High schools today face problems of culturally diverse student populations, diversity of student learning styles, and a growing public perception that high schools do not adequately prepare their graduates for either work or college. This paper offers an extensive review of literature on block scheduling as well as a handbook for gaining support for implementing block scheduling at a 4-year high school. It provides tips for moving to a schedule of 90-minute block classes that provide the time needed for student-centered instruction, which is essential for meeting the needs of students in today's global society. The handbook is comprised of six sections, the first of which contains an annotated bibliography of five items—a journal article and four Educational Resources Information Center (ERIC) documents on block scheduling. Sections 2 through 5 present strategies for building support among the teaching staff, students, parents and community members, and the school board. A chronology of steps and a timeline for block scheduling are provided in the sixth section. (Contains 47 references.) (LMI)
IMPLEMENTATION OF BLOCK SCHEDULING
IN A FOUR-YEAR HIGH SCHOOL:
A LITERARY REVIEW AND A HANDBOOK
FOR ADMINISTRATORS, TEACHERS
AND PARENTS

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INTRODUCTION

Today, as America nears the beginning of the twenty-first century, changes are occurring at a pace unparalleled in our history (Gainey, 1994), and are forcing our institutions to change paradigms or face dire consequences (Daggett, 1992). In recent years, for example, many American businesses have finally adopted the Total Quality Management principles of W. Edwards Deming which have been used with great success by the Japanese since the end of World War II to build an industrial base that today ranks among the most productive and competitive in the world (Weaver, 1992). Additionally, the continual and rapid development of information technology, particularly computers, satellites and fiber-optics, have forced most companies to continually upgrade hardware, software and their employee training programs, just to remain competitive in their industry (Daggett, 1992). Likewise, education has not been exempt from the pressure to change its paradigms. Over the past two decades, tremendous time, effort and money have been expended in an attempt to improve our schools (Adams & Bailey, 1993), but unfortunately, most of these efforts have been superficial attempts to address the needs of an increasingly pluralistic society without changing the basic beliefs or practices of the institution.
The typical high school, for example, still operates on an instructional model that was implemented during the Industrial Age with a school calendar that is a relic from the earlier agrarian period (Gainey, 1994). While other professional fields have faced change by using the latest technologies and adopting new paradigms, American high schools have essentially maintained the status quo, with their paradigms unaltered for over thirty years (Wagschal, 1994). The student body being served by our high schools during this time, however, has changed (Balser, 1991; Oberg, 1994), as have the post-graduate skills needed by a business community that is desperately trying to stay competitive in a growing global economy (Daggett, 1992; McCoy & Reed, 1991). The disparity between the education high schools today are providing their students and what the students actually need continues to become more apparent to those who have studied the problem. Chinien and Boutin (1991), for example, state that average scores of present-day high school students on achievement tests fall below those of comparable students of twenty-six years ago. Negroni (1990) reports that our nation's literacy rate stands at 85% and is on the decline, and according to Cawelti (1994), universities and employers alike have documented the weaknesses in writing, speaking and computing skills of high school graduates and are having to resort to remedial classes and training programs to address the problems at their level. Sizer (1983) claims that the present structure of high schools is dysfunctional with too much emphasis on memorization and too little on students being actively
involved in their learning. This assertion is supported by Goodlad (1983) who has found that teaching and learning in high schools throughout the country is characterized by the sameness of teacher-dominated classes in which student recall and memorization are emphasized at the expense of inquiry and problem-solving. A study conducted by Gerstle and French (1993) led to findings that almost 60% of a student's classroom time is spent listening to a teacher, while less than 1% is dedicated to answering questions or solving problems requiring complex responses or thought. Adams and Bailey (1993) contend that most reform efforts up to this point have concentrated on trying to repair an educational paradigm that is obsolete. Glasser (1990) maintains that it is time to get rid of the present educational model and replace it with one that will better meet the needs of today's students. This, according to Cawelti (1994), will require high schools to implement fundamental changes in their expectations, content taught and student learning experiences to create a curriculum that is applicable to the students and world of tomorrow.

The first purpose of this paper was to develop a related literature review on block scheduling. A second purpose was to develop a handbook on the steps and procedures to follow in gaining support of staff, students, parents, community and the local school board for the implementation of block scheduling at a four-year high school. This handbook will be used as a resource by local administrators and other interested professional educators who are attempting to shift the paradigms of their high schools
by using ninety-minute block classes to provide the time needed for student-centered instruction that is essential for meeting the needs of today's students in a global society.

**REVIEW OF RELATED LITERATURE**

High schools today, that are unable or unwilling to change their paradigms, face a growing number of problems. These include student populations that are becoming more culturally diverse (Keedy, 1992), students who possess a variety of preferred learning styles (Dunn & Dunn, 1979; Sandhu, 1994), and a growing perception by many people, including leaders in business and higher education, that high schools are not adequately preparing their graduates for either work or college (Cawelti, 1994).

**Culturally Diverse Student Populations**

One of the problems that high schools face is a student body that is becoming increasingly more culturally diverse (Oberg, 1994). According to Balser (1991), this growing diversity spans not only the racial and ethnic differences among students but also encompasses differences in their family structures and socioeconomic status. For example, Olsen (1965) maintains that children born and reared in a lower class environment, regardless of race, find the middle class culture of our schools alien and irrelevant to their lives. These students do not value the competition and scholastic achievement implicit in achievement tests or the goals of most schools. Coming from working class and welfare families, in which they are taught
to share their material things and the economic responsibilities of the family, these students have developed a sense of cooperation which is lacking in most classrooms, and yet, they comprise the largest and fastest growing demographic group in our nation's schools (Negroni, 1992). Historically, Keedy (1992) points out that the family structure is being replaced by one in which 60% of today's five-year-olds will live in a single-parent home by the time they reach age eighteen, with their mother being the primary provider 90% of the time. According to Hargreaves (1995), the breakup of the nuclear family is simply a symptom of a post-modern culture in which parents have increasingly given up responsibility for things they want schools to stress. Examples of this paradox include: parents who overwhelmingly support "zero tolerance" policies against violence at school while allowing their children to make the violent and graphic "Mortal Combat" the top selling video game in America or parents who demand that schools produce more literate graduates while allowing their children to sit in front of a television for hours on end. Finally, racial-ethnic minority populations in schools continue to grow to the point that minorities will comprise over 50% of all school-age children by the year 2000 (Oberg, 1994). It is, therefore, imperative that schools begin to accommodate and respect the unique cultural perspective that each of these students will possess when he or she arrives on campus.

