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A GUIDE TO MOTIVATING STUDENTS
TO TWIST TO BETTER SPELLING

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Instructional Technology

by
Kim Elaine Du Cloux
September 2003

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A GUIDE TO MOTIVATING STUDENTS
TO TWIST TO BETTER SPELLING

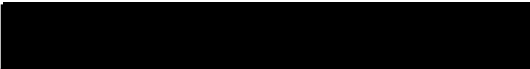
A Project
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by
Kim Elaine Du Cloux
September 2003

Approved by:


Eun-Ok Baek, Ph.D.

8/25/03
Date


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ABSTRACT

The purpose of this project was to develop an intervention utilizing a game like product to motivate at-risk or low spelling proficient students to achieve higher levels of spelling proficiencies. This was accomplished by designing a literacy center activity that builds and reinforces the foundation of phonics and phonemic awareness. The intent of using this intervention was to provide students with an exciting way of learning to spell in a manner and format familiar to them. The use of technology and this project will motivate students to learn and improve their word recognition and manipulation skills.

This intervention will work cohesively to support standards, can be adapted to current curriculum and incorporated into any classroom. Effective learning takes place through a combination of visual, auditory, and kinesthetic modes; each of these learning aspects are contained herein.

ACKNOWLEDGMENTS

First I would like to thank God who has brought me thus far; my parents, Eugene and Joyce who have loved and supported me and my endeavors; a special circle of friends whom have provided encouragement along the way and Dr. Eun-Ok Baek and Dr. Amy Sheng Chieh Leh for their expertise and guidance.

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CHAPTER ONE

BACKGROUND

Introduction

The contents of Chapter One present an overview of the project. The contexts of the problem are discussed followed by the purpose, significance of the project, and assumptions. Next, the limitations and delimitations that apply to the project are reviewed. Finally, definitions of terms are presented.

The Reading/Language Arts Framework for California Public Schools (1999) states that "literacy is the key to becoming an independent learner in the other academic disciplines". Cornwall and Bawden (p. 3), 1992 and Werner, 1993 (as cited in Reading/Language Arts Framework for California Public Schools, 1999, p. 3) state that "studies of individuals who are resilient in facing personal and social adversity indicate that the ability to read and write will renders powerful, far-reaching positive effects. Literacy levels are positively associated with both higher annual income and lower unemployment. On the other hand, the absence of proficient reading and writing skills is associated not

only with academic failure and dropping out of school but also with unemployment and involvement with the judicial system."

Statement of the Problem

An analysis of a series of spelling tests and paragraph writings showed that students were struggling with phonics, spelling words correctly and the proper use of words when writing sentences and paragraphs. The analysis also showed that the levels of proficiency were far below those established as passing for grade level. The tests, writing samples, scores and possible reasons for the low performance were discussed with several teachers. The issues identified were lack of phonics and phonemic awareness, poor word attack skills and a lack of student motivation to learn. A survey on the need for an intervention that would address these issues was given to determine if a project such as this was needed and would be effective in the classroom. The problem was to address the increasing number of students in the upper elementary grades are having difficulty with decoding, word recognition, and spelling skills. Many of these students

do not have a well developed foundation in phonics or phonemic awareness.

Chall, 1983; Share & Stanovich, 1995 point to relevant experimental research findings (as cited by Groff, 1998, p. 138) "that suggest that knowledge of phonics is a prerequisite for novice readers' accurate identification of written words". An inability to identify words has been linked with insufficiently developed phonological awareness skills. (MacDonald & Cornwall, 1995, p. 1)

Without this needed foundation these students tend to have low reading comprehension levels and difficulty expressing clear messages when writing. Students who experience such difficulties fall farther behind, have low spelling proficiencies and are at-risk of failure. With direct explicit phonics instruction occurring at the beginning of a student's academic life, in Kindergarten and First grade, using those methods to instruct a Fourth or Fifth grader is challenging. A different method of building or reinforcing these skills for older students now at-risk is needed.

A method such as the one presented in this project is ideal because student instruction and practice is guided and monitored individually and that threat or fear

of appearing "stupid" or "dumb" in front of ones peers is greatly reduced.

Purpose of the Project

The purpose of the project was to develop a literacy center that is unique because it seeks to use a product marketed for in home educational use in a traditional educational setting, the classroom, as a means to motivate students and make learning fun. It is adaptable to current curriculum and takes advantage of the attraction students have for today's handheld games and focuses that energy into productive learning.

Questions

The questions to be answered by this project are can a game like intervention motivate students to learn, will students find the use of the literacy exciting and whether teachers will find it a viable and valuable resource to have in their teaching tool kit.

Significance of the Project

The significance of the project was the development of an intervention that achieves and supports standards, teaches and reinforces word skills, motivates and makes learning fun for at-risk students and those with low spelling proficiencies. This project was accomplished by incorporating a commercially produced product and customizing it to curriculum to be used in the classroom. It utilizes multiple intelligence methodologies and learning styles. This intervention project provides opportunities for controlled guided practice by the individualized use of the product. Motivation to learn is increased because the method of delivery is in a game-like format that appeals to and attracts students. At-risk students and low spelling proficient students are stimulated to learn through visual, auditory, and motor or hands-on modes. This project involves the design of an intervention that can be easily incorporated into an instruction plan and can be customized to support current curriculum.

Limitations

During the development of the project, a number of limitations were noted. These limitations are the following

1. Time. The original intent of this project was to implement this literacy center by first developing a curriculum bases list of words, conduct a pretest, use the literacy center for a period of time, then conduct a post test. In the interest of time the project was changed to a guide for teachers to implement.
2. The spelling tests and writing samples used were taken from a single class.
3. The teachers consulted and surveyed were from a single grade level at one school.
4. In this age of technology not all teachers are comfortable with integrating technology into their teaching.
5. The potential lack of support from the District Information Technology Department.

Definition of Terms

The following terms are defined as they apply to the project.

Accommodation - altering existing schemes or creating new ones in response to new information. (Woolfolk, 2001, chap. 2, p. 29)

Adaptation - adjustment to the environment. (Woolfolk, 2001, chap. 2, p. 29)

Assimilation - fitting new information into existing schemes. (Woolfolk, 2001, chap. 2, p. 29)

At-risk students - are students who at-risk of failing.

