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CSUMB Abstract

The knowledge and skills that have been acquired through the educational process at CSUMB have developed into a conceptual relationship that has allowed specific learning experiences to be woven into this research paper. The topic of this paper is intrinsic motivation and its use in the educational process. Human Development (MLO 9) my area of concentration (MLO 13), has given me understanding in how children change as they grow up and the forces that contribute to this change. Culture holds an important emphasis regarding intrinsic motivation, therefore Cross-Cultural Competence (MLO 1), Second Language Competence (MLO 3) and Multicultural Literature (MLO 4) are all included as viable and effective research. Quantitative Literacy (MLO 11) was also investigated in this paper because of the deeply imbedded fear of math in the United States. These Major Learning Outcomes have supported this research paper by allowing me to demonstrate the complex and integrated transdisciplinary knowledge, understanding, and application that I have gained at CSUMB.

Intrinsic Motivation as a Core to Educational Achievement

Motivation is an interesting aspect of achievement. Theorists have dissected and analyzed the human need for achievement by examining different types of motivation. One area that is being explored in more depth is intrinsic motivation. It seems to be both supported and negated as a pliable incentive to learning. Theorists that support the study of stimulating intrinsic motivation have begun to look for ways to use it in educational programs. This literature review examines five main points:

1. A definition of intrinsic motivation.

2. The compatibility of extrinsic rewards and intrinsic reactions in education.

3. Teaching methods that induce intrinsic motivation.

4. Evaluating core characteristics of the teaching methods.

5. Multiculturalism and achievement motivation.

By examining intrinsic motivation, I hope to show that it is a reliable component for inducing educational achievement.

Intrinsic Motivation.

Leading theorists in motivation, "Deci and Ryan (1994) defined intrinsic motivation as actions performed out of interest and requiring no external prods, promises, or threats" (in Brophy, 1998, p.128). Raffini (1996), author of an extensive research-based theory for increasing intrinsic motivation in the classroom, agreed with the definition and added that this interest comes from a "desire to seek and to conquer challenges" (p. 3). Brophy (1998) used plain speech in his definition that

concluded that intrinsic motivation makes people "[do] what they do because they want to rather than because they need to"

(p. 7). I feel these are oversimplified definitions that do not consider the complexity of the human mind.

I agree with Covington's (1993) definition of intrinsic motivation as the fifth level of Maslow's hierarchy of human needs--self actualization (MLO 9 & MLO 13). He believed that intrinsic motivation was an inner "need for a sense of personal fulfillment . . . the realization that one is achieving fully what he or she is capable of becoming"(p. 19). Stipek (1998) agreed with this definition and felt that this personal fulfillment could be achieved through seeking opportunities to develop competencies, novelty, and by engaging in activities that provide personal control (p. 117). Human need however, does not include the innate characteristics of intrinsic motivation. There is a deeper level that needs attention.

William Glasser (1992), a prominent psychiatrist, viewed personal fulfillment as genetic in his contention that:

All human beings are born with five basic needs built into their genetic

structure: survival, love, power, fun, and freedom. All of our lives we must

attempt to live in a way that will best satisfy one or more of these needs.

(p.43)

I agree with Glasser's theory. I feel that intrinsic motivation is more than the mere idea of wanting something. It is a genetic impulse that humans have, to grow and develop to their full potential. While we seek activities that easily satisfy our

needs, we are also willing to challenge ourselves as we mature. One way is through

knowledge.

Learning fulfills our needs since "engag[ing] in learning-related activities

[reinforces our] disposition to develop skills that enforce competence" (Stipek,

1998, p. 117). The process of getting an education however, can be detrimental to

intrinsic motivation. Grades, need for approval, and other extrinsic rewards

"threaten individuals to perform [and] discourages intrinsic involvement" (Covington,

1993, p. 147).

