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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

TEACHING A GOAL ATTAINMENT PROCESS TO UNIVERSITY STUDENTS WITH LEARNING DISABILITIES

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By
Robert J. Walden
Norman, Oklahoma
2002

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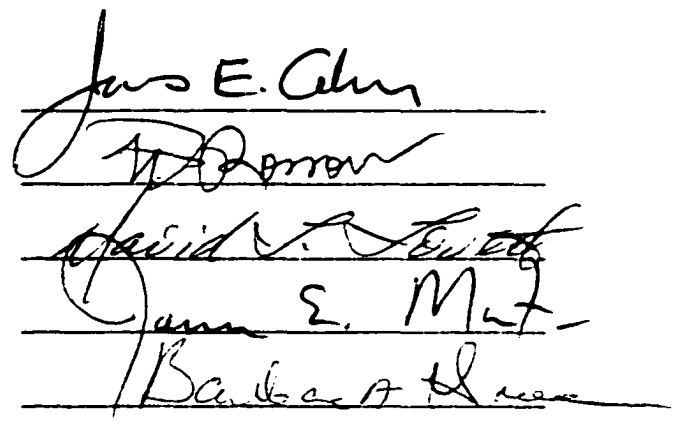
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TEACHING A GOAL ATTAINMENT PROCESS TO UNIVERSITY STUDENTS WITH LEARNING DISABILITIES:

A Dissertation
APPROVED FOR
THE DEPARTMENT OF
EDUCATIONAL PSYCHOLOGY

BY



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Acknowledgements

As far back as I can remember, both my parents regularly told my two brothers, sister, and me, "Get your education." I have heard that message over and over as I have continued my education. The admonition was so strong from our parents that each of us earned the first college degrees in the Walden clan. There has been no other thought that motivated me more. As I finish my doctoral degree, I regret my parents are not alive to enjoy the achievement with me. However, I feel fortunate to have the encouragement and understanding of my immediate family who have lived with the same message, "Get your education."

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ABSTRACT

The primary objective of the research was to determine if the teaching materials in the *Take Action: Making Goals Happen* section of the *ChoiceMaker* Instructional series (Huber Marshall et al., 1999) would teach the Take Action goal attainment process to college students with disabilities. Additionally, it was asked if the instruction would be sufficient enough to cause generalization to a new untrained behavior and generalize over both time and setting time conditions.

A multiple baseline design across subjects and behaviors controlled threats to internal validity and evaluated acquisition and generalization to a new behavior. The students' scores on the Behavior Generalization Take Action Goal form was the primary dependent variable. Secondary dependent variables included scores on the *Take Action Quizzes, ChoiceMaker Assessment Scale: Take Action Section, Air Self-Determination Scale, Self-Determination Knowledge Scale, Approach to Learning Scale, and the Self-Regulation Behaviors Scale.* The *Take Action: Making Goals Happen* instructional materials served as independent variable. The demonstrated change in the dependent variable across individuals, skills, over time, and setting time generalization served as the primary focus to determine the efficacy of the teaching materials.

One-on-one instruction was the method of presentation of the materials. Video taping of each sessions permitted verification of presentation consistency. Each session was video taped to verify and grade consistency of presentation. The successful acquisition, generalization to a new behavior, and generalization over time and setting-time was repeatedly measured over a nine to eleven month period.

The *Take Action* materials successfully taught five college students with learning disabilities a goal attainment process. Three of the five students had criterion or better total scores on all seven acquisition measures. The group as a whole scored criterion or better on six of the seven acquisition measures indicating that the materials taught the goal attainment process to this group of students (see Table 10).

A stringent test of generalization indicated that the students generalized the acquired goal attainment knowledge and skills to a totally new behavior. The students' generalization scores after intervention indicated a convincing level of generalization (see Table 16 and Figure 2). These impressive levels of generalization did deteriorate over the three to four months between the end of intervention and the next probe of the students (see Table 19). Deterioration of the generalized behavior of all students continued through the end of the project. However, only one student dropped below his initial baseline score (see Table 34 and Table 16). The students not only learned the goal attainment knowledge and skills, they were also able to generalize that learned information to a totally new behavior. These results indicated the most impressive finding of the research in that the intervention taught knowledge and skills thoroughly enough to affect a behavior change that generalized over a relative long period of time (3 to 7 months) with evidence at the end of the research that was above the baseline level of 4 of the 5 students (see Table 34).

The results of the research is a definite proof that a substantial amount of learning did occur during the intervention of instruction from the *Take Action: Making Goals Happen* instructional materials.

CHAPTER 1

Introduction

Albert Einstein was asked if he thought a college education was really necessary. He said, "I myself do not burden my memory with simple facts that can be looked up in textbooks. But the true purpose of education is to train the *mind to think*, and for that reason it is priceless" (Einstein, 2001). Bertrand Russell answered, "Education is *what remains* when you have forgotten everything you learnt at school," when asked his beliefs about education (Russell, 2001). A first-year student from La Crosse, Wisconsin, offered the following answer when asked to define the purpose of education:

> The answer can be found *within ourselves* and within the workings and expectations of our nation as a whole. In our society, education exists to play the general role of enlightenment in people's lives, helping them to become more capable of *leading healthier, happier, more successful lives as human beings* and, more specifically, as United States citizens (Mader, 2000, p. 1).

Ayn Rand, the philosopher, answered the same question with the following:

> The purpose of an education is to teach a student how to live his life-- by developing his mind and equipping him to deal with reality. The training he needs is theoretical, i.e., conceptual. He has to be taught to think, to understand, to integrate, and to prove. He has to be taught the essentials of the knowledge discovered in the past—and he has to be equipped to acquire further knowledge by his own effort (2001, p.1).

The above quotes seem to speak to a more personal purpose of education that goes beyond simply teaching the traditional academic facts. The purpose focuses more on

teaching the individual *mind to think* as opposed to just remembering facts. The purpose should focus on activities directed at fostering the development of personal values *within ourselves*. The purpose should focus resolutely on the development of skills, beliefs, and morals that will *remain* an integral part of the student, *long after the facts and figures have been forgotten*. The purpose should focus on helping students *lead healthier, happier, and more successful lives*. In short, the quotes allude to an education that fosters qualities that could describe an individual who determines their life course or, in other words, is self-determined.

Unfortunately, as students with disabilities struggle to keep pace with the academic facts of education, they often do not develop self-determination skills (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2002). In an attempt to ameliorate this situation, educators in the later 1950s and early 1960s began to focus on teaching self-determination skills to students with disabilities (Halloran, 1993).

Nirje (1972) described self-determination as an essential element of the Normalization Principle that advocated the inclusion of people with disabilities into the mainstream of life. According to Deci and Ryan (1985), an action determined by freely chosen behaviors indicates the extent of a person's self-determination. Wehmeyer (1994) refers to the attitudes and abilities necessary for a person to be his own principal causal agent and make action choices with limited external influences as characteristics of self-determination.

Ward (1988) described self-determined individuals as typically those individuals who *define their goals* and take the *initiative* to achieve them. Agreement with Ward's definition is found in other definitions that also focus on *goal setting* and *goal*

achievement (Martin, Huber Marshall & De Pry, 2001; Powers et al., 1996). Knowing and valuing oneself are elements Field and Hoffman (1995) utilized to describe how self-determined people define and achieve their goals. Wehmeyer, Agran, Palmer, Martin, and Mithaug's (2002) definition of self-determination added an additional characteristic. Their definition included skills needed to achieve goals that are satisfying to the self-determined person.

There are many definitions of self-determination that list an assortment of characteristics that include attitudes, abilities, and behaviors. For example, Wehmeyer (1994) emphasized the attitudes and abilities to choose and achieve goals. Deci and Ryan (1985) focused on freely chosen behaviors as a measure of a person's self-determination. There is not a single definition or an all-inclusive list of characteristics that can cover the various elements that could contribute to self-determination. Although an all-encompassing definition of self-determination has not been coined and accepted, Martin et al. (2001) categorically grouped many of the diverse definitions from a review of the existing literature. They explained that self-determination can be divided into two strands: (1) choice and (2) goal setting and attainment. These two conceptual groupings were corroborated by an earlier survey of special educators who identified choice making and goal setting as the first and second most important strategies that constitute student self-determination (Agran, Snow, & Swaner, 1999).

Therefore, it appears there are strong arguments that goal setting and goal attainment are the more significant characteristics of self-determination. Ward (1994) stated that a person's ability to set and attain goals is the most important outcome of self-determination. Wehmeyer and Schwartz (1997) added support to goal setting and

attainment when they pointed out that having the opportunity to choose and decide is no assurance of self-determination. Wehmeyer, Agran, and Hughes (1998) explained that although the goal setting and attainment actually includes choice, it goes beyond choice by empowering individuals to achieve their choices.

In general, students with disabilities possess fewer goal attainment and other self-determination skills than do students without disabilities (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2002). If goal attainment, considered by Wehmeyer (1994) as the most important self-determination component, is to be acquired by students in special education, there are those who believe if the skills are not learned by one's own intuition and volition, they must be specifically taught (Fuchs et al., 1997; Wall & Dattilo, 1995; West, Barcus, Brooke, & Rayfield, 1995). If students with disabilities must be taught these skills, it is imperative that educators are charged with providing a wide variety of training and opportunities for self-determination development to assist those with disabilities in claiming their right to a life, freely chosen, with minimal outside interference.

General Description of the Area of Concern

According to Shiavone (1999), institutions of higher education are admitting a growing number of students considered to be at high risk of post-secondary failure. An indication that this was happening appeared in 1982. A survey by White, Alley, Deshler, Schumaker, Warner, and Clark (1982) revealed that 67% of the students listed as learning disabled in elementary or secondary schools indicated plans for post secondary training. The authors indicated that by the fall of 1991, 2.2% of all entering college freshmen were learning disabled.

Brandt and Berry (1991) stated that although legislative mandate has made postsecondary education available for students with disabilities, its availability does not mean that students will have access. While the trend of admitting more students with learning disabilities to post secondary education is welcomed, the growing number of entering college freshmen with learning disabilities posed a significant problem for post secondary education institutions. Brandt and Berry (1991) stated, "College preparatory high school programs have had little guidance from the field of special education in designing services and support systems for high achieving individuals with LD who are college bound" (p. 297). If students arrive at college unprepared, then the admitting institutions are faced with making adequate accommodations to facilitate success of this population at the post secondary level (Dalke & Schmitt, 1987). As students with disabilities enter college, they are faced with a myriad of new and often unforeseen obstacles for which they are not prepared. Smith (1983) stated the students' learning deficiencies could be manifested in insufficient knowledge of subject content as well as such subtle disabilities as poor organizational skills, time management, and study skills.

Johnson, Sharpe, and Stodden (2001) believed that self-advocacy, self-determination, and personal decision-making skills should be taught to students with disabilities before beginning their post-secondary experience. According to Dalke and Schmitt (1987), "During this transition from high school to college, many changes occur which serve to compound this already difficult transition for the student with learning disabilities" (p. 176). Orientation programs for entering freshman offered by most institutions last one to two days may not be enough for students with learning disabilities (Lewis & Farris, 1999) (see Table 1). "Without direct services, even the most adept of

these students may experience significant problems in their transition from the high school resource room setting to the college environment" (Dalke & Schmitt, 1987, p. 176). In light of this, it would seem the need of direct transition programming for students with disabilities is critical (Haplern, 1985; Will, 1984).

Table 1

Percent of 2-year and 4-year postsecondary institutions that offer special orientation for students with disabilities: 1996-97 or 1997-98 school years

Size of Institution	Special Orientation
Less than 3,000	21
3,000 to 9,999	48
10,000 or more	66

(Lewis & Farris, 1999)

The figures in the table above point to just one of the services that stand to be improved by the move to extend support services to the college level (Dalke & Schmitt, 1987). Educators and educational researchers believe a key ingredient for educational success is missing from the educational experiences of many students with disabilities. One such factor is self-determination, believed by Halloran (as cited in Wehmeyer, 1994) as "education's ultimate goal" (p. 6). It seems clear that a need exists for support services that go beyond just remedial reading, writing, and math to include support in the many areas usually associated with self-determination. Support in areas such as adaptability,

self-control, self-awareness, self-advocacy, and goal setting seem to be of equal importance as support traditionally available for specific academic areas.

If students with disabilities have not acquired self-determination skills of choice making and goal attainment by the time they enter college, they must be provided an opportunity to learn those needed skills (Johnson, Sharpe, & Sodden, 2001). To this end, Ward (1996) recommended developing and utilizing curricula and instructional material. Martin and Huber Marshall (1996) developed and field-tested a group of curricula titled the *ChoiceMaker Self-Determination Instructional* Series. One module of the series, *Take Action: Making Goals Happen* (Huber Marshall et al., 1999), of primary interest to this proposal, specifically teaches goal-attainment skills.

Problem to Be Studied

Huber Marshall et al. (1999) field-tested the *Take Action* goal attainment lesson package. German, Martin, Marshall, and Sale (2000) used *Take Action* to teach six adolescents with mild to moderate mental retardation to attain their daily IEP goals using a modified *Take Action* version. The research results showed that all students achieved their goals and maintained the skills learned after teacher instruction was withdrawn. The skills learned in this research were maintained over a two to three week period after withdrawal. However, to date, there is no research data on the effectiveness of the complete *Take Action* lesson package, as written, in teaching a goal attainment process to college students with mild disabilities.

Purpose of the Research Project

The purpose of this research was to determine the effectiveness of the *Take Action* lesson package in teaching a goal attainment process to college students with mild

disabilities. This data expanded the extant empirical data on teaching goal attainment skills and examined the effectiveness of the *Take Action* lesson package. This research adds to the literature by scrutinizing six new variables not considered in the German et al. (1999). One variable was working with young adult college students with mild disabilities. Secondly, the *Take Action* lesson package was used as written without modifications to check acquisition. Third, a measure of generalization to a new behavior was obtained. Fourth, a complete withdrawal was utilized when testing for generalization over time. Fifth, the generalization over a time period of approximately six months was employed. Sixth, this extended time period also was used to measure setting-time generalization. The six areas of data were grouped and collected into two categories in phase one and two categories in phase two: acquisition and generalization, phase one and time and setting-time generalization, phase two.

Research Questions

Research questions were grouped into two phases, each with a different focus. Phase I questions investigated the acquisition and generalization of the knowledge and skills taught by the *Take Action: Making Goals Happen* instructional materials. Phase II questions queried the level of knowledge and skills that generalized over time and setting-time.

Acquisition and Generalization – Phase I

Acquisition questions. Do college students with learning disabilities, who receive goal attainment instruction, acquire goal attainment knowledge and skills?

1. Will they score at least 80% or above on the curriculum acquisitions tests?
2. Will a change occur between the pre and post assessment scores of their goal

attainment knowledge?

3. Will a change occur between the pre and post scores of their self-determination knowledge?
4. Will a change occur between the pre and post scores of their approach to learning?
5. Will a change occur between the pre and post scores of their self-regulation behaviors?

Generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the knowledge and skills scores to new behaviors?

Time Generalization and Setting-time Generalization – Phase Two

First Time generalization questions. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skills scores over time?

1. Will their level of achievement score on the curriculum acquisitions tests generalize over time?
2. Will their level of assessment scores of goal attainment knowledge generalize over time?
3. Will their acquired level of self-determination knowledge skills scores generalize over time?
4. Will their approach to learning scores generalize over time?
5. Will their self-regulation behavior scores generalize over time?

Second time generalization question. Will the students' level of knowledge and skills generalized to new behaviors, in Phase I, generalize over time?

First setting-time generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skills over setting-time?

1. Will their level of achievement scores on the curriculum acquisitions tests generalize over setting-time?
2. Will their level of assessment scores of goal attainment knowledge generalize over setting-time?
3. Will their acquired level of self-determination knowledge skills score generalize over setting-time?
4. Will their approach to learning scores generalize over setting-time?
5. Will their self-regulation behavior scores generalize over setting-time?

Second setting-time generalization question. Do college students with learning disabilities, whose knowledge and skills generalized to new behaviors, generalize the new behavior over setting-time?

Significance of the Problem and the Justification for Investigation

Fuchs et al. (1997) stated that goal setting alone may not produce beneficial gains for students with disabilities unless they receive precise instruction in goal attainment. To teach students with mild disabilities the needed goal attainment skills they lack, curriculum designed for that purpose must be used. However, the effectiveness of the materials should first be validated through empirical research before adoption (Ward,

1996). This research was one of those needed investigations of curriculum expressly designed to teach goal attainment skills to students with disabilities.

CHAPTER 2

Review of Literature

Historical Background

Self-determination has a lengthy history in the fields of religion, philosophy, political science, and psychology. Since the late 1960s, professional education literature has discussed self-determination (Martin et al., 2001). However, not until the late 1980s and early 1990s did self-determination become a frequently used term in educational literature.

Religion

The concept of self-determination in religion dates back to 371-289 BCE with Mencius, a Confucianism scholar considered by most historians to be the second great Confucian. Mencius clearly embraced the concept of self-determination when he advised leaders of the time by expressing his democratic views. He believed that kings should not rule by force, that all people were equal, and the essence of the state was the will and the welfare of the people (Simpkins & Simpkins, 2000). Although the concept of self-determination was expressed by his advice, a record of Mencius' use of the exact term, self-determination, was not found. The term, self-determination, first appeared in the religious writings of John Scott. In his book, *The Christian Life* (1699), Scott described a group of people as, "Agents, that have no Free-will or Principle of Self-determination" (p. 200).

Philosophy

In 1715 philosopher John Locke used both the term and the concept together. He used the term self-determination to express the concept of self-determination when he

wrote in his essay *Humane Understanding* that " . . . the ideas of men and self-determination appear to be connected . . . " and " . . . men can determine themselves . . .." (Locke, 1715, p. 293).

Politics

On February 11, 1918, in a Congressional address, U.S. President Woodrow Wilson expressed his belief in self-determination when he said,

> Peoples are not to be handed about from one sovereignty to another by an international conference or an understanding between rivals and antagonists. National aspirations must be respected; peoples may now be dominated and governed only by their own consent. 'Self-determination' is not a mere phrase. It is an imperative principle of action, which statesmen will henceforth ignore at their peril. (1918, p. 1)

Sir Winston Churchill wrote in his book, *World Crisis*, that the phrase was neither original nor new. He further stated that although the self-determination expression would always be justly linked to Woodrow Wilson, it was actually "Selbstbestimmun" (self-determination), a phrase coined by the German philosopher, Johann Gottlieb Fichte, (1949, p. 735).

Unterberger (1996) also credited Fichte for coining the term, self-determination, but added the word "recht" (right) to complete the German phrase used by Sir Winston Churchill. Unterbeger further posited that German philosophers in the middle of the nineteenth century frequently used the term. She went on to quote Vladimir, who stated that in 1896 the London International Socialist Congress supported "the full rights of the self-determination (selfbstestimmungsrecht) of all nations . . ." (p. 927). In addition,

Unterberger (1996) spoke of deep attachment of Americans to the principle of self-determination when she wrote:

> The revolt of the English colonies in North America has been defined as the first assertions of the right of national and democratic self-determination in the history of the world. The American colonists invoked natural law and the natural rights of man, drawing inspiration from the writing of John Locke to support their view. (p. 927)

More recently United States President Ronald Regan (1985) said in his second inaugural address, "Freedom is one of the deepest and noblest aspirations of the human spirit. People, worldwide, hunger for the right of self-determination, for those inalienable rights that make for human dignity and progress" (p. 7).

Psychology

Psychologists know that human beings can be active or inactive, engaged or unengaged, and passive or alienated, depending on the social conditions under which they develop and function. This has led to research guided by self-determination theory to focus on the social conditions that facilitate or impede the natural process of self-motivation and healthy psychological development. This dichotomy of conditions that encourage versus discourage positive human potentials has been the focus of ongoing research guided by self-determination theory (Deci & Ryan, 1985). "Self-determination theory is an approach to human motivation and personality that utilizes empirical methods while employing an organismic metatheory that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation" (Ryan, Kuhl, & Deci, 1997, p. 68, as cited in Ryan & Deci, 2000).

The findings of this research have lead to the theorization of three innate psychological needs: competence, autonomy, and relatedness. Satisfying these needs improves self-motivation. Not satisfying these needs diminishes self-motivation (Ryan & Deci, 2000). Motivation has been a recurrent topic of interest and investigation in the field of psychology. It is believed by some psychologists that motivation is at the core of biological, cognitive, and social regulation. Possibly, of more importance, in the real world, is the consequence of motivation. Motivation causes one to act and produce, which makes it the concern of anyone working with or leading people in hopes of influencing them to act, such as managers, teachers, politicians, and ministers (Ryan & Deci, 2000).

Education

The self-determination *concept* dates back 2,369 years and the *term* dates back 289 years. This is how long the *concept* and the *term* existed before being used together in American educational literature. Self-determination, as it is now understood and defined by educators, crossed over from the religious, philosophical, political, and psychological fields into the educational field in 1969. The crossing point emerged with the normalization movement that started in the Scandinavian countries of Denmark and Sweden. The normalization movement was a defiant move away from the attitudes of the *Alarmist Protectionism* era of (circa 1890–1920) by fostering an interest in the concept of advocacy that became a key component of self-determination (Wehmeyer, Agran, & Hughes, 1988).

Alarmist and Protectionism. During the *alarmist period* in history (circa 1890-1920), people with disabilities were viewed as a threat to society. They were regularly

institutionalized, frequently dehumanized, and could become wards of the state, which in some cases meant that the superintendent became their legal guardian. This often happened even when the resident had an interested parent. Various meager efforts of concern and protection for institutionalized people with disabilities began to appear. However, these *protective services* had a number of deficiencies. Some arrangements were impractical and not readily available. When they were available, they were often administered in an unbending unimaginative way and usually failed to provide the prolonged individualized relationships needed by many clients. Too much or too little protection was what the person needing services typically received (Wolfensberger et al., 1972).

Normalization. Prior to 1969, the term normalization was not known as the byword of an "ideology of human management" (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972, p. 27). The head of a Danish Mental Retardation Service, Bank-Mikkelsen, was credited as first disseminator of the normalization concept (Wolfensberger et al., 1972). In 1959, Bank-Mikkelsen encouraged the inclusion of the principle into a Danish law enacted to regulate services to individuals with mental retardation. He described normalization as permitting the acquisition of " . . . an existence for the mentally retarded as close to normal living conditions as possible" (p.57). Bank-Mikkelsen's statement, "In Denmark we have not theorized so much as in other countries about normalization," (1980, p. 62) might explain his failure to formulate a systematic statement of the normalization principle. Such a systematic statement did not appear until ten years later when Nirje, executive director of the Swedish Association for Retarded Children, wrote the following elaborated principle of normalization for a British journal

in 1969. "The normalization principle means making available to all mentally retarded people patterns of life and conditions of everyday living, which are as close as possible to the regular circumstances and ways of life of society " (Nirje, 1980, p. 33). Bank-Mikkelsen's and Nirje's normalization statements targeted people with mental retardation in institutional settings. No mention was made of the relevance of normalization in other settings for people other than those with mental retardation or human management in general.

In 1972, Wolfensberger et al (1972) offered a more universal and broadly adaptable definition of the normalization principle. They attempted to reformulate the definition for North American audiences and maximize its adaptability to human management in general. Wolfensberger et al. advocated a further refinement with the following definition: "Utilization of means which are as culturally normative as possible, in order to establish and or maintain personal behaviors and characteristics which are a culturally normative as possible" (p. 28). This definition was the first to describe the normalization principle as culturally specific and categorically unrestricted, which added a universal adaptability to the normalization definition. They explained that normalization does not mean all services should be the same, but, as much as possible, should be typical of one's own environment. In other words, "normative is intended to have statistical rather than moral connotations, and could be equated with typical or conventional" (Wolfensberger et al., p. 28). Although it was pointed out that the definition does not imply a promise of remaining or becoming normal for those receiving normalizing measures and process, it did imply that human managers will "aspire to elicit and maintain behaviors and appearances that come as close to being normative as

circumstances and the person's behavioral potential permit . . ." (Wolfensberger et al., 1972, p. 28). This implies that normalization should establish and support normative behavior in persons with prior deviant behavior as well as assist people with no previous deviant behavior from becoming perceived as deviant. Wolfensberger (1980) defined deviant as:

> . . . being different from others, in one or more dimensions of identity, which are viewed as significant by others, and this differentness must be negatively valued. It is not differentness itself that makes for deviancy in this definition, but *negatively valued differentness* . . . .(p. 8)

Wolfensberger cautioned that his definition should not be confused with other definitions of deviant that have totally different implications (Flynn & Nitsch, 1980).

Advocacy. Wolfensberger et al.'s (1972) *Citizen Advocacy*, a part of normalization, was a move away from *alarmist, protectionist*, and *institutionalization* and toward a more human treatment of people with disabilities. In his discussion of normalization under the heading of Special Implementive Strategies and Mechanisms, Wolfensberger explained the need for citizen advocacy. Competent citizen volunteers represent the interest of individuals that are impaired in some way. The relationship was one-on-one and often sustained on a life-long basis coordinated by a *Citizen Advocacy* office. From *Citizen Advocacy* beliefs with its focus on the individual needs of people with disabilities, a shifting of beliefs began (Wolfensberger et al., 1972). By the 1980s, a movement away from the idea of systems making decisions for individuals emerged. Thinking moved towards the notion that individuals should be empowered to make their own decisions. More concentration was given to the individual, resulting in a concept

called *person-centered planning* (Pennell, 2001). Other efforts based with focus on the individual were a push for *inclusive settings* and criticism of *home-like* and *job-like* simulated programs believed to be enforcing segregation (Pennell, 2001).

