ED 418 925   SP 037 889

AUTHOR   Bomia, Lisa; Beluzo, Lynne; Demeester, Debra; Elander, Keli;
                Johnson, Mary; Sheldon, Betty
TITLE   The Impact of Teaching Strategies on Intrinsic Motivation.
PUB DATE   1997-00-00
NOTE   28p.
PUB TYPE   Opinion Papers (120)
EDRS PRICE   MF01/PC02 Plus Postage.
DESCRIPTORS   Elementary Secondary Education; Learner Controlled
                Instruction; *Self Motivation; *Student Motivation; Student
                Participation; *Teacher Influence; Teacher Responsibility;
                Teaching Methods

ABSTRACT
        This paper examines intrinsic motivation by reviewing
various motivational theories and models and discussing whether research
supports the hypothesis that teaching strategies can influence intrinsic
motivation. Intrinsic motivation, also known as self-motivation, refers to
influences that originate from within a person which cause a person to act or
learn. This includes self-concept, self-esteem, self-satisfaction, personal
values, and personal/emotional needs and drives. The paper focuses on the
theories and models of Biddle, Goudas, and Underwood (1995); Hancock (1995);
Keller (1979); Bohlin, Milheim, and Viechnicki (1993); and Bandura (1986) and
Pajares (1996), noting the various concepts developed to explain their
theories and models. Teaching strategies to support the various concepts are
suggested as ways to impact intrinsic motivation in the learner. Various
components or concepts of intrinsic motivation revealed through the research
include autonomy, expectancy, instrumentality, effort, interest,
satisfaction, valence, relevance, and self-efficacy. In examining these
concepts and the teaching strategies associated with them, it was determined
that specific teaching strategies can have a positive effect on the various
concepts related to intrinsic motivation. Teachers must be aware of
strategies that will positively affect motivation, using an approach that
reinforces student willingness and enthusiasm. (Contains 21 references.)
(Author/SM)

Running head: THE IMPACT OF TEACHING STRATEGIES

The Impact of Teaching Strategies on Intrinsic Motivation

Lisa Bomia

Lynne Beluzo

Debra Demeester

Keli Elander

Mary Johnson

Betty Sheldon

Abstract

The purpose of this paper is to examine intrinsic motivation by reviewing a number of

motivational theories and models and discussing whether research supports the hypothesis

that teaching strategies can influence intrinsic motivation. The theories and models of

Biddle, Goudas, and Underwood (1995); Hancock (1995); Keller (1979); Bohlin,

Milheim, and Viechnicki (1993); and Bandura (1986) and Pajares (1996), and the various

the concepts developed to explain their theories and models, are discussed. Teaching

strategies supporting the various concepts are suggested as ways to impact intrinsic

motivation in the learner. As a result, the findings of research in this paper strongly

suggest validation of the hypothesis that teaching strategies can impact intrinsic motivation

in the learner.

The Impact of Teaching Strategies on Intrinsic Motivation

Motivation refers to the magnitude and direction of behavior; it refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect. In relation to education, motivation refers to a student's willingness, need, desire and compulsion to participate in, and be successful in, the learning process; it seeks to increase the factors that move a student toward becoming more involved in the class and the subject matter. This paper will consider motivation as it pertains to the learner.

Because of human complexity, there is more than one way to motivate learning. In fact, a host of psychological theories, models, methods and factors have been suggested, tested and used at various times and in various settings. However, these numerous motivational approaches can be categorized into two broad groups, extrinsic and intrinsic motivation.

Extrinsic motivation refers to outside sources or values that influence a person to act or learn. Examples of these outside sources are rewards; positive or negative outcomes; and comfort or discomfort. As long as this external source provides the sufficient incentives or conditions, learning can take place. However, once the external input stops or no longer provides sufficient value to the student, then the willingness and effort to learn will also stop.

Intrinsic motivation, also known as self-motivation, refers to influences that originate from within a person which cause a person to act or learn. Examples of these influences are one's self-concept, self-esteem, self-satisfaction, personal values, and

personal/emotional needs and drives. Self-motivation can lead the student to go beyond

the scope and requirements of and educational course because they are seeking to learn

about the subject, not just fulfill a limited set of requirements. It can also encourage

learning even when there is little or no external reinforcements (external motivation) to

learn and even in the face of obstacles and setbacks to learning.

