DOCUMENT RESUME

ED 403 233 SP 037 093

AUTHOR	Schunk, Dale H.
TITLE	Self-Evaluation and Self-Regulated Learning.
PUB DATE	Oct 96
NOTE	27p.; Paper presented at the Graduate School and University Center, City University of New York, New York, NY (October 1996).
PUB TYPE	Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	College Students; Computer Literacy; Education Majors; Elementary Education; Elementary School Students; Fractions; Goal Orientation; Higher Education; *Learning Motivation; Preservice Teacher Education; Self Efficacy; *Self Evaluation (Individuals); *Self Motivation; Student Educational Objectives; *Student Motivation
IDENTIFIERS	*Self Regulated Learning

ABSTRACT

This paper focuses on the role of self-evaluation during self-regulated learning. After a discussion of the social cognitive theory of self-regulation, self-efficacy, and achievement goals, two studies of fourth graders who were learning fraction skills and one ongoing research project with college students enrolled in their first computer class are described. The ongoing research with the college students, elementary education majors, represents a follow-up to the prior research in elementary students' learning of mathematics skills in that it also looks at goals and self-evaluation in the context of self-regulatory learning. Findings reveal that: (1) learning goals are important for self-regulation; (2) self-evaluation is important when it is frequent or conveys information that students may not acquire on their own; and (3) the combination of learning goals and self-evaluation is powerful when self-evaluation is linked directly to the goals and when other factors may preclude self-evaluation. Further research directions in this area are suggested as well as implications for teaching and learning. (Contains 20 references.) (ND)

SP

Self-Evaluation and Self-Regulated Learning

Dale H. Schunk

School of Education

Purdue University

Presented at the Graduate School and University Center, City University of New York, October 1996. Correspondence should be addressed to: Dale H. Schunk, 1446 LAEB Room 5108, Purdue University, West Lafayette, IN 47907-1446

Self-Evaluation and Self-Regulated Learning

In this paper I discuss the important role played by self-evaluative activities during self-regulated learning. Self-regulated learning refers to self-generated thoughts, feelings, and actions, that are systematically designed to affect one's learning of knowledge and skills (Zimmerman, 1989, 1990; Zimmerman & Kitsantas, 1996). Self-regulatory processes include attending to and concentrating on instruction; organizing, coding, and rehearsing information to be remembered; establishing a productive work environment; using resources effectively; holding positive beliefs about one's capabilities, the value of learning, the factors influencing learning, and the anticipated outcomes of actions; and experiencing pride and satisfaction with one's efforts (Schunk, 1994).

Self-regulated learning is assuming increasing importance among educators. Research shows that students are mentally active during learning rather than being passive recipients of information, and that they exert a large degree of control over attainment of their goals (Pintrich & Schrauben, 1992). Educators are realizing the importance of students developing self-regulatory competence in addition to subject-area knowledge and skills.

The central thesis of this paper is that effective self-regulated learning requires that students engage in self-evaluation periodically. Self-evaluation is a process comprising self-judgments of present performance and self-reactions to these judgments (Schunk, 1996). Research supports the hypothesis that effective self-regulated learning depends on favorable evaluations of one's capabilities and progress in learning because these beliefs help sustain motivation for learning (Schunk, 1994).

In this paper I address several issues related to the role of self-evaluation during self-regulated learning. I initially summarize theoretical ideas involving self-regulation, self-efficacy, and achievement goals. I then present research on the influence of self-evaluative processes during learning. This includes completed work and research in progress. I conclude by discussing suggestions for future research and implications of research findings for classroom teaching to enhance student self-regulation.

Theoretical Background

Social Cognitive Theory of Self-Regulation

The conceptual framework I employ is based on Bandura's (1986, 1991) social cognitive theory. Social cognitive theory views self-regulation as comprising three processes: self-observation, self-judgment, self-reaction (Bandura, 1986; Kanfer & Gaelick, 1986). Self-observation is deliberate attention to aspects of one's behavior. Self-observation is necessary but by itself insufficient for sustained self-regulation. Self-judgment refers to comparing present performance with one's goal. Such comparisons inform one of goal progress and can exert motivational effects on future performance. Self-reactions to goal progress may be evaluative or tangible. Evaluative reactions involve beliefs about progress. The belief that one is making progress, along with the anticipated satisfaction of goal attainment, enhances self-efficacy and sustains motivation. People also may react in a tangible fashion to perceived progress, such as by buying something they want or taking a night off from studying.