<div align="center">Extrinsic and Intrinsic Compatibility.</div>

By definition extrinsic motivation appears to be the opposite of intrinsic

motivation. It is a reaction that does "not occur spontaneously and therefore must be

prompted by incentives or other external pressures" (Brophy, 1998,

p. 128). In the classroom there are many instances when not all students will have

intrinsic motivation to participate. At these times, the teacher must coerce, through

both positive payoffs and negative reinforcement, the desired response from

students. An example of this is the promise to extend recess if the students pay

attention for a designated number of minutes. The "reward [is] considered extrinsic

because [it is] basically irrelevant to the act of learning" (Covington, 1993, p. 20).

"Deci and Ryan (1985) claim that [such] rewards cause individuals to shift from

internal to external locus of causality" (in Stipek, 1998, p. 127). When this happens,

the clock and the anticipation of extended recess distract the students from the

learning task.

Negative reinforcement exacerbates lack of learning. It is apparent when a teacher threatens to call parents or lower a grade if a certain behavior is not produced. It is also seen in the physical and psychological methods of hitting or humiliating. This type of "poisonous pedagogy" (Miller, 1983, p. 3) is often times administered under the guise *for your own good*. When negative extrinsic motivation is used as a learning method, Stipek (1998) believed that it could "create feelings of being controlled and interfere with feelings of self-determination" (p.127). I believe that these feelings of regulation then pervade throughout an education. Ryan, Connell, & Grolnick (1992) stated that "schools are increasingly 'controlling' and therefore undermine intrinsic motivation in students" (p. 173). Once a child feels that the teacher has control of their learning destiny, learning becomes a chore that becomes more difficult to motivate each year. Raffini (1996) reported that "there are more than one hundred research studies that demonstrate how external rewards and punishments can undermine intrinsic motivation" (p. 2).

Some theorists are finding however, that intrinsic motivation can be manipulated by extrinsic rewards and developed into models of motivation in education. "extrinsic incentives can be used in ways that complement and do not undermine students' intrinsic motivation" (Brophy, 1996, p. 127). H. Sullivan (personal communication, October 12, 1998) explained how she used motor skills as an extrinsic reward to motivate her students to learn phonics. At the beginning of the school year she had her first grade class participate in large motor skills, like throwing a ball across the room after stating a newly learned phonic sound. As the year progressed, Sullivan made the phonics more sophisticated and the motor skills

less apparent, until the children were able to sit during the day and practice phonics without the extrinsic activity. In this way, the external motivation did not become the focus stimulant and the children remained focused on learning.

Raffini (1998) discovered that students intrinsic need for "autonomy, competence, belonging, and self-esteem" (p. 3), could be enhanced through extrinsic rewards. Merrill Harmin (1994), a Professor of Education, Southern Illinois University, agrees with this theory and believes that when schools promote "dignity, energy, self-management, community, and awareness" (p. ix), they are tapping into the intrinsic motivation of the students.

Brophy (1998) believed it was unrealistic to adopt intrinsic motivation as a school system's primary concept of motivation in education. He recognized that "intrinsic motivation is ideal, but unattainable as an all-day, everyday motivation state . . . to develop in students" (p. 11). In his view intrinsic motivation was best left to after school play and recreational activities, because a person that was intrinsically motivated did not look beyond their own personal wants. He therefore believed that individual wants could not be met in a classroom designed to educate dozens of people at one time. Brophy had developed his own motivation theory for education that he called "a cognitive response involving attempts to make sense of [school], understand the knowledge it develops and master the skills that it promotes" (p. 162).

Many theorists disagree with Brophy. Covington (1993) felt "where education is concerned things go better with intrinsic goals" (p. 20). He and Stipek share a

similar belief that students "naturally are disposed to wanting to believe that they are engaging in activities by their own volition" (Stipek, 1998,

p. 123). They both agree that schools can create the atmosphere that Harmin described, thus enabling students to feel control over their learning destinies. "Deci and Ryan (1994) reviewed several studies indicating that self-determined learning tends to be of higher quality" than other motivational styles (in Brophy, 1998, p. 127).