Disequilibrium - in Piaget's theory, the "out-of-balance" state that occurs when a person realizes that his or her current ways of thinking are not working to solve a problem or understand a situation. (Woolfolk, 2001, chap. 2, p. 30)

Equilibration - search for mental balance between cognitive schemes and information from the environment. (Woolfolk, 2001, chap. 2, p. 29)

LeapFrog® - manufacturer of the products used in this project: Turbo Twist Spelling, Mind Station™ and Leap link cartridge.

Low spelling proficient - students with "weak letter-sound association skills due to a lack of explicit phonics instruction in the primary grades" (Joseph, 2002, p. 1).

Motivation - the act or process of motivating; the condition of being motivated.

Organization - ongoing process of arranging information and experience into mental systems or categories.
(Woolfolk, 2001, chap. 2, p. 28)

Phonics - is the use of phoneme-letter correspondences that aid word identification.

Phonological awareness - is the awareness of anything to do with the sounds of language.

CHAPTER TWO
REVIEW OF THE LITERATURE

Introduction

Chapter Two consists of a discussion of the relevant literature. Specifically, addressed are phonemic awareness, low spelling proficient and at-risk students, learned helplessness and motivation.

Phonemic Awareness

An observation of the Reading/Language Arts Framework indicates that phonemic awareness is taught primarily in Kindergarten and First grade. By the end of Second grade decoding and word recognition become the focus. A student possessing underdeveloped phonemic awareness skills may begin to struggle by the Second grade with problems compounding as the student is advanced from one grade level to the next.

Sometimes used interchangeably, following are definitions for phonics, phonemic awareness and phonological awareness. Richgels (2001) states that "phonological awareness is the awareness of anything to do with the sounds of language. That only the sounds of

phonemes, which are the smallest units of sound that matter in a language, are involved in phonemic awareness making phonemic awareness a subcategory of phonological awareness". Finally, "that phonics is the use of phoneme-letter correspondences that aid word identification". (p. 275)

With the close relationship of each aspect, "phonics instruction provides a framework for word attack skills and a method for improving reading and writing" (Hooks & Peach, 1993, p. 1), while providing a method for many students to unlock words that are encountered. With early word identification depending on phonemic awareness, MacDonald, 1980; Stanovich, 1986; Wagner & Torgesen, 1987 state (as cited by MacDonald & Cornwall, 1995, p. 1) that "the skills of segmenting, blending, and deleting letter sounds (phonological awareness) are highly related to word identification skills".

Low Spelling Proficient and At-Risk Students

Low spelling proficient or poor spellers tend to be students with "weak letter-sound association skills due to a lack of explicit phonics instruction in the primary grades" per Adams, 1990; Groff, 1998; Pressley, 1998 (as

cited by Joseph, 2002, p. 1). "The poorest spellers, even the older ones, need basic work in phonological awareness and the alphabetic principle. Poor spellers take longer to learn the same things that good spellers learn more easily, are more likely to forget what they presumably knew" (Scott, 2000, p. 80), and "are hindered in their ability to communicate in writing" (Allred, 1990, p. 187) and tend to have difficulty with reading fluency and comprehension.

Having deficits in phonics and phonemic awareness, poor spelling performance leads to struggles in other academic areas, these struggling students become at-risk. At-risk students are students who are at risk of failing for a myriad of reasons. These reasons or definitions stated by Frymier & Gansneder, 1989 (as cited by Wood, 1991, p. 42) range from "(a) those that have particular background characteristics (i.e., economically disadvantaged, members of minority groups, those with an unstable home environment); (b) students who previously failed a course or have been retained in a grade; and (c) those who have experienced critical life events, such as abuse, or use drugs".

Combined with potential problems outside school and having to deal with academic inadequacies many students develop a learned helplessness attitude.

Learned Helplessness

Learned helplessness refers to the cognitive and behavioral deficits that occur when an individual comes to view future outcomes as uncontrollable. "Helplessness is defined as the belief and expectation that one's responses do not and will not have an effect in controlling desirable and undesirable outcomes. The individual is perceived to "own" the problem because it's the individual's interpretation of events and circumstances that is viewed as the difficulty rather than actual events". (p. 17) Interpretation of the event rather than the event itself determines what happens in the future" (p. 19).

"Many students interpret messages and experiences of repeated failure to mean that they as individuals have little or no control over what happens to them" (p. 19). To sum it up, Wood (1991) states that "students learn that their personal behaviors have no effect on events. However, because they believe that they have not had a

significant effect on their fate in the past, they fail to recognize or expect that their present and future responses can make a difference in other situations". (pp. 19-20)

"Thus, the attribution (the way things were) leads to a present belief (the way things are), which, in turn, suggests future expectations (the way things will be). It is the expectation of failure that determines whether or not a helpless orientation will prevail in a new situation". (Wood, 1991, p. 21)

"When students learn that outcomes are uncontrollable four types of deficits can occur. Those deficits are cognitive, motivational, emotional and self-esteem. At a cognitive level, prior experiences with uncontrollable outcomes and/or repeated failures lead students to believe that their present and future responses will not be effective in controlling or modifying the environment. This expected lack of control inhibits them from learning that there can be a relationship between their personal responses and what happens to them. Furthermore, the expected lack of control distracts them from engaging in cognitive activities that facilitate conscious and active problem solving". (Wood, 1991, p. 21)

"In terms of motivation, students who experience learned helplessness do not tend to engage in their environmental activities in a meaningful way. Because they believe that no response in their repertoire will be effective, they do not make an effort to change their situation and perceive such behavior to be a futile waste of energy". (Wood, 1991, p. 21)

"When students experience a loss of personal control, they tend to exhibit emotional deficits typified by such responses as sadness, anxiety, and hostility". (Wood, 1991, p. 21)

Finally, "a belief that important events are uncontrollable also leads to self-esteem deficits in some students. The term personal helplessness is used to describe students who attribute their failures to deficiencies within themselves". (p. 21) Kuhl, 1981; Mukulincer, 1986 state (as cited by Wood, 1991, p. 21) that "these individuals do experience low self-esteem. Because they become distracted by worry, self-doubt and self-blame, their attention is drawn inward, away from task relevant behaviors and/or from the outside factors which may have caused the negative event".

"The typical responses of a helpless student inhibit learning and effort and retard the development of

effective coping skills. This, in turn, reduces the likelihood of future successes and reinforces the expectation of future failure - the negative self-fulfilling prophecy continues its downward spiral" (Wood, 1991, p. 22).