At the start of learning activities students have such goals as acquiring skills and knowledge, finishing work, and making good grades. As they work, students observe, judge, and react to perceptions of their goal progress. These self-regulatory processes interact with one another. As students observe aspects of their behavior they judge them against standards and react positively or negatively. Their judgments and reactions set the stage for additional observations of the same behaviors or of others. These processes also interact with the environment (Zimmerman, 1989). Students who judge their learning progress as inadequate may react by asking for teacher assistance. Teachers then may teach students a more efficient strategy, which students use to foster learning.

Self-Efficacy

Effective self-regulation depends on students developing a sense of self-efficacy for learning and performing well. Self-efficacy refers to personal beliefs about one's capabilities to learn or perform behaviors and skillful actions at designated levels (Bandura, 1986).

Self-efficacy is hypothesized to influence choice of activities, effort, persistence, and achievement. Compared with students who doubt their learning capabilities, those with high self-efficacy for accomplishing a task participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level.

Learners acquire information to appraise their self-efficacy from their performances, vicarious (observational) experiences, forms of persuasion, and physiological reactions (Schunk, 1990). Information acquired from these sources does not influence self-efficacy automatically but rather is cognitively appraised (Bandura, 1986). Learners weigh and combine their perceptions of their ability, task difficulty, amount of effort expended, amount and type of assistance received from others, similarity to models, and persuader credibility (Schunk, 1990).

Effective self-regulation depends on holding an optimal sense of self-efficacy for learning (Bandura, 1986; Bouffard-Bouchard, Parent, & Larivee, 1991; Zimmerman, 1989). Students who feel efficacious about learning choose to engage in tasks, select effective strategies, expend effort, and persist when difficulties are encountered (Bandura, 1991; Schunk, 1991; Zimmerman, 1989). As students work on a task they compare their performances to their goals. Self-evaluations of progress enhance self-efficacy and keep students motivated to improve.

Achievement Goals

Goals are important for self-evaluation because they provide standards against which students can compare their present performances (Bandura, 1986; Locke & Latham, 1990). When students adopt a goal, they may experience a sense of self-efficacy for attaining it, which motivates them to engage in appropriate self-regulatory activities (e.g., attend to instruction, mentally rehearse information, persist, expend effort). Their self-efficacy is substantiated as they observe their goal progress because self-evaluations of progress convey they are becoming skillful. Self-efficacy sustains motivation and leads learners to establish new goals when they master their present ones.

The effects of goals depend on the properties of _specificity_, _proximity_, and _difficulty_ (Bandura, 1988; Locke & Latham, 1990). Goals that incorporate specific performance standards, are close at hand, and are moderately difficult, are more likely to enhance performance than goals that are general, extend into the distant future, or are perceived as very easy or overly difficult (Schunk, 1990). Goal effects also may depend on whether the goal denotes a learning or performance outcome (Meece, 1991). A _learning goal_ refers to what knowledge and skills students are to acquire; a _performance goal_ denotes what task students are to complete (Dweck & Leggett, 1988). These have been referred to elsewhere by different names; for example, _mastery goal_ and _task orientation_ are roughly equivalent to learning goal, whereas ability goal and ego orientation are conceptually similar to performance goal (Ames, 1992; Dweck & Leggett, 1988). Goal research typically has focused on such goals as rate or quantity of performance, but educators increasingly are advocating greater emphasis on learning processes and strategies (Weinstein, Goetz, & Alexander, 1988).

Learning and performance goals may exert different effects on self-regulatory activities and achievement beliefs even when their goal properties are similar. Learning goals focus students' attention on processes and strategies that help them acquire competencies (Ames, 1992). Students who pursue a learning goal are apt to experience a sense of efficacy for attaining it and be motivated to engage in task-appropriate activities (Schunk, 1996). Self-efficacy is substantiated as they work on the task and note progress. Perceived progress in skill acquisition and a sense of efficacy for continued learning sustain self-regulatory activities and enhance skillful performance.