Since teachers seek to motivate students to learn, they can use strategies that

utilize either or both of these types of motivation. This paper seeks to examine the second

category, intrinsic motivation, by reviewing a number of motivational theories and models

and discussing whether these theories and research support the hypothesis that teaching

strategies can significantly impact intrinsic motivation.

Intrinsic Motivation and the Learner

Biddle, Goudas, & Underwood (1995)

This study examined determinants of intrinsic motivation in a physical education

course for future teachers. The theoretical basis for this study was prompted by

Bissonnette and Vallerand (1992), who had found that motivational orientations were

predictive of behavioral persistence.

For this study, information was gathered by questionnaires which measured the

participant's perceived autonomy and competence regarding the course. After completion

of the course, the students were asked to complete questionnaires assessing their intrinsic

motivation and their intentions to study a similar course in the future.

Implications, and Strategies

Biddle, Goudas, & Underwood (1995) showed that intrinsic motivation was a

strong predictor of intention, the likelihood of students taking future classes. The students'

perceptions of autonomy at the beginning of the course were predictive of their intrinsic

motivation: high perceived levels of autonomy predicted high levels of intrinsic

motivation. However, perceived competence did not predict intrinsic motivation and it

had an indirect effect on intrinsic motivation through performance, as in the grade received

for the class. This supported previous findings of Deci and Ryan (1985), which showed

that perceived autonomy is a more critical factor for intrinsic motivation than perceived

competence.

This study showed the importance of creating perceptions of autonomy in learners

when the promotion of intrinsic motivation is desired. When continued student

involvement and behavioral persistence is required, the promotion of intrinsic motivation

through autonomy is beneficial. One option for enhancing this sense of autonomy is to

offer choices of different learning materials, such as an optional reading list. Allowing

student teams to grade each other is another viable option. This peer evaluation offers

students a degree of control over their learning processes.

<u>Keller (1979)</u>

Keller's (1979) theory of motivation, performance, and instructional influence

incorporates cognitive and environmental variables in relation to effort, performance, and

consequences. According to Keller (1979), motivation is the "heart" (p. 390) of our

understanding of how to design of instruction. In addition, effort is a direct indicator of

motivation and that people are more or less motivated by the intensity or persistence of a

behavior.

Keller's (1979) Expectancy-Value Theory asserts that there are four basic

categories of motivational conditions that the instructional designer must understand in

order to produce instruction that is interesting, meaningful, and appropriately challenging.

These are interest (curiosity) and relevance, which refer to the "Value" term in the

Expectancy-Value theory; and expectancy which refers to "Expectancy" term. Outcomes,

also called satisfaction, refers to the use of feedback, reinforcement, and other intrinsic

and extrinsic consequences of behavior with respect to motivation.

Interest: concept and strategies

Keller (1979) defines interest as a condition that exists when there is an

unexpected or inconsistent event in the perceptual environment, or there is gap between a

given and desired state of knowledge--whether the learner's curiosity is aroused, and

whether this arousal is sustained appropriately over time. Keller (1979) feels that interest

is more likely to be maintained if the students engage in activities that allow them to act on

their curiosity by exploring and manipulating their environment. One must feel

comfortable about the consequences of taking risks before a great deal of curiosity will be

exercised. Keller (1979) suggests several strategies to increase the learner's interest:

1. Use abrupt changes in presentation or paradoxical situations. Attention is

aroused when there is an abrupt change in the status quo or presented with problem

solving situations (p. 401).

2. Use anecdotes and other devices for injecting a personal, emotional element

into otherwise purely intellectual or procedural material (p. 402).

3. Allow opportunities for the student to learn more about things they already

know about or believe in, but also allow moderate doses of the unfamiliar and unexpected

(p. 402).

    4. Use analogies to make the strange familiar and the familiar strange (p. 403).

    5. Guide students into a process of question generation and inquiry (p. 405).

<u>Relevance: concepts and strategies</u>

Sustained motivation requires the learner to perceive that important personal needs

are being met by the learning situation. Personal motivation will increase with increases in

the perceived likelihood of a task to satisfy a basic need, motive, or value. Keller (1979)

categorizes relevance into several value categories with some strategies to increase

relevance:

<u>Personal-Motive Value.</u>

The personal-motive value suggests that increased value, or motivation, results

when a given task or goal is perceived to offer satisfaction of a particular need or motive.