**Learning Styles of a Diverse Student Body**

Contrary to a popular belief that still exists among many educators,
students do not necessarily learn better if they are: "(a) seated upright in a
desk (b) placed in an absolutely quiet environment (c) studying in a well-
iluminated area (d) sitting still (e) participating in whole-group instruction
(f) self-motivated" (Dunn & Dunn, 1987, p. 56).

In a recent attempt to define "learning style", Dunn & Dunn
(1992) state that "learning style is a biological and a developmental set of
personal characteristics that make the identical instruction effective for
some students and ineffective for others" (p. 4). Several years prior to this,
Keefe (1979), in his writings, defined learning styles as "characteristic
cognitive, affective and physiological behaviors that serve as relatively
stable indicators of how learners perceive, interact with and respond to the
learning environment" (p. 4). Further review of the literature on learning
styles reveals a plethora of classifications, concepts and definitions that are
both interchangeable and sometimes confusing (Sandhu, 1994). Although
other learning modalities exist which affect student learning, this discussion
has been limited to learning styles which are culturally specific and those
which are cognitive in nature.

Sandhu (1994) contends that all cultures, communities and families
can be divided into two major learning dimensions: those with traditional
environments and those with modern environments. Each dimension has a
world-view and value system that differs from the other. The traditional
environment promotes:

(a) gender roles which are distinct and well defined
(b) strong family identities (c) a strong sense of community
(d) strong ties to the past (e) association of advancing age
with wisdom (f) placing great value on traditional ceremonies
(g) having respect for authority (h) placing an emphasis on
spirituality in life events. (p. 8)

The modern environment, on the other hand, promotes:

(a) gender roles with flexible boundaries (b) strong
individual identities (c) an emphasis on individuality
(d) an orientation toward the future (e) valuing the vitality
of youth (f) viewing traditions as barriers to progress (g) the
questioning of authority (h) an emphasis on science and
secularism. (p. 8)

The values listed for the modern environment are typically
subscribed to by Euro-American cultures while those of the traditional
environment are indicative of values subscribed to by most other cultures
in the world (Sandhu, 1994). These differences may account for students
from traditional environments never questioning a teacher when unsure
about an answer to a question or in not taking an interest in a subject that
prepares one for a profession that is dominated by the opposite sex.

Cultural differences, however, are not the only factors affecting student
learning. Messick (1976) asserts that "every individual has preferred ways
of organizing all that he sees and remembers and thinks about. Consistent
individual differences in these ways of organizing and processing
information and experience have come to be called cognitive styles" (pp. 4-5).

In a study of these cognitive styles, Witkin (1977) and his associates found that there are two types of individuals: namely those who are field independent and those who are field dependent. The results of their study showed that field independent individuals approach the environment analytically while field dependent individuals tend to experience events globally. The characteristics of these two cognitive styles are compared by Anderson (1988) in the context of school tasks and environment. He has found field dependent individuals to be global thinkers, good listeners, affected strongly by human events, easily swayed by the opinions of those they see as authority figures and as having a learning style that does not match the methods of teaching used in most schools today. By comparison, he has found field independent individuals to be analytical thinkers who are capable of handling material well that is impersonal, are able to see the individual parts of a larger problem, are not affected by what others may say or think of them and who have a learning style that matches up well with the competitive nature of schools.

Reiff (1992) maintains that although most educators are aware of these differences in the way students think and act, they refuse to acknowledge or to accommodate for individual learning styles or cultural uniqueness of students in their schools (Keedy, 1992). Studies conducted on learning styles support the contention that students learn and retain
information better when teaching strategies are used that cater to their preferred style of learning (Dunn & Dunn, 1979; Reiff, 1992; Sandhu, 1994).

In one of these studies, Sandhu (1994) sought to determine if significant differences in learning styles existed among four ethnic groups who resided in Southern Louisiana. A learning styles inventory (LSI) was administered to 35 Acadian-American, 20 Euro-American, 20 African-American and 21 Native-American adolescents. Profiles of each of the four groups, developed from the LSIs, indicated that significant differences in learning styles between the four groups did exist. For example, Acadian-Americans (Cajuns) were found: to be non conforming and resistant to doing things just because someone asked them, to prefer to study in the late afternoon, and to like frequent breaks while involved in a task. African Americans were found: to learn best when having first listened to a verbal instruction such as a lecture, to be highly tactile with a need to keep their hands busy while thinking, and to feel most comfortable when someone with authority was present. Euro-Americans were found: to prefer to study during the evening hours, to be strong visual learners, to prefer studying with their peers, and to like variety as opposed to routines. The Native-American's profile indicated that these students preferred: surroundings that were quiet, warm and informal, working to complete a task, once started, without taking a break, and to study in the late morning. These findings and those of similar studies should make it apparent that
when teachers present materials to their students using only one teaching strategy, they may severely hinder their academic achievement (Campbell, 1990; Gerstle & French, 1993).

**Student School-to-Work Skills**

High schools also face accusations that their curriculum is rapidly becoming obsolete in a technology-driven, information-age society. Both Daggett (1992) and McCoy and Reed (1991) have found that today's high school graduates do not possess the skills, knowledge or social acumen essential for success in the workplace they seek to enter. A high school curriculum that met the school-to-work needs of past generations of students is not meeting the needs of the present generation (Daggett, 1992; Kearns, 1993; McCoy & Reed, 1991). Daggett (1992) claims that the gap between the skills high school graduates possess and the skills needed by employers is the largest it has ever been, despite over ten years of reform efforts and proposes that the following actions be taken by high school administrators to establish a curriculum that promotes a school-to-work system:

(a) develop an awareness program to create understanding of the need for change in what is taught in our schools
(b) make a commitment to ongoing research on the identification of skills, knowledge and behaviors needed for adult roles (c) reorganize all curricula on a continuum from simple to complex using some type of taxonomy such as
Bloom's (d) reorganize the delivery of instruction so that students become active participants in the learning process rather than passive learners, and change the role of the teacher from disseminator of information to manager of the instructional process (e) move towards the integration of relevant academic and vocational skills into applied academic curriculum (f) use the applied academics program for all students, not just for those who may not move on to higher education (g) broaden the methods used in teaching to accommodate for the variations in student learning styles (h) provide opportunities for students to combine work experience and education as a means of career planning and decision making (i) make a major commitment to ongoing staff development. The new curricula and delivery methods being promoted are fundamentally different from those teachers are using now--without staff development, there is little progress towards excellence in education. (p. 15)

Thus, our high schools stand at a crossroads: they either continue along the same path with its inherent and growing problems, or they veer in a new direction that will lead to real change and restructured schools that meet the needs and demands of today's students and society. These changes will have to include and expansion in the delivery of the curriculum in terms of teaching strategies (Sidler, 1993) and in getting
away from the traditional Carnegie Standard Unit class schedule which still prevails in most American high schools (Canady & Rettig, 1993; Carroll, 1994; Hart, 1994).

**Student-Centered Instruction**

If teachers are to become more effective in addressing the diverse learning styles of their students, they will have to quit relying upon the teacher-centered lecture and begin using a greater variety of teaching strategies (Dunn & Dunn, 1979; Sandhu, 1994; Thurston, 1983). Gerstle and French (1993) have found that when students are provided opportunities to learn across all dimensions of intelligence and development, academic achievement is enhanced. Sidler (1993) advises that the curriculum of schools must reflect the multicultural origins of their students, and teachers must understand the cultural styles of their students, becoming proactive in accommodating students whose values and needs differ from the mainstream (Sandhu, 1994).

A way in which this can be accomplished is by providing student-centered activities which allow teachers to address individual differences and teach high-content material that meets the needs of an academically, linguistically and culturally diverse classroom (Gerstle & French, 1993). Adams and Bailey (1993) state that it is important that teachers use strategies that allow students to take an active role in their own learning, because such involvement promotes lifelong learning which, according to Cawelti (1994), will be required of a future workforce that will have to
adapt to changing job requirements.

One particular teaching strategy that appears to offer a solution to meeting some of these needs is cooperative learning. A study was conducted by Stokes (1991) to determine if cooperative learning methods in the classroom enhanced student achievement in mathematics. The sample population consisted of 204 third-grade students who were randomly assigned to cooperative or traditional learning groups. Both groups were then exposed to the same content and provided equal instructional time. An independent t-test indicated a significant difference in mathematics achievement among both high-level and low-level third-grade African-American and European-American students taught using the cooperative learning method when compared to those taught using the traditional method. The findings of the study lead to three conclusions: (a) cooperative learning methods used as a central feature of instruction enhances students' achievement (b) cooperative learning methods have positive effects on students' attitudes toward school and (c) cooperative learning methods are just as effective for low achievers as high achievers.

In another study, concerned with the effects of a cooperative learning program on the academic self-concept of high school chemistry students, Zisk (1994), using 49 students from two of his classes, taught twenty-four students in one class for ten weeks using the Johnson and Johnson cooperative learning model while teaching twenty-five students in another class the same subject matter using a traditional teaching strategy in
which no student-to-student learning interaction was allowed. The findings of the study indicated students' sense of academic self-concept was significantly greater after exposure to cooperative learning teaching strategies when compared to students exposed to a traditional teaching strategy. Additionally, an investigation of the students' academic achievement, through analysis of their test scores, demonstrated a significant ($p < 0.001$) improvement in test scores of the cooperative learning group.

Anderson (1988) and Sandhu (1994), in other studies, have found that many minority students tend to have field dependent cognitive styles and perform better as cooperative learners, and Yopp (1994) asserts that cooperative learning stands above all other strategies in improving intergroup relations.

According to Newmann (1991), authentic methods of instruction also promote student-centered learning. They are defined as "methods that require students: (a) to produce (not just reproduce) knowledge relevant to their lives through disciplined inquiry and (b) to achieve in ways that are of value to them and society" (p. 458). The ultimate goal is for students to not only learn but also to begin developing habits which enable them to know how to use both the knowledge they have acquired, or will acquire, to solve future problems they face. Wiggins (1993) defines authentic tasks as "engaging and worthy problems or questions of importance, in which students must use knowledge to fashion performances effectively and
creatively and that resembles the real-life tests of adult life" (p. 206). Designed to challenge students to examine curricular topics in depth, authentic methods of instruction include such activities as: letter-writing on real-life issues, group problem-solving sessions, debates, designing and conducting surveys, delivering speeches and writing reflective journals about their own work (Duis, 1995). According to Burke (1993), these types of assignments are desirable because they "help students to develop and enhance communication, technical, interpersonal, organizational, problem-solving and decision-making skills that are necessary for success in the information age of the 1990's and beyond" (p. 73). To effectively incorporate many of these kinds of strategies, however, will be difficult so long as schools continue to operate on forty-five minute, six-period-a-day schedules which, according to Sizer (1984), makes a student's time at school too fragmented and rushed to truly examine any single aspect of the curriculum in depth.

Block Schedules to Improve Learning

To implement cooperative learning, authentic methods of instruction and other student-centered strategies will require a change in school organization. The traditional six or seven-period-a-day schedule of most high schools precludes the use of cooperative learning and other teaching strategies which require more time to be carried out than can be provided in a fifty-minute class (Duis, 1995; Gerstle & French, 1993) and according to Cawelti (1994), it discourages in-depth study or analysis of a subject and
higher-level thinking activities. In the final analysis, the Carnegie structure of scheduling several classes a day for periods of fifty minutes or less has become a system in which teachers and students cannot teach and learn effectively (Carroll, 1994).