Today, many schools "fail to provide the feeling of competence and mastery [students] need to sustain intrinsic interest. Redefining what constitutes mastery can give students opportunities to succeed and to find intrinsic value in school tasks" (Stipek, 1998, p. 121). By examining several teaching methods that provide an intrinsic stimulus in the classroom, I believe I can find commonalties between them that make up the core characteristics of intrinsic motivation in the classroom.

<div align="center">Teaching Methods</div>

The following programs illustrate different ways of including intrinsic motivation into an educational program.

Glasser (1992) believed that a teacher's personality is responsible for inducing intrinsic motivation in the classroom. He called this type of teacher a "lead-manager" as opposed to a "boss-manager" and described this person as someone that knows how to manage the classroom while keeping the needs of the students in mind. His three characteristics that make up ideal lead-teachers were (a) being deeply interested in the students and in the material being taught, (b) relating on the students' level, not placing themselves above the students, and (c) not controlling the classroom with threats or punishment (p. 66).

Raffini (1996) discussed a program developed by Epstein called TARGET

for teachers to integrate into the class. This program was based on six structures

that "support learning goals and intrinsic motivation" (p. 13). Placed in a classroom,

this program encouraged teachers to: (a) vary the task structure according to each

student, (b) share the control of the class with the students, (c) acknowledge effort,

not just achievement, (d) view tracking as detrimental, (e) clearly state expectations

that are not dependent on time restraints, and (f) allow for a flexible time structure for

each student to learn (pp. 13-16).

Covington (1993) had a similar program he called "motivational equity" that

provided teachers with six broad generalizations to create fairness in the classroom

by excluding competition. He believed that: (a) assignments must be challenging to

each individual student, (b) learning must be the goal, (c) positive and negative

outcomes must be within the power of the students, which means "learning need no

longer be aversive, nor effort something to be feared", (d) intrinsic rewards must

"come to depend on the quality and amount of effort expended and less on winning",

(e) abilities must be redefined so that students can understand the

"multidimensional nature of human talent", and (f) the class must be structured so

that the teacher is not an authoritarian (pp.160-169).

Joan Britz and Norma Richard, co-authors of Problem Solving in the Early

Childhood Classroom (1994) believed that the Piaget model of how children learn

could be developed into guidelines that induce intrinsic motivation. They used the

theory that problem solving facilitated learning to provide teachers with three ideas

to integrate into the classroom; (a) "Connect classroom activities with what is

personally meaningful to the children, (b) provide opportunities for the children to make decisions, and (c) encourage [the students] to work together to solve problems" (pp. 22-23).

Lisa Goldstein (1997), a former primary grade teacher and now an assistant professor of Curriculum and Instruction at the University of Texas at Austin, approached education through the venue of feminism. She defined this umbrella term as "a critical perspective that values ideas, positions, and ways of knowing and thinking that have traditionally been considered female" (p. 3), (MLO 1). While feminism and children are a complicated pairing due to "the traditional association of women and children" (p. 167), Goldstein found a shared belief in social change and called her motivating schema Love. It is her belief that Love can be accessed when a teacher introduces three qualities into a classroom: (a) intimacy--creating a classroom that is a community, (b) commitment--"a fundamental part of a teacher's responsibility", and (c) passion--the energized and fulfilling ability to inspire, engage and motivate students (pp. 16-21). Goldstein theorizes that these three traits stimulate intrinsic motivation through personal affirmation and validation.

Evaluating the Core Characteristics of Teaching Methods

The Students' Ability

A characteristic of teaching with intrinsically motivating methods is examining each student's competence level. Goldstein (1997) wrote "that the value of meeting the needs of each child as a whole child far outweighs any obligation or

responsibility to the content being taught" (p. 62). Rather than expecting all students to comprehend and digest a new topic at the same time the goal of the intrinsically motivated class allows students to understand information at their own pace. An immediate problem arises because of the natural time constraints of school. Raffini (1997) recognized this problem and believed that the entire idea of school needed to be changed. "If we want all students to attain the same high level of mastery or competence then we may need to allow slower learning students [more] instructional days" (p. 16). While I do not feel that the Raffini idea is practical, I think it may work in a modified format.