Several strategies will assist the instructor in enhancing this value in the learner.

    1. To enhance achievement-striving behavior, provide opportunities to achieve

standards of excellence under conditions of moderate risk (p.408). An example of this

may be to allow students to feel that all responses given in answer to questions by the

instructor, or within the confines of a discussion, to be valid and of worth.

    2. To make instruction responsive to the power motive, provide opportunities for

choice, responsibility, and interpersonal influence (p.410). An example of this may be to

allow for contract grading in a classroom situation or to offer various grade requirements

that the students may pick from to achieve their grades.

3. To satisfy the need for affiliation, establish trust and provide opportunities for no-risk, cooperative interaction (p.412). An example of this may be to allow for a non-threatening, personal interaction between instructor and student: open office hours; availability by phone and E-mail.

Instrumental-Value.

Instrumental-value refers to the increase in motivation to accomplish an immediate goal when it is perceived to be a prerequisite step for attaining a desired future goal. A strategy to be used by the instructor is to have students identify their future goal and to determine where in the progression to this goal, the present circumstance falls. This will allow the student to gain a point of reference with respect to where they are on the attainment of the goal.

Cultural-Value.

Cultural-value is the influence that parents, peers, organizations, and the culture at large have on motivation. Keller (1979) states that personal motivation increases when a desired goal is perceived to be consistent with the values of these cultural reference groups. An instructor may not be able to affect this value statement and it's relevance to the student. However, having the student determine where the present circumstance falls in relation to any cultural influence may help the student clarify their goals.

Expectancy: concept and strategies

Expectancy is the belief that a person's attitudes towards success or failure have a causal influence on actual events. It involves two concepts: expectancy of others, which is the teacher's (or other professional's) belief that he or she can bring about the desired

change (for example, can the teaching strategies used increase the learner's intrinsic

motivation) and expectancy of oneself, which is the effect of personal expectancies on

ones own behavior. These personal expectancies are effected by the concepts of locus of

control, personal causation, and learned helplessness. According to Keller (1979) personal

motivation will tend to increase with increases in personal expectancy for success.

Keller (1979) suggests several strategies related to expectancy:

1. Increase expectancy for success by increasing the student's experience with

success (p. 418). An example of this may be to offer several grades to be averaged for the

final grade and not base the final grade on two or three interim grades.

2. Increase expectancy for success by using strategies that indicate the

requirements for success (p. 419). An example of this may be to for the instructor to make

student expectations clear at the beginning of the class.

3. Increase expectancy for success by using techniques that offer personal control

over success (p.420). An example of this may be allowing students to rewrite papers

and/or tests to achieve a higher grade.

4. Increase expectancy for success by using feedback and other devices that help

students connect success to personal effort and ability (p. 420).

Outcomes or Satisfaction: concept and strategies

Outcomes include several factors that affect the satisfaction of goal

accomplishment and the motivation to continue pursuing similar goals. Keller (1979)

assumes that both intrinsic and extrinsic outcomes follow a given performance. The

extrinsic outcomes result from environmental conditions, and the intrinsic outcomes result

from one's internal emotions and evaluations in response to the performance, the extrinsic

consequences, and the relationship between them. Keller (1979) states that the results of

this cognitive evaluation feed back to motives and values, and thereby influence the

motivation to continue to persist in the same kind of activity.

Keller (1979) comments that a number of researchers have concluded that for

some types of activity, extrinsic reinforcement can decrease intrinsic motivation. To

develop and maintain personal motivation for a given activity, use reinforcement, but do it

in such a way that the controlling influences do not detract from the intrinsic satisfactions

(outcomes). This conclusion was substantiated by Enzel, Wright , & Redondo (1996)

whose research concluded that adult educators may unintentionally undermine intrinsic

motivation by focusing too heavily on extrinsic incentives.

Keller (1979) suggests several strategies that can be used to maintain intrinsic

satisfaction with instruction:

1. Use unexpected, noncontingent rewards (p. 425). An example of this may be

an unexpected dismissal of class before class time ends, not as a result of the class

completing a task.

