study participants in the following round (Dalkey, 1969).

By reporting the median responses, there is no attempt to arrive at unanimity among respondents; a spread of opinions is normal on the final Delphi round. If the range of responses includes the true answer, generally the median is closer to the true answer than more than one-half of the responses (Dalkey, 1967).

A modified Delphi technique will be used in this study. Depending on the range of responses, up to three Delphi rounds will be used. Following is a brief description of the steps involved.

**Round One**

Panelists will rate the activities/learning experiences on a Likert-type scale based on the degree to which they perceive each as being appropriate for early adolescents and as promoting achievement of major goals of middle-grade education. Median responses will be calculated and reported to the panelists in round two.

**Round Two**

Panelists will rate the activities/learning experiences on a Likert-type scale based on the degree to which they perceive each as being appropriate for early adolescents and as promoting achievement of major goals of middle-grade education. Those panelists whose round one ratings are outside the range of the majority responses (the second and third quartiles) will be instructed to either alter their position to the majority range or to provide written justification for not doing so. Written comments will be
compiled and reported to the panelists in round three along with the median responses and quartile ranges from round two. The comments serve to provide panelists information on which to re-think their responses.

**Round Three (if necessary)**
Panelists will rate the activities/learning experiences on a Likert-type scale based on the degree to which they perceive each as being appropriate for early adolescents and as promoting achievement of major goals of middle-grade education. Those panelists whose round two ratings are outside the range of the majority responses (the second and third quartiles) will be instructed to either alter their position to the majority range or to provide written justification for not doing so. A summary of results will be provided to panelists following the final round.

**REFERENCES**


REFERENCES