During this same period (1970's–1980's), a notion that gained strength and support was *self-advocacy. Self-advocacy* promoted the idea that the individuals have the ability to stand up for themselves as well as help others with disabilities stand up for themselves. It meant knowing your rights and the responsibility to speak and making choices for yourself. It meant taking risks, learning from your own mistakes, and going after your dreams. *Self-advocacy* meant a life-long process of learning for all involved. According to Pennell (2000) *self-advocacy* is:

> A revolution for change, to enable people with and without disabilities to live in harmony. *Self-advocacy* is founded on the belief that together, we can create the spark to light the fire of a better life for all of us. (p. 223)

Although the *self-advocacy* movement began in the 1970s and 1980s, it was not until the 1990s that individuals with disabilities began to be included in the *self-advocacy* movement. Only recently have self-advocating individuals with disabilities been included at local, state, and national levels to help formulate decisions affecting them. Most states are just beginning to offer training to increase *self-advocacy* and leadership skills for people with disabilities who often lack these skills.

Although obstacles have confronted the movement, the *self-advocacy* movement is still alive. A national *self-advocacy* group, Self Advocates Becoming Empowered (SABE), was formed in 1991. In October 1999, the Administration of Developmental Disabilities awarded SABE a three-year grant, Project Leadership. Project Leadership

provides leadership-training kits, curricula, and training for both self-advocates and parents as well as developing a national *self-advocacy* network. SABE works with the National Parents Network, the National Program Office on Self-Determination, and the Center on Innovations of Community Options.

Self-Regulation. Another foundational element of self-determination that focused on social learning methods had its beginnings in research in the 1960s and 1980s. Researchers such as Bandura, Thoresen, Mahoney and Meichenbaum, who investigated modeling, cognitive reinforcement, and imitation, began to recognize and write about the promising qualities of social learning methods. Their investigations and writings spawned interest in other areas such as self-instruction and self-management. These skills often referred to as self-regulations, are foundational actions, usually associated with a person who has control over his life and choices. However, none of these actions described as self-regulation are comprehensive enough to cover the full scope of or to be confused with the total concept of self-determination (Wehman,1998, in the forward to Wehmeyer, Agran, & Hughes, 1998). In answer to the question, "What is self-regulation?". Whitman (1990) stated:

> A complex response system that enables individuals to examine their environments and their repertoires of responses for coping with those environments to make decision s about how to act, to evaluate the desirability of the outcomes of the action and to revise their plans as necessary. (p. 373)

Agran (1997) explained that behaviors considered self-regulated include self-management strategies such as self, monitoring, instruction, evaluation, and reinforcement. Also included in self-regulated behaviors are those of goal setting plus

planning for attainment, problem-solving, and observational learning strategies. All of these behaviors must be learned for a student to develop into the causal agent in their lives (Agran, 1997).

Mithaug, Martin, Agran, and Rusch (1988) identified 40 skills and four major skill clusters of behaviors common among prominent people discovered in an extensive literature review on "success" behaviors. The four skill clusters included (a) setting goals and developing action plans to achieve the goal, (b) implementing and following the plan, (c) evaluating their action and success at reaching the goal, and (d) changing the plan. From these findings the researchers reasoned that these same skills could help people with disabilities achieve success justas they had done for the people in the review. (Mithaug et al., 1988).

Self-regulation skills empower students (Graham, Harris, & Reid, 1992), which enable them to take the responsibility for their learning (Schuler & Perex, 1987). Karoly and Kanfer (1977) believed self-regulation to be the central notion in self-management. Moreover, its absence poses a major problem for students receiving special education services (Agran, Martin, & Mithaug, 1989; Mithaug et al., 1988). These deficiencies lessen the possibility of self-regulated performance and minimize chances of success for the students with disabilities (Wehmeyer et al., 1998).

Self-determination. A key component of Wolfensberger's (1972) discussion of normalization is "the right to self-determination" (Wolfensberger et al., p. 194). A key element of normalization was to create conditions so a person with disabilities can experience the normal respect that a person without disabilities receives.

In 1988, the United States Office of Special Education and Rehabilitative Services (OSERS) started a self-determination program of system wide activities focused on giving people with disabilities more input into decisions, which affected their lives. From this effort, a definition of self-determination emerged as the attitudes and abilities that causes a person to define their own goals and then take the initiative to achieving those goals (Ward, 1988). Also in 1988, the United States Department of Education's, Office of Special Education Programs (OSEP) funded the first six of 25 new projects charged with producing curricula and instructional materials to teach self-determination. This marked the beginning of a noticeable self-determination movement in the field of special education (Ward, 1988). As with any problem inquiry, definitions and explanations must first be formulated and clarified before a search for decisive solutions can be sought. The first task faced by the directors of those initial OSEP projects, according to Wehmeyer (1999) a director of one of the six projects funded in 1990, was to define self-determination (Wehmeyer, 1999). The discussions and research surrounding self-determination has produced various definitions of self-determination (see Table 2) that can be categorized as either choice or goal setting and attainment type definitions (Martin et al., 2002) (see Table 2).

Table 2

Definitions of Self-Determination

Choice Definitions
Nirje (1969)

Self-determination is a critical component of the normalization principle, which advocates that choices, wishes, and aspirations of people with disabilities be considered in actions affecting them.

Deci and Ryan (1985)

Self-determination is the capacity of individuals to choose and then have these choices be the driving force behind their actions.

Williams (1990)

Self-determination refers to the attitudes and abilities required to act as the primary causal agent in one's own life and to make choices regarding one's actions free from undue external influence.

Schloss, Alper, and Jayne (1993)

Self-determination is a person's capacity to choose and to have those choices be the determinants of one's actions.

Goal Setting and Attainment Definitions

Ward (1988)

Self-determination is the attitude and ability that lead individuals to define goals for them and to take the initiative in achieving those goals.

Wolman, Campeau, DuBois, Mithaug, and Stolarski (1994)

A self-determined person knows and can express his needs, interests, and abilities. He sets appropriate goals, make choices and plans in pursuit of the goals, and makes adjustments as needed to achieve them.

Martin, Huber Marshall, and Maxson (1993)

Self-determined individuals know what they want and how to get it. From an awareness of personal needs, self-determined individuals set goals, and then they doggedly pursue *their* goals. This involves asserting their presence, making *their* needs known, evaluating progress toward meeting *their* goal, adjusting their performance as needed, and creating unique approaches to solve problems.

Field and Hoffman (1994, 1995)

Self-determination is a person's ability to define and achieve goals from a base of knowing and valuing oneself.

Serna and Lau-Smith (1995)

Self-determination refers to a person's awareness of his strengths and weaknesses, his ability to set goals and make choices, to be assertive, and to interact with others in a socially competent manner. The outcome is a person who is able to obtain his or her own goals without infringing on the rights, responsibilities, and goals of others.

Mithaug et al., (1998)

Self-determination is the repeated use of skills necessary to act on the environment in order to attain goals that satisfy self-defined needs and interests.

Some view choice as the most important self-determination component. Students enjoy choosing and dreaming about what they would like to do at some point in the future. However, goals are the engine that drives self-determined behavior. They are what make the dream happen. Self-determination is the "attitudes and abilities that facilitate an individuals identification and pursuit of goals" (Powers et al., 1996). It is self-directed

action to attain goals that marks determined behaviors (Field & Hoffman, 1995). Self determined individuals doggedly pursue their goals until the goals are attained (Martin, Huber Marshall, & Maxson, 1993). Goal attainment begins with goal setting. Goal setting by itself is a powerful and extremely effective tool for bringing about changes in behavior (Johnson & Rusch, 1990). Without goals, a person has nothing to strive toward in life. To this end, the goal attainment process makes the dream happen. Thus, goal attainment behavior is a critical self-determination instructional area (Wehmeyer, 1994).

Theoretical Relevance

Crucial to the outcome of the transitional training process for people with disabilities is the acquisition of self-determination (Ward, 1988; Field, Martin, Miller, Ward, & Wehmeyer, 1998; Halloran, 1993; Halpern, 1994). Self-determination is the acquiring of the skills, knowledge, and beliefs that enable a person to engage in self selected, directed, and regulated goal attainment behaviors (Field, Martin, Miller, Ward, & Wehmeyer, 1998b). Mithaug (2001) stated that youth in special education possess fewer self-determination skills than do their general education classmates.

Wehmeyer (1994) considered goal attainment skills to be the most important self-determination component. Garfield (1986) believed that such skills serve as the keys to success and can be taught systematically. Goal attainment is a two-step process of first selecting goals based on interests, skills, and limits and secondly taking action guided by plans formulated to achieve those goals (Martin et al., 2001). Goal setting alone, it is noted, will not produce maximum benefit for students with disabilities without explicit goal-attainment instruction (Fuchs et al., 1997). To help ameliorate these deficiencies by increasing the use of self-determination knowledge and skills, Wall and Dattilo (1995)

and West, Barcus, Brooke, and Rayfield (1995) believed self-determination skills should be methodically taught to students with disabilities.

Ward (1996) recommended the development and use of curriculum and instructional materials designed purposely to teach those lacking self-determination skills. One such package designed specifically to teach self-determination skills is the *ChoiceMaker* series developed and field-tested during 1995-1998 by Martin and Huber Marshall (1999). Although the field tests established its usefulness, the *Take Action* lesson package of the *ChoiceMaker* instructional series was not been empirically examined.

An empirical study by German et al. (2000) was conducted to determine "if the *Take Action* instructional materials would teach adolescents with mild to moderate mental retardation daily goal attainment skills" (p. 29). In their study, they taught six adolescents with mild to moderate mental retardation to attain daily IEP goals. After intervention, the students' goal attainment ability improved over their baseline ability and even maintained following withdrawal of teacher instruction. German et al. suggested the need for investigations with other groups of students and environments.

Generalization

Russell (1974) stated that authors of research on behavioral programs have a practical as well as an ethical responsibility to demonstrate generalization. Drabman, Hammer, and Rosenbaum (1979) also questioned the ethics of soliciting the trust and cooperation of people in need of professional help with no attempt to discover methods to increase the retention of the positive treatment effects after assistance is removed. Although there are studies of generalized treatment effects, many researchers, in their

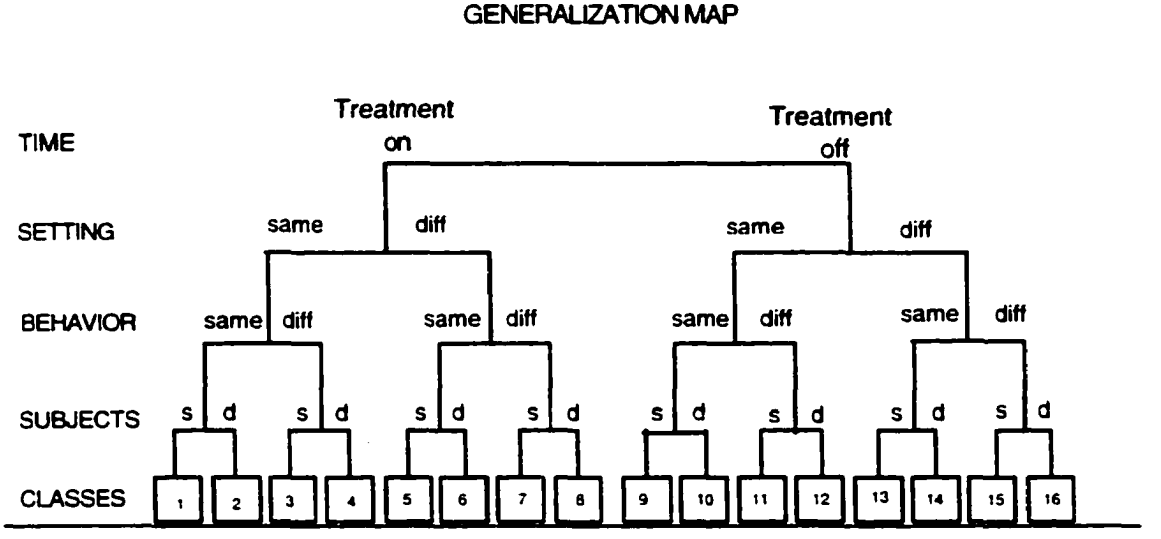
eagerness to investigate the problem, have not adequately defined their conceptions of generalization or used the basic guidelines for classifying generalization offered by Kazdin (1975) or O'Leary and O'Leary (1976). According to Drabman et al. (1979), early definitions of generalization in the 1950s were either too strict or not strict enough. In Drabman et al's (1979) view, "subjective reference to a variety of phenomena as generalization is unacceptable if a technology for programming these effects is to be developed" (p. 204). They also believed that Stokes and Baer, (1977) definition was more appropriate: "The occurrence of relevant behavior under different, non-training condition (i.e., across subjects, settings, people, behaviors, and/or time) without the scheduling of the same events in those conditions as had been scheduled in the training conditions" (p. 350). Additionally, Drabman et al. (1979) pointed out that the complexity of the Stokes and Baer definition underscores the need for more descriptive labels and categories for better communication and more discrete analyses of generalization. Though acknowledging that generalization can be viewed based on processes associated with generalized effects, Stokes and Baer offered an alternate view that defines generalization based on the methods used and the data recorded.

Drabman et al. (1979) constructed a generalization map of descriptive categories to classify and determine the prevalence of generalization studies reported during a 10-year period from 1960-1970. Included in the survey were all studies of generalization, successful and unsuccessful, as well as those studies that included some form of generalization, even if the author failed to specifically discuss generalization. The results suggested four major generalization categories: (1) across time, (2) across settings, (3)

across behaviors, and (4) across subjects when combined give 16 separate generalization classes (see Figure 1).

Figure 1

The Generalization Map of 16 Different Classes of Generalization Effects



Note. From Drabman (1979) "Assessing Generalization in Behavior Modification with Children: The Generalization Map, 1979, *Behavioral Assessment," 1,* p. 206. Copyright 1979 by the Association for Advancement of Behavior Therapy. Reprinted with permission.

Generalization across time usually refers to a behavioral change originating during treatment and continuing after the treatment program is withdrawn. This is sometimes called response maintenance (Kazdin, 1975). The withdrawal or continuance of treatment is the pivotal condition that determines if generalization has or has not occurred. *Generalization across setting* refers to the changed behavior occurring in settings other than treatment environments. Another setting is one without the significant defining characteristics of the treatment setting. Drabman et al. (1979) cautioned that physical changes are obvious, but even subtle changes can constitute a change to a new

setting. For example, the introduction of a new teacher or researcher in the setting of the original research alters the discriminative characteristics and results in a new setting. *Generalization across behaviors* is the change in behaviors not programmed for change in the treatment program. Response or side-effect generalizations are terms usually associated with this type of generalization. The non-programmed behavior must have an identification independent of the targeted behavior. *Generalization across subjects* involves non-targeted subjects that display a behavior following the start of treatment even though no contingencies were applied to them.

The demonstration of treatment effects that must occur before considering generalization is frequently accomplished with the use of a reversal (ABAB) or multiple baseline designs (Drabman et al. 1979). However, unless generalization is the dependent variable, these designs do not provide the necessary controls to demonstrate generalization (see Figure 1).

Drabman et al. (1979) provided the following discussion and clarification of generalization and the considerations used in constructing the Generalization Map.

> For the Generalization Map, treatment was considered ongoing if any programmatic contingencies controlled by the experimenter remained in effect, regardless of the label given to the study phase. Withdrawal of treatment indicated a return to conditions existing prior to the experimental phase(s). Thus, the dichotomous distinction between "treatment on" and "treatment off" was made. (p. 206)

Current Research

Presented in this section is a discussion of the first and only empirical study identified in the literature, *Promoting Self-Determination: Using Take Action to Teach Goal Attainment* (German et al., 2000) that used *Take Action: Making Goals Happen.* This study investigated the efficiency of the *Take Action: Making Goals Happen* instructional package in teaching a goal attainment process to adolescent high school students (Huber-Marshall et al., 1999).

Population and Setting. In the German study six adolescents with mild to moderate mental retardation learned how to attain their daily IEP goals. Students were selected because of their good attendance in a 90-minute class, which met three times a week. Written language and reading scores from the Woodcock Johnson Revised (WJ-R) ranged from K-7 to 4.2 and K-6 to 8.3 respectively. Other scores from the American Association of Mental Retardation's Adaptive Behavior Scale (School Edition) or the Vineland were below average to poor for the most part.

Materials. The *Take Action: Making Goals Happen* included a choice of long term and short-term goal teaching formats. German used the short-term or daily format. The short-term format presented fewer goal attainment concepts and terms and required less writing by the student. The instruction took 6 to 10 hours, depending on the speed with which the student learned. Students learned a daily goal attainment process as opposed to a long-term goal attainment process.

Dependent Measure. Students chose three daily goals to accomplish. The number of goals accomplished served as the dependent measure.

Design and Procedures. A multiple-baseline across two students at a time was used to evaluate the effectiveness of the *Take Action Lessons*. After intervention the researchers employed a partial withdrawal (Rusch & Kazdin, 1981) across two students at a time to determine if acquisition gains maintained.

Baseline goal selection and attainment without instruction. Each day the students chose three goals to complete in one day. They did not receive instruction, prompts, or feedback while attempting to achieve their goals.

Intervention. The *Take Action* lessons taught students the goal attainment process during four 90-minute classes. Following instruction, students were allowed to use the process for six days. Teachers gave prompts and feedback during the planning and the students' attempts to accomplish the goal. At day's end, teacher support, instruction, and feedback were given during the evaluation and adjustments procedure.

Maintenance. Partial withdrawal across two students at a time was employed to determine if acquisition gains maintained. The students received no prompts during the day and only verbal praise for the goals they attained.

Results. The researchers reported, "Instruction using the *Take Action* lesson package produced an increase in the number of daily goals attained for all six students. During the maintenance condition, the number of goals attained, maintained, and performed exceeded baseline levels" (German et al., 2000, p. 33). The authors gave three reasons that might limit implications of the study. First, all the students had near perfect attendance, a possible indication of pre-existing goal directed behavior. Second, the combined instruction from the *Take Action* lessons and the teacher, supplemented with several practice days, combined to obscure which components contributed the most to

student gains. Finally, information was not maintained to determine if new goals were being chosen or the same ones were being chosen over and over.

Recommendations for future research. Recommendations for additional research included determining the effectiveness of the regular *Take Action* format for teaching long-term goal attainment process. The researchers suggested using other groups in different environments, pursuing other types of goals and including groups with learning disabilities. Additionally, the materials were designed for students with and without disabilities so the researchers recommended future investigations using the materials with students with and without disabilities.

Consideration was given to the recommendations made by German et al. (2000) for future research as this research was designed. No attempt was made to duplicate the study of German et al. However, as many of their suggestions, as feasible, were included in the current research to broaden the empirical literature about the *Take Action: Making Goals Happen* instructional materials. This was accomplished by the methods explained in the following chapter.

CHAPTER 3

Method

This two-phase study sought to examine associated effects related to college students with learning disabilities learning a goal attainment process. I completed Phase I, Acquisition and Generalization, at the end of the 2001 spring semester. The data collected at the end of Phase I served as a control for Phase II, Time and Setting-Time Generalization. Phase II took place during the 2001 fall semester.

During the initial Acquisition and Generalization (Phase I), I instructed five college students with disabilities in a goal attainment process. The purpose of this intervention was two-fold. First, I sought to measure the extent to which college students could learn a goal attainment process as the result of participating in a set of instructional materials originally designed for high school age students with mild/moderate disabilities (Huber Marshall et al., 1999). In addition, I probed to ascertain if goal attainment knowledge and skills generalized to a new behavior. The results in both cases were positive enough for Phase I outcomes to serve as a valid control for the proposed Phase II investigation.

In the Time and Setting-time Generalization (Phase II) it was necessary to determine if the goal attainment knowledge and skills acquired during Phase I would generalize over time and setting-time. Phase II began after three or more months from the five participants' last intervention and generalization probe in Phase I. A new set of procedures was implemented to examine time and setting-time generalization by adding different physical locations and instructors, a method traditionally applied to facilitate

time and setting-time generalization studies. The two different variables of the settings were physical locations and two separate administrators.

The following information explains how the study was conducted during Phase I, Acquisition and Generalization, and Phase II. Time and Setting-Time Generalization, to answer the research questions. Each heading is sub-divided to show first the information on the completed Acquisition and Generalization (Phase I) of the study and second to show information for the proposed Time and Setting-Time Generalization (Phase II).

Participants

Acquisition and Generalization

Five college students with disabilities agreed to participate in this study. Students' files documented average or above intelligence. Each student had scores in one or more academic functioning areas indicating superior ability in contrast to one or more areas of slightly below average scores. All were identified as having attention deficit disorder, with one also described as hyperactive. Four of the five students also had a learning disability diagnosed prior to college, yet only two of the students indicated they received special education services in high school (see Table 3). Three females and two males, one sixth-semester senior, one fourth-semester sophomore, and three second-semester freshmen participated. Three of the students were 19 years old, one had a 20th birthday during the initial Acquisition and Generalization (Phase I), one student was 22, and the other was 24. Rather than their real names, pseudonyms are used throughout this chapter and subsequent chapters.

Table 3

Student Information

Name	Age	Gender	Dis-ability	University Intake date	When Identified
Pat	19	Male	LD	8-8-2000	High School
Sue	19	Female	ADHD	10-10-2000	University
Ben	22	Male	LD/ ADHD	10-15-1999	Mid High
Jen	19	Female	LD	8-24-2000	High School
Mia	24	Female	LD/ ADHD	8-19-1997	Mid High

Time and Setting-Time Generalization

All the students who participated in the completed Acquisition and Generalization (Phase I) of this study also participated in the Time and Setting-Time Generalization (Phase II) of the study (see Table 3).

Setting

Acquisition and Generalization

Phase I, Acquisition and Generalization, activities took place at the Zarrow Center for Learning Enrichment, Carpenter Hall, The University of Oklahoma, Norman Campus. Only one area within the Zarrow Center was used for all Acquisition and Generalization activities. The area was approximately 15 by 25 feet, with walls on two sides of the area, a third side defined by a movable partition, and the fourth side open to a larger office and

reception area of the Zarrow Center. The environment at the Zarrow Center was a quiet comfortable setting with limited distractions.

Time and Setting-Time Generalization

The Zarrow Center, in Carpenter Hall, The University of Oklahoma, Norman campus was the same physical location used for the intervention sessions (see Table 4, Setting Variations) and was the setting for Phase II, Time and Setting-time Generalization. The lounge area on the 2nd floor of the Oklahoma Memorial Union Building, The University of Oklahoma, Norman campus also was used. Two administrators were utilized to affect setting changes.

Table 4

Setting Variations for Time and Setting-Time Generalization Probes

Probe	Zarrow Ctr. 1	OU Union 2	Administrator 1	Administrator 2
1	√		√	
2	√			√
3		√	√	
4		√		√

Dependent Measures

Acquisition and Generalization

Acquisition dependent measures included the percent of the *Take Action* Quizzes correctly scored and the percent of total point change across five pre-post tests

scores: (a) *ChoiceMaker Assessment Scale: Take Action Section,* (b) *Air Self-Determination Scale,* (c) *Self-Determination Knowledge Scale,* (d) *Approach to Learning Scale, and (e) Self-Regulation Behaviors Scale.* Generalization was measured by the percent of the *Take Action* Goal Attainment Forms correctly completed (see Appendix A).

Time and Setting-Time Generalization

The dependent measures for the Time and Setting–Time Generalization (Phase II) derived from the same instruments used in the Acquisition and Generalization (Phase I). One exception was the proficiency *Take Action* Quizzes measures. Only the dependent measure from four of the seven proficiency *Take Action* Quizzes were used during the Time and Setting-Time Generalization (Phase II) (see Appendix A).

Materials

Acquisition and Generalization

Interventions. The Take Action: Making Goals Happen. The *Take Action* instructional materials were designed to teach students goal attainment knowledge and skills (Huber Marshall et al., 1999). The lessons, which can be presented individually or to a group, consist of seven lessons that define the goal attainment process. The materials include an instructional script for each lesson. In each lesson, selected portions of the *Take Action* Goal attainment form is introduced, explained, and exercises are provided for practice.

Lesson One provides an introduction to the *Take Action* Process, and introduces act, evaluate, and adjust are components. The concepts of long- and short-term goals are explained and demonstrated to show that long-term goals break down into short-term goals. The lesson concludes with guided practice in breaking down long-term goals into

short-term goals, followed by independent practice breaking down long-term goals into smaller short-term immediate goals.

Lesson Two provides a ten-minute video showing the six parts of a goal plan used by students to accomplish various personal goals. Next, students complete activities that demonstrate the first through the fourth part of a goal plan. Definitions of standard, motivation, strategy, and schedule with the related questions used on the *Take Action* goal attainment form are covered. Each question guides the students in identifying, in their own words, the six needed plan parts. For example, when determining their standard, students learn to ask, "What will I be satisfied with?" or when helping to determine their motivation to accomplish their goal, they ask themselves, "Why do I want to do this?"

Lesson Three reviews long-term and short-term goals. Students review four steps of standard, motivation. strategy, and schedule and the corresponding goal attainment questions. introduced in Lesson Two. The lesson ends with the demonstration of the two remaining *Take Action* Plan Parts, support and feedback and related questions.

In Lesson Four the students read examples of fictitious student situations. The instructor models *Take Action* Plan Critique form and the Breaking Down Goal Worksheet. Students then have the opportunity to work alone critiquing and explaining their critique of different student situations.

Lesson Five reviews words and definitions, plan parts and corresponding questions, and plan critiquing. At this point in the materials, students develop a long-term goal plan and short-term goals to support their long-term plan. After completing their plans, students practice critiquing each part of their plan with the Critique Worksheet.

Lesson Six begins with a review of previous lessons followed by a lesson overview. The script discusses examples from the video. Students then make evaluations and adjustments to an example plan and action sections of a goal plan. The evaluation and adjustment rationale of Parts 1-4 are discussed. Students then complete Part 2--Action, Part 3--Evaluate, and Part 4--Adjust of their personal plans begun in Lesson Five.

In Lesson Seven students select a long-term goal they wish to accomplish and then break it down into short-term goals to work on at once. Short-term goal plans are constructed and critiqued. Completion of a Breaking Down Long-Term Goals worksheet concludes the seven lessons of instruction.

Assessment Tools. Two parts of *The ChoiceMaker Self-Determination Assessment* were used in this study. Part One, *ChoiceMaker* Assessment Section 3: *Take Action, and* Part Two, *ChoiceMaker* Assessment Profile Section 3: *Take Action* (Martin & Huber Marshall, 1999). The two parts can be used together or separately (see Appendix B). The instrument reliability had a .8 or higher significant correlation between two administrations given two weeks apart in a multi-state test-retest reliability study (Martin & Huber Marshall, 1999).