2. Use verbal praise and informative feedback rather than threats, surveillance, or

external performance evaluation (p. 426).

In addition, Keller (1979) suggests the following strategies to maintain or improve

student performance in relation to satisfaction with performance:

3. To maintain quantity of performance, use motivating feedback following the

response (p. 427).

4. To improve the quality of performance, provide formative (corrective) feedback when it will be immediately useful, usually just before the next opportunity to practice (p. 427).

Bohlin, Milheim, and Viechnicki (1993)

The underlying theory base for this prescriptive model for the design of motivating instruction for adults comes from two arenas -- adult learning theory and instructional design. Bohlin, Milheim, and Viechnicki (1993) based their research on the works of John Keller (1979, 1987) and his studies on motivation. The research of John Keller (1979), in which a theoretical model based on the learner's interest, relevance, expectancy and outcomes, and his research (1987) in which his theoretical model was redefined into a model based on attention, relevance, competence and satisfaction (ARCS), supplied a framework for the design of the model by Bohlin, Milheim, and Viechnicki (1993).

The integration of adult learning theory and the ARCS model provide the theoretical framework for this adult motivation model. This integration was analyzed through needs-assessment instruments based upon the literature in both theory bases.

Two needs assessment instruments were developed by revising the Course Interest Survey (CIS) by Keller and Subhiyah (1987). The new instruments were developed to measure appeal of instruction (Course Interest Survey, Revised [CISR]) and the self reported effort of the learner (Course Effort Survey, Revised [CESR]). The instruments were designed to measure respondents' perception of their instructional needs related to instructional appeal and learner effort. Both of the studies reviewed used adults in educational settings to determine the their interest and effort and the relationship to the

ARCS model. With some slight variation, both studies concluded that in the areas of interest and effort, it was shown that the requirements for success need to be made clear to the student, the information learned needs to be of use to the student, and the student must receive a benefit from the class.

Implications and Strategies

The implications of this research are that an adult-learner/instruction-interaction motivation model has been developed that can be applied to the design of educational technology systems. Focusing on the needs of the adult learner as outlined below, and creatively designing interventions, feedback, and program structures will make the learning more appealing and the learner more confident. There are a number of instructional strategies identified by the work of Bohlin, Milheim, and Viechnicki (1993) that are rated as having a positive effect on the interest and/or effort of the subjects:

1.   Determine the learners' expectations and goals and focus instruction to meet those goals. An example of this would be the use of the CISR and CESR or Motivated Strategies for Learning Questionnaire (MSLQ), see Appendix.

2.   Assign projects that personally benefit the learners and provide for practical applications of learning

3.   Make instruction nonthreatening and allow for flexibility in instruction and requirements.

4.   Stress the usefulness of learning, arouse curiosity.

5.   Clarify requirements for success in the class.

6.   Build the learners' confidence.

7.   Provide timely and corrective feedback (p. 12-13).

The CISR or the CESR can be used as a needs assessment instrument. This can be especially useful if the content area is not intrinsically appealing or when designing a course for adults who may not give forth as much effort as desired.

<u>Hancock (1995)</u>

Hancock (1995) expanded the work of Vroom's (1964) Expectancy theory which suggests that the amount of effort a person exerts will ultimately depend on three perceptual relationships: expectancy, instrumentality, and valence. Hancock (1995) identified teacher actions for each component of the theory that would strengthen student's expectations that learning is accomplishable and will result in valued outcomes. These teacher actions will therefore enhance student motivation (effort) to learn academic course content.

<u>Expectancy Theory: Definition and Strategies</u>

The first component of Expectancy Theory (Vroom, 1964) is expectancy. Expectancy is the subjective estimation by a person of the likelihood that they will successfully perform a particular behavior. Hancock (1995) suggested that expectancy may be enhanced by offering additional instruction to the student. For example, providing a reference list of additional source material may provide depth to the student's understanding.

The second portion of Expectancy Theory is instrumentality. Hancock (1995) stated: "The theory then requires the person to assess the extent to which he or she perceives that his or her performance is instrumental in obtaining rewards and avoiding

adverse consequences" (p. 173). To influence a student's instrumentality, a teacher would

need to insure the existence of rewards associated with learning. One such reward would

be a grading system that clearly reflects the student's performance. Particularly important

is the student's perception that rewards are distributed equitably.