H. Sullivan (personal communication, October 12, 1998) taught at a school that had combined grades. She was able to give certain students in her first/second nongraded class the time they needed to learn certain subjects because she had them in her class for two years. She found that children that were given the time to work through learning problems excelled in their later years. Goodlad and Anderson (1959) confirmed this in finding that "in the average first grade there is a spread of four years in pupil readiness to learn as suggested by mental age data" (p.3). It seems that a non-graded classroom like Sullivan's is a way to induce intrinsic motivation by allowing time for natural development.

Power Structure of the Classroom.

The issue of power sharing was seen in all of the programs. This clearly differentiates intrinsically motivating methods from the classic teacher/student relationship. Covington (1993) noted that "one of the major fears of both beginning and veteran teachers is that they may lose control of their classroom. . . . What

teachers need, many will tell you, is more, not less, power" (p. 170). This is not the case when intrinsic motivation is used in the classroom.

Britz and Richard (1994) saw an advantage to occasional group decision making within the class, they felt it encouraged thinking. Other theorists strongly support the idea that no one person have power over the classroom. Glasser (1992) stated that "we need to accept the fact that, right now, the majority of boss-managed students see little chance to satisfy their needs by working hard in school" (p. 51). Martha George, the teacher that Goldstein (1997) observed for her research, was quite firm in her belief that once she built her framework of what was expected and how things work within the classroom "I never have the upper hand" (p. 59). This authoritarian style of teaching encourages a child to think independently with limits only on their actions. I feel that self-determination cannot be developed under the rigid role of an authoritative teacher (MLO 9 & MLO 13).

Theorists are aware that "Structure, praises, and reinforcement are important tools that do help many, if not all, students in learning basic skills, yet they are not the best techniques for helping all students to reach all learning goals" (Jones & Jones, 1995, p. 26). When "teachers see their role as facilitating independent thought and decision making" (Brophy, 1998, p. 130) they will promote their students to solve their own problems and "develop responsibility for their own behavior" (Jones & Jones, 1995, p. 26). Goldstein (1997) noted that teaching with Love means that the teacher "is no policeman: her energies are best spent teaching, not disciplining, and the children need to learn to take responsibility for themselves" (p. 55).

Evaluation and Grades.

The issue of evaluation and grades create an entirely new atmosphere within a classroom when using intrinsic motivation. Under the standard method of grading students are allowed one chance to study and produce information, often by short term memorization. I feel that this does not promote learning, involvement, or stimulation. After reviewing the programs, I now believe that explicit instruction and temporary grading are key to enhancing intrinsic motivation within the classroom.

Raffini (1996) called his system for writing papers the "Grading rubrics". He believed that an instructor's expectation and evaluation criteria should be clearly stated so that the students could choose which grade (A, B or C) they would like to work toward. He also felt strongly about allowing students to rewrite papers until the grade desired was achieved. Raffini felt this was "a powerful strategy for improving student learning and feelings of competence" (p. 111).

Covington (1993) made an interesting discovery in a study regarding temporary grading. He found that students who had the option to improve grades, even test scores, "continued to learn and improve - improvement being the key" (p. 272) because the poor grades were isolated experiences that had little lasting influence on the students will to learn. Glasser (1992) agreed with this idea of temporary grades and believed "by demonstrating that they know more than they did, students [should] get a higher grade to replace a low one"
(p. 53).

Goldstein (1997), initially concerned by the lack of testing in the nongraded K-2 classroom that she observed, asked the teacher how and when the children demonstrated their understanding of key concepts in a unit.