Today, a number of high schools across the nation have turned to block scheduling to provide the time needed to carry out student-centered learning. A major advantage of ninety-minute block classes is that teachers can use a variety of activities within a single class period (Carroll, 1994). Longer blocks of time in a single class period also provides the time needed to extend students' thinking beyond lower-level cognitive activities by allowing the time needed for in-depth discussions that are necessary for development of higher-order thinking skills (Thurston, 1983). According to Duis (1995), most teachers have had the bell interrupt good student thought which was finally achieved in the last minute of a forty-five minute class. In schools where total teaching is used, block classes allow teachers the flexibility to schedule the school day and week to best suit the needs of students, and it ensures an uninterrupted block of time each day for interdisciplinary courses and activities (Cawelti, 1994). Teachers can get to know their students better since they will see fewer students each day (Kadel, 1994), and the findings of one study suggests that block scheduling decreases disciplinary referrals (Hinman, 1992). Thus, schools seeking to alter their instructional paradigms should consider implementing block scheduling.
Implementation of Block Scheduling

For successful implementation of block scheduling to take place, a number of steps will have to be taken (Strock & Hottenstein, 1994). Prior to implementing a plan of action, however, school leaders should first study the available literature on school reform, student learning styles, and block scheduling to inform themselves as much as possible about the change they are considering and to ensure that the merits of the block schedule are based upon solid research findings which will support the change (Carroll, 1994). Once that has been accomplished, they must then develop a strategic plan to gain support of the various stakeholders in their school district.

First and foremost, administrators must seek to gain the support of their instructional staff if they are to have any chance in successfully implementing block scheduling or any other change which will require teachers to alter their teaching behaviors (Carroll, 1994). Among the ways in which this can be accomplished is to provide release time for teachers who will be asked to take part in the study and planning phase (Sidler, 1993), and by providing quality staff development training for teachers who will have to alter their instructional methods (Carroll, 1994).

Involving parents and the community in the change process is also an important step to take (Kadel, 1994). Strock and Hottenstein (1994) advocate advertising and holding public meetings with parents to allow them the opportunity to ask questions or raise concerns they might have about the schedule changes being proposed. Since students are going to be
impacted by the block schedule, it is paramount that they be involved in the change process. Some administrators have found it beneficial to allow a representative group of students to serve on the committee that is appointed to study block scheduling (J. White, personal communication, February 13, 1995). Allowing students to listen to students from other schools already using a block schedule speak about how they have benefited under the schedule is another way in which to build student support (Strock & Hottenstein, 1994). Last, but certainly not least, administrators seeking to adopt a major change in organization such as block scheduling must make sure that the local school board is kept appraised of what is being studied and considered, and that they are educated on the reasons for considering change, for it will ultimately be the school board that has to give its approval for the change to take place (J. White, personal communication, May 19, 1995).

An administrator who does his homework on block scheduling, strategically plans for its implementation and makes sure that the concerns of all stakeholders are addressed should feel confident that these steps will lead to a consensus of support for implementation of block scheduling on his or her high school campus and will ultimately lead to improved student achievement for all students and to students who are better prepared to enter the workplace in the twenty-first century.
PROCEDURES

A great deal has been written in the last twenty years by a great number of educators and educational researchers on the need for school reform, and during this time, a great amount of time, money and effort have been spent enacting the reforms being proposed. These reforms, however, have not led to the kind of improvement that their proponents have espoused. A major factor contributing to the failure of these reforms to bring about school improvement lies in the fact that, for the most part, they have only provided cosmetic change rather than real systemic change. Many experts now claim that the entire educational system is an obsolete institution that cannot be repaired cosmetically, but must undergo systemic change if it is to survive.

In June of 1994, administrators at Decatur High School, including the first author, attended the Texas Association of Secondary School Principal's Conference in Austin. The keynote address was made by Dr. Willard Daggett, a nationally known advocate of systemic reform of America's high schools. In his speech, Dr. Daggett convincingly pointed out that most high schools today are not teaching students what they need to know to succeed in the workplace upon graduation, and that what they are teaching, is often not being taught very well. He implored the administrators and others in attendance to begin revising their school's curriculum to match the needs of their students both in terms of the subject matter and the teaching methods being used in the classroom. The next day,
a panel, comprised of business leaders from IBM, 3-M Corporation, Westinghouse, and Texas Instruments, who had listened to Dr. Daggett's speech the night before, responded to his presentation. These leaders were unanimous in their affirmation of Dr. Daggett's accusations. Each member of the panel discussed the shortcomings of the entry-level skills of the vast majority of high school graduates and others seeking employment with their firms. They noted that American corporations are spending billions of dollars each year to train workers in math, reading, speaking and problem-solving skills that high school graduates of the other major industrialized nations already possess. This, according to these business leaders, is putting the industries of our nation at a competitive disadvantage and will ultimately lead to a lowering of the standard of living of almost all Americans as our nation's share of the world market shrinks.

Acting upon Dr. Daggett's challenge and the facts presented by leaders of some of the most successful companies in this country, the Decatur High School administration, including the first author, began, in the summer of 1994, to investigate ways in which our high school's curriculum could be made more relevant to the needs of its students. Since that time, new courses such as tech-prep have been added to the curriculum, and teachers have been provided several staff-development programs pertaining to various types of student-centered learning activities. At the beginning of the 1994-1995 school year, a committee comprised of teachers, students, and parents was appointed to investigate
the feasibility of implementing block scheduling at Decatur High School. The committee studied the available literature on learning styles, work skills needed by industry, and block scheduling. They visited three other schools in the North Texas area that were already using block scheduling to get input from their teachers, students, and administration, and they brainstormed in their meetings to determine the merits and potential pitfalls of such a schedule. In March 1995, the committee reported its findings to the school board and recommended that Decatur High School implement an alternating A/B block schedule at the beginning of the 1995-1996 school year. The board is presently reviewing the committee's recommendation.

The first purpose of this paper, therefore, was to develop a review of literature on block scheduling and the second purpose was to develop a handbook on the steps and procedures an administrator should use for gaining the support of staff, students, parents, community and local school board for the implementation of block scheduling at a four-year high school. The authors' intent is that this handbook will be used as a resource by local administrators and other interested professional educators who are attempting to shift the paradigms of their school by using ninety-minute block classes to provide the time needed for student-centered learning activities that are essential for meeting the needs of today's students in a global economy.