The third portion of Expectancy Theory is valence. Valence is the positive or

negative value that a person places on an outcome. According to Hancock (1995):

"The teacher should first recognize a student's existing perceptions of various learning

outcomes and attempt to relate those outcomes to the student's effort exerted toward

learning" (p. 177). One way one might do this is to use a needs assessment tool such as

the CISR and CESR or the Motivated Strategies for Learning Questionnaire (Pintrich,

Smith, Garcia & McKeachie, 1996) which measures various concepts involved in intrinsic

motivation along with various other concepts, see Appendix.

Hancock (1995) concludes that no single framework captures all the variables

which may influence student motivation (effort). Future research should conduct tests on

each portion of Expectancy Theory with respect to recommended teacher behaviors. A

primary goal would be to measure the impact of each recommended behavior on student

motivation to learn in the classroom.

Bandura (1986) and Pajares (1996)

The Self-Efficacy Theory is psychological theory which researchers have identified

as a tool to understand and promote the intrinsic motivation. However, self-efficacy is but

one component of Bandura's Social Cognitive Theory (Bandura, 1986), which states that

an individual's self-referent thought greatly affects their behavior, motivation and success

15

at any given task. According to this cognitive theory, a person who perceives themselves

to have a low-level of self-efficacy will, despite having the necessary potential, ability or

skills, not perform well at carrying out a task, such as learning course material. One's

perception of self-efficacy will affect the choices they make, the degree of effort they will

expend on a task, the level of persistence they will employ at the task as well as how they

will react to obstacles in the way of completing that task.

The self-efficacy component of Bandura's Social Cognitive Theory has been

applied to many fields of studies on human thought, behavior, performance and motivation

in recent years. Examples are addictions, pain tolerance, adherence to physical exercise

programs, and career choices. However, of greatest interest to educators is self-efficacy

theory's usefulness to anticipate and possibly influence student motivation and

performance in learning. Pajares (1996) recently summarized the research on the potential

Use Self-efficacy Theory in academic settings. As he notes, Self-Efficacy Theory sheds

some light on the lack of motivation and failure that occurs when students are required to

learn subjects in which many students often lack confidence about their ability to learn,

such as mathematics, writing, science and computer courses. (Pajares, 1994, Compeau &

Higgins, 1995, Gist, Schwoerer & Rosen, 1989)

Implications and Strategies

Research has identified that an accurate assessment of a learner's perception of

their self-efficacy about a given subject will indeed predict their ability to successfully learn

that material. If a learner's sense of self-efficacy can be increased, their likelihood of

academically performing well in that class will also increase. Therefore, most recent

research is moving toward practical applications of this theory in educational settings. Some areas of recent studies include examining the relationship between self-efficacy and goals (Locke & Latham, 1990), between self-efficacy and feedback (Young & Kline, 1996) and between self-efficacy and performance in specific learning situations, such as learning computer software.

Some teaching strategies that have emerged from the body of Self-Efficacy Theory research include:

1. Accurately assessing learners' perception of self-efficacy toward specific tasks prior to or at the beginning of a class. Before an instructor can attempt to influence self-efficacy, he must use assessment tools uniquely geared toward self-efficacy. (Such assessment could take place as a part of pre-testing in training.) Some samples of self-efficacy questionnaire questions are provided in the Appendix.

2. Providing opportunities for learners to experience success in the subject area early in the course. Smaller, immediate successes help to increase one's perception of self-efficacy.

3. Providing models for the behaviors instructors want learners to be able to master. This modeling could take many forms, such as live demonstrations, video demonstrations or simulations. Research reveals that people feel a greater probability that they can successfully do a task that they see others perform successfully.

4. Expressing encouragement and positive affirmation of the learners' efficacy to learn to the skills or material. While studies show this to be a lesser motivator than some of the other strategies, it still plays a part in influencing a student's perception of self-

efficacy.

5. Identifying other tasks which learners successfully accomplish that can relate to the type of skills and abilities needed to master the course material. Unfamiliarity and uncertainty can cause learner anxiety and stress, which can affect self-efficacy perceptions. Helping them to realize that they may have a greater efficacy that originally thought, can reduce anxiety.