Martha feels comfortable letting go of rigid expectations for coverage of

material. Instead, she attempts to cover the broad spectrum of her children's

needs and abilities and focuses on growth rather than end points. Children's

progress will be evaluated in terms of the distance traveled from their

personal starting point, rather than in terms of their ability to reach a

predetermined, external standard. (p. 63)

Multi-Culturalism and Achievement Motivation

There is considerable research on how the American educational system

affects achievement motivation in minority children in the classroom. By recalling my

definition that intrinsic motivation is the process of growing and developing to ones'

full potential, questions arise as to who decides if someone is reaching their

potential and what that potential is based on. Cultural characteristics have been a

major determinant in past minority research.

Eugene Garcia (1995) from the U.S. Department of Education has found

evidence that case-studies characterizing racial, ethnic, and ethnolinguistic groups

for the purpose of cultural understanding has "had the effect of promoting

stereotypes" (1995, p. 381). The assumption has been "By virtue of participation in

culture, meaning is rendered public and shared." (Bruner, 1990, p. 12). Bempechat

and Drago-Severson (1999) argue that this type of research has restricted the

interpretations and variations in "children's achievement beliefs and behaviors" (p.

305). We must begin to recognize that the interpretation of the word *achievement*

varies considerably by culture, race, ethnicity, and social class. It is necessary to

understand that the "meaning and value students associate with school learning and

achievement play a very significant role in determining their efforts toward learning

and performance" (Ogbu, 1991, p. 584).

In the United States achievement has come to mean "the inverse relationship

between effort and ability - the harder one must try, the less able one must be"

(Bempechat & Drago-Severson, 1999, p. 297). Covington (1993) believes that this

is where the American educational system falls short. He sees that "many minorities

hold achievement goals that are not always shared by the white middle-class

majority" (p. 61).

In Japanese culture, (MLO 1) ability and achievement have a direct

relationship with tolerance toward difficulty. The national school policy in Japan

includes the phrase "to be steadfast and accomplish goals undaunted by obstacles

or failures" (White, 1987, p. 17). "This ardent commitment to education is

epitomized by the meanings implied by *gambaru*, a word which is probably best

understood as a 'positive orientation toward the intrinsic benefits of . . . persistence'

(Holloway, 1988, p. 330)" (Bempecht & Drago-Severson, 1999, p. 301). While the

Japanese Culture has a different definition of ability and achievement, social and

family attitudes assure educational and motivational achievement in the United

States.

There are however, culture groups who do not share the same family and

social values that the Japanese place on education. These minorities:

may consciously or unconsciously interpret school learning as a

displacement process detrimental to their social identity, sense of security,

and self-worth. They fear that by learning the White cultural frame of

reference, they will . . . loose their identity as minorities and their sense of

community. (Ogbu, 1995, p. 587)

Bilingualism is an important motivating factor for these students (MLO 3). The

qualitative outcomes of bilingualism have been shown to affect "responsibility,

independence, tolerance, curiosity, and perseverance" (Baker and Prys-Jones,

1998, p. 375). These characteristics are a "logical starting point for improving a

[minority] group's academic progress [by] improvement of individual self-concepts"

(Matthews, 1993, p. 23).

Bempechat & Drago-Severson (1999) believe that we must look toward

new methods for studying achievement motivation for all children in the United

States (p. 305). Maehr (1998) has taken on the challenge by examining the

assumption that something was wrong with unmotivated minority children who did

poorly in school. He has found that the problem may be the school environment and

that a focus on task goal versus ego-centered goals may create optimum school

cultures for children. His theory that "school environments . . . that stress task goals

minimize the negative effects that may be associated with social diversity" (p. 8),

holds similar to the Raffini (1996) view that "Satisfying the need for belonging and

relatedness provides security necessary for students to risk exploring and

expanding the limits of their identity" (p. 9).

Another direction being investigated is the definition of minority, which has

become an all-inclusive term for anyone that is not white. Ogbu (1991) has begun in-

depth research on differences between voluntary minorities who tend to assimilate

and excel in the American school systems, and involuntary minorities who because

of the nature of the relationship between their culture and the dominant White American culture, have greater difficulty crossing cultural/language boundaries (pp. 586-587).