Motivation

Motivating students has become a challenge for teachers and instructors. Tomlinson, 1991 states (as cited by Hootstein, 1994, p. 2) that "many experts in the field have identified lack of student motivation as one of the primary causes of low achievement levels". What does it take to motivate students to learn? The following presents several facts of motivation and ends with reasons why and how implementing this project as a literacy center will be successful in motivating students to learn and increase their levels of spelling proficiency.

Motivation is the noun form of the verb motivate which means to stimulate to action; provide with an incentive or motive. Thus motivation is the act or process of motivating or the condition of being motivated.

Further delving reveals that to stimulate is to excite to activity or growth or to greater activity: animate,

arouse. This leads to the conclusion that students must be excited toward growth and animated toward activity. This implies that teaching and learning must include and be done with enthusiasm and creativity. Without enthusiasm and creativity both teaching and learning become stagnant, routine and boring.

People in general and students in particular are stimulated and thus motivated in many different ways. Students need to be encouraged and engaged, aroused and animated, thus motivated to learn and to grow. Motivation takes a multitude of shapes and is accomplished in a multitude of ways.

Motivation can be intrinsic, extrinsic or a combination of both. Intrinsic deals with the internal, feelings, emotions, senses and such. Where extrinsic is that which is outside an individual, those elements that are external and deal with the environment. Rewards and incentives are examples of external compensations that are used to motivate. "Intrinsic motivation usually refers to the affective aspects of motivation". (Brophy, 1987, p. 41) "Intrinsic motivation acknowledges the role of the persons' experiences, perceptions, and emotions. Intrinsic activities are those done for no apparent external reward". (Cohen, 1986, p. 258) "Strategies that

supply extrinsic motivation do not attempt to increase the value a student places on the task itself but rather to link successful task performance with access to valued rewards". (Brophy, 1987, p. 43)

A student's motivation to learn can encompass both intrinsic and extrinsic factors. "Learning refers to the information-processing, sense-making, and comprehension or mastery advances that occur during the acquisition of knowledge or skill, performance refers to the demonstration of such knowledge or skill after it has been acquired. Motivation to learn refers not just to the motivation that drives later performance but also to the motivation underlying the covert processes that occur during learning". (Brophy, 1987, p. 41)

Strategies for motivating students are varied. There are strategies that appeal to the intrinsic, the extrinsic and those that combine factors of both to motivate for an intended purpose. Strategies that focus on intrinsic motivation compel "students to engage in willingly because they are interested in the content or enjoy the task". (Brophy, 1987, p. 44) "Strategies for motivating students to learn apply not only to performance on tests or assignments, but also to information processing activities

(paying attention, paraphrasing ideas) initially involved in learning the content or skills". (Brophy, 1987, p. 41)

Strategies for motivating include providing a supportive environment, establishing an appropriate level of challenge or difficulty, and presenting meaningful learning objectives. Approaches to motivating include establishing and using individual goals, adapting tasks to student interests that engage students in their learning.

Brophy (1987) states that "teachers can capitalize on intrinsic motivation by planning academic activities that students will engage in willingly because they are interested in the content or enjoy the tasks". (p. 44)

This literacy center seeks to motivate students by arousing their interests and engaging them in a learning activity that is fun.

Summary

The behaviors associated with these deficits are seen in many classrooms. The lack of interest, effort and motivation as well as the despondency are attitudes displayed by many students. Teaching students who have learned helplessness attitudes is challenging. Their lack of motivation and effort make reaching them difficult.

This is why it is necessary for learning and teaching to change and be adaptive. The use of information technologies and computers allow teachers another way to reach and teach students. "Information and communication technologies change the very nature of teaching and should be seen as a means of improving efficiency in the educational process". (Wheeler, 2001, p. 8)

Forcheri & Molfino, 2000 (as cited by Wheeler, 2001, p. 8) state "It is well documented that using computers changes the nature of motivation to learn". The goal of this intervention is to motivate students to learn not only in a fun way but also in such a manner that students will experience successes in an academic area that is imperative to their overall achievement. The use or implementation of this intervention modifies the traditional learning setting by offering a student-friendly medium of instruction and assessment that will produce positive results. "Focusing on changing various aspects of the learning environment in order to reduce the occurrence of negative events and to increase the likelihood that positive events will occur enhances students' feelings of control". (Wood, 1991, p. 40)

CHAPTER THREE

DESIGN

Introduction

Chapter Three documents the steps used in developing the intervention project. Specifically, presented are the goals and objectives, the specific instructional objectives, learners and target audience. This project "A Guide to Motivating Students to Twist to Better Spelling" is intended to provide instructors with an additional resource to place in their teaching tool box or intervention arsenal. Knowing the amount of time students spend with handheld or television games, this project was developed to take advantage of that attraction and channel those energies toward productive learning through a media that is familiar to them. This intervention supports phonics and spelling instruction, upholds curriculum and makes learning fun for students.

Analysis

After reviewing the spelling tests, scores and writing samples of about one hundred and eighty fifth grade students, it was determined that a viable

intervention was needed. The issues identified during a grade level meeting were lack of phonics and phonemic awareness, poor word attack skills and a lack of student motivation to learn. A survey on the need for an intervention that would address these issues was given to five fifth grade teachers to determine if a project such as this was needed and would be effective in the classroom.

From the survey it was ascertained that five of the five strongly agreed that an intervention like this could be used effectively in the average classroom, that students would enjoy using this intervention to learn to spell, that students would be motivated, the unit was easy to use and manipulate and that the intervention could provide controlled and guided practice. On the question of using the intervention in their classroom, four strongly agreed and one agreed.

The goal for this project was to develop a teacher's guide that could serve as an intervention that motivated students to learn, was fun, easy to implement and above all improved student spelling proficiencies. In order to achieve these goals a method of delivering instruction and practice that appealed to students was needed. Because "spelling instruction needs to be more

meaningful" (Scott, 1994, p. 188) learning that uses eyes, ears, hands, and other senses has more meaning and significance for students. Integrating a commercially produced product into the classroom and basing its application on the achievement and support of standards brings this project into fruition.

Learners

The intended learners in this project are students who are at-risk of failure, exhibit low levels of phonemic awareness and have low proficiencies in spelling. It has been my observation that many students arrive in the fourth and fifth grades without a solid foundation in phonemic awareness. Without this foundation these students tend to exhibit deficits in word recognition and attack skills, reading comprehension, spelling, and have difficulty conveying a clear message when writing.