Discussion

This aim of this paper was to examine various motivational theories and models to determine whether teaching strategies can impact intrinsic motivation. In doing so, various components or concepts of intrinsic motivation were revealed. These components were autonomy, expectancy, instrumentality, effort, interest, satisfaction, valence, relevance and self efficacy. In examining these concepts and the teaching strategies that are associated with them, it was determined that specific teaching strategies can have a positive effect on the various concepts related to intrinsic motivation.

Trying to reach the adult learner, who appears not to be motivated, is a frustrating and all too common experience for instructors. Students, or learners, are individuals. As a result, there is no one " best way" to present educational material, and a range of teaching strategies is needed. The ability of students to be self-directed is situational: the learner may be self-directed in one subject and dependent in another. Thus the instructor's purpose is to identify the learner's needs in regard to motivation and design teaching plans that encourages self- motivation. In this regard instructors must be aware of strategies that will positively affect motivation. Instructors should use a supportive approach that

reinforces learner willingness and enthusiasm. The natural motivation of the learner can be

supported and facilitated by certain teaching strategies implemented by the instructors. Of

the concepts relating to intrinsic motivation presented in this paper, and the learning

strategies identified as applicable to each, many have various components that are similar

in nature.

One concept that continually reappears in the noted studies is that of control.

Biddle, S., Goudas, M., & Underwood, M. (1995) and Hancock (1995) consider the

student's belief of control over his/her learning to essential to intrinsic motivation; Biddle,

S., Goudas, M., & Underwood, M. (1995) identified this concept as Autonomy;

Hancock (1995) described his concepts of individual control as Instrumentality and

Expectancy; and Keller (1979) identified the concept as Expectancy. The teaching

techniques allowing for student control from these studies were often different (but not

opposing), but did offer similarities. Biddle, S., Goudas, M., & Underwood, M. (1995)

and Hancock (1995) both felt that to offer choices of learning materials for alternatives for

learning and ensure depth to course content was essential. However, Hancock (1995)

also felt that insuring existence of rewards associated with learning also facilitated

individual control. Keller (1979) listed several strategies that he felt would enhance

expectancy stressing the use of techniques that offer personal control over success.

One's feeling of control within classroom situation also supports Bandura's (1986)

concept of Self-efficacy which could be described as the students perception of their own

ability to succeed within the classroom situation. Bandura (1986) and Pajares (1996) feel

that providing opportunities for learner to experience success in the subject area early in

the course supports Keller (1979) strategy for increasing Expectancy.   It also supports

Bohlin, Milheim, and Viechnicki's (1993) concept of Effort in which the student will put

forth more effort in his learning experience if the instructor builds the learner's confidence.

Bandura's (1996) Self-efficacy concept also supports Bohlin, Milheim, and Viechnicki

(1993) in their concept of effort in which they feel clarification the requirements for

success within a classroom situation will enhance the effort put for by the learner on

his/her learning experience.

The teaching strategies defined by of Keller (1979) are supportive of his concept

of Relevance, the utility of the information being taught, also overlaps the concept control.

Keller (1979) suggests that providing for opportunities for choice and responsibility allows

for the student an opportunity to mold the instructional material so that it's utility will

most benefit the student. This also allows the student's control over the utility of the

educational experience. Relevance also supports Hancock (1995) concept of valence; the

value one may place on an outcome of an experience.

Bohlin, Milheim, and Viechnicki's (1993) model is in direct correlation with many

Keller's (1979) and (1987) theory of motivation. Bohlin, Milheim, and Viechnicki's

(1993), teaching strategies were similar to Keller in the way that both studies emphasized

techniques to enhance motivation through increasing interest and effort. Keller (1979)

concept of Expectancy, which allows increases self efficacy in the student, also agrees

with Bohlin, Milheim, and Viechnicki's (1993) concept of effort in which both feel that

building confidence and an atmosphere of trust enhances motivation in the learner.

The concept of Satisfaction proposed by Keller (1979) is in which the learner is

motivated by the perceived outcome of the experience is inherent in almost all of the other

concepts noted. Whether a student feels he/she has control (autonomy) of the experience;

or the ability (self-efficacy) to complete the work; or the belief of success (expectancy);

or the interest to finish; or the willingness to put forth the effort, all affect the outcome of

the experience and whether or not the student will feel satisfaction with that outcome.