<div align="center">Conclusions</div>

Upon evaluating the literature, it has become apparent to me that researchers place the responsibility of motivating students to achieve academic success exclusively on teachers. Garcia (1995) went so far as to say "The academic failure of any student rests on the failure of instructional personnel to implement what we know works" (p. 382). Masahiko & Ovando (1995) agreed with this and firmly stated that "it is the teacher, not the family, who takes the main responsibility for providing adequate educational support" (p. 441). Where do instructional personnel get the information and training to be competent teachers? "In 1988, teachers rated undergraduate education courses and in-service training as the 2 least effective sources of job-related knowledge and skills" (Jones & Jones, 1995, p. x). D. Herrington (personal communication, April 6, 2000), a member of the National Council of Teachers of Mathematics, alleged that ineffective teacher training has contributed to the deeply imbedded fear of math within the American academic culture. She stated, "Teachers need to have a depth of mathematical understanding so that they can present at different levels, different modalities, and be able to understand where the concept is headed" (MLO 11). Whether it be at the undergraduate or graduate level, it is obvious that the current teacher education systems are not providing the necessary information for teachers to instill academic success.

Studies have shown that we can "develop in children an intrinsic motivation for learning" (Wlodkowski, 1990, p. xii). I therefore believe that three areas need to be overhauled in order to promote this in an educational system. First, we must educate the teachers of tomorrow in the skills that induce intrinsic learning, including the newest research on cultural diversity. Researchers agree that teachers generally have low academic expectations of minority students (Stipek, 1998, p. 205; Garcia, 1995, p. 382; Masahiko & Ovando, 1995, p. 440; Baker & Prys-Jones, 1998, p. 466). One solution is the requirement of bilingualism for all teachers (MLO 1 & MLO 3). Masahiko and Ovando (1995) stated that teachers who understand other languages develop

"communicative competence in response to meaningful situations in the classroom, [and] will be better prepared to provide equal opportunities to all students" (p. 440). Changing teacher requirements and proficiency are not enough. "the effectiveness of teachers is much more a function of the nature of the schools in which they work than of any set of characteristics that they possess as individuals" (Edmonds, 1986, p. 102). Administration, therefore becomes my second area to undergo transformation.

Several researchers agree that two elements often found in good administration are a solid school purpose statement and the proportion of the adults in the school familiar with it (Goldstein, 1999;Edmonds, 1986). With a strong mission statement, anyone in the school is able to make educational decisions by determining if it adheres to the school motto. One item that should be clearly explained in the mission statement is the purpose of bilingualism in that school

(Baker and Prys-Jones, 1998). There is an enormous difference between a school

teaching a second language and teaching through the medium of a second

language. This subtle distinction can have enormous impact on the motivation of all

students (MLO 3). Another element that should be clear is the position on

multiculturalism. Is there a "diversity in literature, social thought, scientific

approaches, and historical construction" (Garcia, 1995, p. 380)? Current research

has suggested that this can influence a child's motivation to learn (MLO 4).

Making changes within administration and teacher education is not enough

to intrinsically motivate a child. Ogbu (1995) stated that "success depends not only

on what schools and teachers do but also on what students do" (p. 583). I agree that

we will be doing a great disservice to the goal of academic achievement by ignoring

the students' own responsibility for their academic performance. We must engender

personal control within students. I think the way to begin this personal control is

through non-graded classrooms and temporary grading. From this perspective,

teachers can clearly see the students who need more time or more meaning and

provide them the space to become competent.

"Every child has the right to learn, but not every child has the opportunity to

learn" (Herrington, personal communication, April 8, 2000). It is my belief that the

elements I have suggested to promote intrinsic motivation within the classroom can

give children an opportunity. We will be empowering children to enjoy the challenges

of academic achievement on their way to reaching their highest potential.

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