Catts & Kamhi, 1999 (as cited by Scott, 2000, p. 79) state that "poor spellers tend to be poor readers and composers of written text, may have lexical, morphological, and syntactic domains that extend to the spoken language." Sears and Johnson (1986, p. 231) cite Donoghue (1979) and Allred (1977) who "have listed failure

to pronounce words correctly contributes to incorrect spelling".

Although any student can learn and benefit from this intervention, the focus is at-risk students or students with low proficiencies in spelling. Scott states (1983, p. 72) that "low proficient or poor spellers take longer to learn to spell, "need more concentrated amounts of study to learn to spell words, and need more practice with words". According to Berninger, Abbot, Rogan, Reed, Abbott, Brooks, Vaughan & Graham, 1998 (as cited by Scott, 1983, p. 72) "poor spellers are notorious for forgetting seemingly learned spellings".

These learners will be successful because this intervention is a way to help students strengthen this imperative foundation, the students will learn and they will have fun doing it. "The use of computers (and technology) in education generally improves memory retention, increases motivation, and generally deepens understanding" (Wheeler, 2001, p. 8).

Specific Instructional Objectives

The Reading/Language Arts framework provides the standards for which instruction in the classroom is based. This project supports these standards in that the students will learn to:

1. Match all consonant and short-vowel sounds to appropriate letters.
2. Distinguish initial, medial, and final sounds in words.
3. Distinguish long and short-vowel sounds in orally stated words.
4. Blend two to four phonemes into recognizable words.
5. Read compound words.
6. Spell three- and four-letter short-vowel words and grade-level-appropriate sight words correctly.
7. Spell correctly one-syllable words that have blends, contractions, compounds, orthographic patterns, consonant doubling, and common homophones.
8. Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly.

Design

The Turbo Twist™ Spelling product is an educational tool used in the classroom as an intervention to increase motivation to learn and improve spelling skills for lower performing students.

Content Area

This project involves the use of the Turbo Twist™ Spelling unit and lesson plans based on the constructivist learning theory for the purpose of developing an intervention that teachers would find easy to follow and implement and students would find fun to use.

Characteristics

This intervention, via the Turbo Twist™ Spelling unit presents core spelling concepts in an interactive format that encompasses visual, auditory and kinesthetic modes of learning. The customizable aspect of this product allows learning to take place in a handheld game-like format that appeal to students. The function of the Turbo Twist Spelling unit is likened to the use of word boxes in phonics instruction. Word boxes have been used as an effective method of teaching phonics. (Joseph, 2002)

Technical Requirements

To utilize this intervention the following are needed: a LeapFrog® Turbo Twist™ Spelling unit, Mind Station™ and Leaplink cartridge, a computer with a minimum 386 processor with Windows 95/98/NT (or higher), 16 MB of RAM, a serial port and internet access. The Mind Station™ in conjunction with the LeapFrog® web site are needed to customize the product to the curriculum.

Audience

The target audience for this intervention is elementary teachers of kindergarten through fifth grades students. The lesson plans included in the project are geared to assist literacy instruction for teachers of at-risk students. This teacher's guide is an intervention that incorporates instructional technology in the classroom and can be utilized by novice teachers as well as veteran teachers.

Development

This intervention was designed around the Turbo Twist™ Spelling unit. The Turbo Twist™ Spelling product is a handheld "fast-action spelling toy" where students

twist to spell words to a fun musical beat. The premise of this project was determining an effective way to integrate a product such as this into the classroom.

A series of lesson plans were developed to achieve the successful integration of this intervention as a literacy center. The lesson plans range from grades Kindergarten to Fifth, can be followed and used as is and serve as examples for additional lesson plans.

The structure of the lesson plans follow or adhere to individual constructivist learning theory. By ascertaining prior knowledge in the beginning of the lesson, students' schemes or schemas are being activated. The introduction of new information presents the opportunity for adaptation whether through assimilation or accommodation to take place. The guided practice allows the adaptation to occur and the independent practice demonstrates evidence of equilibration or disequilibrium having taken place.

Piaget's Theory of Cognitive Development (as cited by Woolfolk, 2001, chap. 2, p. 28-29) states that organization is "the combining, arranging, recombining, and rearranging of behavior and thoughts into coherent systems" that "schemes are the basic building blocks of thinking", and adaptation is "adjusting to the

environment" which encompasses assimilation and accommodation. "Assimilation takes place when people use their existing schemes to make sense of events in their world. Assimilation involves trying to understand something new by fitting it into what we already know. Accommodation occurs when a person must change existing schemes to respond to a new situation. If data cannot be made to fit any existing schemes, then more appropriate structures must be developed. We adjust our thinking to fit the new information, instead of adjusting the information to fit our thinking." To summarize, "people adapt to their increasingly complex environments by using existing schemes whenever these schemes work (assimilation) and by modifying and adding to their schemes when something new is added (accommodation)."

Further, according to Piaget (as cited by Woolfolk, 2001, chap. 2, p. 29-30) "the actual changes in thinking take place through the process of equilibration - the act of searching for a balance. Piaget assumed that people continually test the adequacy of their thinking in order to achieve that balance."

Briefly stated, the process of equilibration works like this: If we apply a particular scheme to an event or situation and the scheme works, then

equilibrium exists. If the scheme does not produce a satisfying result, then disequilibrium exists, and we become uncomfortable. This motivates us to keep searching for a solution through assimilation and accommodation, and thus our thinking changes and moves ahead. In order to maintain a balance between our schemes for understanding the world and the data the world provides, we continually assimilate new information using existing schemes, and we accommodate our thinking whenever unsuccessful attempts to assimilate produce disequilibrium.

The utilization of Piaget's theory for the development of the lesson plans provided a sound foundation to support an intervention such as this with individual constructivist learning as its base.

The lesson plans utilize the K-W-L learning strategy. The KWL learning strategy begins by assessing and bringing to the forefront what students currently know about a particular topic or subject. This strategy presents three questions for guiding a lesson: What is known? What knowledge is desired? and What was learned?

The instruction portion of the lesson plans begin with asking students what they know about a particular topic. This also allows students to access schemas that

have already been established. The lesson objective is stated so that students know what the intended lesson is about. Explanations and examples are then given.

The guided practice portion of the lesson plan is where examples are worked on with the students and leads to the independent practice where students work independently to practice and demonstrate their use of newly acquired knowledge. It is during independent practice that the teacher can circulate around the room to provide additional assistance as needed.