Prior to initiating major systemic change, it is important that an administrator fully educate him or herself on the change being proposed to
those who will be affected. There will always be some opposition to change and block scheduling is no exception. Knowledge truly is power when it comes to educating others about a change they don't understand and in being able to rebut unsound reasoning by those who oppose the change being proposed. Therefore, the first section of the handbook contains an annotated bibliography of five articles about block scheduling and school restructuring that provide a great deal of information for an administrator who is wanting to become educated on the subject. It is the authors' belief that teachers, students, parents and school board members will be more open to the ideas of an administrator who they perceive as having become an expert on the subject being discussed.

The second section of the handbook includes seven strategies that an administrator can use to build a consensus of support among his or her teaching staff for the implementation of block scheduling. These strategies have been developed from articles in educational journals and other documents on school restructuring which the first author has researched. It also includes four types of staff-development programs that can be used to raise teachers awareness about student learning styles, student-centered learning, student assessment and on how to teach successfully in a ninety-minute class. These programs have been developed from the journal articles and documents about student-centered learning and learning styles cited in chapter two of this paper.

The third section of the handbook is devoted to the strategies that can
be used to secure the support of the student body for block scheduling. In developing this section, the first author referred to an article on implementing block scheduling by Strock and Hottenstein (1994) as well as from personal communications with administrators of high schools in which block scheduling has already been implemented with overwhelming student support.

Section four includes four strategies that have been found to succeed in making parents and other community members aware of, and supportive of a major change in school organization such as block scheduling. These strategies have been developed from ideas found in the journal articles researched by the first author, from his personal communications with administrators from other schools and from the Decatur Independent School District's own public relations policies.

Section five, offers three suggested steps to follow in gaining the support of the school board. It was developed, in part, from the first author's personal experiences in communicating with the Decatur school board during regularly scheduled meetings and during private conversations with individual members. Input was also received from administrators of other school districts who were successful in getting their own school board's support.

Section six focuses on the chronology of steps and timelines that need to be followed in planning for and in implementing block scheduling. It was developed as a result of the first author's personal discussions with
administrators in the state and elsewhere who used a variety of implementation plans that succeeded in bringing about the desired change to a block schedule in their individual schools (See Appendix).

CONCLUSIONS

When the first author initially began to research the literature relevant to the topic of this paper, he did so with only a rudimentary understanding of the problems facing the public high schools of this country. Extensive research of the literature, however, and personal contacts with educational reformers like Dr. Willard Daggett have led him to a heightened awareness of the dilemma that our schools face. It is apparent, based on the literature, that most high schools in the country have not changed a great deal in the past thirty years in terms of the curriculum taught and the organization of the school day, despite the fact that overwhelming evidence exists that the student body of today and the work-skills needed by employers have changed quite dramatically. For these authors, there seems to be a prevailing belief among those who have studied education reform efforts of the past twenty years that most reforms have been aimed at trying to fix an educational system that is already obsolete and will not meet the needs of today's students regardless of how much time, effort and money are expended, so long as its paradigms or basic beliefs remain the same. The solutions to the problems of high schools seem clear. Throughout the country, high school administrators, teachers and the rest of the community need to begin taking
a hard look at the curriculum being offered to their students. They need to implement courses which will better meet the school-to-work needs of their students. They also need to take a closer look at the cultural diversity of their student body, becoming aware of, and accommodating for the very real differences that do exist among students of different cultural groups. Teachers in the classroom need to begin using a greater variety of teaching methods in order to accommodate the different learning styles of students who all can learn, but learn best in different ways. Finally, school leaders and others must look at ways to reorganize the scheduling of classes in order that teachers can be provided the time necessary to help students develop the higher-level thinking and problem-solving skills that are needed in the work place of today. Schools, whose stakeholders are not willing to forsake the past and make the changes needed to fulfill their role in today's society, are shortchanging the students and society they are supposed to serve, and they would do well to take heed of the words of Fitch and Malcom (1992) who say that it makes no difference whether you're talking about schools, businesses, industries, countries or species, "the rule for survival throughout history has been inflexible and absolute. Adapt or face extinction" (p. 5).
REFERENCES


Dunn, R. S., & Dunn, K. J. (1979). Learning styles/teaching styles: Should they...can they...be matched? Educational Leadership, 36(4), 238-244.


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FORWARD

It is the hope of the authors that the contents of this handbook will be used as a resource by administrators and other interested educators who are seeking to implement block scheduling at their high school campus. It includes steps and strategies that have been used successfully by administrators from other high schools, in Texas and elsewhere, in building a consensus of support for block scheduling in their schools. The handbook has been divided into six sections beginning with a section containing annotated bibliographies of journal articles and ERIC documents that, collectively, will begin to enlighten an administrator and others, on the problems that high schools face today and the role block scheduling can play in solving at least some of them. The second section addresses the ways in which an administrator can build support among the teaching staff for block scheduling and some of the staff development programs that can be used to prepare teachers to teach in block classes. Separate sections are also included on ways to seek and gain the support of students, parents, and the local school board. The final section is devoted to listing a chronology of the steps that need to be taken along with the timelines that need to be followed that can lead to successful implementation of block scheduling in your school.
SECTION 1
AN ADMINISTRATOR'S ENLIGHTENMENT:
ANNOTATED BIBLIOGRAPHIES ON TOPICS RELATED TO BLOCK SCHEDULING
SECTION 1

AN ADMINISTRATOR'S ENLIGHTENMENT

What's wrong with the schedule we have? How can ninety-minute classes and meeting every other day improve instruction? How do I keep thirty hyperactive 9th-graders interested for ninety-minutes? These are just samples of some of the myriad of questions that you, as an administrator seeking to implement block scheduling, will have to answer when asked by teachers, students and other district stakeholders. How you answer these and other questions that are posed will have a great deal to do with whether you gain the support of others in your school district. For the administrator who has taken the time to read extensively about the subject and to confer with administrators whose schools have already made the change, these answers should come easily, and thus, will increase the chances that others in the school district will come to understand the problems we face and to share their vision for change. On the following pages are five annotated bibliographies of articles and professional papers which provide ideas on block scheduling, learning styles, school restructuring and student-centered learning. They provide a starting point for those administrators who want to begin enlightening themselves as to why schools must change the way they do business and upon the role block scheduling plays in that change.
ANOTATED BIBLIOGRAPHIES


Abstract

This paper discusses the importance of teachers becoming more aware of the culturally-specific learning styles of students. Its author posits that all students can learn, but that they each learn differently than others and that a student learns best when taught utilizing his or her preferred learning style. The author also posits that all cultures or families fit into one of two major cultural dimensions: traditional or modern and that these differences affect individual's views of the world around them and what they perceive as important and that which is not. Included are a list of characteristics found to be common to each dimension. The importance of accommodating and respecting students whose values and needs differ from the mainstream is stressed, and the document offers suggestions to help teachers identify learning styles (e.g. learning style inventories) and on how to design teaching strategies that fit all the preferred learning modalities of their students (e.g. cooperative learning).