Part One of the *ChoiceMaker* Assessment, yields a skill and self-determination proficiency profile of the students in three categorical sections: Section One, Choosing Goals; Section Two, Expressing Goals; and Section Three, Taking Action. Each question is answered and scaled under two columns, the first column for Student Skills and the second column for Opportunity at School. Sections can be used together or individually.

In Part One the profiling questions are grouped into four sub groups of Student Plan (Questions F1-F2), Student Action (Questions G1-G7), Student Evaluation

(Questions H1-H8), and Student Adjustment (Questions I1-18). The 31 questions are rated on a scale that progress from 0 (not at all) through 1, 2, 3, to 4 (100%) (see Appendix B). Each question can be answered twice, once for Student Skills and again for Opportunity at School.

Part Two is a *ChoiceMaker* Assessment Profile form to record points from the three sections in Part One and convert those points to percent scores. Columns correspond to each of the three sections from Part One: Choosing Goals, Expressing Goals, and Taking Action. Each of the three sections has two sub-headings, Student Skills and Opportunity at School. Both Section sub-headings have two columns each to record scores from two different dates.

The student version of the *AIR Self-Determination Scale* (see Appendix C) instructs the user to " . . . answer the questions about how you go about getting what you want or need" (Wolman et al., 1994, p. 1). It consists of twenty-four profiling questions grouped into four sections, with six-questions in each section. The sections are titled (a) Things I Do, (b)How I Feel, (c)What Happens at School, and (d)What Happens at Home. Student's answers are ranked using the following point scale: 1 never, 2 almost never, 3 sometimes, 4 almost always, and 5 always. Points convert to percent of a 100% scale to determine the level of self-determination. Reliability of the test-retest consistency over a elapsed period of three months separating the first and second test administration yielded a correlation of .74" (Wolman et al., 1994, p. 2) (see Appendix C).

The *Self-Determination Knowledge Scale* was also used (Hoffman, Field, & Sawilowsky, 1996). It consists of a thirty questions designed to assess the student's cognitive self-determination knowledge and skills. The reading level of the test is

approximately fifth grade. Content validity of the test was based on the blueprint approach to test construction (Nunnaly, 1978). The Cornbach's alpha internal consistency produced a reliability estimate of approximately .89 (Hoffman et al., 1996) (see Appendix D).

Proficiency *Take Action Quizzes* are included after each of the seven intervention teaching lessons (Huber Marshall et al., 1999) (see Appendix E). Each test focuses on one lesson of the instructional materials. One test at the end of Lesson Four is a review of the material covered from Lesson One through Lesson Four. Instructions for completing each test are included on the test form. The tests are not timed.

The *Approach to Learning* test (Greene & Miller, 1996) contains 22 Likert-type items with a ranking scale of 1-6 points ranging from 1 strongly disagree to 6 strongly agree. They are grouped into the following categories: three items for learning goal, performance goal-approach, and performance goal-avoidance; five items for perceived instrumentality, and four for perceived ability-task referenced, and four for perceived ability-peer referenced (see Appendix F).

The *Self-Regulation Behaviors* tool consists of 18 Likert-type questions (Greene & Miller, 1996) with a 1 to 6 scale from strongly disagree to strongly agree are distributed over the following four categories: nine self-regulation, seven deep processing strategy, one shallow processing strategy, and one persistence (Greene & Miller, 1996) (see Appendix G).

Behavioral Generalization Take Action form. A four-part goal attainment worksheet, constructed for the research project (see Appendix H), was used to collect the repeated measure. Each of the four sections, Plan, Act, Evaluate, and Adjust, represent

crucial goal-planning steps. Each of the four parts includes the following: standard, motivation, strategy, schedule, support, and feedback. This dependent measure represents a percent correct of 68 total possible points from all four sections. Total possible points of each section are divided between questions and answers (see Appendix I):

1. Percent of plan section: 16, ten for questions and 6 for answers.
2. Percent of act section: 13, six for questions and seven for answers.
3. Percent of evaluate section: 25, 13 for questions, and 12 for answers.
4. Percent of adjust section: 14, eight for questions, and six for answers.

Time and Setting-Time Generalization

The materials used in the Acquisition and Generalization (Phase I) of the research was used again in the Time and Setting-Time Generalization (Phase II). An exception was the proficiency *Take Action* Quizzes. Instead of administrating all seven tests on each of the four probes during the Time and Setting Time Generalization phase, only four of the seven tests were randomly selected. A different one was given at each probe. All participants were given the same randomly selected tests (see Appendix B).

Design

Acquisition and Generalization

A multiple probe design across subjects assessed acquisition of knowledge and skills plus demonstrate experimental control (Cronin & Cuvo, 1979).

Time and Setting-Time Generalization

Time and Setting-Time Generalization (Phase II) used a withdrawal design (Rusch & Kazdin, 1981) utilizing the Acquisition and Generalization (Phase I) data as control. Specifically, I undertook a total withdrawal of the intervention package, as

demonstrated by Aragona, Cassady and Drabman (1975). The variation of time and setting-time conditions were added for a more detailed measure of generalization.

Participant Selection

Acquisition and Generalization

Participants needed a score of 86% or below (106 points of a possible 124) on the *ChoiceMaker* Assessment scale (Martin & Huber-Marshall, 1996) (see Appendix A). If student scores met the criterion, they were paid a $250.00 stipend for their participation in the Acquisition and Generalization (Phase I).

Time and Setting-Time Generalization

The five students who participated in the Acquisition and Generalization (Phase I) also participated in the Time and Setting-Time Generalization (Phase II). Each participant was offered a stipend of $80.00 for participation in Phase II.

Baseline

Acquisition and Generalization

In Acquisition and Generalization (Phase I), baseline data were recorded for each student prior to intervention. Baseline data consisted of students' scores based on the number of correctly completed Plan, Act, Evaluate, and Adjust sections of the *Take Action* goal attainment work sheet (see Appendix I). As individual students arrived, they were greeted with a brief welcome conversation before each took a seat. After each student received a *Take Action* worksheet and a pencil, I read aloud the scripted instructions (see Appendix J). Students received no additional information or assistance while completing the *Take Action* worksheet. Once the student completed the worksheet,

I scheduled the date for the next appointment, thanked the student for participating, and dismissed the student.

Time and Setting-Time Generalization

Data collected at the conclusion of the Acquisition and Generalization (Phase I) of the research served as the baseline control for the Time and Setting-Time Generalization (Phase II) segment of the research. When this data was collected, all instructional components had been totally withdrawn.

Intervention

Acquisition and Generalization

Take Action Goal Attainment instructional materials taught students the goal attainment process (Huber Marshall et al., 1999). Each of the seven lessons included an instructor presentation script (see Appendix K) and lesson quiz. I read the script for each lesson to the students in a one-on-one lecture-type presentation. Variations from the script were minimal with my comments limited to encouragement or approval. Elaboration of instructions or content was not given. I incorporated transparencies with the lessons presentations, as suggested by the script. A video, included in the materials, was also used for instruction as called for by the script. Students completed a section test after each lesson covering what I had just taught them. As students completed each lesson, they were tested and moved to the next lesson until all seven lessons were completed. After completing the lesson test, the students set an appointment for the next lesson. I then thanked them for their participation and dismissed them. This process continued through completion of all seven lessons. Each session was video recorded.

In addition to the seven lesson quizzes, the goal attainment work sheet provided repeated measures of the primary dependent measure. The students were given a blank form and instructions were read to them, from a script, each time a measure was taken. Students were scored on their ability to provide questions, answers, and explanations in the plan, act, evaluate, and adjust sections.

Time and Setting-Time Generalization

After three to four months following intervention, students were given four non-instructional probes assessed time and setting–time generalization. At each probe meeting, directions for completing each assessment instrument was read to the students. Directions for completing the repeated measure were read to the student from the script used in the Acquisition and Generalization (Phase I) (see Appendix J). No additional information or direction was given. Each instrument was presented in the same order to each student, at each of the four probes. Students were not assisted in anyway after the instructions were read (see Appendix L). When the instruments were completed, they were collected and the student was dismissed after the date for the next probe meeting was selected. All instruments were double graded and recorded. Probe grades were not shared with the students until all students completed all four probes.

Probes One and Two occurred in the same physical location used during the intervention of the Acquisition and Generalization (Phase I). I conducted the intervention in the Acquisition and Generalization (Phase I) and the first probe over time. The second Administrator, a graduate assistant, gave the second probe (see Table 4, Setting Variations).

The physical setting of probes three and four changed to the food court of the Oklahoma Memorial Union Building on The University of Oklahoma, Norman Campus. Each Administrator administered one probe each in the new physical setting.

Inter-Observer Agreement

Acquisition and Generalization

Dependent Measures. An independent observer and I graded the completed *Take Action* form and the 1-7 proficiency *Take Action* Quizzes to establish inter-rater reliability scores (see Table 5). The average percent of agreement on the repeated measure worksheet completion form of plan, act, evaluate, and adjust, across all five participants, is shown in Table 6.

Table 6 presents the inter-rater agreement scores for the 1-7 *Take Action* Lessons. A total percent of inter-rater reliability was figured for each lesson a student completed. The average of these five total percents produced a grand total inter-rater reliability score of 96 %.

Table 5

Inter-rater Agreement on Percentage of Plan Parts Completed Correctly

	Plan	Action	Evaluate	Adjust	Median
% Average	90.12	96.15	98.24	96.71	96.65

Independent Measures. An independent observer checked for consistency of instruction, and to checked for instructor drift (see Appendix M). The five students completed all seven lessons for a total of 35 lessons. Videotaping ranged from 71% to

100% of students' total sessions. The grand total of 29 videoed lessons represented 83% of all 35 lessons.

Table 6

Inter-rater Agreement on 1-7 Take Action Test Scores

Student	Pat	Sue	Ben	Jen	Mia	Grand Total Average %
Total % agreement	92	100	83	100	100	96

An independent observer used the videotapes to establish an accuracy of instruction score. The scores were averaged to reflect one score of consistency of instruction for each student. These scores were averaged for a grand total accuracy of presentation score, over all students, of 98% (see Table 7).

Table 7

Consistency of Instruction

Student Overall	Pat	Sue	Ben	Jen	Mia	% Average
% Total	97	99	96	97	99	98

Time and Setting-Time Generalization

Dependent Measures. An independent observer and I graded the completed *Take Action* form and the four quizzes. The agreement on the *Take Action* form of plan, act,

evaluate, and adjust, across all five participants, and four probes ranged from 95 to 99%. Agreement on the four *Take Action* quizzes was 100%.

Independent Measures. The instructions for all four probes were read from a script (see Appendix N) for consistency between administrators. All the instruments were presented in the same sequence at each probe (see Appendix O). There was no other instruction provided. Inter-rater agreement on all independent measures ranged from 99 to 100%.

CHAPTER 4

Results and Data Analysis

This two-phase study determined the efficiency of the *Take Action: Making Goals Happen* (Marshall et al., 1999) instructional materials to teach a goal attainment process to college students with disabilities and check their generalization of what they learned. This chapter presents the results and analysis of the findings of Phase I and Phase II of the study. Included are the questions posed, instruments, sample, sample selection process, and results. Each research question is listed followed by the instrument used and the tabulation of the collected data used to answer the research questions.

Results of each dependent measure for each individual as well as the whole group are presented in table form. All scores are shown as fractions, with the score as the numerator and the total possible score as the denominator. Paired-samples *t* tests calculated on 28 pairs of pre and post scores determined if the mean difference between the scores on the two occasions (or under two conditions) were significantly different from zero (Green, Salkind, & Akey, 2000). Statistical significance was indicated in three areas of the *Take Action* Form scores. One measure indicated statistical significance when the outlier with the greatest negative change was eliminated from the calculation. Scores from seven instruments were compared in various ways (see Table 8).

Table 8

Method of Score Comparisons

	Raw Scores		Raw Scores
Phase I	1st Baseline	Compared To	1st After Intervention
Phase II	1st After Intervention	Compared To	At A Later Time
	1st After Intervention	Compared To	Average Setting-Time
Total Score for Each Instrument			
	1st Baseline	Compared To	1st After Intervention
	1st After Intervention	Compared To	1st At A Later Time
	All 1st Baseline	Compared To	All Average Setting-Time
	1st After Intervention	Compared To	Average Setting-Time
	1st Baseline	Compared To	Average Setting-Time

Instruments

Seven instruments were utilized to answer the research questions (see Table 9). The instruments used in each phase and the associated research question numbers are included in the table 9 (see questions on p. 8). All instruments were used to gather pre and post data at baseline and intervention. After total withdrawal of intervention, data was collected over time and setting-time.

Table 9

Instruments And Associated Research Question Number

Instruments	Phase I Acquisition & Generalization	Phase II Time & Setting-Time Generalization
Take Action Quizzes	1	1
Choice Maker Assessment: Take Action Section	2	2
Air Self-Determination	3	3
Self-Determination Knowledge	3	3
Approach to Learning	4	4
Self-Regulation Behaviors	5	5
Behavior Generalization *Take Action* form		
Percent of Plan Section	1	6
Percent of Act and Evaluation	1	6
Percent of Adjustment	1	6

Acquisition and Generalization – Phase I

Acquisition questions. Do college students with learning disabilities, who receive goal attainment instructions, acquire goal attainment knowledge and skills?

1. Will they score at least 80% or above on the curriculum acquisitions tests?

The majority of the students, three out of five, did score 80% or better on the *Take Action* curriculum acquisitions tests. Students completed one *Take Action* quiz (Marshall et al., 1999) included in the instructional materials after each of the seven instruction

interventions. Table 10 presents acquisition Scores of Goal Attainment Knowledge and Skills. Sue, Jen, and Mia each scored at the 80% criterion or better on all seven quizzes. Pat's success rate was 71% with five of the seven scores at criterion, but quizzes 6 and 7 fell below the 80% criteria. Ben's success rate was 57% (four of seven quizzes) with quizzes 2, 3, 4, and 7 at or above criterion. Quizzes 1, 5, and 6 were below the 80%. Ben did score above criterion with 85% on test 7, which requires knowledge from the previous six tests. Ken's score increased from test 6 to test 7 by ten points but did not make criterion. In answer to question 1, the 80% criteria were achieved by the students on 29 of the 35 tests for a success rate of 84% over all participants. The group score achieved criterion on quizzes 1, 2, 3, 4, 5, and 7. Total scores on quiz 6 are only 6% points below the 80% criterion.

Table 10

Acquisition Scores of Goal Attainment Knowledge and Skills from Take Action Quizzes

	Quizzes							
Students	1	2	3	4	5	6	7	Total
Pat	4/4	6/6	6/6	6/6	13/13	13/30	40/75	88/140= 63%
Sue	4/4	6/6	6/6	6/6	13/13	26/30	74/75	135/140= 96%
Ben	2/4	6/6	6/6	6/6	6/13	17/30	64/75	107/140= 76%
Jen	4/4	6/6	6/6	6/6	13/13	25/30	65/75	125/140= 89%
Mia	4/4	3/6	6/6	6/6	13/13	30/30	73/75	135/140= 96%
Total	18/20=	27/30=	30/30=	30/30=	58/65=	111/150=	316/375=	590/700=
Percent	90%	95%	100%	100%	89%	74%	84%	84%

2. Will a change occur between the pre and post assessment scores of goal attainment knowledge?

Results showed that a change did occur between pre and post scores. Prior to and at the conclusion of all instructional intervention, each student completed the *Take Action, Section of the ChoiceMaker Self-Determination Assessment* (Martin & Huber Marshall, 1996). The resulting scores measured the goal attainment knowledge acquired (see Table 11). Individual scores ranged from a – 22% decrease in Pat's pre score of 102, the group's high pre score, to a 55% increase of Mia's pre score of 65, which was next to the lowest pre score in the group (see Table 11). Total raw scores of all five participants marked a 16% increase from pre to post scores.

To explore other possibilities, additional *t* tests excluding outliers were performed, which also indicated statistical significance. By removing Pat's largest negative percent of change scores from the calculation, $p = .04$ was indicated. By adding his scores back and removing Mia's largest positive percent of change scores, a $p = .054$ was indicated. Additionally, the calculation repeated with both largest negative (Pat) and largest positive (Mia) percent of change scores removed indicated no significance with a $p = .096$.

3. Will a change occur between the pre and post measures of their self-determination knowledge?

A change did occur between the pre and post measure of their self-determination knowledge. Prior to and at the conclusion of all instructional intervention, each student completed both the *Air Self-Determination Scale* (Wolman, Campeau, DuBois, Mithaug, and Stolarski, 1994) and the *Self-Determination Knowledge Scale* are shown in Tables

Table 11

Acquisition Scores of Goal Attainment Knowledge and Skills: *ChoiceMaker* Assessment

Students	First Score of Baseline	First Score After Intervention	Percent of Change
Pat	102/124 = 82%	80/124 = 65%	- 22/102 = -22%
Sue	49/124 = 40%	69/124 = 56%	20 / 49 = 41%
Ben	92/124 = 74%	98/124 = 79%	6/ 92 = 7%
Jen	90/124 = 73%	115/124 = 93%	25/ 90 = 28%
Mia	65/124 = 53%	101/124 = 82%	36/ 65 = 55%
Total	398/620 = 64%	463/620 = 75%	65/ 398 = 16%

12 and 13 respectively, with both tables (Hoffman, Field, and Sawilowsky 1996). Scores from the *Air Self-Determination Scale* and the *Self-Determination Knowledge Scale* are compared to the First Score of Baseline and the First Score After Intervention.

On the *Air Self-Determination Scale*, Ben's score is of particular interest (see Table 12). He has the lowest pre score rank of 5th compared to a post score rank of 3rd representing a 31% improvement. Pat's pre score was the highest of the group paired with his identical post score indicating no change The percent of change between pre and post scores of the *Air Self-Determination Scale* ranged from a high of 31% increase to a low of 0% change. All post scores were as good or better than the pre scores. The total group score improved by 10%.

Table 12

Acquisition Scores of Goal Attainment Knowledge and Skills: Air Self-Determination Knowledge Scale

Students	First Score of Baseline	First Score after Intervention	Percent of Change
Pat	115/120 = 96%	115/120 = 96%	0
Sue	84/120 = 70%	87/120 = 73%	3/84 = 4%
Ben	80/120 = 67%	105/120 = 88%	25/80 = 31%
Jen	91/120 = 76%	101/120 = 84%	10/91 = 11%
Mia	99/120 = 83%	108/120 = 90%	9/99 = 9%
Total	469/600 = 78%	516/600 = 86%	47/469 = 10%

Note. Paired Sample total results ($M = -9.40$, $SD = 9.66$, $t = -2.176$, $df. 4$, $d = -.973$, $p = .095$)

On the *Self-Determination Knowledge Scale*, Jen had a –3% decrease from a high pre score of 97% (see Table 13). Sue had the lowest pre score of 70%, and the greatest increase of 27%. The Self-Determination Scale scores ranged from a –3% decrease to a 27% increase. The group *Self-Determination Knowledge Scale* pre and post scores increased 9%.

Table 13

Acquisition Scores of Goal Attainment Knowledge and Skills: Self-Determination Knowledge Scores

Students	First Score of Baseline	First Score After Intervention	Percent of Change
Pat	30/37 = 81%	35/37 = 95%	5/30 = 16%
Sue	26/37 = 70%	33/37 = 89%	7/26 = 27%
Ben	34/37 = 92%	36/37 = 97%	2/34 = 6%
Jen	36 /37 = 97%	35/37 = -95%	-1/36 = -3%
MIA	32/37 = 86%	33/37 = 89%	1/32 = 3%
Total	158/185 = 85%	172/185 = 93%	14/158 = 9%

Note. Paired Sample total results (*M = - 2.80, SD = 3.44, t = - 1.562, df = 4, d = -.697, p = .193*)

4. Will a change occur between the pre and post scores of their approach to learning?

A change did occur between the pre and post scores of their approach to learning. Prior to and at the conclusion of all instructional intervention, each student completed an *Approach To Learning Scale* (Greene, and Miller 1996). Although Jen's pre score of 61% was the lowest of the group, she scored the highest percent increase of 14% (see Table 14). Pat had a high pre score of 92%. However, her post score of 74% represented a decrease of –20%. The change percentage of the individual scores ranged from a low of –20% to a high of only 14%. Three students had reductions in post scores, -4, -17, –20,

and two students increased their post score, one up to +7% and the other +14%. The total score of the group decreased 5% from the pre-test to the post-test.

Table 14

Acquisition of Goal Attainment Knowledge and Skills: Approach to Learning Scores

Students	First Score of Baseline	First Score After Intervention	Percent of Change
Pat	122/132 = 92%	98/132 = 74%	-24/122 = -20%
Sue	89/132 = 67%	74/132 = 56%	-15/89 = -17%
Ben	87/132 = 66%	93/132 = 70%	6/87 = 7%
Jen	80/132 = 61%	91/132 = 69%	11/80 = 14%
Mia	114/132 = 86%	110/132 = 83%	-4/114 = -4%
Total	492/660 = 82%	466/660 = 78%	-26 /492 = -5%

Note. Paired Sample total results (*M = 5.20, SD = 14.48, t = .803, df = 4, d = .359, p = .467)*

5. Will a change occur between the pre and post measures of their self-regulation behaviors?

Pre and post comparisons of their self-regulation behaviors scores evidenced a change. Prior to and at the conclusion of all instructional interventions, each student completed the *Self-Regulation Behaviors Scale* (Greene, and Miller 1996). Jen's pre score of 63% decreased to 58% on the posttest, yielding a –7% change (see Table 15). Ben's pre score was 64%, yet increased to 75% on the posttest for a 17% increase, the

highest of the five students. The group post score of 74%, an increase from 72%, represents a 3% increase over the pre score.

Table 15

Acquisition Scores of Goal Attainment Knowledge and Skills: Self-Regulation Behaviors

Students	First Score of Baseline	First Score after Intervention	Percent of Change
Mia	92/108 = 85%	98/108 = 91%	6/92 = 7%
Ben	69/108 = 64%	81/108 = 75%	12/69 = 17%
Jen	68/108 = 63%	63/108 = 58%	-5/68 = -7%
Pat	90/108 = 83%	94/108 = 87%	4/90 = 4%
Sue	71/108 = 66%	65/108 = 60%	-6/71 = -8%
Total	390/540 = 72%	401/540 = 74%	11/390 = 3%

Note. Paired Sample total results (*M* = -2.20, *SD* = 7.63, *t* = - .645, *df* = 4, *d* = -.288, *p* = .554)

Generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the knowledge and skills to new behaviors?

Repeated measures showed that changes did occur in both level and trend between the students' pre and post scores. To evaluate the generalization of the knowledge and skills to a novel behavior, students completed a goal planning worksheet with three blank sections for the plan, act and adjust goal attainment components. The Take Action Goal form scores were graphed from Baseline and Intervention (see Figure

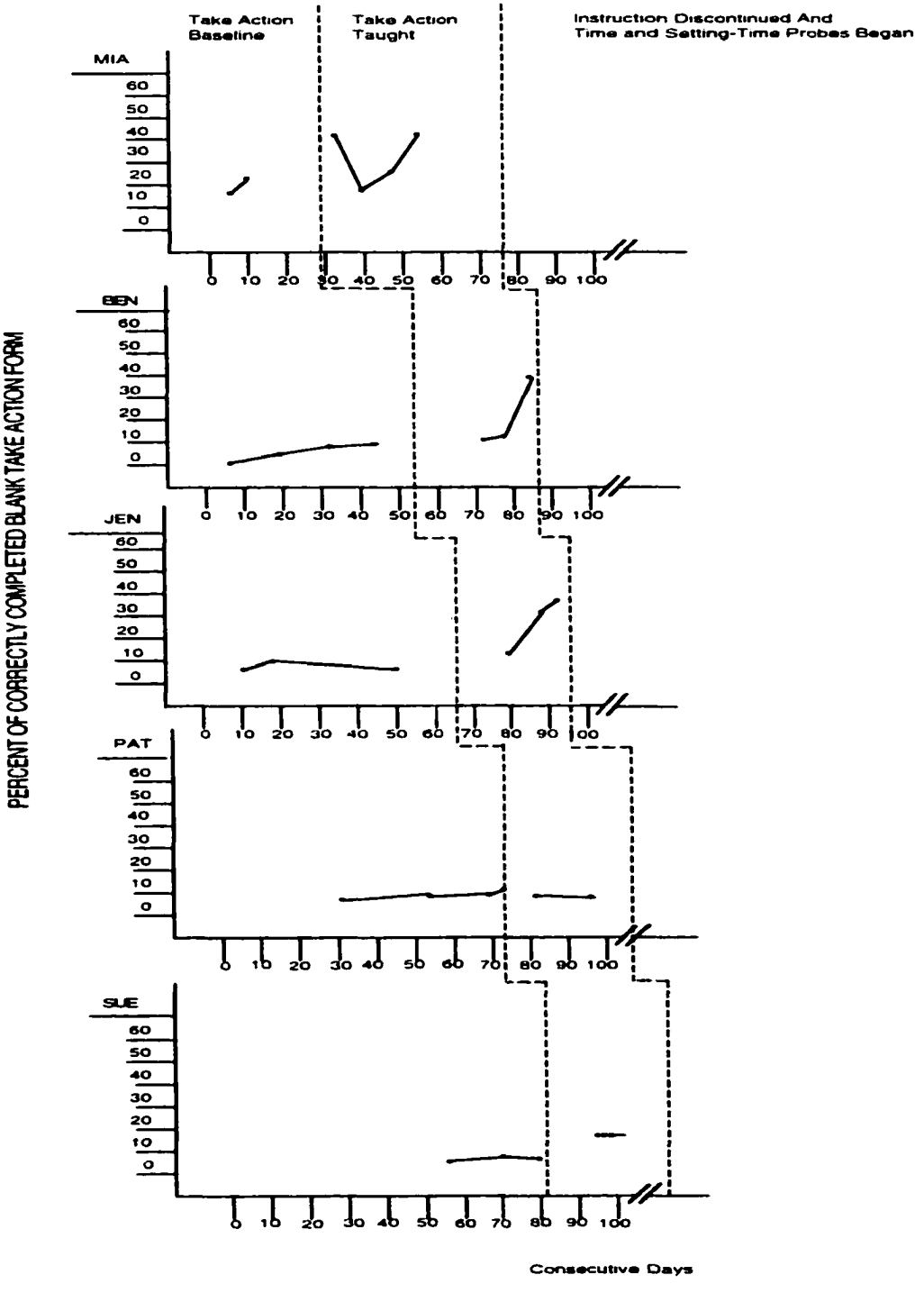
2). The graph reflects each datum point during baseline through intervention for each student.