The lesson is closed by restating the objectives, reviewing what was presented, and answering the question 'what was learned?'. Assessments of various sorts can also be used to determine the level of effectiveness, understanding or achievement of the intended lesson objective.

The guided and independent practice sections of the lesson plans that are part of this intervention are performed by the student's use of the Turbo Twist Spelling Unit. The use of the Turbo Twist Spelling Unit in conjunction with this lesson plan format follow the key concepts of constructivist learning theory as stated by Tompkins which are: "Children are active learners. Children relate new information to prior knowledge.

Children organize and integrate information in schemata" (2001, chap. 1, p. 13). Following the guided and independent practice sections of the lesson plans are additional extension and assessment activities that are used to determine whether the objective of the lesson plan was attained.

The Turbo Twist Spelling product has three learning modes; the "Learn It!" Mode, "Missing Letter" Mode, and the "Spell It!" Mode.

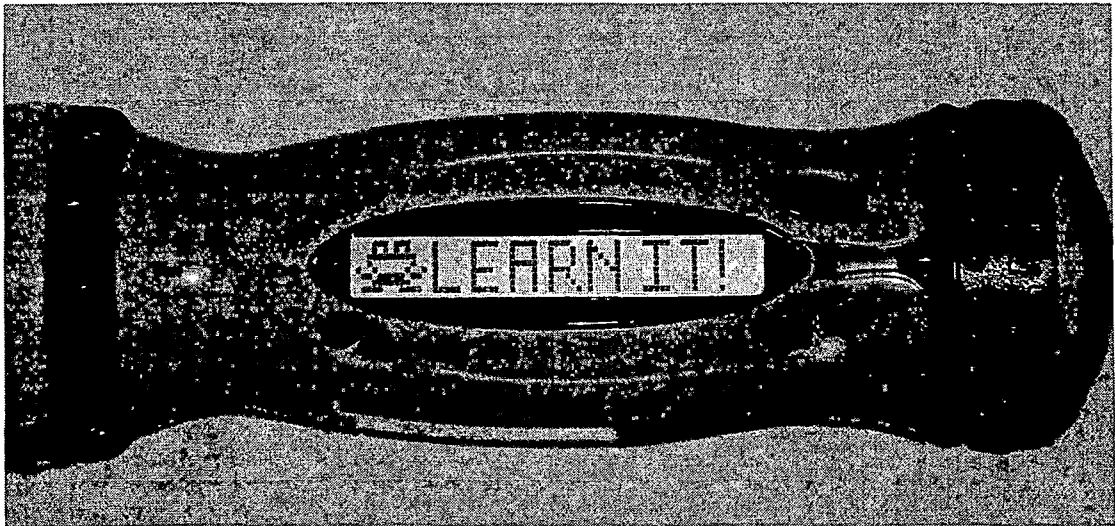


Figure 1. "Learn It!" Mode

The "Learn It!" Mode audibly presents words to be learned. The word is pronounced, spelled letter by letter.

on the screen to a rhythmic beat, and then pronounced again. This multi-sensory approach; say, spell, say pattern is effective for spelling instruction.

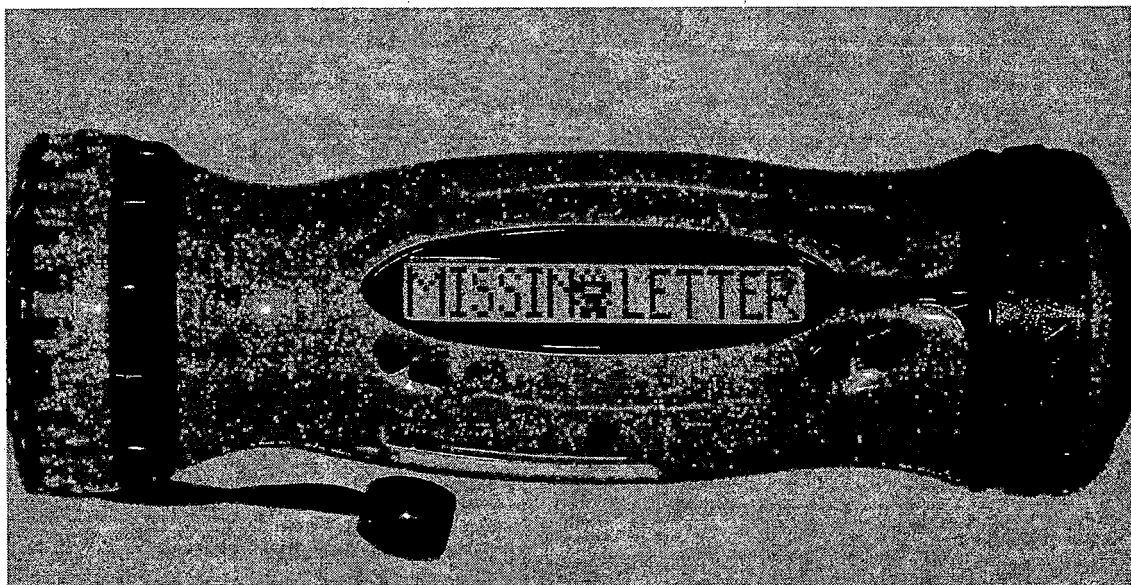


Figure 2. "Missing Letter" Mode

The "Missing Letter" Mode presents the words from the "Learn It1" Mode with letters missing. The student turns the alphabet dial to the correct letter and hits the side toggle to enter the letter. When the correct letter is entered the unit responds with praise phrases. When an incorrect letter is entered or too much time has passed a clue is given. The clue is usually the sound of the missing letter. When the word is spelled correctly, a

congratulatory phrase is heard and the word is spelled letter by letter to a rhythmic beat.