In reviewing the concepts for similarities, several instructional strategies were also

used repeatedly. Keller (1979) and Bohlin, Milheim, and Viechnicki's (1993) used several

feedback strategies as a means to enhance their concepts of motivation. Keller (1979) and

Bohlin, Milheim, and Viechnicki (1993) and Bandura (1986) and Pajares (1995) all

suggested strategies which somehow affect the student's perceptions of a given situation.

In addition, Bandura (1986)) and Panjara (1996), Keller (1979) and Bohlin,

Milheim, and Viechnicki (1993) all address strategies that effect the students possibilities

for success.

Conclusion

Although there are many different conceptual models and theories regarding

intrinsic motivation, they are all very similar in concepts and ways to enhance intrinsic

motivation in the learner. In the classroom, instructors need to design instruction which

concentrate on facilitation and communication by using teaching strategies which enhance

intrinsic motivation; supporting learners by augmenting skills they have already acquired.

As facilitator of a class, the instructor's role would become not simply a that of teacher,

but also as motivater. Instructors should monitor progress to ensure success and use

teaching strategies to assist students in acquiring, or enhancing, the skills to be self-

directing and self-monitoring. Self-directed, lifelong learning should be seen as the single

most important outcome of a formal education for adults. The hypothesis tested in this

paper, that teaching strategies positively impact intrinsic motivation, has been proven.

Instructors need to examine the needs of the learner and promote motivation and self-

direction through motivational teaching strategies.

References

Bandura, A. (1986). Social Foundations of Thought and Action: A social cognitive theory. Englewood Cliffs, New Jersey: Prentice-Hall.

Biddle, S., Goudas, M., & Underwood, M. (1995). A prospective study of the relationships between motivational orientations and perceived competence with intrinsic motivation and achievement in a teacher education course. Educational Psychology. 15 (1), 89-96.

Bissonnette, R., & Vallerand, R.J. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior - a prospective study. Journal of Personality, 60, 599-620.

Bohlin, R. M., Milheim W. D., and Viechnicki, K. J. (1993). Factor analysis of the instructional motivation needs of adult learners (Report No. IR 016 300). New Orleans, La: Association for Educational Communications and Technology. (ERIC Document Reproduction Service No. ED 362 152).

Bohlin, R. M., Milheim, W. D., & Viechnicki, K. J. (1993). The development of a model for the design of motivational adult instruction in higher education. Journal of Educational Technology Systems, 22, 3-17.

Compeau, D.R. & Higgins, C.A. (1995). Computer self-efficacy: development of a measure and initial test. MIS Quarterly, June, 189-211.

Deci, E.L. & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. London: Plenum.

Enzel, M.E., Wright, E.F., & Redondo, I.M. (1996). Cross-task generalization of intrinsic motivation effects. Canadian Journal of Behavioral Science, 28, [On-line].

Available: http://www.cycor.ca/Psych/cjbs/1996/abs_enzel.htm.

Garcia, T., Pintrich, P.A. (1995). <u>Assessing students' motivation and learning strategies: The Motivated Strategies for Learning Questionnaire</u>. San Francisco: American Educational Research Association. [On-line]. Available: http://ccwf.cc.utexas.edu/~tgarcia/aera95dp1.htm.

Gist, M.E., Schwoerer, C. & Rosen, B. (1989). Effects of alternative training methods on self-efficacy and performance in computer software training. <u>Journal of Applied Psychology, 74,</u> (6), 884-891.

Hancock, D. R. (1995). What teachers may do to influence student motivation: an application of expectancy theory. <u>The Journal of General Education, 44</u> (3), 170-179.

Keller, J. M. (1983). Motivational design of instruction. In C. M. Reigeluth (Ed.), <u>Instructional design theories and models: An overview of their current status</u> (pp. 383-434). Hillsdale, NJ: Erlbaum.

Keller, J. M. (1987). Development and use of the ARCS model of instructional design. <u>Journal of Instructional Development, 10</u> (3), 2-10.

Keller, J. M., & Subhiyah, R. G.(1987). <u>Course Interest Survey.</u> Tallahassee: Florida State University.