Mia's baseline scores averaged 22% of the possible generalization points. At intervention, Mia's increase was immediate and then dropped back to baseline, followed by a gradual return to her initial increase for an average intervention score of 35% of the possible generalization points. Although her scores regressed during intervention, her overall trend from baseline through intervention was upward or positive (see Figure 2). Ben's baseline scores averaged 11% of the possible points, increasing slightly over baseline. At intervention his scores increased an average of 25%. Jen's baseline scores averaged 9% of the possible points and remained level. At intervention her scores continually increased for an average of 28% of the possible points for an upward trend (see Figure 2). Pat's baseline scores averaged 9% of the possible points with little change during baseline. During intervention, his scores increased slightly to 11% and remained near this level throughout the intervention. Sue's baseline scores averaged 9% of the possible points and remained stable. At intervention her scores increased slightly as indicated in the level change, and then remained level throughout the intervention for an average of 20% (see Figure 2).

A comparison was made between the first baseline and the first after intervention score to indicate the progress made during the total intervention (see figure 3) (see Table 16). From the first score at baseline to the first score after intervention, Pat's scores increased from 7% to 10% of the total possible points or a 40% increase from his pre to post score. Sue's scores increased from 7% on the first score at baseline to 24% on the first score after intervention. Expressed as a percent of his initial score at baseline, Pat

Figure 2

Generalization of Goal Attainment Knowledge and Skills to a New Behavior



demonstrated an increase of 220%. Ben's scores increased from 4% during baseline to 57% after baseline, for a 900% change. The first percent of score for Ben at baseline of 4% increased to a first score after intervention of 57% or a 900% increase over his initial score at baseline. Jen's first score at baseline was 7% of the possible but rose to 43% of the possible for her first score after baseline for 480% after intervention. Mia's percent of correct responses increased from 19% on the first score at baseline to 47% at the first score after intervention, for a 146% increase from pre to post test. At intervention her scores continually increased for an average of 28% of the possible points for an upward trend (see Figure 2). Pat's baseline scores averaged 9% of the possible points with little change during baseline. During intervention, his scores increased slightly to 11% and remained near this level throughout the intervention. Sue's baseline scores averaged 9% of the possible points and remained stable. At intervention her scores increased slightly, as indicated in the level change and then remained level throughout the intervention for an average of 20% (see Figure 2).

A paired-samples *t* test was conducted to evaluate the change in the first baseline scores of all the students after they received the instructional package. The results indicated that the mean After Intervention (M=24.60, SD=12.90) was significantly greater than the mean of the First Baseline scores (M=6.20, SD=3.90, t=-3.190, p= .033) (see Table 17 and Table 18). The mean difference was 18.40 points between the total of all students' scores at baseline and after intervention. The 18.40 represents 92 points or 297% increase. The standardized effect size index, *d*, was 1.43, a large value. The value of *d* can range from a positive infinity to a negative infinity. Irrespective of the sign, .2, 5,

and .8 usually represent small, medium and large effect sizes, respectively (Green et al., 2000)

Table 16

Generalization of Goal Attainment Knowledge and Skills to a New Behavior: Take Action Form

Students	First Score of Baseline	First Score After Intervention	Percent of Change
Mia	13/68 = 19%	32/68 = 47%	+19/13 = 146%
Ben	3/68 = 4%	39/68 = 57%	+36/4 = 900%
Jen	5/68 = 7%	29/68 = 43%	+24/5 = 480%
Pat	5/68 = 7%	7/68 = 10%	+2/5 = 40%
Sue	5/68 = 7%	16/68 = 24%	11/5 = 220%
Total	31/340 = 9%	123/340 = 36%	+92/31 = 297%

Table 17

Paired Samples Statistics of Behavior Generalization Correct Percent Score Take Action Form: Baseline and First after Intervention

	Mean	N	Std. Deviation	Std. Error Mean
Baseline	6.20	5	3.90	1.74
After Intervention	24.60	5	12.90	5.77

Table 18

Paired Samples Tests of Behavior Generalization Correct Percent Score Take Action Form: Baseline and First after Intervention

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	t	df	Sig. (2-tailed)
Baseline & After Intervention	18.40	12.90	5.77	34.41	2.39	3.190	4	.033

Time Generalization and Setting-Time Generalization—Phase II

From six to nine months after total withdrawal of the intervention (Rusch & Kazdin, 1981), the students completed all six of the instruments, used in Phase I (see Table 11) four more times to answer the Phase II questions of Time Generalization and Setting-time Generalization. *Take Action* Quizzes 1, 2, 4, and 5 (Marshall et al., 1999) were randomly selected from the group of seven quizzes to be completed one at a time at each of the four time and setting-time sessions. Take Action Quiz 1 was used to measure time generalization. Take Action Quizzes 2, 4, and 5 were administered to measure the amount of setting-time generalization of knowledge and skills acquired during the Phase I intervention. The tests were administered once in a familiar setting and then once in three different settings. The familiar setting produced a measure of the generalization over time. The scores obtained in the three different settings measured the generalization over both setting-time. Two to four months after Phase II began, all of the testing for time and setting-time was completed. The results are presented in the following sections.

First time generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skills over time?

1. Will their level of achievement score on the curriculum acquisitions tests generalize over time?

Achievement scores on curriculum acquisitions tests did generalize over time but to varying degrees. The students completed the *Take Action* Quizzes in the same physical location and conditions used at the end of the intervention. The environment was unchanged to focus on generalization over time and avoid the confounding effect of setting change (see Table 19). Pat, Jen, and Mia's pre and post scores generalized, indicated by a 0% change. The post-test total of the group of five decreased by one point from their pre-test total on quiz 1. Sue's score decreased by three points while Ben gained two points, giving a group decrease of one point or –6%. Four of the five or 80% of the students matched or improved their pre-test score, while the fifth student had a decrease.

2. Will their level of assessment scores of goal attainment knowledge and skill generalize over time?

Generalization over time of assessment scores was achieved by three of the five students. Pat, Sue, and Mia recorded increases of 14%, 22%, and 15% respectively (see Table 20) on their goal attainment knowledge and skills scores on the *Take Action of the ChoiceMaker Self-Determination Assessment* (Martin, and Huber-Marshall 1996) (see Table 20). Ben maintained his pre test score of 79% and Jen's score decreased for a 48% reduction. The individual increases and decreases combined for a group decrease of –3%.

Table 19

Generalization of Goal Attainment Knowledge and Skills Over Time: Take Action Quiz

Students	First Score after Intervention	First Score at a Later time	Percent of Change
Mia	4/4 = 100%	4/4 = 100%	0
Ben	2/4 = 50%	4 /4 = 100%	2/4 = 50%
Jen	4/4 = 100%	4/4 = 100%	0
Pat	4/4 = 100%	4/4 = 100%	0
Sue	4/4 = 100%	1/4 = 25%	-3/4 = -75%
Total	18/20 = 90%	17/20 = 85%	-1/18 = -6%

Four of the five students, or 80%, matched or improved their pre test scores and the fifth student's score decreased.

3. Will their acquired level of self-determination knowledge and skill scores generalize over time?

Two students generalized or improved their scores over time. To answer this question, both the *Air Self-Determination Scale* (Wolman et al., 1994) (see Table 21) and the *Self-Determination Knowledge Scale* (Hoffman et al., 1996) (see Table 22) were given First Score at a Later Time. The tests were administered in the same setting as the First Test After Intervention. Scores were compared to the First Score After Intervention obtained at the end of Phase I. The comparison indicated the level of self-determination knowledge and skills scores acquired in Phase I, which generalized over time.

Table 20

Generalization of Goal Attainment Knowledge and Skills Over Time: ChoiceMaker, Take Action Section

Students	First Score After Intervention	First Score at a Later time	Percent of Change
Mia	101/124 = 81%	116/124 = 94%	15/101 = 15%
Ben	98/124 = 79%	98/124 = 79%	0
Jen	115/124 = 93%	60/124 = 48%	-55/115 = -48%
Pat	80/124 = 65%	91/124 = 73%	11/80 = 14%
Sue	69/124 = 56%	84/124 = 68%	15/69 = 22%
Total	463/620 = 75%	449/620 = 72%	-14/463 = -3%

Note. Paired Sample total results ($M = 2.80$, $SD = 29.82$, $t = .210$, $df = 4$, $d = .094$, $p = .844$)

However, the change in students' scores on the *Air Self-Determination* scores for the group decreased by 8% (see Table 21). Of the –8% decrease, Jen's –30% decrease accounted for 6% of the group decrease. The *Air Self-Determination Scale* changes ranged from –30% to +3% with three scores decreasing, one increasing and one duplicating the pre score. Two of the five students, or 40%, duplicated or increased their pre score and the other 3, 60% had decreases.

The students' *Self-Determination Knowledge Scale* scores dropped from the first score after intervention to the first score at a later time to –2% (see Table 22). The individual changes on the *Self-Determination Knowledge Scale* ranged from a –6% to 9%. Three scores decreased, one increased, and one remained unchanged for a group success rate of 40%.

Table 21

Generalization of Goal Attainment Knowledge and Skills Over Time: Air Self-Determination Scores

Students	First Score after Intervention	First Score at a Later Time	Percent of Change
Mia	108/120 = 90%	103/120 = 86%	-5/108 = -5%
Ben	105/120 = 88%	105/120 = 88%	0
Jen	101/120 = 84%	71/120 = 59%	-30/101 = -30%
Pat	115/120 = 96%	108/120 = 90%	-7/115 = -6%
Sue	87/120 = 73%	90/120 = 75%	3/87 = 3%
Total	516/600 = 86%	477/600 = 80%	-39/516 = -8%

Note. Paired Sample total results ($M = 7.80$, $SD = 13.03$, $t = 1.339$, $df = 4$, $d = .598$, $p = .252$)

4. Will their approach to learning scores generalize over time?

Three of the five students did generalize or improve their scores over time. To determine if the acquired goal attainment knowledge and skills scores would generalize over time, a post-test (First Score At A Later Time), the *Approach to Learning Scale* (Greene & Miller, 1996), was administered. The acquired scores were compared to pre-test scores (First Score After Intervention) (see Table 23). Of interest to this investigation was the determination whether the score achieved on the scale after intervention would generalize over time. In pursuit of this answer, the aggregate scores rather than six categorical scores of this instrument are discussed.

Table 22

Generalization of Goal Attainmnet Knowledge and Skills Over Time: Self-Determination Knowledge Scores

Students	First Score after Intervention	First Score at a Later Time	Percent of Change
Mia	33/37 = 89%	36/37 = 95%	3/33 = 9%
Ben	36/37 = 97%	34/37 = 92%	- 2/36 = -6%
Jen	35/37 = 95%	35/37 = 95%	0
Pat	35/37 = 95%	33/37 = 89%	-2/35 = -6%
Sue	33/37 = 89%	31/37 = 84%	-2/33 = -6%
Total	172/185 = 29%	169/185 = 91%	-3/172 = - 2%

Note. Paired Sample total results (*M = .60, SD = 2.19, t = .612, df = 4, d = -.274, p =.573)*

Sue and Mia showed increases of 24% and 5% respectively. Pat and Jen's scores decreased by –4% and –16%, while Ben's remained constant at 70%. The group as a whole increased by 1% with a success rate of 60%.

5. Will their self-regulation behavior generalize over time?

Ben's self-regulation results did generalize across time. However, the group as a whole did not generalize self-regulation behavior scores over time. A *Self-Regulation Behavior Scale* (Greene & Miller, 1996) was administered to determine if the acquired goal attainment knowledge and skills scores on the scale in Phase I would generalize over time. The First Score at a Later Time was compared to pre-test scores on the same instrument, First Score After Intervention (see Table 24). Ben was the only participant

Table 23

Generalization of Goal Attainment Knowledge and Skills Over time: Approaches to Learning Scores

Students	First Score after Intervention	First Score at a Later Time	Percent of Change
Mia	110/132 = 83%	116/132 = 88%	6/110 = 5%
Ben	93/132 = 70%	93/132 = 70%	0
Jen	91/132 = 69%	76/132 = 58%	-15/91 = -16%
Pat	98/132 = 74%	94/132 = 71%	-4/98 = -4%
Sue	74/132 = 56%	92/132 = 70%	18/74 = 24%
Total	466/660 = 78%	471/660 = 71%	5/466 = 1%

Note. Paired Sample total results (*M* =.00, *SD* = 2.45, *t* = .00, *df* = 4, *d* = .0, *p* = 1.00)

who generalized his scores over time. The four other participants' individual changes ranged from −1% to a −11% decrease. Mia, with the greatest pre score, had the smallest decrease of −1%. Pat, with the second highest pre score of 87%, experienced the greatest decrease of −11%. The group as a whole had a decrease over time of − 4 %, indicating that the level of self-regulation behavior scores obtained during Phase I did not successfully generalize over time as a group. One of five students generalized his pre score over time for a 20% success rate.

Second time generalization question. Will the level of acquired knowledge and skills, generalized to new behaviors in Phase I, generalize over time?

Measures indicated that the new behavior generalized in Phase I did not generalize over time. In Phase I the Knowledge and Skills score levels generalized to a

new behavior, indicated by the scores on the Take Action Form. This instrument was administered again, six to nine months later, to determine if the score levels from Phase I would generalize over time (see Table 25). The generalization of skills and knowledge

Table 24

Generalization of Goal Attainment Knowledge and Skills Over Time: Self-Regulation Behaviors

Students	First Score After Intervention	First Score at a Later Time	Percent of Change
Mia	98/108 = 91%	97/108 = 90%	-1/98 = -1%
Ben	81/108 = 75%	81/108 = 75%	0
Jen	63/108 = 63%	59/108 = 55%	-4/63 = -6%
Pat	94/108 = 87%	84/108 = 78%	-10/94 = -11%
Sue	65/108 = 60%	64/108 = 59%	-1/65 = -2%
Total	401/540 = 74%	385/540 = 71%	-16/401 = -4%

Note. Paired Sample total results (*M = 2.40, SD = 2.30, t = 2.33, df = 4, d = 1.04, p = .080)*

score levels achieved on the First Score After Intervention during Phase I were not duplicated by the First Score at a Later Time by any student. Their decreases ranged from – 86% to – 59%. The combined total of the group decreased – 69%.

Results of a paired-samples *t* test, conducted to evaluate the change in the First Score After intervention scores of all the students once they received the instructional package, are reported in Table 26 and 27. The results indicate that the mean of the After

Intervention scores (M=24.60, SD=12.90) were significantly less than the mean of the First Score at a Later Time (M=7.60, SD=5.77, t= 4.419, p= .012). The standardized

Table 25

Behavior Generalization Over Time: Take Action Form

Students	First Score After Intervention	First Score at a Later Time	Percent of Change
Mia	32/68 = 47%	11/68 = 16%	-21/32 = -65%
Ben	39/68 = 57%	16/68 = 24%	-23/39 = -59%
Jen	29/68 = 43%	4/68 = 6%	-25/29 = -86%
Pat	7/68 = 10%	2/68 = 3%	-5/7 = -71%
Sue	16/68 = 24%	5/68 = 7%	-11/16 = -69%
Total	123/340 = 36%	38/340 = 11%	-85/123 = -69%

effect size index, d, was 1.967, a large value. The value of d can range from a positive infinity to a negative infinity. Irrespective of the sign, .2, .5, and .8 usually represent small, medium and large effect sizes, respectively (Green et al., 2000). The mean difference was 17.00 between the total of all students' First Score After Intervention and First Score at a Later Time. The –17.00 (see Table 27) represents an –85 points or –69% decrease (see Table 25).

Table 26

Paired Samples Statistics of Behavior Generalization Correct Percent Score Take Action Form: First after Intervention and First at a later Time

	Mean	N	Std. Deviation	Std. Error Mean
After Intervention	24.60	5	12.90	5.77
At A Later Time	7.60	5	5.77	2.58

Table 27

Paired Samples Tests of Behavior Generalization Correct Percent Score Take Action Form: First after Intervention and First at a later Time

Paired Differences								
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
After Intervention & At A Later Time	-17.00	8.60	3.85	6.32	27.68	4.419	4	.012

First setting-time generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skills over setting-time?

1. Will their level of achievement score on the curriculum acquisitions tests generalize over setting-time?

On three measures over setting time, only Mia's score generalized. All other students' scores decreased. However, they all remained above the 80% criterion for this measure. Take Action Quizzes 2, 4, and 5 (Huber Marshall et al., 1999) were administered to measure the amount of generalization over setting-time of knowledge and skill scores acquired during the Phase I intervention to different settings (see Table 28). The conditions of the three sessions were varied to effect different settings over time. Take Action Quizzes 2, 4, and 5 were randomly selected from the group of seven quizzes to be completed one at a time at each of the three setting-time sessions. The three average setting-time scores were compared to the scores recorded at the end of the corresponding intervention session. Ben and Mia generalized their scores over setting-time and Ben's score increased by 39%. In contrast, Pat, Sue, and Jen's scores decreased by -16%, -12% and -4% respectively. The group as a whole had a decrease of – 1% with a success rate of 40% from two of the five students, who generalized or improved their previous score.

2. Will their level of assessment scores of goal attainment knowledge generalize over setting-time?

Four of the five students improved their scores over setting-time. The *Take Action, Section 3, Part 1 of the ChoiceMaker Self-Determination Assessment* (Martin & Huber-Marshall, 1996) was administered to each student three additional times and the three scores were averaged (see Table 29). Pat, Sue, Ben, and Mia's Setting-Time average scores improved over their First Score After Intervention. Jen's average score decreased by a – 39% from the First Score After Intervention. When compared to First Score After Intervention, the combined group score increased by 2% with a success rate of 80%.

Table 28

Generalization Over Setting-Time of Curriculum Acquisition Scores from Take Action Quizzes

	Questions 2, 4, & 5		
Name	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	22/25 = 88%	22/25 = 88%	0
Ben	18/25 = 72%	25/25 = 100%	7/18 = 39%
Jen	25/25 = 100%	24/25 = 96%	-1/25 = -4%
Pat	25/25 = 100%	21/25 = 84%	-4/25 = -16%
Sue	25/25 = 100%	22/25 = 88%	-3/25 = -12%
Totals	115/125 = 92%	114/125 = 91%	- 1/125 = - 1%

3. Will their acquired score level of self-determination knowledge skills generalize over setting-time?

Only three of the ten scores from two measures generalized over setting-time while seven decreased. The *Air Self-Determination Scale* (Wolman et al.,1994) scores (see Table 30) and the *Self-Determination Knowledge Scale* (Hoffman et al., 1996) scores (see Table 31) answered this question. Both were administered three additional times to compare to the scores recorded at the end of intervention in Phase I.

Table 29

Generalization of Goal Attainment Knowledge and Skills Over Setting-Time: ChoiceMaker Assessment, Take Action Section

Name	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	101/128 = 78%	120/128 = 94%	19/101= 19%
Ben	98/128 = 77%	108/128 = 84%	10/98 = 10%
Jen	115/128 = 90%	70/128 = 55%	-45/115 = -39%
Pat	80/128 = 63%	99/128 = 77%	19/80 = 24%
Sue	69/128 = 54%	75/128 = 58%	6/69 = 9%
Total	463/640 = 72%	472/640 = 74%	9/463 = 2%

Note. Paired Sample total results ($M = -1.00$, $SD = 27.80$, $t = -.080$, $df = 4$, $d = -.036$, $p = .940$)

On the *Air Self-Determination Scale*, Ben's score of 105 generalized over setting-time for 0% of change. The other participants' scores regressed from –1% to a –23%. The total scores of the group decreased by a –7% with a success rate of 20%, or one student out of five generalized or improved his previous score.

On the Self Determination Knowledge Scale (Hoffman et al., 1996), Jen's Average From Three Setting-Times scores generalized over setting-time indicated by zero change in score (see Table 31). Mia's scores increased 6% over all four tests. However, Pat, Sue, and Ben had decreases of –6%, – 9%, and –8% respectively. The group total score decreased – 8% from the First Score After Intervention to the Average

Table 30

Generalization of Goal Attainment Knowledge and Skills Over Setting-Time: Air Self-Determination Scores

Name	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	108/120 = 90%	100/120 = 83%	-8/108 = -7%
Ben	105/120 = 88%	105/120 = 88%	0
Jen	101/120 = 84%	78/120 = 65%	-23/101= -23%
Pat	115/120 = 96%	112/120 = 93%	-3/115 = -3%
Sue	87/120 = 73%	86/120 = 72%	-1/87 = -1%
Total	516/600 = 86%	481/600 = 80%	-35/516 = -7%

Note. Paired Sample total results (*M = 7.20, SD = 10.38, t =1.551, df = 4, d = .693, p = .196*)

From Three Setting-Times scores, indicating that the group scores did not generalize over setting-time.

4. Will their approach to learning generalize over setting-time?

One score generalized, two improved and two decreased over setting-time. The *Approach to Learning Scale* (Greene & Miller, 1996) measured the students' approach to learning. Four re-tests were given after six to nine months to determine if the scores recorded at the end of Phase I would generalize over setting-time. The instrument consisted of six separate parts. The parts were administered four times, with each of the five students generating one hundred twenty (6 x 4 x 5 = 120) separate scores to compare to the thirty pre-scores. To summarize, the scores are discussed in aggregate rather than by each

individual score. All raw pre-scores of all five students on the six parts were combined and averaged for an average pre-score for each student's First Score After Intervention. Repeated scores from setting-times were averaged for comparison to the pre scores (see Table 32).

Table 31

Generalization of Goal Attainment Knowledge and Skills Over Setting-Time: Self-Determination Knowledge Scores

Students	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	33/120 = 28%	35/120 = 29%	2/33 = 6%
Ben	36/120 = 30%	33/120 = 28%	-3/36 = -8%
Jen	35/120 = 29%	35/120 = 29%	0
Pat	35/120 = 29%	33/120 = 28%	-2/35 = - 6%
Sue	33/120 = 28%	30/120 = 25%	-3/33 = -9%
Total	172/600 = 29%	166/600 = 28%	-6/72 = -8%

Note. Paired Sample total results ($M = .80$, $SD = 1.79$, $t = .1.00$, $df = 4$, $d = .447$, $p = .374$)

Pat's score generalized to three setting-times conditions with 74% on pre and post scores. Sue and Mia's scores increased to 71% and 87% respectively on the post-test. In contrast, Ben and Jen experienced decreases to 78% from 84% and to 65% from 69% respectively from their pre test scores. Combining all scores resulted in an overall 2% group increase from pre to post test and a success rate of 60%.

Table 32

Generalization of Goal Attainment Knowledge and Skills Over Setting-Time: Approaches to Learning Scores

Students	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	110/132 = 83%	115/132 = 87%	5/110 = 5%
Ben	111/132 = 84%	103/132 = 78%	-8/111 = -7%
Jen	91/132 = 69%	85/132 = 65%	-6/91 = -7%
Pat	98/132 = 74%	98/132 = 74%	0
Sue	74/132 = 56%	94/132 = 71%	20/74 = 27%
Total	484/660 = 73%	495/660 = 75%	11/484 = 2%

Note. Paired Sample total results ($M = -.60$, $SD = 2.51$, $t = -.535$, $df = 4$, $d = -.239$, $p = .621$)

5. Will their self-regulation behavior generalize over setting-time?

Three self-regulation behavior scores improved and two decreased over setting-time. The *Self-Regulation Behaviors* scale (Greene & Miller, 1996) was used to answer this question. Three re-tests were given after six to nine months to determine if the scores recorded at the end of Phase I would generalize over setting-time. The instrument consisted of four separate parts. The parts, administered four times with each of the five students, generated 80 separate scores to compare to the 20 pre-scores. To summarize, aggregate scores are presented rather than individual scores (see Table 33). All raw pre-scores of all five students on the six parts were combined and averaged. All repeated

scores From Three Setting-Times were averaged for comparison. Sue, Ben, and Mia's scores increased by 11%, 4%, and 1% respectively while Pat's – 4% and Jen's – 3% show decreases. These decreases combined with the previous three students' increases give a group total increase of 1%.

Second setting-time generalization question. Will the level of knowledge and skills generalized to a new behavior generalize over setting-time?

Knowledge and skill levels generalized to a new behavior in Phase I did not generalize over setting-time. To evaluate the generalization over setting-time of knowledge and skills generalized to a new behavior in Phase I, students completed a goal planning worksheet three additional times. Each of the three scores for the five students were averaged and compared with the previous After Intervention test score.

Six to nine months after intervention, instruction was totally withdrawn. Mia's After Intervention scores deteriorated to 11% points below her baseline score whereas Ben's score returned to baseline and Jen's and Pat's scores fell below baseline. Sue increased her baseline score by 1% point. At intervention all participants experienced an increase over baseline scores (see Figure 3). Mia, Ben, and Jen experienced a noticeable increase while Pat's increase was very slight, and Sue's increase was modest.