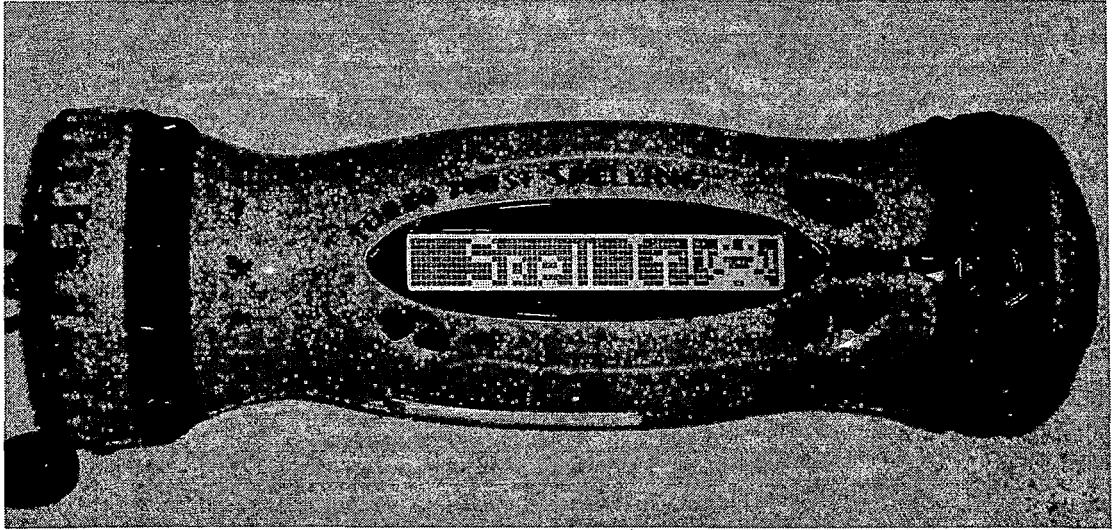


Figure 3. "Spell It!" Mode

The "Spell It!" Mode tests knowledge of the spelling the words presented and practiced in the "Learn It!" and "Missing Letter" Modes. A word is given; the student twists or turns the dial to spell the word. Once again if an incorrect letter is entered or too much time has elapsed, a clue is given. Once the word is spelled correctly there is a congratulatory phrase, the word is repeated and spelled letter by letter to the rhythmic beat.

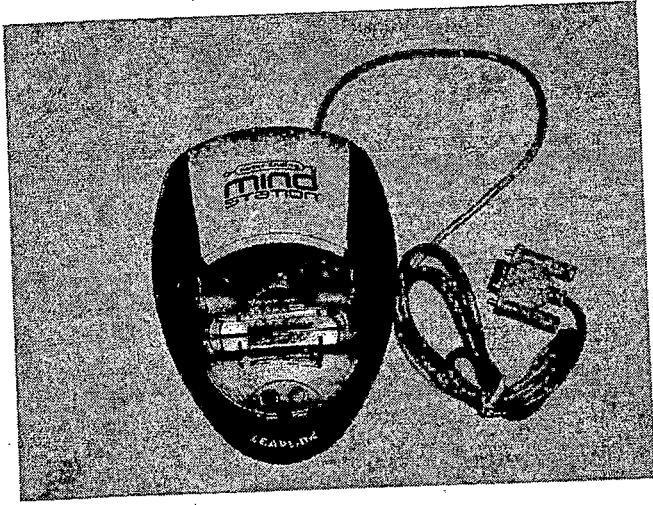


Figure 4. Mind Station™

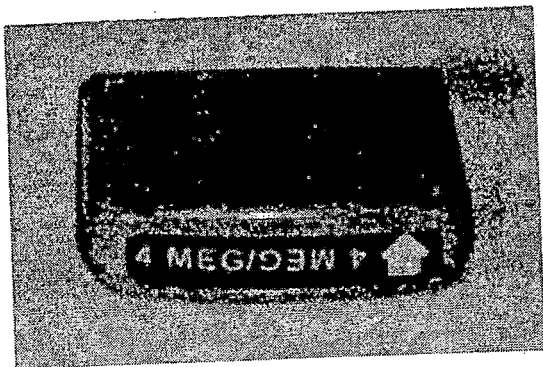


Figure 5. Leaplink Cartridge

The Mind Station™ and Leaplink Cartridge are needed in conjunction with the LeapFrog® website to customize the unit to the curriculum. Specific words are downloaded onto the cartridge. The cartridge is inserted into the unit where students learn the new words through the three modes described previously. Results of a students work can be uploaded to the website and a progress report generated.

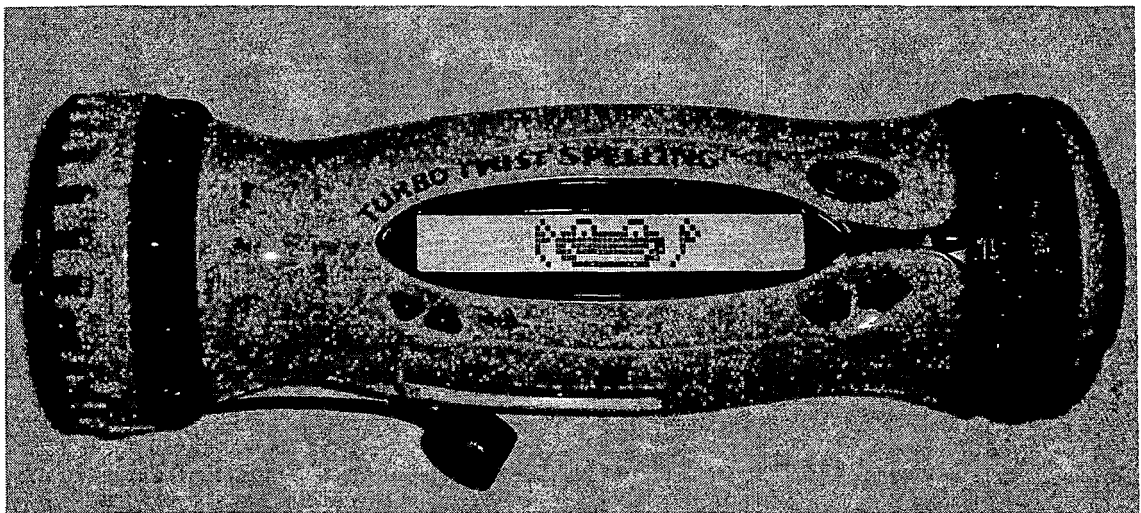


Figure 6. Fantastic Screen 1

As indicated by Fantastic Screens 1 and 2 (Figures 6 and 7) students receive immediate feedback each step of the way. Congratulatory phrases and praise are given

throughout. These phrases include: All right!, Groovy!, Yahoo!, Congrats!, You know this stuff! and the like. This sort of feedback and praise keeps students interested and motivated to learn. "Computer imagery with a combination of visual imagery, kinesthetic, and immediate feedback make learning fun and meaningful for students". (Sears & Johnson, 1986, p. 233)