Locke, E.A., & Latham, G.P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. <u>Psychological Science, 1,</u> (4), 240-246.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. <u>Review of Educational Research, 66,</u> (4) 543-578.

Pajares, F. (1996, April). <u>Current directions in self research: Self-efficacy.</u> Paper

presented at the meeting of the American Educational Research Association, New York.

Pajares, F., & Miller, M.D. (1994). The role of self-efficacy and self-concept beliefs in mathematical problem-solving: A path analysis. Journal of Educational Psychology. 86, 193-203.

Sherer, M., Maddux, J. E. , Mercandate, B., Prentice-Dunn, S. Jacons, B. & Rogers, R.W. (1982). The self-efficacy scale: Construction and Validation. Psychological Reports. 51, 663-671.

Vroom, Victor H. (1964). Work and Motivation. New York: John Wiley.

Young, K. J., & Kline, T.J.B. (1996). Perceived self-efficacy, outcome-efficacy and feedback: Their effects on professors' teaching development motivation. Canadian Journal of Behavioural Science [On-line], 28. Available: http://www.cycor.ca/psych/ejbs/1996/ful_kline.html.

Appendix

Title of Questionnaire or Title of Concept	Contents/Measurements or Example	How to Obtain or Where Found
Motivated Strategies for Learning Questionnaire (MSLQ) Developed by: P. R. Pintrich D. A. F. Smith T. Garcia W. J. McKeachie	Measurement of : I. Value Components: • Intrinsic Motivation • Extrinsic Motivation • Task Value II. Expectancy Components • Control Beliefs • Self - Efficacy for Learning and Performance III. Affective Components • Test Anxiety IV. Cognitive and Metacognitive Strategies • Rehearsal • Elaboration • Organization • Critical Thinking • Metacognitive Self-Regulation	Address: 1323 School of Education 610 East University Ave. University of Michigan Ann Arbor, Mi. 48109 Telephone: (313) 763-1342

Title of Questionnaire or Title of Concept	Contents/Measurements or Example	How to Obtain or Where Found
Motivated Strategies for Learning Questionnaire (MSLQ), continued	V. Resource Management Strategies • Time and Study Environment • Effort Regulation • Peer Learning • Help Seeking	
Course Interest Survey Revised (CISR) and Course Effort Survey Revised (CESR) Developed by: R. M. Bohlin, W. D. Milheim, and K. J. Viechnicki	Measurement of Interest and Effort as they relate to the ARCS model of Motivation: 1. Attention 2. Relevance 3. Confidence 4. Satisfaction	Examples of the CISR and the CESR can be found in: the Bohlin, Milheim and Viechnicki articles listed in the reference section. Requests for further information may also be addressed to: Roy M. Bohlin Department of Curriculum and Teaching California State University at Fresno Fresno, Ca. 93740- 0002

Title of Questionnaire or Title of Concept	Contents/Measurements or Example	How to Obtain or Where Found
General Self Efficacy Scale	Measures Self-Efficacy (Not all scholars agree that Self-efficacy can be assessed by a broad scale)	See Sherer, Maddux, Mercandate, Prentice-Dunn, Jacons, & Rogers, (1982).
Self-Efficacy Constructs	Examples are found in Table on pages 548-549.	See Compeau & Higgens (1995).
Self -Efficacy Beliefs	Table found on pages 543-548 provides examples of how self-efficacy questions are formed in various subjects	See Pajuras (1996).

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

ERIC

REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: The Impact of Teaching Strategies on Intrinsic Motivation

Author(s): Lisa Bomia; Lynne Beluzo; Debra Demeester; Keli Elander;

Corporate Source: Mary Johnson; Betty Sheldon → NA

Publication Date: NA

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

☑

Check here
For Level 1 Release:
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) *and* paper copy.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

_____ Sample _____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

The sample sticker shown below will be affixed to all Level 2 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

_____ Sample _____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2

☐

Check here
For Level 2 Release:
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but *not* in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

"I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."

Sign here→ please

Signature: Lisa Bomia

Printed Name/Position/Title: LISA BomIA / Faculty Facilitator

Organization/Address: Schoolcraft College Livonia, MI 48152

Telephone: (313) 513-7130

FAX:

E-Mail Address:

Date: 1/16/98

(over)