Table 33

Generalization of Goal Attainment Knowledge and Skills Over Setting-Times: Self-Regulation Behaviors Scores

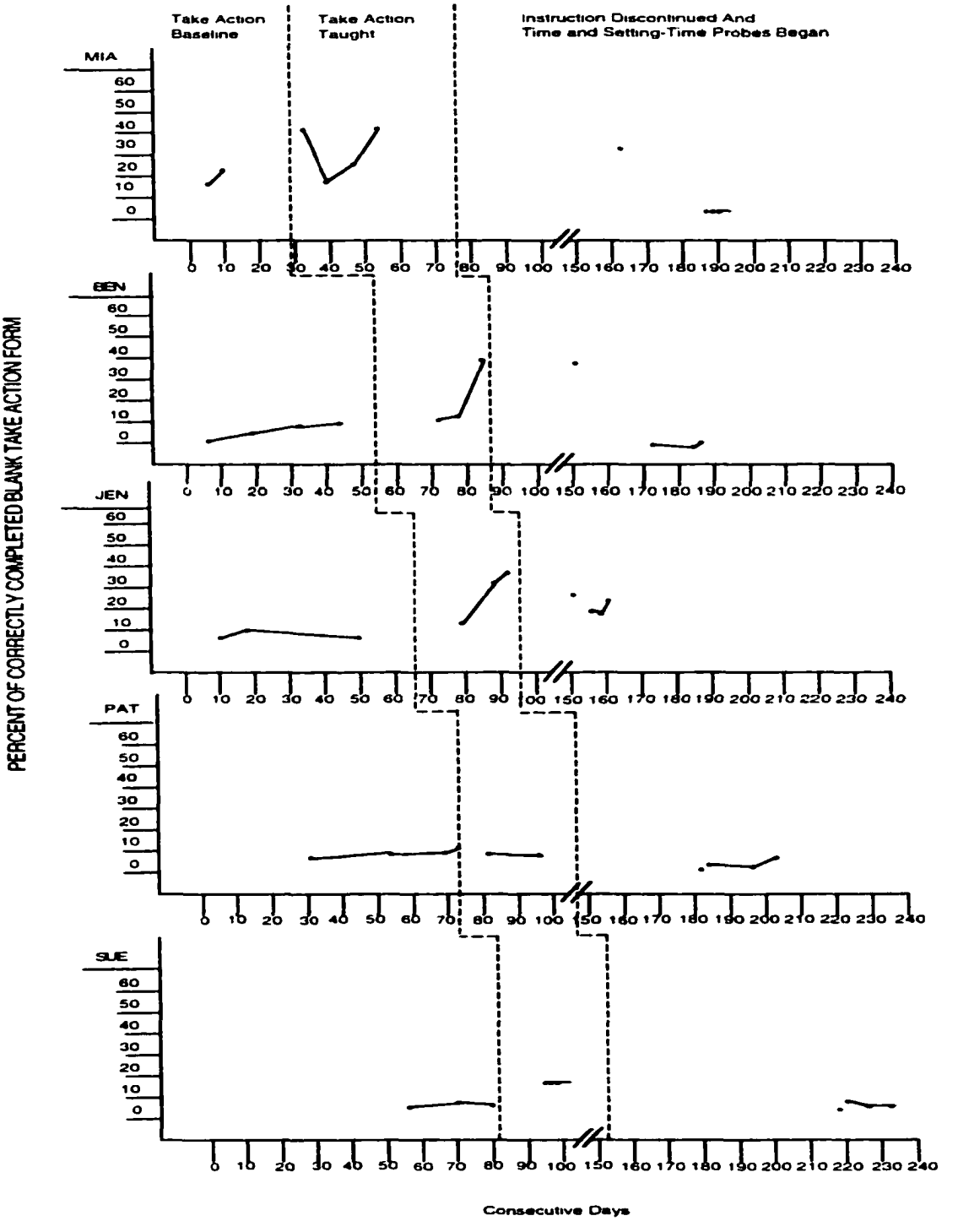
Students	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	98/108 = 91%	99/108 = 92%	1/98 = 1%
Ben	80/108 = 74%	83/108 = 77%	3/80 = 4%
Jen	63/108 = 58%	61/108 = - 56%	-2/63 = -3%
Pat	94/108 = 87%	90/108 = -83%	- 4/94 = -4%
Sue	65/108 = 60%	72/108 = 67%	7/65 = 11%
Total	400/540 = 74%	405/540 = 75%	5/400 = 1%

Note. Paired Sample total results (*M = - 0, SD = 1.58, t = - .00, df = 4, d = -.0, p = 1.00*)

A paired-samples *t* test was conducted to evaluate the change in the First Score After Intervention of all the students Over Setting-Time. The results (see Table 35 and Table 36) indicated that the mean of the After Intervention scores (M=24.60, SD=12.90) were significantly greater than the mean of the average Setting-Time score (M=6.00, SD=1.41, *t*= 3.439, *p*= .026). The standardized effect size index, *d*, was –1.537, a large value. The value of *d* can range from a positive infinity to a negative infinity. Irrespective of the sign, .2, .5, and .8 usually represent small, medium and large effect sizes, respectively (Green et al., 2000). The mean difference was –18.60 (see Table 36)

Figure 3

Generalization of Goal Attainment Knowledge and Skills to a New Behavior Over Time and Setting-Time



between the total of all students' scores at baseline and after intervention. The positive 18.60 represents –93 points or –76% decrease (see Table 34) when the second score entered (Average From Three Setting Times) is subtracted from the first score entered (First Score After Intervention) by the SPSS program used to analyze the data.

Table 34

Behavior Generalization Over Setting-Time: Take Action Form Scores

Students	First Score After Intervention	Average From Three Setting-Times	Percent of Change
Mia	32/68 = 47%	7/68 = 10%	-25/32 = -78%
Ben	39/68 = 57%	7/68 = 10%	-32/39 = -82%
Jen	29/68 = 43%	5/68 = 7%	-24/29 = -83%
Pat	7/68 = 10%	4/68 = 6%	-3/7 = -42%
Sue	16/68 = 24%	7/68 = 10%	-9/16 = -56%
Total	123/340 = 36%	30/340 = 9%	-93/123 = -76%

Table 35

Paired Samples Statistics of Behavior Generalization Correct Percent Score Take Action Form: First after Intervention and Over Setting-Time

	Mean	N	Std. Deviation	Std. Error Mean
After Intervention	24.60	5	12.90	5.77
Over-Time	6.00	5	1.41	.63

Table 36

Paired Samples Tests of Behavior Generalization Correct Percent Score Take Action Form: First after Intervention and Over Setting-Time

Paired Differences								
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Measure	Lower	Upper	t	df	Sig. (2-tailed)
After Intervention & Setting-Time	18.60	12.10	5.41	3.58	33.62	3.439	4	.026

Total Scores On All Instruments

All student score totals were combined for each instrument. Tables 39 through 43 show comparisons of the resulting total scores, which are paired as follows:

1. 1st Baseline Compared To 1st After Intervention
2. 1st After Intervention Compared To 1st At A Later Time
3. All 1st Baseline Compared To All Average Setting-Time
4. 1st After Intervention Compared To Average Setting-Time
5. 1st Baseline Compared To Average Setting-Time

All the scores of each student on each instrument were totaled. The five student totals were then combined to give one overall total score for each instrument. Each instrument, presented with its overall total score, is shown in Table 37. The First Baseline score of all students for each instrument was combined. The First Score After Intervention was also combined for each instrument. Then the two combined scores per

instrument were compared. The Percent of Change ranged from – 5% decrease to a 297% increase. The overall score for all instruments showed an increase of 10%.

The total score for each instrument on the First After Intervention was compared to the first At A Later Time (see Table 38). The students' approach to learning scores increased by 1%. All other scores decreased, ranging from a – 2% to a – 76%.

Table 37

Combined Acquisition of Goal Attainment Knowledge and Skills Scores for Each Instrument

Instruments	First Baseline	First After Intervention	Percent of Change
Choice Maker Assessment: Take Action Section	398/640 = 62%	463/640 = 72%	65/398 = 16%
Air Self-Determined Knowledge	469/600 = 78%	516/600 = 86%	7/469 = 10%
Self-Determined Knowledge	158/185 = 85%	172/185 = 93%	14/158 = 9%
Approach to Learning	492/660 = 75%	466/660 = 71%	-26/492 = -5%
Self-Regulated Behaviors	390/540 = 72%	401/540 = 74%	11/390 = 3%
Behavior Generalization *Take Action* Form	31/340 = 9%	123/340 = 36%	92/31 = 297%

An additional comparison is made between First Baseline Scores and the Average of Three Scores in Three Setting-Times (see Table 39). All scores of all students on all

instruments are presented in Table 39 as one figure to facilitate the comparison of each of the student's scores at each stage of the research investigation. It is interesting to note that Sue scored 100%, or six of six scores at the end of the research higher than her baseline

Table 38

Combined Generalization Scores for Each Instrument: After Intervention and Later Time

Instruments	First After Intervention	First at a Later Time	Percent of Change
Choice Maker Assessment: Take Action Section	463/640 = 72%	449/640 = 70%	-14/463 = -3%
Air Self-Determined Knowledge	516/600 = 86%	477/600 = 80%	-39/516 = -8%
Self-Determined Knowledge	172/185 = 93%	169/185 = 91%	-3/172 = -2%
Approach to Learning	466/660 = 71%	471/660 = 71%	5/466 = 1%
Self-Regulated Behaviors	401/540 = 74%	385/540 = 71%	-16/401 = -4%
Behavior Generalization *Take Action* Form	123/340 = 36%	38/340 = 11%	-85/123 = -69%

scores. The improved scores ranged from 1% to 53% increase over her baseline score on the same instrument. Mia and Ben ended the research with 83% or five of six of their scores above their baseline scores. The majority of the scores of the two remaining

students were lower at the end of the research than their initial baseline scores. However, 33% of their ending test scores were the same or higher than their baseline score.

The positive and negative changes were counted in each column from a comparison to the figures in the preceding column. Obviously, the individual scores cannot be compared to each other or combined for a total score. However, it is interesting to follow each student's increases and decreases on each instrument at the various measuring points (see Table 39). The After Intervention scores indicated 23 scores were the same or higher than the baseline scores and seven scores were negative. When students' Scores At a Later Time are compared to their baseline scores, only 17 scores were the same or better than the baseline scores and 13 were less than baseline. When the After Intervention scores are compared to scores from the At a Later time column 10 scores either remained the same or improved and 20 scores decreased. Comparing the Setting-Time Average score column compared to the At a Later Time column showed 24 scores to be the same or better than the At a Later Time scores. Setting-Time Average scores compared to the Baseline show 60% remained the same or higher than Baseline scores whereas 40% were below Baseline.

Table 39

Acquisition and Generalization Scores of Each Instrument

Name	Baseline	After Intervention	At a Later Time	Setting-Time Average	%Change Baseline/Setting Time
MIA					
ChoiceMaker Take Action	65	101	91	120	85%
Air Self-Det	99	108	103	100	1%
Self-Det Knowledge	32	33	35	35	9%
AppToLearn	114	110	116	115	1%
Self-RegBeha	92	98	97	99	8%
BehGenTAF	13	32	11	7	- 46%
BEN					
ChoiceMaker Take Action	92	98	98	108	17%
Air Self-Det	80	105	105	105	31%
Self-Det Knowledge	34	36	34	33	- 3%
AppToLearn	87	93	93	103	18%
Self-RegBeha	69	81	81	83	20%
BehGenTAF	3	39	16	7	133%
JEN					
ChoiceMaker Take Action	90	115	60	70	- 22%
Air Self-Det	91	101	71	78	- 14%
Self-Det Knowledge	36	35	35	35	- 3%
AppToLearn	80	91	76	85	6%
Self-RegBeha	68	63	59	61	- 10%
BehGenTAF	5	29	4	5	0%
PAT					
ChoiceMaker Take Action	102	80	91	99	- 3%
Air Self-Det	115	115	108	112	- 3%
Self-Det Knowledge	30	35	33	33	10%
AppToLearn	122	98	94	98	- 20%
Self-RegBeha	90	94	84	90	0%
BehGenTAF	5	7	2	4	- 20%
SUE					
ChoiceMaker Take Action	49	69	84	75	53%
Air Self-Det	84	87	90	86	2%
Self-Det Knowledge	26	33	31	30	15%
AppToLearn	89	74	92	94	6%
Self-RegBeha	71	65	64	72	1%
BehGenTAF	5	16	5	7	40%

The three setting-time scores of all students on each instrument at First After Intervention were compared to the Average of Three Scores in Three Setting-Time Conditions (see Table 40). *Take Action* assessment and the *Approach to Learning* increased by 2% and 3% respectively. The scores for the other instruments decreased from – 26% for the Self-Regulated Behaviors to a – 2% on the *Self-Determination Knowledge Scale.*

Table 40

Combined Generalization Scores for Each Instrument: After Intervention and Setting- Time

Instruments	First After Intervention	Average Of 3 Scores in 3 Setting-Time Conditions	Percent Change
Choice Maker Assessment: Take Action Section	463/640 = 72%	472/640 = 74%	9/463 = 2%
Air Self-Determined Knowledge	516/600 = 86%	482/600 = 80%	-34/516 = -7%
Self-Determined Knowledge	172/185 = 93%	168/185 = 91%	-4/172 = -2%
Approach to Learning	466/660 = 71%	480/660 = 73%	14/466 = 3%
Self-Regulated Behaviors	401/540 = 74%	296/540 = 55%	-105/401= -26%
Behavior Generalization *Take Action* Form	123/340 = 36%	30/340 = 9%	- 93/123 = -76%

Each student's scores at First Baseline for all instruments were compared to their Average of the Three Scores at Three Setting-Time Conditions (see Table 41). The individual changes of the instruments scores ranged from –24% to 19%. All scores combined decreased by –1% over the entire time of the research project.

Table 41

Combined Generalization Scores for Each Instrument: First Baseline and Setting-Time

Instruments	First Baseline	Average Of 3 Scores in 3 Setting-Time Conditions	Percent of Change
Choice Maker Assessment: Take Action	398/640 = 62%	472/640 = 74%	74/398 = 19%
Air Self-Determined Knowledge	469/600 = 78%	482/600 = 80%	13/469 = 3%
Self-Determined Knowledge	158/185 = 85%	168/185 = 91%	10/158 = 6%
Approach to Learning	492/660 = 75%	480/660 = 73%	-12/492 = -2%
Self-Regulated Behaviors	390/540 = 72%	296/540 = 55%	-94/390 = -24%
Behavior Generalization *Take Action* Form	32/340 = 9%	30/340 = 9%	-2/32 = -6%

CHAPTER 5

Discussion

The origin of this two-phase research stems from an introduction to *Take Action: Making Goals Happen* (Huber-Marshall et al., 1999) and the excitement about the possibilities such a program could provide for students. This led me to question if a research study could document the acquisition and generalization of goal attainment knowledge and skills taught by the *Take Action* instructional materials. As I thought about ways to conduct an acquisition and generalization study, several questions emerged. Does the *Take Action* goal attainment instructional material really teach a goal attainment process? Can the material be used to benefit students of various ages and types? If a student receives instruction in the *Take Action* process, how will their initial levels of self-determination knowledge, approaches to learning, and self-regulation behaviors change? Once students receive instruction from the material, will they acquire enough depth of knowledge and skills to generalize that learning to a new behavior—a behavior they had not previously done or been instructed to do? When learned, will the knowledge and skills generalize, with no additional instruction or contingencies, over a month or more? Will the generalization continue even if in various alternative settings? These questions lead to the formation of research questions that provided the focus of the design and implementation of this acquisition and generalization research.

The questions that resulted and the answers discovered from the results of the research project are presented in the following discussion. Also included are the implications and limitations of the study and suggestions for future research to broaden

the extant empirical literature of the *Take Action: Making Goals Happen* instructional materials.

Research Questions

Acquisition and Generalization – Phase I

Acquisition question. Do college students with learning disabilities, who receive goal attainment instruction, acquire goal attainment knowledge and skills?

After each of the seven intervention lessons, the five college students completed a quiz to determine their level of goal attainment and skill acquired from the instruction unit. Sixty percent of the students, or three out of five, achieved or exceeded criterion of 80% over the seven curriculum acquisitions tests (see Table 10). The two other students, Ben and Pat, were only 4 to 17 percent points below criterion, yet each made criterion on more than 50% of the 7 individual tests. Although Ben did not make criterion on his overall score, he did display a grasp of the goal attainment process by scoring 85% of the possible points on the comprehensive test 7. This is a clear indication that even the two who did not make criterion did learn about a goal attainment process. These measures could also have been affected by threats to internal validity that will be discussed later.

On the *ChoiceMaker: Take Action* assessment measure of goal attainment knowledge and skills, four of the five students, or 80%, had positive increases after all instruction was received (see Table 11). By removing Pat, who had negative outlier results, the group as a whole had noticeable percents of increase in their goal attainment knowledge and skills ranging form 7% to 55%. Removing only Pat's negative score resulted in an indication of significance. However, removing Pat's negative and Mia's positive scores, all the outliers, resulted in no significance. Pat's negative score included

and Mia's positive taken out also resulted in no significance. This brings up the point that Meltozff (2001) alluded to about the confusion that exists between statistical significance and importance. She states:

> Significant does not mean important; more significant is not synonymous with more important; highly significant is not the same as highly important. Readers must recognize that a difference that reaches the highly significant level of $p <$ .001 can be absolutely trivial. (p. 136)

Significance was indicated when only the negative outlier was removed. However, when only the positive outlier was removed, no significance was suggested. Also, when both the negative and the positive (low and high) outlier scores were removed there was still no significance. In other words, by first analyzing all scores and then all scores with both outliers removed, there was no significance indicated. With just the positive outlier (high) score removed, there was still no significance. Only by removing the negative outlier (lowest) was a slight significance indicated. But was it important? Three of the four tests indicated no and one test indicated yes. Considering the extremely small sample size of five and other possible reasons to explain the large variance of the outliers, discussed later in this chapter, it suggests the significance, while valid, is unimportant. It also leads me to conclude that the students' scores should be compared only to themselves to determine increases or decreases. It should also be clear that by manipulation of the data only to achieve an indication of statistical significance is not only unimportant, it is also a distraction from the real meaning of the results.

Self-Determination scores of the *Air Self-Determination* scale increased over baseline by all students. On the *Self-Determination Knowledge* scale all but one of the

students had increases. The increases were only a few points for each student, and the one student that experienced the decrease from baseline represented only 1 point decrease in her raw score. The *Approach to Learning* scores of three students decreased and two increased. The change of the *Self-Regulation Behaviors* scores was positive by three students and negative for the other two.

The *Take Action* quizzes and the *ChoiceMaker Assessment: Take Action* section are integeral parts of the complete *ChoiceMaker* series. This fact could possibly explain the larger change in performance of the students on the *Take Action* quizzes and the *ChoiceMaker* measure than on the *Air Self-Determination Scale, Self-Determination Knowledge Scale, Approach to Learning,* and the *Self-Regulation Behaviors Scale.*

Each of the five measures yielded six separate scores for each student or a total of 150 separate scores recorded during the research. Comparing the baseline to the average of the last three scores on each of the five instruments showed the change between the beginning and the end of the research. Seventy-two percent of the scores increased from baseline to average of the last three scores. This indicates that acquisition of goal attainment knowledge and skills was acquired over the course of the research project as evidenced by the increase of the majority of the measures recorded. The investigation also showed that changes did occur in the students' previous goal attainment knowledge, after all the *Take Action* instruction was received. These combined findings suggest that the *Take Action* instructional materials did in fact teach a goal attainment process. With these results it seems clear that the *Take Action: Making Goals Happen* is a valuable tool for college students with disabilities to learn a goal attainment process. The *Take Action*

materials should be in the library of every office responsible for supporting students with learning disabilities to succeed in their educational efforts.

Generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the knowledge and skills scores to new behaviors?

Immediately following the completion of the final section of the *Take Action* materials, all five students increased their scores on the *Behavior Generalization Take Action* form. The increases were from 40% to as much as 900% by the student who had the lowest initial score (see Table 16). Pat's scores indicated the lowest increase of 40%, which was probably a result of the money being his primary cause for his participation in the research project as well as having one of the median initial scores causing a slight ceiling effect. In contrast to the ceiling effect, Mia's highest initial score increased 146%, which is not characteristic of the ceiling effect. Ben's 900% increase was from the lowest initial score that gave him the greatest possible margin in which to improve. Looking at the group as a whole, the overall improvement was 297%. Improvements of this magnitude would suggest that generalization of the knowledge and skills to a new behavior did occur with these five students.

These levels of improvement are even more impressive if one looks at the difficulty of the new behavior. The instrument that measured if behavior generalization occured and the magnitude of the generalization was essentially a blank form (see Appendix H). Students received this blank form with no instruction on how to use the form in a goal planning process. Removing the instructions from the *Take Action: Making Goals Happen* goal planning form was how the new instrument was constructed.

Column headings were neither defined nor explained. The form was presented and the instructions were read to them from a script each time they were asked to complete the measure (see Appendix J). Students were scored on their ability to generalize what they learned from the instruction to the behavior of completely filling in all the columns, headings, and questions without ever having seen a completed form. In light of this very stringent measure, the scores above are even more amazing. The severity of the measure casts a different meaning on all the results of the Behavior Generalization questions (see Table 16).

The essence of these findings is that the goal attainment knowledge and skills generalized to a totally new behavior. Generalization occurred to a new behavior that had not been programmed, taught, or discussed. As Figure 1 indicates, the increasing knowledge and skills learned during intervention generalized to higher levels, as indicated by the increasing scores of the generalization measure.

Time Generalization and Setting-time Generalization – Phase Two

First time generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skills scores over time?

Over six to eight months, the acquisition scores of goal attainment knowledge and skills of three students generalized exactly with no change. One student had an increase and the other four students' scores decreased. However, four of the five students generalized or improved their curriculum acquisition scores over time (see Table 19). Four students out of five represented an 80% success rate overall. On the *ChoiceMaker: Take Action* goal attainment knowledge and skills assessment, three of the five students'

scores increased and the other two students' scores decreased. The number of students with unchanged, increasing, or decreasing scores on their *Air Self-Determination, Self-Determination Knowledge Scale, Approach to Learning, and Self-Regulation Behaviors* scores fluctuated up or down between the three measures. The 20 scores were divided between negative and positive as 11 negative and nine positive or more than half of the 20 scores decreased. Some individuals increased their scores on these four instruments while others decreased. Although generalization did occur with some of the students on some of the measures, the overall change showed that 55% of the scores were negative, indicating no generalization of their previously attained score level. Therefore, the answer to whether goal attainment and skills learned in Phase I generalized over time is mixed. Some generalization did occur, but it appears from the scores that the majority of the time generalization did not occur and actually regressed. This could be a result of limited exposure to the instructional materials that were only presented one time to each student. It would appear that a greater involvement with the material would produce better generalization. Programs that utilize the *Take Action: Making Goals Happen* should consider the amount of time necessary for the student to both learn and use the goal attainment knowledge and skills.

Second time generalization question. Will their level of knowledge and skills generalized to new behaviors, in Phase I, generalize over time?

This asks if the newly acquired behavior in Phase I will generalize over an extended time period. The question concerns generalization and should not be confused with maintenance generalization. When a targeted behavior continues beyond the treatment period, after all treatment is discontinued, generalization has occurred. When a

targeted behavior continues beyond the treatment period and any experimenter-controlled contingencies continue maintenance, generalization has occurred (Drabman et al., 1979).

The substantial behavior generalization scores achieved by all the students in Phase I on the *Take Action* form regressed sharply over the six to eight months between Phase I and Phase II. The regressed scores at a later time ranged from 14% to 41% of the score level achieved after intervention. Clearly, the acquired level of knowledge and skills that generalized to a new behavior in Phase I did not generalize well over time.

First setting-time generalization question. Do college students with learning disabilities, who have learned specific goal attainment knowledge and skills, generalize the acquired knowledge and skill scores over setting-time?

This question expands the previous question of time generalization. The setting-time question also asks if generalization will continue to occur in different settings as well as over time. The settings are different from the settings used during intervention. And as previously discussed, this generalization is not to be confused with maintenance generalization because all experimenter-controlled contingencies were totally withdrawn.

Curriculum acquisition scores achieved after intervention by Mia generalized over three settings and times. Ben's score increased, and the three remaining students had decreases. Since two students' scores either generalized or improved and three had decreases, generalization did not occur for the group as a whole. However, it should be mentioned that the time elapse between total withdrawal and the time of the generalization over setting-time measure was from six to eight months.

Although the group did not satisfy the strict definition of generalization by duplicating or exceeding their pre scores, all scores were from 4 to 20 percent points

above the initial 80% acquisition criterion, and the 92% group score after intervention only regressed by 1% from the total score on the first score after intervention. Also impressive was the generalization level of the group's goal attainment knowledge and skills as measured by the *ChoiceMakerAssessment: Take Action.* Four of the five students' scores increased and one decreased for a total group change increase of 2%. In other words, 80% of the students increased their scores. The small group change increase of 2% is mainly due to Jen's –39% decrease. Jen's score is peculiar when contrasted to her preceding score at the end of intervention, which was the highest score, 90% of the possible and 13% points above the second highest score. The goal attainment knowledge and skills acquired by these students did generalize over setting-time.

The change in the scores of the *Air Self-Determination Scale, Self-Determination Knowledge Scale, Approach to Learning, and Self-Regulation Behaviors Scale* had an equal number of scores increase and decrease. In other words, there were as many plus scores as negative scores. With this group of students, some scores generalized and some did not. Considering the group as a whole, the scores that generalized were offset by those that did not. These results would indicate that a majority of the scores did not generalize over setting-time.

Second setting-time generalization question. Will their level of knowledge and skills, generalized to new behaviors, generalize over setting-time?

Scores of the new behaviors, generalized in Phase I, which began to regress when compared to scores at a later time, continued to deteriorate over setting-time. The scores reduced to levels that ranged from 17% to 57% of the scores recorded after intervention.

In this comparison, the knowledge and skills that generalized to a new behavior in Phase I did not generalize over setting-time.