*Note: This ERIC document is readily available at most university libraries on microfiche.*

**Abstract**

This bulletin provides an excellent source of information on the changing nature of work and a summary of research that has been done to determine the skills needed by high school graduates entering the workplace today. It includes the results of the Career Preparation Validation Study conducted by the New York State Board of Regents in 1990. The study attempted to determine the skill levels that are needed to perform various jobs which do not require a four-year degree in order to establish a closer link between work force requirements and the education students are receiving. A number of easy-to-read bar graphs on pages 6-11 show the percent of entry-level workers whose jobs require them to perform at the various competency levels on the scales for language arts, mathematics, and expanded basics. In addition to the study's findings, the bulletin includes several suggested changes in school curriculum (e.g. replacing algebra with courses in probabilities and statistics) and teaching methods (e.g. replacing teacher-centered instruction with student centered activities).

*Note: This ERIC document is readily available at most university libraries on microfiche.*

Abstract

This document outlines some of the major criticisms that have been levied at high schools in recent years by students, parents, college administrators and business leaders (e.g. low student achievement, curriculum fragmentation, predominance of students as passive learners, students who leave high school without the necessary skills needed by employers). An administrator seeking to sway his teaching staff and other to support block scheduling can use these criticisms to guide discussions at schools where block scheduling is being considered and create an awareness of the need for major changes in school organization and instruction among his or her teaching staff. It identifies five major components of school restructuring, including definitions of thirty-eight specific elements. This report also presents the results of the National Study on High School Restructuring, which surveyed high schools across the nation, to determine the extent to which schools nationwide are involved in the restructuring movement. Easy-to-read graphs and charts are included.

*Note: This ERIC document is readily available at most university libraries on microfiche.*

**Abstract**

This document aims to enlighten administrators and teachers about the fallacy of seven commonly held assumptions about intelligence, teaching and learning (e.g. innate intelligence is the strongest predictor of academic achievement, sequential mastery of basic skills is a pre-requisite to the acquisition of higher-order thinking skills) by presenting the findings of extensive research that contradicts all seven assumptions. It includes several recommendations for improving instruction and curriculum (e.g. block scheduling), basing decisions on informed research, cooperative collaboration and stressing achievement for all children. Also included are recommendations on student assessment (e.g. student portfolios), and family involvement as well as an extensive list of other resources an educator might read on educational improvement.

*Note: This ERIC document is readily available in most university libraries on microfiche.*

Abstract

This article provides its reader with ideas on how to get out from under the present six or seven-period high school schedule by offering some practical alternatives, all of which involve some form of block scheduling. The advantages of block scheduling over the present Carnegie schedule are discussed and three alternative forms of block schedules are presented for the reader to consider: (1) the 75-75-30 plan which involves two seventy-five day terms and the fall and winter followed by a thirty-day spring term in which students can finish a course that traditionally has taken a year to complete in seventy-five or as little as thirty days (2) the alternate-day block schedule in which students attend classes on alternating days for the entire school year (3) and a combined plan which involves elements of the first two. The article stresses the importance of administrators looking closely at the needs of their particular school, student body and community to determine which form of scheduling might best suit their needs.

*Note: This article and others on block scheduling by the same author are readily available in the journal and periodical section of most university libraries or through timely interlibrary loan.
SECTION 2
GAINING TEACHER'S SUPPORT:
STAFF DEVELOPMENT
FOR TEACHING A BLOCK CLASS
SECTION 2
GAINING TEACHER'S SUPPORT FOR
BLOCK SCHEDULING

Block scheduling cannot be implemented with any degree of success without you, the administrator, taking the necessary steps to ensure that you have gained the support of your teaching staff. According to the vast majority of literature on school restructuring, without the support of teachers, real reform in the classroom will not take place. School boards can enact policies, parents can petition for change, and principals can threaten or cajole, but only teachers are in a position to make the changes that are needed or to simply continue doing what they've always done or to sabotage the best intentioned plans. Getting teachers to support changes in the curriculum and school schedule may be the hardest task for an administrator. Since teachers are the ones who will have to change their methods of teaching and spend additional time in planning and preparing for the changes that are being proposed, it is imperative that they are fairly compensated for the extra time they will have to work. This can come via extra pay, comp time, recognition or a combination of the three. They must also be provided with quality staff training on teaching strategies that work well with block classes as well as on new methods of assessing student achievement that better addresses the process-focused instruction that is common to student-centered learning.

If teachers are to be asked to make major changes in the way they teach or assess student achievement, it is important that the instructional
leader of the school campus show them why it needs to be done. In the months prior to establishing committees to study the question of block scheduling, an administrator needs to use some directive leadership and conduct meetings with his or her staff to discuss the criticisms that are being levied at schools and to provide them with as much information as possible through various activities that will help them to understand that the present educational paradigm of teacher-centered instruction, taking place in isolation from other disciplines, is not producing a graduate with the kinds of skills that are needed in today's global society. It is believed that once teachers understand that the present structure of schools is not fulfilling the needs of students, they will be more open to change and willing to take an active role in implementing it. On the following pages is a list of steps or strategies that have been used by other school administrators to solicit and receive staff support for block scheduling.
## Tips for Gaining Teacher Support for Block Scheduling

1. Share information initially with key groups of teachers (e.g. department heads, risk takers, informal leaders on teaching staff) whose support is vital if you are to succeed in gaining staff support and trust.

2. Hold staff meetings in which you and the initial group of teachers (who now share your vision) present the problems your school faces if teaching methods are not changed and alternatives that might be implemented including student-centered learning and block-schedules.

3. Send staff members to conferences on restructuring that are being conducted by the regional service centers throughout the state to reinforce their belief that change is inevitable and that they should be at its forefront leading the reform effort.