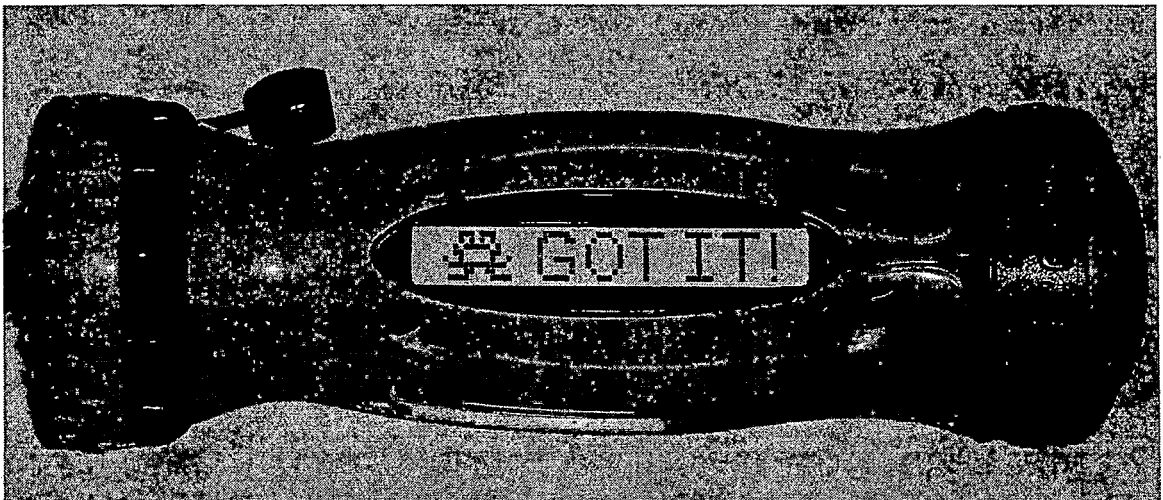


Figure 7. Fantastic Screen 2

Implementation

The ideal use of this intervention will be to use the Turbo Twist™ Spelling unit with earphones and customized activities that have been downloaded through the LeapFrog

website through the MindStation and Leaplink Cartridge as a literacy center activity four to five times a week in twenty to thirty minute sessions. Students can twist to better spelling and have fun while learning. This is a multi-sensory study technique that combines "visual (look at the word, visualize the word), auditory (pronounce the word, spell the word out loud), and tactile-kinesthetic representations" (Scott, 2000, p. 71) for the direct spelling instruction and practice.



Figure 8. Literacy Center Set-up

A Guide to Motivating Students to Twist to Better Spelling is an intervention designed for the classroom to be used as a literacy center. In conjunction with lesson plans, this intervention uses the Turbo Twist Spelling unit as an interactive educational game that appeals to students. Students actively learn to spell words, the unit is handheld, brightly colored and engages students with music. As a literacy center, students can rotate through in groups and learn to spell the current set of words.

The unit can be customized to the current curriculum thereby increasing accurate student usage of required words. The unit is customized by using the LeapFrog website, MindStation and Leap Link Cartridges. This feature makes this project a standards based tool that can be used as a literacy center to boost spelling proficiencies of students.

In order to implement this literacy center the following items must be completed. The components attached to the computer. The LeapFrog software installed and the LeapFrog website accessed. The vocabulary list must be compiled and the cartridge customized. The following sections explain what is involved in each of the preceding.

Procedure

Presented here are the steps for attaching the MindStation to the computer. Installing the software and accessing the website.

1. Attach the MindStation to the computer through a serial port.
2. Establish an internet connection.
3. Install the MindStation software by inserting the cd and following the prompts as indicated. If the program does not begin automatically go to "start" and select "run" and follow the prompts as indicated.
4. The software will automatically link to the website.

Once at the website it will be necessary to join the Never Ending Learning Club by subscribing. The first six months are usually free with the purchase of the MindStation. Once you establish an account, it is necessary to login each time to customize a cartridge.

Determining Vocabulary Lists

Vocabulary lists come from curriculum materials. Lists of required words and vocabulary can be obtained from a variety of cross curriculum sources. Word lists can come from science, social studies, language arts and

even math texts. Weekly spelling words are also a good source to use.

Customizing the Cartridge

Once you have the vocabulary list, have accessed the website and have logged on customize the cartridge as follows. To customize a cartridge a student profile must be entered. The profile determines the challenge and difficulty level for the student. Once the student profile has been entered, enter the determined vocabulary list and an activity pack will be created. Once the activity pack is created it can be downloaded to the cartridge through the MindStation.

Once all of the preceding steps have been completed, and the cartridge is inserted into the Turbo Twist Spelling unit; the Twist to Better Spelling literacy intervention is ready for use.

Evaluation

Receiving feedback on a project provides useful and valuable insights which prove extremely helpful for making modifications and improvements. A survey with a section

for comments was used as the instrument for this evaluation.

The evaluators of this project were all educators with knowledge of and experience with at-risk students and students with low proficiencies in spelling. Their review of the project included a detailed presentation of the project, hands-on manipulation and the completion of a survey.

From this evaluation it was determined that an intervention such as this has a definite place in the classroom and that it does support curriculum standards. Concerns that arose were the likelihood of the Information Technology Department installing the software on multiple computers or on the District server.

From the formative evaluation, it was strongly agreed upon that the project motivates students to learn to spell, that the unit was easily manipulated and that the opportunity for controlled and guided practice were provided. The students would have fun learning to spell because visual, auditory, and hands-on learning are included in the process. The evaluators also felt that curriculum and standards could be easily supported with this intervention. Given the nature of phonics instruction, this intervention can also be used at

different grade levels from Kindergarten to Fifth and beyond.

Summary

I intend to field test this project with my students in the new school year. The project will consist of a pretest of curriculum based words, documented tracking of at-risk or low spelling proficient students involved with the intervention, a post test, and finally a comparison to determine the effectiveness of the intervention.

Taking the suggestion from an evaluator, the expanded project will include many extension activities. In addition, the intervention will be used to support and assist second language learners.