Explorations. Not in answer to a specific research question but rather to fully utilize the extensive information collected during this research, it seemed appropriate to include a set of additional analysis to measure the levels of change in the scores over the entire length of the research project. The time span from the first student baseline to the last setting-time measure was just under 12 months. For each student, the percent of those six score comparisons that reflected an increase or no change from baseline ranged from 33% to 100%. Pat and Sue had increases on 33% or two of the six tests. Mia and Ben recorded increases on 83% or five of the six tests. Sue recorded increases on 100% or six of the six tests. This means that Sue, Mia and Ben, or 60% of the students, had the same or better post score at the end of the research compared to their first scores at baseline. This fact would cause one to imply that Sue, Mia, and Ben did acquire and generalize goal attainment knowledge from the *Take Action Instructional* material. Even Pat and Jen indicated that they had acquired some knowledge and skills and did generalize it to a limited level. Pat and Jen had the two lowest combined percent of change on all instruments yet still had an increase on two of the six tests. Pat's *Self-Determination Knowledge* score increased 10% over baseline and his *Self-Regulation Behaviors* score generalized perfectly with no change. Jen's approach to learning increased by 6% and her *Behavior Generalization: Take Action* form generalized with no change.

Five students with six scores each equaling 30 separate scores were compared back to their first baseline scores. Of those 30 scores, 60%, or 18, increased over the entire research period from the baseline to setting-time measures. The movement of the

group increases and decreases was an increase After Intervention, regression At a Later Time, and improvement with the three Setting-Time Average scores.

The improvement after intervention came while all the information was still fresh on their minds. The At a Later Time test scores were the group's first involvement with the materials after their summer vacation. The improvement of the three score average could have resulted from getting back into the material after the summer break or from the testing or practice effect since there were three tests over a period from one to four months. This result would indicate the need for some form of maintenance activity to insure a more thorough learning of the information that would generalize over longer periods of time.

Pat was very open about his interest in the stipend offered for participation in the research. His initial scores were some of the highest, but his last scores were some of the lowest. Contributing to this peculiar result could be his interest in only the money and partly because of his difficulty of staying engaged with the lessons that ran a little over an hour. Jen, who indicated a stronger interest in the stipend than the research, was heavily involved in a school activity that required much of her time. She also had difficulty breathing at a couple of sessions due to asthma and seemed to be exhausted when she arrived for a few of the sessions. Her heavy school schedule prolonged her completion of the research for the full 12 months.

Research compared. Following is a discussion of the only known empirical research using the *Take Action: Making Goals Happen* instructional materials conducted prior to this research. The discussion of German et al. (2000) is offered to point the similarities and differences between that study and this one.

The findings of this investigation and the German et al. (2000) research of the *Take Action: Making Goals Happen* goal attainment instructional materials have both convergent and divergent points. Both projects determined that the *Take Action* instructional material taught goal attainment skills. The two studies used students with disabilities. Each had small sample sizes. German et al. had six students and this study utilized five students. In each research project, consideration was given to withdrawal and generalization.

Within these general areas of commonality, there is considerable divergence of their specific features. The German et al. study used adolescent high school students with moderate to mild mental retardation whereas five college students with learning disabilities were used in this study. German et al. selected their students based on good attendance and the five college students volunteered to participate in the research for a stipend. In the German et al. study, the instruction was in a classroom group setting whereas the college students received one-on-one instruction. German et al. used the *Take Action* instruction for daily goal attainment compared to the long-term goal attainment instruction used in the current research. German et al. purposely supplemented the materials with 30 daily goal cards for each student and used the modified *Take Action* format. Only the *Take Action* materials, with no supplements, were used with the college students. The full version of the instructional materials was presented to the college students. The withdrawal method used by German et al. was across two students at a time where intervention conditions were partially removed. Once the college students completed all of the instruction, total withdrawal of all intervention conditions occurred. German et al. checked for generalization from two days to three weeks during the

"maintenance phase." Generalization of the current study ranged from six to eight months on some measures and nine to twelve months on others. German et al. focused on teaching the students to set and accomplish their daily goals.

General limitations of the study

Limitations

The results of this research project add to the current information about the *Take Action* instructional materials, but there are factors that may limit the implications of the study. The sample was a small convenient sample and the students were offered a rather large stipend amounting to $20.00 per hour of commitment for their participation in the research. With small samples one of the first objections is the inability to generalize the results. This can be overcome with exact replications of the study. Small sample research approaches the appearance of multiple examples of single case research in that each participant has his own individualized baseline, making exact replication near impossible. Another possible problem with multiple baselines is the need for stability or at least a clear directional trend from which to judge shift. When results are presented in graph, they are sometimes open to various interpretations. How best to analyze the repeated measures can be another limiting issue. Differences in scheduling, necessitated by the different schedules of the students, made baseline, intervention, withdrawal, and generalization time comparisons between students incompatible. The amount of time spent in each phase was different for each student. Another possible limitation of the study was the lack of a student opinion inquiry that would have provided a qualitative element from the people that benefited from the program.

Internal validity

Following are some of the confounding variables that could raise doubts about the *Take Action: Making Goals Happen* instructional materials not being responsible for the results in this research. The length of time to complete the research may have opened questions of historical threats that might have influenced the students. Historical confounding could have occurred due to a rather lengthy period of time of nine to twelve months required to complete the seven tests. Events that took place over the intervention period could have interacted with the participants to cause biased effects. It is doubtful that there was much of a threat from maturation, but testing influences and multiple treatments could have definitely impacted the findings. The use of repeated measures may have caused some improvement, deterioration, and/or frustration to the students who completed the measures six or more times. This could mean that their responses were influenced less by the intervention and more by their prevailing mood at the time of the repeated measures.

External validity and generalizability

There are dichotomous views to consider when discussing external validity and generalizability of a research project. Some researchers feel that external validity and generalizability are synonymous terms (Campbell & Stanley, 1963), while others differentiate between them (Mook, 1983). Mook stated, "To what populations, settings, and so on, do we want the effects to be generalized? Do we want to generalize at all . . . The question of external validity is not the same as the question of generalizability" (p. 379). The research purpose, questions, and intent of the investigator determine if generalizations are to be made. The results of the study show if

generalization claims are justified. Meltzoff (2001) believed, "If there is no intent to generalize, the author does the right thing by not generalizing. Criticism is justified only when unfounded claims of generality are made" (p. 45). Meltzoff further stated that intent and claims are the bounds for external validity.

Some research is designed to test and others to make generalizations (Mook, 1983). The generalization element of this study was clearly to test and not to make generalizations. The questions posed and the intent do not pertain to generalization of the findings outside this study. References to generalization in this study are for internal generalization of knowledge and skills by these five students to behaviors, time, and setting-time conditions.

Summary

Over a one-year period, five college students with learning disabilities were taught a goal attainment process using the *Take Action: Making Goals Happen* (Huber-Marshall et al., 1999) instructional materials. All students displayed evidence of learning a goal attainment process during and after intervention. Generalization of knowledge and skills to a new behavior occurred during the intervention (Phase I). The knowledge and skills acquired in Phase I and the level of generalization to a new behavior exhibited in Phase I generalized over time and setting-time to varying degrees by the five students.

Four of the suggestions for future research made by German et al. (2000) were included as areas of focus in this project. First, the regular *Take Action* format was used. Secondly, older students were the participants. Third, all the students had been described as having learning disabilities. And finally, the research was conducted in various environments.

Areas for future research include investigation of the use of the *Take Action* materials in both a regular and inclusive classrooms. Additional studies should include students from different age groups and with other disability classifications. It should be established whether or not the materials are effective as self-study instruction and if there is a difference in the results from the instruction presented with electronic or conventional formats.

If students with disabilities possess limited goal attainment and other self-determination skills (Mithaug 2001),\ and if goal attainment is the most important self-determination component (Wehmeyer, 1994), then students must be taught these goal attainment skills (Fuchs et al., 1997; Wall & Dattilo, 1995; West et al., 1995). If they are to be taught in schools charged with this responsibility, curricula and instructional material developed specifically for this purpose is needed (Ward, 1996). *Take Action: Making Goals Happen* (Huber-Marshall et al., 1999) is such an instructional package developed specifically for this purpose. In this empirical research, *Take Action: Making Goals Happen* has displayed its worthiness as a needed tool for university use in support of their students with disabilities.

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APPENDIX A

Instruments

	Instruments	86% or less selection	Pre- & Post-	7 Take Action	Repeated Probe
Assessment Measures	ChoiceMaker Assessment Scale Percent of points	X	X		
	AIR Self-Determination Scale Percent of points		X		
	Self-Determination Knowledge Scale percent correct		X		
	Take Action Quizzes Percent correct			X	
	Approach to Learning Total points		X		
	Self-Regulation Behaviors Total points		X		
Repeated Measures	Percent of Plan Section Correctly Completed		X		X
	Percent of Act and Evaluation Sections Correctly Completed		X		X
	Percent of Adjustment Section Correctly Completed		X		X

APPENDIX B

ChoiceMaker Self-Determination Assessment

Student's Name _____ Date 1 _____

Teacher's Name _____ Date 2 _____

The ChoiceMaker Self-Determination Assessment is a curriculum-based assessment and planning tool. The Assessment questions directly match the ChoiceMaker Self-Determination Curriculum objectives. The Curriculum is designed to teach students the self-determination skills they need to be successful in adult life. Self-determination occurs when individuals define goals for themselves and take the initiative needed to achieve their goals. In the ChoiceMaker Self-Determination Curriculum, students learn self-determination skills by managing their own Individual Education Plans (IEPs).

The ChoiceMaker Self-Determination Assessment has three parts:

- Part I: The ChoiceMaker Assessment consists of three sections that rate the student's skills and proficiency in performing each of 53 self-determination skills, and the opportunity the school provides for the student to engage in these behaviors.
- Part II: The ChoiceMaker Assessment Profile is a monitoring tool for graphically displaying student progress and showing the opportunities students have at school to exhibit these self-determination behaviors.
- Part III: The ChoiceMaker Curriculum Matrix enables the teacher and other team members to observe at a glance those skills in which the student needs instruction. Each "Teaching Objective" relates to a lesson or set of lessons in the ChoiceMaker Self-Determination Curriculum.

Administration The ChoiceMaker Self-Determination Assessment is designed to be used with middle to high school students with emotional or behavior disabilities and mild to moderate learning problems. The Assessment may be adapted for use with older elementary students and with secondary students with severe learning problems. You may use it in a variety of ways. In order to establish a baseline, we suggest an initial administration prior to teaching the ChoiceMaker lessons. Subsequent administrations may take place at the completion of a set of lessons, at the end of a semester, at the end of the school year, or whenever deemed necessary. You may use the Curriculum objectives as IEP goals and use the Assessment to measure progress toward the goals. You may also use the information from the Assessment to make program changes where the "Opportunity at School" was low.

Reliability A multi-state test-retest reliability study found a .8 or higher significant correlation between the first administration and a second administration given two weeks later.

Instructions to Part I
ChoiceMaker Assessment

Student Skills Rate the student from "0" to "4" indicating the skill level and fluency with which the student performs each of the 54 skills. In the "Student Skills" column a rating of "0" means that the student does not perform any part of the skill; a rating of "4" means that the student performs the skill in its entirety and whenever needed. If you have not observed the student perform certain skills, you may "interview" the student in order to obtain the necessary information. However, it is important that you do not prompt the student with possible answers. You may consult other teachers or support staff for their observations as well. The purpose is to get as accurate an assessment of the student's skills as possible.

Opportunity at School Rate the degree to which the school provides a structured, planned time for the student to perform each of the skills. In the "Opportunity at School" column a rating of "0" indicates that there is no structured time for the student to perform the skill; a "4" shows that there is a regularly scheduled time or activity available when the student has the opportunity to demonstrate the skill.

Subtotal Subtotal the points at the end of each part for both the "Student Skills" and "Opportunity at School" categories and enter the totals in the blank spaces provided at the bottom of each page. Transfer each total to the space provided on Part II: ChoiceMaker Assessment Profile.

Instructions to Part II
ChoiceMaker Assessment Profile

Initial Administration Transfer the point totals from the "Student Skills" and "Opportunity at School" categories of Part I to the "Date 1" spaces for each section. Shade in the bar graphs to the number of total points as indicated in the middle column. By looking at the "Student Skills" bars you can see the sections in which the student needs instruction. Likewise, scores on the "Opportunity at School" bars show the sections in which school programs need to be improved to allow opportunity to learn and practice the skills.

Follow-Up Administration Transfer the point totals from subsequent administrations of the assessment to the "Date 2" spaces on the profile. Shade in the bar graphs. Compare the follow-up scores to the initial levels.

Use of the Percent Scale The percent of self-determination points by section is automatically computed by looking at the 0-100 scale on the left side of the profile. The number on the scale that corresponds to the top of the shaded area will tell you the percentage of points for that section. This tells you what percentage of the time the student demonstrated the skills, and what percentage of structured time your school provides to perform them.

Instructions to Part III
ChoiceMaker Curriculum Matrix

After completing Part I, circle each objective you marked "0," "1," or "2" on the "Student Skills" portion of Part I. These objectives and corresponding goals are the ones you or your team may want to consider as teaching priorities. There are ChoiceMaker lessons for teaching each of the goals and objectives.

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Part I: ChoiceMaker Assessment

SECTION 1: Choosing Goals

	Student Skills (Does the student do this?) (not at all) (100%)	Opportunity at School (Does school provide structured time?) (not at all) (100%)
A. Student Interests		
A1. Express **education** interests (e.g., classes, sports, clubs, community colleges, trade schools, universities)	0 1 2 3 4	0 1 2 3 4
A2. Express **employment** interests (e.g., jobs, careers)	0 1 2 3 4	0 1 2 3 4
A3. Express **personal** interests (e.g., relationships, recreation, health)	0 1 2 3 4	0 1 2 3 4
	Subtotal ____	**Subtotal** ____
B. Student Skills and Limits		
B1. Express **education** skills and limits	0 1 2 3 4	0 1 2 3 4
B2. Express **employment** skills and limits	0 1 2 3 4	0 1 2 3 4
B3. Express **personal** skills and limits	0 1 2 3 4	0 1 2 3 4
	Subtotal ____	**Subtotal** ____
C. Student Goals		
C1. Indicate options and choose **education** goals	0 1 2 3 4	0 1 2 3 4
C2. Indicate options and choose **employment** goals	0 1 2 3 4	0 1 2 3 4
C3. Indicate options and choose **personal** goals	0 1 2 3 4	0 1 2 3 4
	Subtotal ____	**Subtotal** ____
	TOTAL (A+B+C) ____	**TOTAL (A+B+C)** ____

End of SECTION 1: Choosing Goals

Transfer each total to the appropriate blank on Part II: ChoiceMaker Assessment Profile

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Part I: ChoiceMaker Assessment (cont'd)

SECTION 2: Expressing Goals

	Student Skills (Does the student do this?) (not at all) (100%)	Opportunity at School (Does school provide structured time?) (not at all) (100%)
D. Student Leading Meeting		
D1. Begin meeting by stating purpose	0 1 2 3 4	0 1 2 3 4
D2. Introduce participants	0 1 2 3 4	0 1 2 3 4
D3. Review past goals and performance	0 1 2 3 4	0 1 2 3 4
D4. Ask for feedback	0 1 2 3 4	0 1 2 3 4
D5. Ask questions if you don't understand	0 1 2 3 4	0 1 2 3 4
D6. Deal with differences in opinion	0 1 2 3 4	0 1 2 3 4
D7. State needed support	0 1 2 3 4	0 1 2 3 4
D8. Close meeting by summarizing decisions	0 1 2 3 4	0 1 2 3 4
	Subtotal _____	Subtotal _____
E. Student Reporting		
E1. Express interests (from A1-3)	0 1 2 3 4	0 1 2 3 4
E2. Express skills and limits (from B1-3)	0 1 2 3 4	0 1 2 3 4
E3. Express options and goals (from C1-3)	0 1 2 3 4	0 1 2 3 4
	Subtotal _____	Subtotal _____
	TOTAL (D+E) _____	TOTAL (D+E) _____

End of SECTION 2: Expressing Goals

Transfer each total to the appropriate blank on Part II: ChoiceMaker Assessment Profile

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Part I: ChoiceMaker Assessment (cont'd)

SECTION 3: Taking Action

		Student Skills (Does the student do this?) (not at all) (100%)	Opportunity at School (Does school provide structured time?) (not at all) (100%)
F. Student Plan			
F1.	Break general goals into specific goals that can be completed now	0 1 2 3 4	0 1 2 3 4
F2.	Establish standards for specific goals	0 1 2 3 4	0 1 2 3 4
F3.	Determine how to receive feedback from environment	0 1 2 3 4	0 1 2 3 4
F4.	Determine motivation to complete specific goals	0 1 2 3 4	0 1 2 3 4
F5.	Determine strategies for completing specific goals	0 1 2 3 4	0 1 2 3 4
F6.	Determine support needed to complete specific goals	0 1 2 3 4	0 1 2 3 4
F7.	Prioritize and schedule to complete specific goals	0 1 2 3 4	0 1 2 3 4
F8.	Express belief that goals can be obtained	0 1 2 3 4	0 1 2 3 4
		Subtotal ____	Subtotal ____
G. Student Action			
G1.	Record or report performance	0 1 2 3 4	0 1 2 3 4
G2.	Perform specific goals to standard	0 1 2 3 4	0 1 2 3 4
G3.	Obtain feedback on performance	0 1 2 3 4	0 1 2 3 4
G4.	Motivate self to complete specific goals	0 1 2 3 4	0 1 2 3 4
G5.	Use strategies for completing specific goals	0 1 2 3 4	0 1 2 3 4
G6.	Obtain support when needed	0 1 2 3 4	0 1 2 3 4
G7.	Follow schedule	0 1 2 3 4	0 1 2 3 4
		Subtotal ____	Subtotal ____
H. Student Evaluation			
H1.	Determine if goals are achieved	0 1 2 3 4	0 1 2 3 4
H2.	Compare performance to standards	0 1 2 3 4	0 1 2 3 4
H3.	Evaluate feedback	0 1 2 3 4	0 1 2 3 4
H4.	Evaluate motivation	0 1 2 3 4	0 1 2 3 4
H5.	Evaluate effectiveness of strategies	0 1 2 3 4	0 1 2 3 4
H6.	Evaluate support used	0 1 2 3 4	0 1 2 3 4
H7.	Evaluate schedule	0 1 2 3 4	0 1 2 3 4
H8.	Evaluate belief	0 1 2 3 4	0 1 2 3 4
		Subtotal ____	Subtotal ____
I. Student Adjustment			
I1.	Adjust goals if necessary	0 1 2 3 4	0 1 2 3 4
I2.	Adjust or repeat goal standards	0 1 2 3 4	0 1 2 3 4
I3.	Adjust or repeat method for feedback	0 1 2 3 4	0 1 2 3 4
I4.	Adjust or repeat motivation	0 1 2 3 4	0 1 2 3 4
I5.	Adjust or repeat strategies	0 1 2 3 4	0 1 2 3 4
I6.	Adjust or repeat support	0 1 2 3 4	0 1 2 3 4
I7.	Adjust or repeat schedule	0 1 2 3 4	0 1 2 3 4
I8.	Adjust or repeat belief that goals can be obtained	0 1 2 3 4	0 1 2 3 4
		Subtotal ____	Subtotal ____
		TOTAL (F+G+H+I) ____	TOTAL (F+G+H+I) ____

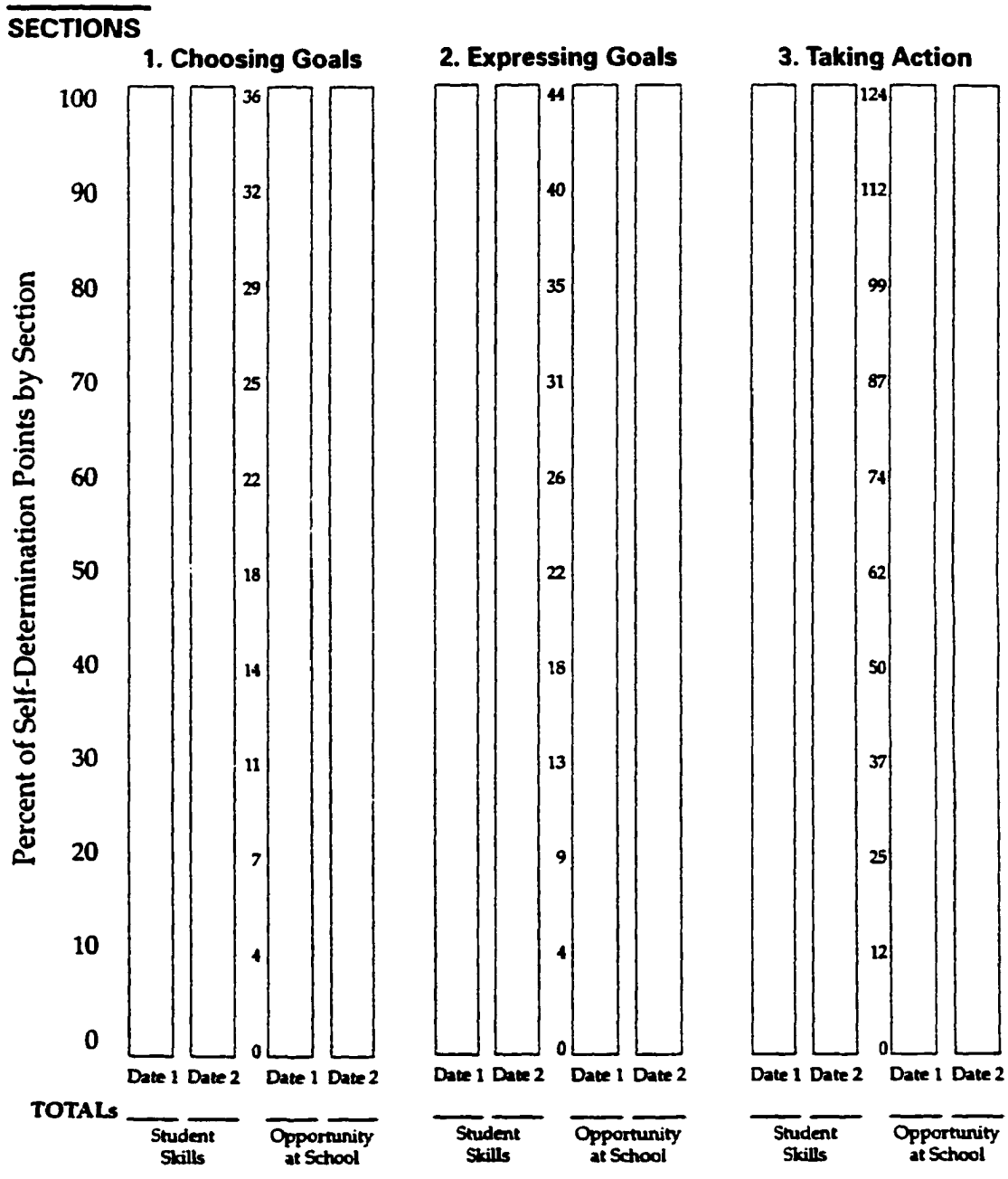
End of SECTION 3: Taking Action

Transfer each total to the appropriate blank on Part II: ChoiceMaker Assessment Profile

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Part II: ChoiceMaker Assessment Profile



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Part III: ChoiceMaker Curriculum Matrix

Instructions Circle each objective that you marked "0," "1," or "2" on the "Student Skills" portion of Part I. Consult the lesson for each objective circled.

A. Student Interests	A1. Express education interests	A2. Express employment interests	A3. Express personal interests					
B. Student Skills & Limits	B1. Express education skills & limits	B2. Express employment skills & limits	B3. Express personal skills & limits					
C. Student Goals	C1. Indicate options & choose education goals	C2. Indicate options & choose employment goals	C3. Indicate options & choose personal goals					
D. Student Leading Meeting	D1. Begin meeting by stating purpose	D2. Introduce participants	D3. Review past goals & performance	D4. Ask for feedback	D5. Ask questions if you don't understand	D6. Deal with differences in opinion	D7. State needed support	D8. Close meeting by summarizing decisions
E. Student Reporting	E1. Express interests (from A1-3)	E2. Express skills & limits (from B1-3)	E3. Express options & goals (from C1-3)					
F. Student Plan	F1. Break general goals into specific goals that can be completed now	F2. Establish standards for specific goals	F3. Determine how to receive feedback from environment	F4. Determine motivation to complete specific goals	F5. Determine strategies for completing specific goals	F6. Determine support needed to complete specific goals	F7. Prioritize & schedule to complete specific goals	F8. Express belief that goals can be obtained
G. Student Action	G1. Record or report performance	G2. Perform specific goals to standards	G3. Obtain feedback on performance	G4. Motivate self to complete specific goals	G5. Use strategies for completing specific goals	G6. Obtain support when needed	G7. Follow schedule	
H. Student Evaluation	H1. Determine if goals are achieved	H2. Compare performance to standards	H3. Evaluate feedback	H4. Evaluate motivation	H5. Evaluate effectiveness of strategies	H6. Evaluate support used	H7. Evaluate schedule	H8. Evaluate belief
I. Student Adjustment	I1. Adjust goals if necessary	I2. Adjust or repeat goal standards	I3. Adjust or repeat method for feedback	I4. Adjust or repeat motivation	I5. Adjust or repeat strategies	I6. Adjust or repeat support	I7. Adjust or repeat schedule	I8. Adjust or repeat belief that goals can be obtained

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APPENDIX C



AIR Self-Determination Scale ©

STUDENT FORM

Your Name _____ Date _____

School Name _____ Your Grade _____

Your Date of Birth _____
month day year

HOW TO FILL OUT THIS FORM

Please answer these questions about how you go about getting what you want or need. This may occur at school, or in sports, or it could relate to your friends, your family, or a job or hobby you have.

THIS IS NOT A TEST ➤ There are no right or wrong answers. The questions will help you learn about what you do well and where you may need help.

goal ➤ You may not be sure what some of the words in the questions mean. For example, the word **goal** is used a lot. A **goal is something you want to get or achieve,** either now or next week or in the distant future, like when you are an adult. You can have many different kinds of goals. You could have a goal that has to do with school (like getting a good grade on a test or graduating from high school). You could have a goal that has to do with getting along better with your friends or your family (like making your mom proud of you). You could have a goal of saving money to buy something (a new Walkman or new sneakers), or doing better in sports (getting on the basketball team). Each person's goals are different because each person has different things that they want or need or that they are good at.

plan ➤ Another word that is used in some of the questions is **plan. A plan is the way you decide to meet your goal, or the steps you need to take in order to get what you want or need.** Like goals, you can have many different kinds of plans. An example of a plan to meet the goal of getting on the basketball team would be: to get better by shooting more baskets at home after school, to play basketball with friends on the weekend, to listen to the coach when the team practices, and to watch the pros play basketball on TV.