4. Invite teachers from schools already using block schedules to visit your campus and meet with staff members to share their personal experiences on the effectiveness of block scheduling on academics and discipline at their school.

5. Appoint members of the teaching staff to serve on a block schedule study committee to assess the needs of your particular campus by surveying teachers, parents, and
students and to make recommendations on the form of block schedule that would best meet the needs of your school's students and community.

7. Send teachers to visit other schools where block scheduling is being used to observe block classes being taught in their particular subject area and how the teachers are able to use multiple teaching strategies during a ninety-minute class and to talk to teachers and students to find out their opinion about the block schedule they are using. The Decatur school staff, for example, contacted a number of schools in the North Texas area who invited them and our block schedule study committee to visit. Staff members, students, and parents from Decatur visited the Mansfield, Lake Dallas and Nocona high school campuses where they were welcomed into classrooms to watch classes and to ask questions of the students and teachers. Our staff chose to visit these three schools because of their close proximity to Decatur and because each of them were operating under different variations of block schedules. Other schools who invited our staff to visit their campus included Brewer High School in White Settlement, Garland High School, and Wasson High School in Colorado which implemented a block schedule several years ago and has accumulated quantitative data they are willing to share with others.
STAFF DEVELOPMENT PROGRAMS TO PREPARE TEACHERS FOR BLOCK CLASSES

Block scheduling will require changes in both the teaching strategies of teachers and in assessment of student learning. Listed below are four workshop topics that schools implementing block scheduling should include in their staff development program prior to implementation. Teachers who incorporate the strategies discussed in these workshops will find it easier to keep students involved in active learning activities in a ninety-minute to two hour block and will be able to better assess what students have actually learned than is possible using traditional assessment.

Cooperative Learning Workshop: In a cooperative learning workshop, teachers will be shown the importance of students learning to work in teams to solve problems, conduct experiments, develop presentations and use interpersonal skills much like they will have to do in the workplace of the twenty-first century. Teachers will be shown that cooperative learning is not simply putting several students together at one table, but that it is a strategy in which each member of the learning group has a clearly defined role to play (e.g. recorder, checker, energizer) to ensure that all members of the group participate and learn. A cooperative exercise will be modeled and the workshop participants will be divided into groups of four and participate in a cooperative exercise to allow them the opportunity to better understand how it works.
Thinking Skills Instruction Workshop: In a thinking skills (authentic) instruction workshop, teachers will be shown how to integrate the teaching of thinking skills with content learning and of engaging students in the construction of knowledge. Problem-solving exercises dealing with real-life issues, creative brainstorming, and simulation (role playing) exercises where students are put in unfamiliar situations will be modeled, and the skills developed by students in such exercises (e.g. detecting bias or logical fallacies, offering evidence to support conclusions) will be pointed out along with their connection to the job skills needed by businesses today.

Interdisciplinary Teaching Workshop: A workshop on interdisciplinary teaching would show teachers how to remove the barriers that exist, especially in high schools, between disciplines and departments in order to create a more realistic learning experience for students. It would emphasize the importance of making sense out of and applying information from a variety of subject areas in order to thoroughly explore complex issues. Examples of interdisciplinary study projects would be shown in which language arts, math, science and history classes focus on the same broad subject, looking at it from the perspective of each discipline while seeing the relationship that exists between them as a whole.

*Note: Interdisciplinary studies are ideally suited for block schedules.*
**Alternative Assessment Workshop:** An alternative assessment workshop goes hand-in-hand with the changes being advocated on teaching strategies. Cooperative learning, authentic instruction, and interdisciplinary studies promote higher-level thinking skills that are not easily assessed by the traditional standardized test or tests on factual recall. This workshop would provide teachers with ideas on how to replace or at least supplement traditional assessment with more process focused assessments of student learning. Alternative assessments that could be discussed are: (1) portfolios including student work over time (2) individual and group interviews or discussions of students' learning experiences (3) individual and group problem-solving activities (4) student debates (5) student journals (6) research reports or books (7) presentations, speeches or other types of performances and (8) student-produced videotapes or computer models.

*Note: Use of alternative assessments will require not only educating teachers in how to use them properly, in order to ensure their reliability and validity, but will also require educating students and parents who have become used to measuring their achievement, or lack thereof, according to whether they made an A, B, C, D or F on their report card or a corresponding number grade.*
SECTION 3
GAINING STUDENT SUPPORT
FOR BLOCK SCHEDULING
GAINING STUDENT SUPPORT FOR BLOCK SCHEDULING

Since students will be impacted by block scheduling because of changes in curriculum delivery and class schedules, it is important that you, the administrator, try to make the adjustment for them as easy as possible and create an atmosphere in which students will be excited and will look forward to the change you have proposed to make. On the following pages is a list of strategies that have been used successfully to gain the support of students for block scheduling.
Steps to Gain Student Support For Block Scheduling

1. The student body should be informed of school's intent to study block scheduling in school newspaper, during announcements, or during assemblies.

2. Materials about block schedules and their benefits to students should be placed in the library and advertised so that students who want to learn more about them can do so.

3. Conduct a student survey to find out what concerns students might have about how block scheduling will affect them and publish the results of the survey in school and local newspaper.

4. Appoint students from all grade levels to serve on the block schedule study committee to ensure that students' interests are being voiced and that the students feel that they have some say in the type of block schedule which eventually is adopted.

5. Send students to visit other schools already using a block schedule to talk to their students about their experiences with the new schedule. At Decatur High School, for example, eight students (two from each class) were sent to visit Mansfield, Lake Dallas and Nocona high school's classes and to talk to their students. This proved to be the most successful strategy used in gaining our student's support for a block schedule.