I believe this project will prove to be a successful guide and intervention for teachers to integrate as a literacy center that will be easy to implement and motivate students to learn. Students learn and retain more when they enjoy the process or avenue of learning. Along with sound standards based instruction and good teaching this intervention will assist and support students in becoming literate. The benefits from this intervention project will not only strengthen students'

phonemic and spelling foundation, but will also enhance their reading comprehension and writing effectiveness.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Included in Chapter Four are a presentation of the conclusions gleamed as a result of completing the project. Further, the recommendations extracted from the project are presented.

Conclusions

The conclusions extracted from the project follows.

1. The literacy center will engage and motivate students to learn.
2. Students will have fun learning.
3. Spelling proficiencies should increase.
4. This literacy center is a viable intervention that will prove valuable in the classroom.
5. The literacy center easily incorporates and adapts to curriculum.

Recommendations

The recommendations resulting from the project follows.

1. Include an extension activity of some sort that will continually measure the effectiveness of the literacy center.
2. Use the extension activity as a follow up for student learning and student assessment.
3. Be willing to train others on the steps involved in implementing this project.
4. Be available to provide support to those who choose to use the intervention in their classrooms.

Summary

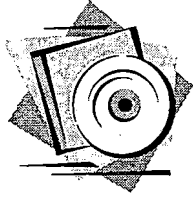
Chapter Four reviewed the conclusions extracted from the project. Lastly, the recommendations derived from the project were presented.

As previously stated, I believe this project will be a successful intervention for teachers to implement in order to motivate students to learn and improve spelling proficiencies. The goal of designing an intervention that served as a guide for teachers to use in support of

curriculum and standards based phonics and spelling instruction was attained. With sound standards based instruction and good teaching this intervention will assist and support students in becoming literate.

APPENDIX A
CD OF PROJECT

CD on this page



APPENDIX B
FORMATIVE EVALUATION

Twist Spelling Evaluative Survey

Please provide your feedback to this project intended to motivate students to twist to better spelling by completing this survey on how useful and effective you think an intervention like this will be to students with low spelling proficiencies. The results will be used to support recommendations for use of and modifications to this project.

4 - Strongly Agree 3- Agree 2 - Disagree 1- Strongly Disagree

1. An intervention like this can be used effectively in the average classroom.
2. You would use this intervention in your classroom.
3. Do you think students will enjoy using this to learn to spell?
4. Do you think it will motivate students to learn to spell?
5. The unit is easy to use and manipulate.
6. The opportunity for controlled or guided practice is provided,

4	3	2	1

Comments:

Please provide any additional comments or suggestions that would make this intervention more effective, useful, etc.

APPENDIX C
RESULTS OF FORMATIVE
EVALUATION

Twist Spelling Evaluative Survey

Please provide your feedback to this project intended to motivate students to twist to better spelling by completing this survey on how useful and effective you think an intervention like this will be to students with low spelling proficiencies. The results will be used to support recommendations for use of and modifications to this project .

4 - Strongly Agree 3- Agree 2 - Disagree 1- Strongly Disagree

1. An intervention like this can be used effectively in the average classroom.
2. You would use this intervention in your classroom.
3. Do you think students will enjoy using this to learn to spell?
4. Do you think it will motivate students to learn to spell?
5. The unit is easy to use and manipulate.
6. The opportunity for controlled or guided practice is provided,

	4	3	2	1
1. An intervention like this can be used effectively in the average classroom.	5			
2. You would use this intervention in your classroom.	4	1		
3. Do you think students will enjoy using this to learn to spell?	5			
4. Do you think it will motivate students to learn to spell?	5			
5. The unit is easy to use and manipulate.	5			
6. The opportunity for controlled or guided practice is provided,	5			

Comments:

Please provide any additional comments or suggestions that would make this intervention more effective, useful, etc.

- *May encounter problems with Information Technology Department installing software onto computers.*
- *Limited or lack of training using the internet.*
- *Can be expanded to include second language learners.*
- *Consider other extension activities (writing, oral spelling contest, etc.).*

REFERENCES

- Allred, R. A. (1990). Gender differences in Spelling Achievement in grades 1 through 6. Journal of Educational Research, 83 (4) 187-193
- Brophy, J. (1987). Synthesis of research on strategies for motivating students to learn. Educational Leadership, (9) 40-48
- Cohen, M.W. (1986). Intrinsic motivation in the special education classroom. Journal of Learning Disabilities, 19 258-261
- Groff, P. (1998). Where's the phonics? Making a case for its direct and systematic instruction. The Reading Teacher, 52 (2) 138-141.
- Hooks, L; Peach, W. (1993). Effectiveness of phonics for students with learning disabilities. Journal of Instructional Psychology, 20 (3) 243-246
- Hootstein, E.W. (1994). Motivating students to learn. Clearing House, 67 (4) 213-216
- Joseph, L. M. (2002). Facilitating word recognition and spelling using word boxes and word sort phonic procedures. School Psychology Review, 31 (1) 122-130.
- MacDonald, G. W.; Cornwall, A. (1995). The relationship between phonological awareness and reading and spelling achievement eleven years later. Journal of Learning Disabilities, 28 (8) 523-531
- Reading/language arts framework for California public schools.* (1999). California Department of Education (p. 3) Sacramento, CA: Author
- Richgels, D. J. (2001). Phonemic Awareness. The Reading Teacher, 55 (3) 274-278.
- Scott, C. M. (2000). Principles and methods of spelling instruction: Applications for poor spellers. Topics in Language Disorders, 20 (3) 66-82.

- Scott, J. E. (1994). Spelling for readers and writers. The Reading Teacher, 48 (2) 188-190.
- Sears, N. C.; Johnson, D. M. (1986). The effects of visual imagery on spelling performance and retention among elementary students. Journal of Educational Research, 79 (4) 230-233.
- Tompkins, G.E. (2001). Becoming an effective reading teacher. In L.A. Montgomery, L.S. McElhiney, M.M. Irvin (Eds.), *Literacy for the 21st century: A balanced approach* (2nd ed., pp. 6-39). Columbus, OH: Merrill Prentice Hall.
- Wheeler, S. (2001). Information and communication technologies and the changing role of the teacher. Journal of Educational Media, 26 (1) 7-17
- Wood, C. J. (1991). Are students and school personnel learning to be helpless-oriented or resource-oriented? Part 1: focus on students. Journal of Educational and Psychological Consultation, 2 (1) 15-48
- Woolfolk, A.E. (2001). Cognitive development and language. In P.A. Smith, A. Reilly (Eds.), *Educational psychology* (8th ed., pp. 22-59). Needham Heights, MA: Allyn and Bacon