© The *AIR Self-Determination Scale* was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement H023J200005.

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APPENDIX C

HOW TO MARK YOUR ANSWERS

EXAMPLE QUESTION

I check for errors after completing a project.

EXAMPLE ANSWER

Circle the number of the answer that tells what you are most like.
Circle ONLY ONE number.

1 Never ..... you **never check for errors** after completing a project
2 Almost Never ..... you **almost never check for errors** after completing a project
3 Sometimes..... you **sometimes check for errors** after completing a project
4 Almost Always... you **almost always check for errors** after completing a project
5 Always ..... you **always check for errors** after completing a project

remember

There are NO right or wrong answers.

You will not be graded. So please think about each question carefully before you circle your answer.

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THINGS I DO	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. I know what I need, what I like, and what I'm good at.	1	2	3	4	5
2. [redacted]					
				Things I Do Total: Items 1-2	
3. I figure out how to meet my goals. I make plans and decide what I should do.	1	2	3	4	5
4. [redacted]					
				Things I Do Total: Items 3-4	
5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing.	1	2	3	4	5
6. [redacted]					
				Things I Do Total: Items 5-6	

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APPENDIX C

HOW I FEEL	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. I feel good about what I like, what I want, and what I do well.	1	2	3	4	5
2. [redacted]					
How I Feel Total: Items 1-2					
3. I like to make plans to meet my goals.	1	2	3	4	5
4. [redacted]					
How I Feel Total: Items 3-4					
5. I like to check on how well I'm doing in meeting my goals.	1	2	3	4	5
6. [redacted]					
How I Feel Total: Items 5-6					

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What Happens at SCHOOL	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. People at school listen to me when I talk about what I want, what I need, or what I'm good at.	1	2	3	4	5
2. [redacted]					
What Happens at School Total: Items 1-2					
3. At school, I have learned how to make plans to meet my goals and to feel good about them.	1	2	3	4	5
4. [redacted]					
What Happens at School Total: Items 3-4					
5. I have someone at school who can tell me if I am meeting my goals.	1	2	3	4	5
6. [redacted]					
What Happens at School Total: Items 5-6					

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What Happens at HOME	1 Never	2 Almost Never	3 Sometimes	4 Almost Always	5 Always
1. People at home listen to me when I talk about what I want, what I need, or what I'm good at.	1	2	3	4	5
2. [redacted]					
What Happens at Home Total: Items 1-2					
3. At home, I have learned how to make plans to meet my goals and to feel good about them.	1	2	3	4	5
4. [redacted]					
What Happens at School Total: Items 3-4					
5. I have someone at home who can tell me if I am meeting my goals.	1	2	3	4	5
6. [redacted]					
What Happens at School Total: Items 5-6					

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APPENDIX C

PLEASE WRITE YOUR ANSWERS TO THE FOLLOWING QUESTIONS.

Give an example of a goal you are working on.

What are you doing to reach this goal?

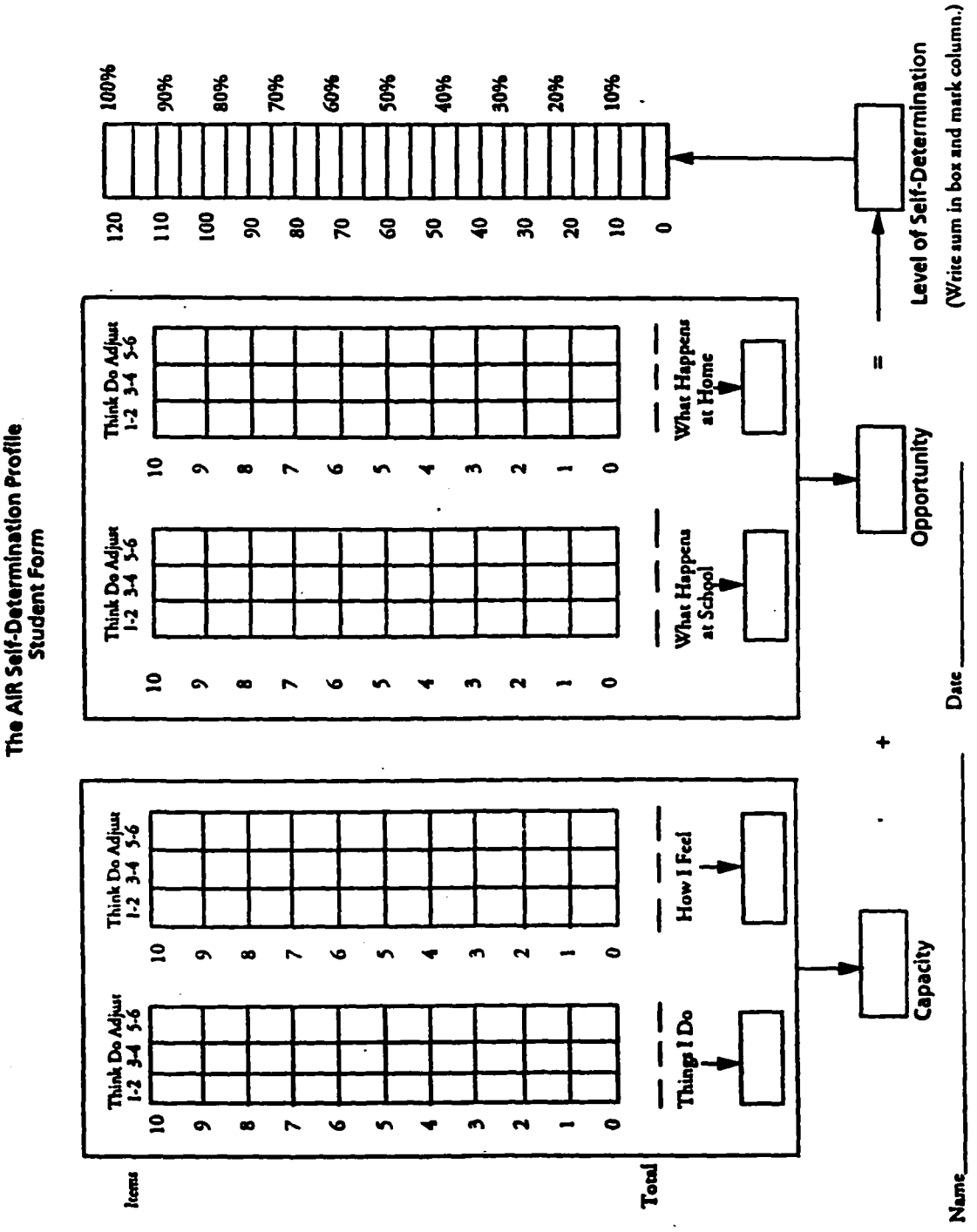
How well are you doing in reaching this goal?

THANK YOU VERY MUCH FOR COMPLETING THIS FORM!

7 ***AIR Self-Determination Scale,*** **Student Form**

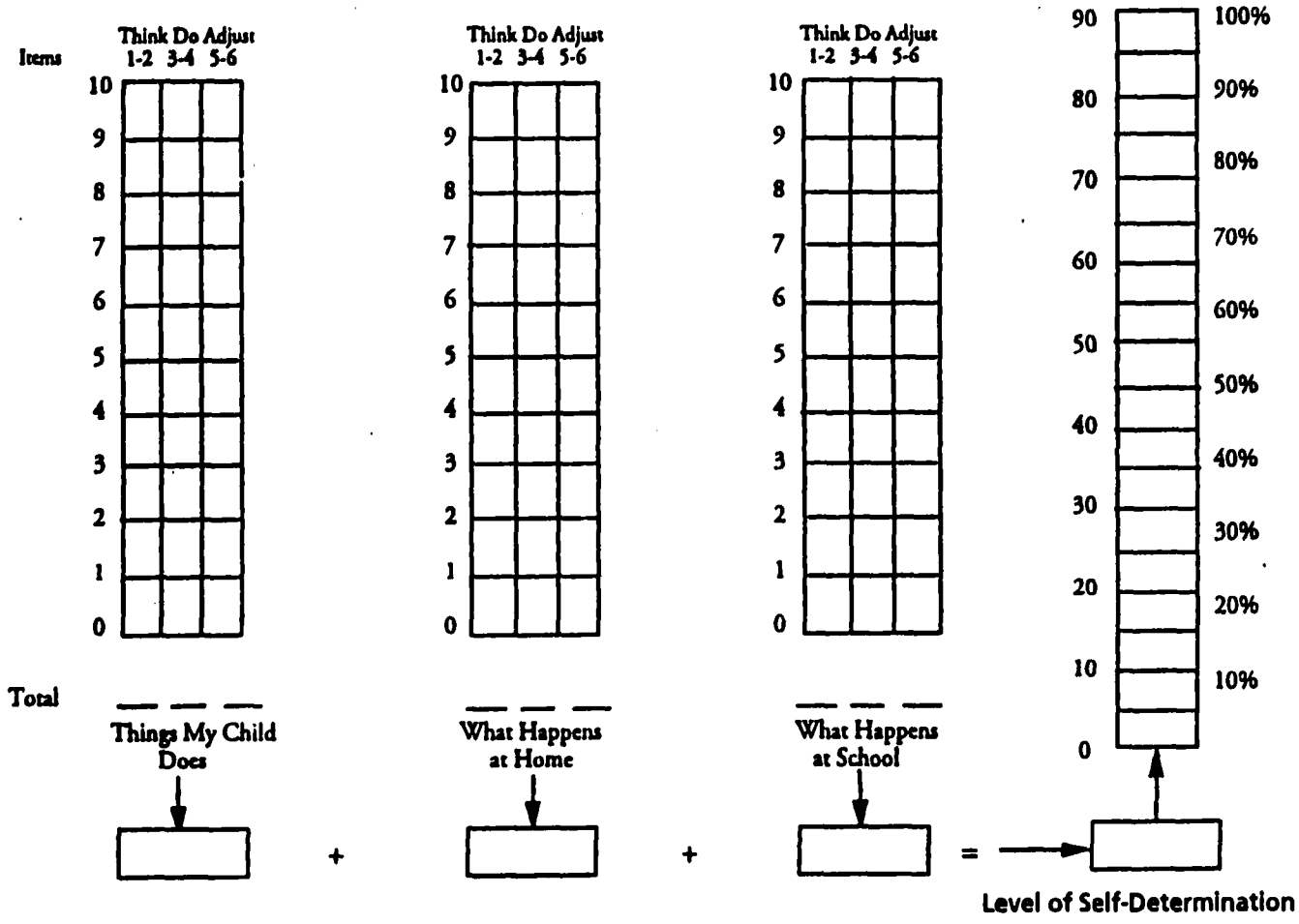
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APPENDIX C



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The AIR Self-Determination Profile
Parent Form



Child's name_____ Date_____ (Write sum in box and mark in column.)

APPENDIX D

Self-Determination Knowledge Scale

FORM A

Alan Hoffman
Sharon Field
Shlomo Sawilowsky

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7 8 9 10 11 12 13 14 15 04 03 02 01 00

Additional copies of this form may be purchased from PRO-ED,
8700 Shoal Creek Blvd., Austin, TX 78757-6897
512/451-3246, Fax 512/451-8542.
Use Order #7802 to receive 20 pretests (Form A),
20 posttests (Form B), and answer key.

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APPENDIX D

Name: _____

Date: _____

Self-Determination Knowledge Scale, Form A

Directions: Read each question and fill in the circle on the answer sheet. There is only one correct answer for each question.

For questions 1 through 10, determine if the statements are true or false.

1. A goal is a statement of what you want to achieve.
   a. true
   b. false
2. When brainstorming, you list *only* the first option that comes to your mind.
   a. true
   b. false
3. Usually, an individual can generate more creative solutions to a problem than can a group.
   a. true
   b. false
4. You have the *right* to decide your career interest and the *responsibility* to seek appropriate training.
   a. true
   b. false
5. Responsibilities are things you are obligated to do.
   a. true
   b. false
6. Increasing self-awareness will help you decide what is important to you.
   a. true
   b. false
7. You should stick to your plan, even if there might be negative consequences.
   a. true
   b. false
8. A good way of dealing with criticism may be to consider who is giving it before taking action.
   a. true
   b. false

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APPENDIX D

9. You should change your goal if you do *not* reach it on the first try.

   a. true
   b. false

10. A good reason for taking care of yourself is to give you the strength to reach your goals.

    a. true
    b. false

11. Pat's dreams suggest these interests and skills:

    - enjoys animals
    - is good at helping others
    - likes science

    Which of the following is the *least* likely goal for Pat?

    a. volunteer in the hospital laboratory
    b. get a job at the pet store
    c. join the track team

12. People who are self-determined value themselves, make informed decisions about what they want, and

    a. always do what their best friend does.
    b. plan to achieve their goals.
    c. give up if things are too hard.

13. Sal joined the chess team at the urging of the teacher even though Sal can't think of a good reason for doing so. Is Sal being self-determined?

    a. yes
    b. no

14. Bill likes to dance and enters a contest. Bob has collected stamps for years but is not sure why. Who is more self-determined?

    a. Bill
    b. Bob

15. Which of the following is the most important area of the self in being self-determined?

    a. political affiliation
    b. fashion preference
    c. emotional well-being

16. Because of poor spelling skills, Mia has become very good at using the dictionary. This is an example of

    a. giving up.
    b. developing a strength to cope with a weakness.
    c. failing to accept her responsibility as a student.

17. Which of the following is a key skill in active listening?

    a. plan what you are going to say next while listening
    b. prove you are listening by interrupting when you hear something you disagree with
    c. tell the speaker what you heard

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APPENDIX D

18. Which of the following are elements of active listening?

    a. suspend judgment and give feedback on what you heard
    b. interrupt if you disagree
    c. smile and continuously nod your head

19. You listen carefully to the speaker and tell what you think was said. Is this an example of active listening?

    a. yes
    b. no

20. Before giving a speech to the class, Cassandra imagines speaking clearly and effectively. Is this an appropriate activity if she wants to become a better speaker?

    a. yes
    b. no

For questions 21 and 22, refer to the following information about Rosie.

Rosie dreams of being a science fiction writer and having lots of friends. She thinks of herself in the following way:

- good health
- persistent
- fair writing skills
- well-liked
- slow running time
- poor math skills
- sometimes pushy

Her goal is to go to college and obtain a degree in journalism.

21. Which one of the following demonstrates Rosie finding a strength in a perceived weakness?

    a. Rosie doesn't like to think of herself as pushy, but it helps her get what she wants.
    b. Rosie has poor math skills, but she has good health.
    c. Rosie is well-liked, but she is a slow runner.

22. Which of the following is the *most* appropriate short-term goal for Rosie?

    a. improve her grade in English this semester
    b. complete her stamp collection
    c. win a prize at the art fair

23. Which of the following are key steps in negotiating a "win-win" solution to a problem?

    a. Ask what the other person thinks about the problem and how to solve it.
    b. Ask what the other person thinks about the problem and be convincing that you have the better solution.
    c. Ask what the other person thinks about the problem and pleasantly, but forcefully, insist on your solution.

24. Which of the following is the best reason for negotiating "win-win" solutions?

    a. You always get what you want.
    b. You reach many of your goals while building relationships with others.
    c. You won't get what you want, but at least you make friends.

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APPENDIX D

25. Consider the eight items listed below.

    1. know yourself
    2. follow the leader
    3. value yourself
    4. make a plan
    5. hide your weaknesses
    6. learn from your actions
    7. act on your plan
    8. avoid conflict

    Which five items describe self-determination?

    a. 1,2,5,6,8
    b. 1,3,4,6,7
    c. 2,4,6,7,8
    d. 3,4,5,6,7

For questions 26, 27, 28, and 29, refer to the following information about Mike and Eric.

Mike and Eric both got B's in English. Mike said, "That's great! I can't wait to tell my friend about it." Eric said, "I did not reach my goal. My study schedule was helpful, but I need to find a tutor."

26. Who compared the outcome to what he expected?

    a. Mike
    b. Eric

27. Who judged how he performed?

    a. Mike
    b. Eric

28. Who enjoyed his success?

    a. Mike
    b. Eric

29. Who made an adjustment based on what he learned?

    a. Mike
    b. Eric

30. Jan sees her ideal self as being trim and athletic. She is about 30 pounds overweight and is in poor physical shape. Which of the following ways of using her ideal self could help her to be more self-determined?

    a. change her views about her ideal self
    b. use her ideal self to help her understand what is important to her
    c. ask someone else if her ideal self is acceptable

31. Sam has a short-term goal to lose 5 pounds by the end of the month. Which of the following would be most likely to help him meet his short-term goal?

    a. jog every morning for half an hour
    b. plan to join the health club next summer
    c. consider taking a nutrition class next semester

5

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32. Steve wants to buy a good used car, but he knows little about cars. Which of the following is most likely to help meet this goal?

    a. think about the car
    b. have a mechanic look at the car
    c. buy the car if he can afford it

33. It is important to predict possible results of actions because

    a. it helps you decide whether or not to go ahead.
    b. it helps you know your strengths and weaknesses.
    c. it helps you communicate assertively.

34. When you encounter a barrier to achieving your goal, the best thing to do is

    a. discard your goal.
    b. find a creative way to get around it.
    c. just keep trying.

For questions 35, 36, and 37, refer to the following information about Terry.

Terry was unhappy with the grade received in math class. In a conversation with the counselor and teacher about the grade, Terry said to the teacher in a loud voice, "You do not like me. You have never liked me." The counselor was silent. The teacher calmly responded, "You earned a 54% on the test."

35. Who is using passive communication?

    a. Terry
    b. the counselor
    c. the teacher

36. Who is using assertive communication?

    a. Terry
    b. the counselor
    c. the teacher

37. Who is using aggressive communication?

    a. Terry
    b. the counselor
    c. the teacher

6

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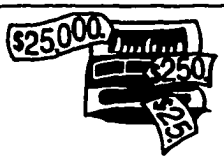
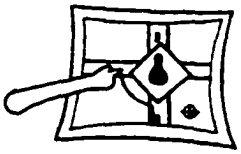
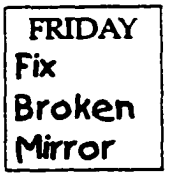
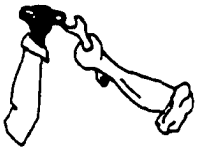
Lessons 2 and 3 (Worksheet & Transparency)

Take Action Plan Parts

Name _____ Date _____

Directions

On the lines below, write the question you will ask yourself when you are completing each part of your plan. Remember, your plan is the first step in the *Take Action* process to accomplish your goal.

Plan Parts	Question I ask myself
	*Standard* _____
	*Motivation* _____
	*Strategy* _____
	*Schedule* _____
	*Support* _____
	*Feedback* _____

APPENDIX F

Approaches to Learning

Directions: The following statements represent beliefs students may have about their ability for academic work and reasons they might have for doing it. Read each statement and indicate how much you agree that it is true of you in your classes. Use the 6-point scale below to indicate your response. Fill in circle on the answer sheet corresponding to your answer.

Strongly Disagree		Disagree	Agree		Strongly Agree
1	2	3	4	5	6

1. I do the work assigned in my classes because I don't want to look foolish or stupid to my friends, family or teachers. 1 2 3 4 5 6
2. I am confident I have the ability to understand the ideas taught in my classes. 1 2 3 4 5 6
3. I do the work assigned in my classes because I want to learn new things. 1 2 3 4 5 6
4. I do the work assigned in my classes because I want to look smart to my friends. . 1 2 3 4 5 6
5. I am confident I can perform as well or better than others in my classes. 1 2 3 4 5 6
6. I am confident I have the ability to successfully complete the assignments in my classes. 1 2 3 4 5 6
7. I think my capabilities are strong relative to others in my classes. 1 2 3 4 5 6
8. I do the work assigned in my classes because my achievement plays a role in reaching my future goals. 1 2 3 4 5 6
9. I do the work assigned in my classes because I don't want to be embarrassed about not being able to do the work. 1 2 3 4 5 6
10. I do the work assigned in my classes because I like to understand the material I study. 1 2 3 4 5 6
11. I do the work assigned in my classes because I want to be someone who can do the work well compared to others. 1 2 3 4 5 6
12. I do the work assigned in my classes because I don't want others to think I'm not smart. 1 2 3 4 5 6
13. I do the work assigned in my classes because learning the content plays a role in reaching my future goals. 1 2 3 4 5 6
14. I do the work assigned in my classes because I can show people that I am smart. . 1 2 3 4 5 6
15. I am certain I can master the concepts being taught in my classes. 1 2 3 4 5 6
16. I do the work assigned in my classes because my achievement is important for attaining my dreams. 1 2 3 4 5 6
17. I am certain I understand the material presented in my classes. 1 2 3 4 5 6
18. I do the work assigned in my classes because understanding the content is important for becoming the person I want to be. 1 2 3 4 5 6

APPENDIX F

19. I do the work assigned in my classes because I want to improve my understanding of the material. 1 2 3 4 5 6

20. Compared with other students in my classes my skills are weak. 1 2 3 4 5 6

21. I do the work assigned in my classes because learning the material is important for attaining my dreams. 1 2 3 4 5 6

22. I think I am performing better than other students in my classes. 1 2 3 4 5 6

APPENDIX G

Self-Regulation Behaviors

Directions: The following questions ask about some of your specific behaviors as you study for school. Respond to the statements along the following 6-point scale. Fill in the circle on the answer sheet corresponding to your answer.

Strongly Disagree		Disagree	Agree		Strongly Agree
1	2	3	4	5	6

1. Before a quiz or exam, I plan out how I will study the material. 1 2 3 4 5 6
2. When I finish working practice problems or homework, I check my work for errors. 1 2 3 4 5 6
3. I organize my study time well. 1 2 3 4 5 6
4. I have a clear idea of what I am trying to accomplish in my classes. 1 2 3 4 5 6
5. If I have trouble understanding something I go over it again until I understand it. 1 2 3 4 5 6
6. When I study I compare and contrast different concepts 1 2 3 4 5 6
7. I try to organize an approach in my mind before I actually start homework or studying. 1 2 3 4 5 6
8. When learning new material I summarize it in my own words. 1 2 3 4 5 6
9. When doing an assignment I make sure I know what I am asked to do before I begin. 1 2 3 4 5 6
10. While learning new concepts I try to think of practical applications. 1 2 3 4 5 6
11. When studying, I try to combine different pieces of information from course material in new ways. 1 2 3 4 5 6
12. When I study I take note of the material I have or have not mastered. 1 2 3 4 5 6
13. I mentally combine different pieces of information from course materials into some order that makes sense to me. 1 2 3 4 5 6
14. It is easy for me to establish goals for learning in my classes. 1 2 3 4 5 6
15. I answer practice problems to check my understanding of the course objectives 1 2 3 4 5 6
16. I find reviewing examples provided in the book or in class to be a good way to study for a test. 1 2 3 4 5 6
17. I learn new material by mentally relating new ideas with similar ideas that I already know 1 2 3 4 5 6
18. I make sure I understand the material that I study. 1 2 3 4 5 6

TAKE ACTION (page 1)

Name_____ Date_____

Directions
Long- Term Goal Write your long-term goal on the line below. **Short-Term Goal** Write your short-term goal on the line below.

Long-Term Goal _____

Short-Term Goal _____

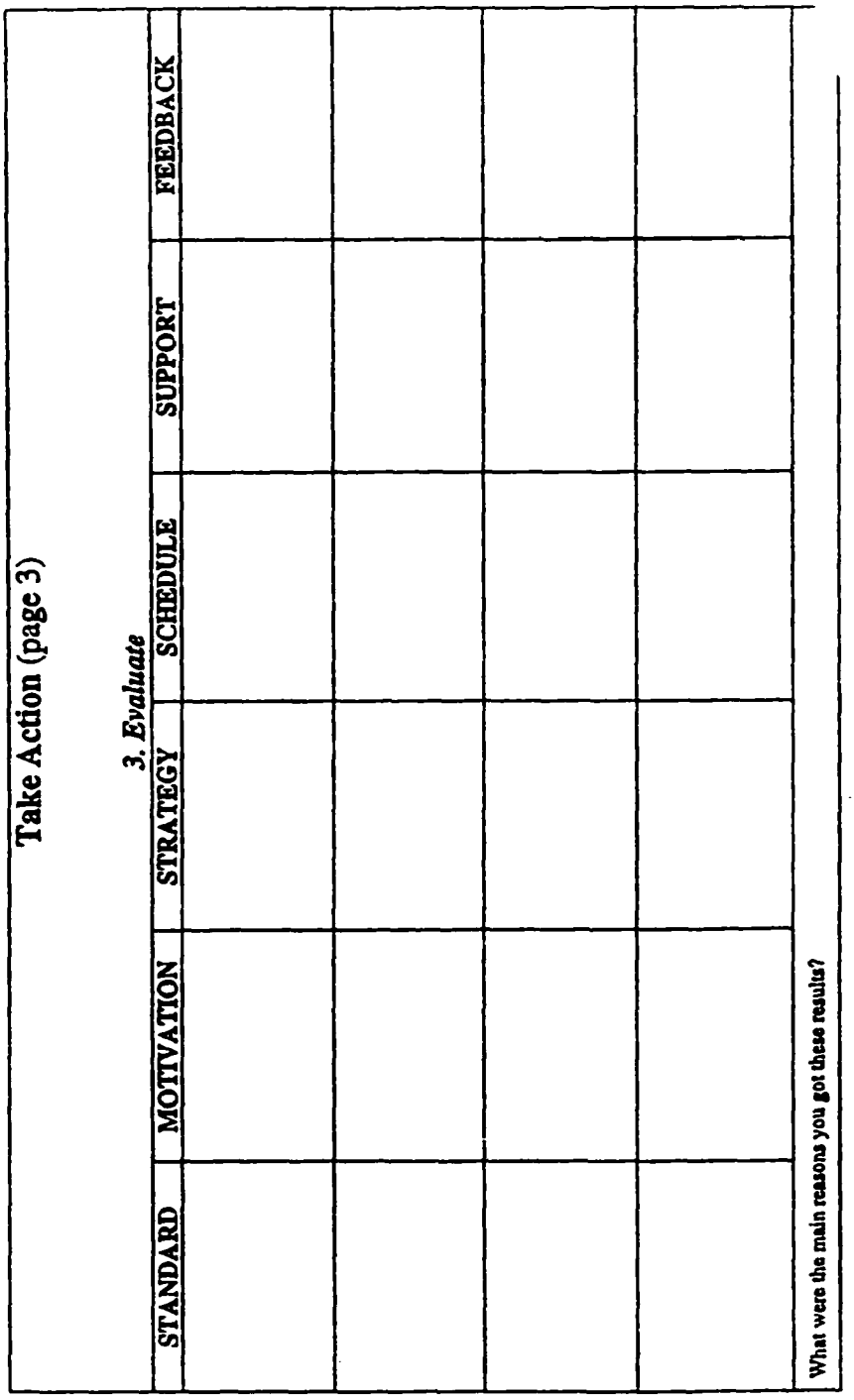
1. Student Plan					
STANDARD	**MOTIVATION**	**STRATEGY**	**SCHEDULE**	**SUPPORT**	**FEEDBACK**

TAKE ACTION (page 2)

2.Action

Did I meet my short-Term goal? **Yes_____? No_____?**

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK


Take Action (page 3)
3. Evaluate
STANDARD
MOTIVATION
STRATEGY
SCHEDULE
SUPPORT
FEEDBACK
What were the main reasons you got these results?