6. Invite students from several schools using different forms of block scheduling (e.g. accelerated block, alternating A/B block) to come
and speak to your student body about the benefits or problems they have encountered at their school due to their new schedule.
SECTION 4
GAINING PARENT-COMMUNITY
SUPPORT FOR BLOCK SCHEDULING
Parents and other members of the community, for the most part, remember the high school they attended ten or more years ago as being a place that provided them with an excellent education that prepared them to go to work or college. Gaining their support for change will primarily come as a result of educating them on how the world has changed in terms of the student body that schools serve, the school-to-work skills that are now needed by American businesses and industry and on why schools cannot continue to operate as they have for the past thirty or more years and meet the needs of students or our information-age society. Educating parents and other community members on the benefits that students can derive from block scheduling and winning their support will require using some of the strategies listed on the following pages.
Steps to Gain Parent & Community Support for Block Scheduling

1. Hold public meetings with parents and other interested community members throughout the planning stages to discuss the problems that your school faces in meeting the needs of today's student and that of America's business sector, and to allow them to voice concerns they may have or to raise questions for which you will have sound, logical answers if you've done your homework.

2. Speak to as many civic organizations (e.g. Lion's Club, Chamber of Commerce, Rotary Club, PTA) as you can about the changes you are proposing to make so that their members can gain an awareness of the need for change and will begin spreading the message to others.

*Note: As the instructional leader of your campus, it is very important that you get out in front of the public to serve as a symbolic leader who is championing a worthy reform. It says to your teachers and community that this is important.

3. Send out pamphlets to parents of every student in the school district to inform them of your intent to implement block scheduling along with data to support your proposed action.
4. Inform community members about block scheduling by writing articles or letters to the editor to be published in the local newspaper.

5. Appoint parents and local business leaders to serve on the block schedule study committee where they can get a first-hand look at schools already using various forms of block schedules which will allow them to increase their own awareness and make informed decisions when trying to reach consensus with other committee members on what form of schedule your school should implement. At Decatur High School, four parents were selected to serve on the study committee, two of whom were also highly respected, influential and visible business-community leaders who were able to offer some insights to others on the committee from a business perspective.
SECTION 5
GAINING SCHOOL BOARD SUPPORT
FOR BLOCK SCHEDULING
SECTION 5

GAINING SCHOOL BOARD APPROVAL
FOR BLOCK SCHEDULING

An administrator must remember that it makes no difference if teachers, students, or parents overwhelming support implementation of block scheduling on your school campus. If the local board of education fails to vote its approval, it will not be implemented. While it would seem that a wise school board would support a reform that is supported by all the other stakeholders in the district, it does not always turn out that way. The men and women who serve on local boards bring with them a vision of what they feel should be going on at school, personal agendas and strong ideas about how the taxpayers money should or should not be spent. In order to ensure that your local school board is in tune with the rest of the community and is supportive of block scheduling, the strategies on the next two pages are offered.
Strategies for Securing School Board Approval for Block Scheduling

1. Make a presentation to school board at its summer board retreat the year prior to your plan to implement block scheduling to begin the process of educating board members on the problems your school campus faces if it continues to operate under its traditional schedule (e.g. limited course offerings, increased state credit requirements for graduation, increases in staffing, difficulty in implementing student-centered instruction). Present the idea of block scheduling as a possible solution to problems and seek their approval to study its merits.

*Note: One way or another, make sure the board is informed of your activities and don't wait until the last minute to seek their approval.

2. Keep the board updated on a regular basis on the findings of the latest studies on block scheduling (e.g. principal's report at regularly scheduled meetings).

3. Provide the school board with a detailed cost analysis of a block schedule implementation plan that shows block scheduling will not increase school operating cost beyond what is spent in staff development programs and training for teachers who will have to alter their teaching methods.

*Note: board members are always interested in knowing
what something is going to cost before they give approval.

4. Inform school board when you decide to appoint a block scheduling study committee to see if there is anyone they would like to have serve on the committee to act as a liaison between the board and the committee.

*Note: encourage the board to select one of its own members to serve)

5. Allow the members of the block scheduling study committee to make a presentation to the school board in which the teachers, students, parents and business leaders who made up the committee, report their findings and make a recommendation to implement a block schedule that has been arrived at through consensus of all its members.
SECTION 6
IMPLEMENTATION STEPS AND TIMELINES FOR BLOCK SCHEDULING
In order to gain a consensus of support for block scheduling on your high school campus will require that an organized plan has been followed, in which a number of steps are carried out by the building administrator and others who share his or her vision for change through block scheduling. On the following pages, these steps are listed chronologically and include timelines that should be followed. It is the sincere hope of the authors that by following the steps discussed in the previous sections and staying within the timelines given, you will be successful in bringing a needed educational reform to your school campus that will greatly benefit the students and society you serve. Good luck!
<table>
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<tr>
<th>Step/Activity</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>1. Administration increases self-awareness of benefits of block scheduling by reading related articles, attending restructuring conferences, and talking to administrators in schools already using block schedules.</td>
<td>2 years prior to implementation</td>
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<tr>
<td>2. Administration presents information to key staff members to gain their support.</td>
<td>1 1/2 years prior to implementation</td>
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<tr>
<td>3. Administrator makes presentations to school board at its summer retreat to begin educating members on need for change in the school schedule.</td>
<td>1 year prior to implementation</td>
</tr>
<tr>
<td>4. Presentation to entire teaching staff by administrator and key staff members previously recruited.</td>
<td>1 year prior to implementation</td>
</tr>
<tr>
<td>5. Hold first public meeting for parents and other interested community members to discuss need for change.</td>
<td>1 year prior to implementation</td>
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### Steps/Activities

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<tr>
<th>6. Conduct first staff development program on teaching in a block class (e.g. authentic instruction, alternative assessment).</th>
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<tbody>
<tr>
<td><strong>Timeline</strong></td>
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<tr>
<td>1 year prior to and ongoing beyond implementation.</td>
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<tr>
<th>7. Administrator appoints teachers, students, parents, and business leaders to committee to study block scheduling and make recommendations.</th>
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<tr>
<td><strong>Timeline</strong></td>
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<td>1 year prior to implementation</td>
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<tr>
<th>8. Block scheduling study committee presents a formal presentation to school board to report its findings and to make recommendations for board approval.</th>
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<tr>
<td><strong>Timeline</strong></td>
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<tr>
<td>Middle of spring semester prior to implementation.</td>
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The other steps and activities mentioned in the previous sections of the handbook (e.g. bringing in students from schools using block schedules to speak to your student body) can be conducted at any point during the process leading up to implementation, and some of them should be ongoing from start to finish (e.g. speaking to civic groups, updating school board on study committee's activities).