Take Action (page 4)

4. Adjust

Short-term goal okay _____or changed_____? If changed, new short-term goal_____

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK

TAKE ACTION REPEATED MEASURE SCORING GUIDE

Name_____	**1 point:**	(If complete: First and last name)
Date_____	**1 point:**	(If complete: Month, day and year)
Long-Term Goal_____	**1 point:**	(Any goal requiring more than a week to achieve)
Short-Term Goal_____	**1 point:**	(Any goal requiring a week or less to achieve, and can be started this week and supports/leads to the above long-term goal)
	_____	
	Sub Score____	

1. Student Plan

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
What will I be satisfied with? 1 point: Q a) for the complete question above b) for sentence with the same meaning c.) for any word indicating an understanding of standard	Why do I want to do this? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word indicating an understanding of motivation	What methods should I use? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word indicating an understanding of strategy	When will I do this? 1 point: Q a) for the complete question above b.) for sentence with the same meaning c) for any word indicating an understanding of schedule	What help do I need? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word indicating an understanding of support	How will I get information on my performance? 1 point: Q a) for the complete question above. b.) for sentence with the same meaning c) for any word indicating an understanding of feedback
1 point: A If the answer indicates an understanding of the term standard	1 point: A If the answer indicates an understanding of the term motivation	1 point: A If the answer indicates an understanding of the term strategy	1 point: A If the answer indicates an understanding of the term schedule	1 point: A If the answer indicates an understanding of the term support	1 point: A If the answer indicates an understanding of the term feedback
SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____

1. Student Plan Point Score____Total ***Percent Score***_____(point score / 16 x 100 = % score)

TAKE ACTION REPEATED MEASURE SCORING GUIDE (Cont'd)

2.Action

Did I meet my short-Term goal? Yes_____? No_____? **1 point: A (if answered)**

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
Did I meet the standard? 1 point: Q a) for writing the complete question above b) for a sentence with the same meaning c) for any word or words indicating an understanding of **standard**	Was I motivated? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **motivation**	Did I use the strategy? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **strategy**	Did I follow the schedule? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **schedule**	Did I use support? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **support**	Did I get feed back? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating an understanding of **feedback**
Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.	Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.	Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.	Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.	Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.	Yes?____No_____? 1 point: A a) for a "yes" answer to Question 1 above. b) for a "no" answer IF the 1st question in *3. Evaluate* section is also answered.
SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____

2. Student Action Point Score_____ Total ***Percent Score_____*** (point score / 13 x 100 = % score)

TAKE ACTION REPEATED MEASURE SCORING GUIDE (Cont'd)

3. Evaluate					
STANDARD	**MOTIVATION**	**STRATEGY**	**SCHEDULE**	**SUPPORT**	**FEEDBACK**
Was it the right standard? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **standard**	Did it work? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **motivation**	Did it work? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **strategy**	Did it work? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **schedule**	Did it work? 1 point: Q a) for the complete question above b) for sentence with the same meaning c) for any word or words indicating an understanding of **support**	Was the feedback helpful? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating an understanding of **feedback**
Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.	Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.	Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.	Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.	Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.	Yes? No? 1 point: A a) for a "yes" answer b) for a "no" IF a "why or why not" answer is given below.
Why or why not? 1 point: Q	Why or why not? 1 point: Q	Why or why not? 1 point: Q	Why or why not? 1 point: Q	Why or why no? 1 point: Q	Why or why not? 1 point: Q
1 point: A for why or why not answer preceded by a "no" answer above.	1 point: A for why or why not answer preceded by a "no" answer above.	1 point: A for why or why not answer preceded by a "no" answer above.	1 point: A for why or why not answer preceded by a "no" answer above.	1 point: A for why or why not answer preceded by a "no" answer above.	1 point: A for why or why not answer preceded by a "no" answer above.
SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____
What were the main reasons you got these results? 1 point A:_____					
3. Student Evaluate Point Score_____Total *Percent Score*_____(point score / 25 x 100 = % score)					

TAKE ACTION REPEATED MEASURE SCORING GUIDE (Cont'd)

4. Adjust

Short-term goal okay _____or changed_____? 1 point: A (If changed, new short-time goal must be included for the point
If changed, new short-term goal_____1 point: A (if completed as needed, due to change)

STANDARD	MOTIVATION	STRATEGY	SCHEDULE	SUPPORT	FEEDBACK
If standard wasn't right what will change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of standard	If I wasn't motivated what will I change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of motivation	If my strategy didn't work, what will I change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of strategy	If I didn't follow my schedule, what will I change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of schedule	If my support didn't work, what will I change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of support	If feedback wasn't helpful, what will I change? 1 point: Q a) for the complete question above. b) for sentence with the same meaning c) for any word or words indicating a change of feedback
1 point: A A statement of change answer is necessary to receive this point	1 point: A A statement of change answer is necessary to receive this point	1 point: A A statement of change answer is necessary to receive this point	1 point: A A statement of change answer is necessary to receive this point	1 point: A A statement of change answer is necessary to receive this point	1 point: A A statement of change answer is necessary to receive this point
SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____	SCORE_____

4. Student Adjust Score_____Total *Percent Score_____*(point score / 14 x 100 = % score)

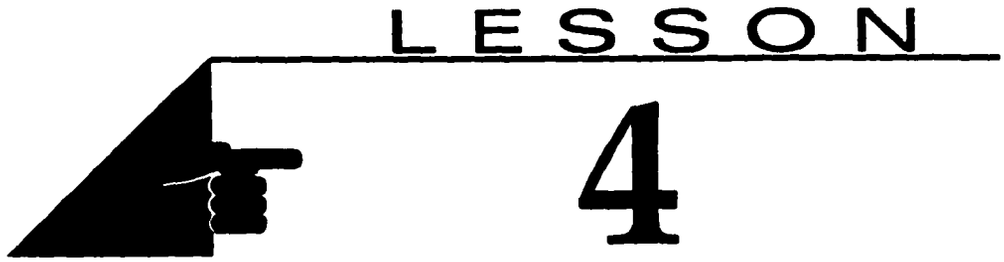
SCORE RECAP

1. Student Plan Point Score	*Total*	*Percent Score*	(point score / 16 x 100 = % score)
2. Student Action Point Score	*Total*	*Percent Score*	(point score / 13 x 100 = % score)
3. Student Evaluate Point Score	*Total*	*Percent Score*	(point score / 25 x 100 = % score)
4. Student Adjust Point Score	*Total*	*Percent Score*	(point score / 14 x 100 = % score)
POINT GRAND TOTAL ___		*PERCENT GRAND TOTAL_____*	(Point Grand Total / 68 x 100 = %)

APPENDIX J

INSTRUCTIONS FOR THE *TAKE ACTION FORM*

1. Put your name on the form.
2. Fill out the form in anyway you like.
3. Any way you choose to fill it out is acceptable.
4. There is no right or wrong way to fill in this form.
5. Us e the forms to make a goal plan. Any type goal is OK. Personal, academic, etc.
6. I cannot help you with the headings, instructions, or answer questions about the forms.
7. Any questions you now have will be answered as we progress through the research.
8. Take as much time or as little time as you like to complete the forms.



Critiquing Example Plans

Purpose

To provide students with examples of student plans and to teach students a method for critiquing plans and predicting whether a plan will work.

General Information

In this lesson, students learn criteria for each plan part. They critique two examples using the criteria.

LESSON 4 Critiquing Example Plans (continued)

Strand

"Taking Action"

Goals

Student Plan

Objectives

- Break long-term goals into short-term goals that can be completed in a week
- Establish standard for short-term goals
- Determine how to get feedback from environment
- Determine motivation to complete short-term goals
- Determine strategies for completing short-term goals
- Determine support needed to complete short-term goals
- Prioritize and schedule to complete short-term goals

Location

School

Estimated Time

60 minutes

Materials

- Overhead projector
- Take Action Plan Puzzle transparency
- Take Action Plan Puzzle worksheet for each student
- "Physically Fit" Breaking Down Long-Term Goals transparency from Lesson 1
- Buff's Take Action (page 1) worksheet for each student
- Take Action Plan Critique Transparency
- Roland Coaster's Breaking Down Long-Term Goals transparency from Lesson 1
- Roland Coaster's Take Action (page 1) worksheet for each student
- Take Action Plan Critique worksheet for each student

Lesson Overview

- Students read a sample student situation. The teacher models using the Take Action Plan Critique worksheet to critique each plan and predict how well each part will work.
- In pairs, students complete the same process for another sample student situation.

Lesson Summary

A. Review
B. Overview lesson
C. Review "Physically Fit" goal breakdown worksheet
D. Critique Buff's plan
E. Review Roland Coaster's goal breakdown worksheet
F. Critique Roland Coaster's plan in pairs
G. Preview next lesson

LESSON 4 Critiquing Example Plans (continued)

A.

Review

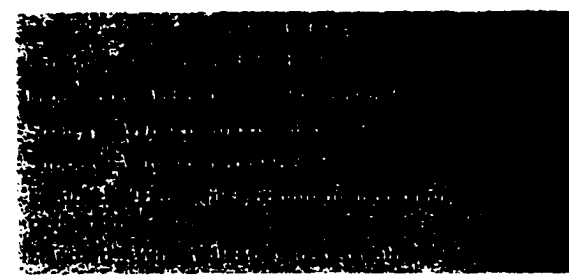
- Ask students to list the four *Take Action* steps for accomplishing goals.



- Ask students the difference between a long-term goal and a short-term goal.



- Hand out the Take Action Plan Puzzle worksheet.
- Ask students to write the part of the plan that matches each question and picture (from the animation in the video).
- When students have completed the worksheets, ask students to share their responses for each piece of the puzzle.
- Write the correct response on the overhead transparency of the worksheet.
- Ask students to correct their worksheets.



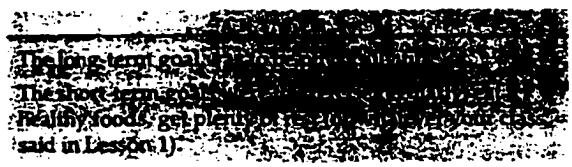
LESSON 4 Critiquing Example Plans (continued)

B. Overview Lesson

- Present the following information.
  - Before you write your own plan, we're going to read and discuss plans developed by other students.
  - First we will read a story about the person.
  - Then we will read their plan and decide on which parts of the plan we think will work and which parts won't work.

C. Review "Physically Fit" Goal Breakdown Worksheet

- Put transparency of "Physically Fit" Breaking Down Long-Term Goals (from Lesson 1) worksheet on overhead.
- Ask students what the long-term and short-term goals were.



D. Critique Buff's Plan

- Use the example of the weight lifter.
- Hand out copies of Buff's Take Action (page 1) worksheet.
- Ask someone to read Buff's story.
- Ask someone to read when Buff made his plan.
- Ask different students to read each part of the plan.
- Put the Take Action Plan Critique Transparency on the overhead.
- Model, using the critique sheet, how to evaluate the six parts of the plan.

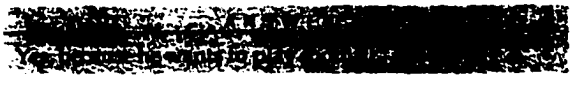
LESSON 4 Critiquing Example Plans (continued)

(**Note:** Students may have different opinions about how well the different parts of the plan will work. It is important for students to provide a rationale for their responses.)

- Write on transparency as students offer responses.
- Critique standards.
- Ask the three questions about Buff's standard.
- Ask students to justify their responses.



- Critique motivation.
  - Will this help him work on his goal this week?



- Critique strategy.
  - Does he have the skills to do this strategy?

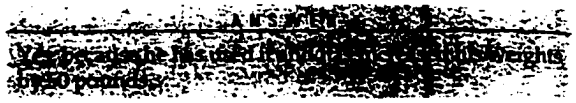


  - Has this strategy worked before?

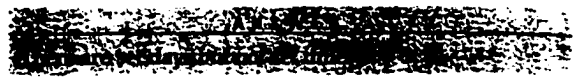


  - Do you think this strategy will work?

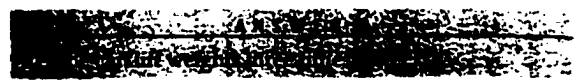
LESSON 4 Critiquing Example Plans (continued)



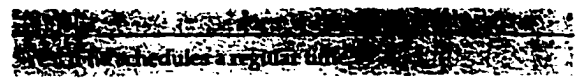
- Critique schedule.
  - Is there a set time to take action?



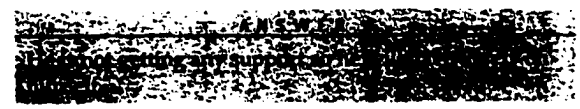
  - Can he handle this schedule?



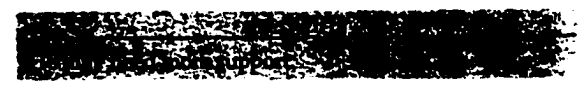
  - Do you think this schedule will work?



- Critique support.
  - Can he rely on this support?



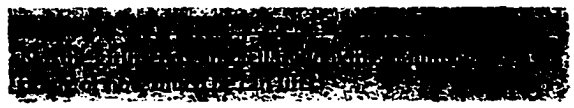
  - Will he need more support?



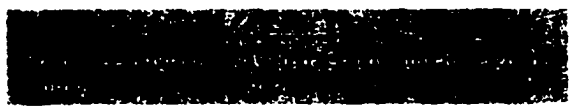
  - If Buff was getting support from a person we'd ask, "Does the person have the skills to help you in this way?"
  - Again, if Buff had chosen to get support we'd ask, "Do you think this support will be helpful?"

LESSON 4 Critiquing Example Plans (continued)

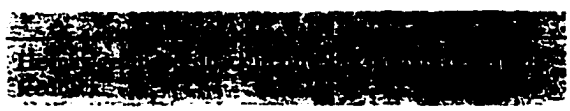
- Critique feedback.
  - Does the person he is asking for feedback know about his standard and performance?



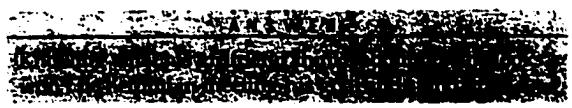
  - Does the feedback keep track of his performance and show how close he is to reaching his standard and goal?



  - Will he get feedback in time?



  - Why won't this feedback be helpful?

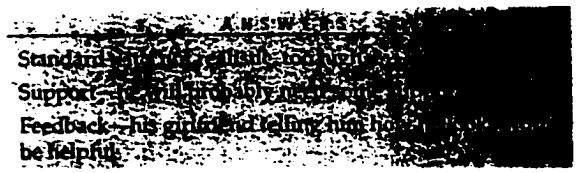


- Discuss the last three questions.
  - What parts of the plan do you think will be most effective?

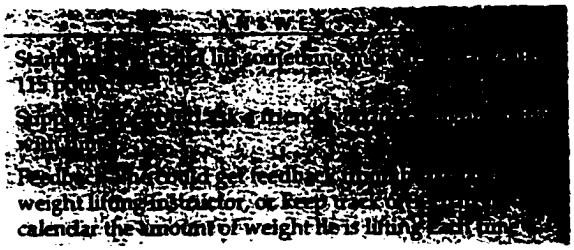


  - What plan parts do you think will be least effective?

LESSON 4 Critiquing Example Plans (continued)



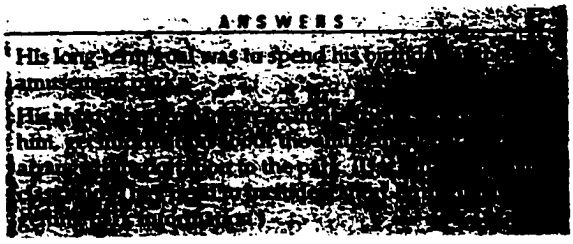
- What would be more effective in each of those parts?



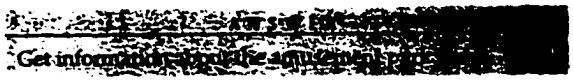
E.

Review Roland Coaster's Goal Breakdown Worksheet

- Put the transparency of Roland Coaster's Breaking Down Long-Term Goals worksheet (from Lesson 2) on the overhead.
- Ask a student to read Roland's story.
- Ask students what his long-term and short-term goals were.



- Ask students to discuss which of the short-term goals Roland needs to do first.



LESSON 4 Critiquing Example Plans (continued)

F.

Critique Roland Coaster's Plan in Pairs

- Hand out Roland's Take Action (page 1) and a Take Action Plan Critique worksheet to each student.
- Ask different students to read each part of his plan.
- Ask students to work in groups of two.
- Give students an appropriate amount of time to answer the questions on the critique worksheet.
- Circulate and check for understanding.
- Ask students to come back to the large group and review their responses.
- Students might critique the plan differently; ask students to justify their responses.



G.

Preview Next Lesson

- Present the following information.
  - In the next lesson, you will have a quiz over the definition of long-term and short-term goals, the *Take Action* steps, the parts of the plan, and the matching questions.
  - You will also learn to write a plan for a goal.

APPENDIX L

SEQUENCE OF INSTRUMENTS ADMINISTRATION

Baseline:

1. Choice Maker Assessment
2. Repeated Measure Take Action p1 & 2
3. AIR Self-Determination Scale ~ Student form
4. Self-Determination Knowledge Scale
5. Greene/Miller. Approach to Learning & Self-Regulation Behavior

Intervention:

1. Repeated Measure Take Action p 1 & 2
2. Give instruction
3. Give the section test after instruction
4. Give Repeated Measure Take Action p 1 & 2 after each section is completed.

APPENDIX M

Take Action Checklist: Lesson 1			
Participant:			Date:
YES	NO	#	
			Present the following information.
		1	Today we are going to talk about a way to accomplish goals.
		2	What are goals?
			Ask students the following questions to demonstrate the need for the Take Action process to accomplish goals.
		3	How many of you have ever set goals?
		4	Has anyone ever set goals but you couldn't make them happen?
		5	Ask students to share goals that they didn't accomplish.
		6	How did you feel when you didn't accomplish your goal?
		7	Why didn't you get the results you wanted?
		8	Wouldn't it be nice if you could accomplish more of your goals?
			Present the following information.
		9	In these lessons you will learn how to complete 4 steps to help you accomplish your goals.
		10	These 4 steps are called the Take Action process.
			Write each step on the board or overhead as you introduce it.
		11	The first step is *plan*
		12	A plan describes what I'm going to do.
		13	What's a plan?
		14	The second step is *act*.
		15	That's when I do what's on my plan.
		16	What do I do for the second step? Act.
		17	The third step is *evaluate*.
		18	When I evaluate, I think about how my plan and actions worked.
		19	What do I do when I evaluate?
		20	The forth step is *adjust*.
		21	When I adjust, I look at what changes I need to make so my plan and action will work better.
		22	What do I do when I adjust?
			Conduct a discussion using the following questions.
		23	Now that we have looked at the steps of the Take Action process, think about the goals you said you had trouble accomplishing.
		24	Did you make a plan?
		25	What was your plan?
		26	Did you act on your plan?
		27	Did you make any adjustments?

		28	Completing these steps will help you accomplish difficult goals.
		29	Hand out the Take Action Steps worksheet.
YES	NO	#	
		30	Discuss the order of the Take Action steps for accomplishing goals.
		31	Ask students to write them in the correct order on the worksheet.
		32	What is the first step in the Take Action process?
		33	*Right.* You make a plan.
		34	Once you have a plan, what is the second step?
		35	Good. You put the plan into action.
		36	After you act on your plan, you need to look at how your plan and action worked.
		37	What is the third step? *Evaluate*
		38	Yes, you evaluate what worked and what didn't work.
		39	After you evaluate what worked and what didn't work, what's the last step? *Adjust*
		40	Right. You adjust or make changes for anything that didn't work so you have a better chance of accomplishing your goal.
			Present the following information.
		41	Before we can start using the steps of the Take Action process, we need to look at goals.
		42	Some goals take a long time to accomplish.
		43	Let's say my goal is to become physically fit.
		44	It may take a long time to accomplish this goal, so this is a long-term goal.
		45	Why is this a long-term goal?
		46	You have a better chance of accomplishing a goal if you break it into short-term goals.
		47	Shop-term goals can give you a place to begin.
		48	The definition of short-term goals has two important parts.
		49	1. Short-term goals are smaller goals that lead to your long-term goal.
		50	2. You can start working on short-term goals this week.
		51	What are short-term goals?
		52	When can you start working on short-term goals?
		53	On the transparency of Breaking Down Long-Term goals, write the long-term goal: Be physically fit.
		54	My long-term goal is to be physically fit. What would be some short-term goals that would lead to this goal?
		55	Write the following example on the transparency. *Exercise regularly.*
		56	How do you know this is a short-term goal for my long-term goal?
		57	What are some other examples of short-term goals for this goal?
		58	Write examples on transparency keep transparency for Lesson 4.
			Present the following information.
		59	Some long-term goals need lots of short-term goals.
		60	Some only need a few short-term goals.
		61	Sometimes short-term goals need to be done in a specific sequence.
		62	For instance, if my long-term goal was to get a job and my short-term goals

			were to (1) interview; (2) fill out job applications;(3) find job openings; and (4) create a resume. Is there sequence needed for my short-term goals?
YES	NO	#	
		63	For the goal, "To become physically fit," is there a short-term goal that needs to be completed first?
			Accept students answer. Lead to *"I can start by exercising."*
			Review the following:
		64	What is my long-term goal?
		65	Why is that a long-term goal?
		66	What is the definition of short-term goals?
		67	What is one of my short-term goals?
		68	Why is this a short-term goal?
		69	Hand out Roland Coaster's Breaking Down Long-Term Goals worksheet.
		70	Put Roland Coaster's Breaking down Long-Term goals transparency on the overhead.
			Present the following information.
		71	We're going to practice breaking long-term goals into short-term goals.
		72	To do this were going to read Roland Coaster's story and look at some possible short-term goals for him.
		73	Ask the students to read Roland's story.
		74	Ask the students to read Roland's long-term goal.
		75	What is Roland's long-term goal?
		76	Why is that a long-term goal?
		77	What is the definition of a short-time goal?
		78	What would be some short-term goals for going to the amusement park?
		79	Write above answer on the transparency.
		80	Good. Each of these short-term goals lead to the long-term goal.
		81	You can start on them this week.
		82	Do these short-term goals need to be done in any sequence?
			Keep transparency for Lesson 4.
		83	Hand out a blank copy of the Breaking Down Long-Term Goals worksheet
		84	Put blank Breaking Down Long-Term Goals transparency on the overhead.
		85	Now you will try breaking a long-term goal into short-term goals on your own.
		86	The long-term goal is "Get good grades in class."
		87	Ask students to choose a class in which they want to improve their grade.
		88	Instruct students to write the long-term goal on their worksheets.
		89	Write "Get good grades in class" on the transparency.
		90	Ask students to write some short-term goals for that long-term goal on their worksheets.
		91	Ask students to look at their short-term goals and answer the questions at the bottom of the page.
		92	Are your short-term goals smaller goals that will lead to your long-term goal?
		93	Are your short-term goals ones you can begin working on this week?
		94	Ask students to tell you their short-term goals.

YES	NO	#	
		96	Critique short-term goals by asking the questions at the bottom of the Breaking Down Long-Term Goals page.
		97	Guide students if changes need to be made.
		98	Ask students to decide if the short-term goals need to be completed in a certain sequence. If they do, number them.
		99	Ask student to share their response.
			KEEP TRANSPARENCY FOR LESSON 5.
		100	What is a long-term goal?
		101	What is a short-term goal?
		102	What are the 4 steps to the Take Action process?
		103	Next lesson we will talk about the parts of the plan to accomplish a short-term goal.
			TOTALS
			PERCENT "YES & NO" (Totals / 103 x 100 = % score)

APPENDIX N

PHASE II GENERAL INSTRUCTIONS

1. As you are given each instrument to fill out follow the instructions on the instrument.

2. Any special instructions for the instrument will be read to you.

3. The printed instructions on the instrument or the special instructions read to you before you begin working are the only instructions you will receive.

4. I cannot answer any questions about the instrument or how you are to complete it.

5. After you have completed each instrument, hand it in and receive the next instrument until all instruments have been completed.

APPENDIX O

PHASE II SEQUENCE OF INSTRUMENTS

1. Repeated Measure Take Action
2. ChoiceMaker Assessment
3. AIR Self-Determination Scale ~ Student Form
4. Self-Determination Knowledge Scale
5. Greene/Miller, Approach to Learning & Self-Regulation Behavior
6. Take Action Quiz