In contrast, performance goals focus students' attention on completing tasks. Such goals may not highlight the importance of the processes and strategies underlying task completion or raise efficacy for learning (Schunk, 1996). As students work on tasks, they may not compare present and prior performances to determine progress. Performance goals can lead to social comparisons of one's work with that of others to determine progress (Ames, 1992).

Such comparisons can result in low self-evaluations of ability among students who experience difficulties, which can retard motivation (Meece, 1991).

Research Evidence

I will describe some completed and ongoing research projects that explored the role of self-evaluation during skill acquisition. This research incorporates elements of self-regulation, self-efficacy, and achievement goals. In these studies, students were learning mathematical and computer skills. They received instruction and practice opportunities. Conditions involved different types of goals and forms of self-evaluation. Self-regulatory processes are involved because students engage in much independent learning.

It was hypothesized that learning goals would lead to higher achievement outcomes than performance goals because the former emphasized progress in skill acquisition and the importance of strategies for improving skills. It further was hypothesized that self-evaluations of capabilities or learning progress would positively affect motivation, self-efficacy, goal orientation, and skills. In the absence of explicit self-evaluation, students may be less likely to assess their capabilities and be uncertain of their learning progress, which would not promote these outcomes as well. Finally, to the extent that learning goals produce a focus on skill improvement, self-evaluations should complement this focus and highlight that students are making progress in acquiring skills. If students who receive performance goals do not develop a similar focus on skill improvement, self-evaluations of capabilities will not complement the goal or enhance motivation and self-efficacy for further learning. I also felt that combining learning goals with explicit self-evaluation might lead to the highest achievement outcomes.

Children's Mathematical Skills

Study 1. The first two studies investigated how goals and self-evaluation affected motivation and achievement outcomes among fourth-grade students who were learning fraction skills (Schunk, 1996). In the first study, children initially were pretested on goal orientation, self-efficacy, skill, and persistence. Goal orientations are sets of behavioral intentions that influence how students approach and engage in learning activities. Goal orientations assessed were: task--desire to independently master and understand academic work; ego--desire to perform well to please the teacher and avoid trouble; affiliative--desire to share ideas and work with peers; work avoidant--desire to accomplish academic work with minimum effort.

The self-efficacy test assessed children's perceived capabilities for correctly solving 31 types of problems involving addition and subtraction of fractions. Children were shown sample problems and judged their certainty of correctly solving problems of each type (i.e., same form and difficulty level). The skill test included 31 problems similar to those on the efficacy test. For each problem, children decided whether to solve it and how long to work on it. Time spent solving problems was recorded as a measure of persistence.

Children were assigned to one of four conditions: learning goal with self-evaluation (LG-SE), learning goal without self-evaluation (LG-NoSE), performance goal with self-evaluation (PG-SE), performance goal without self-evaluation (PG-NoSE). Students received 45-minute instructional sessions over 7 days. Children worked on a set of instructional materials each day. Six sets covered the six major types of fraction skills included in the tests; the final packet contained review material.

At the start of each session, the researcher gave goal instructions appropriate for children's condition, after which she verbally explained and demonstrated the relevant fraction operations. After this <u>modeled demonstration</u> phase, students engaged in <u>guided practice</u> (e.g., hands-on activities), and worked alone during <u>independent practice</u> for the remainder of the session. The latter phase (about 25 min per session) allowed for demonstration of differences in self-regulatory processes brought about by the goal and self-evaluative treatments.

Goal instructions were given verbally by the researcher at the start of each instructional session. To learning-goal students the researcher stressed the goal of <u>learning</u> to solve problems, whereas to performance-goal students she emphasized the goal of solving problems. This difference between goal instructions was subtle. To ensure that conditions were distinguished, the researcher verbalized the instructions at the start of each of the seven sessions, asked children to repeat the instructions, and then asked them if the goal sounded reasonable.

Children assigned to the two self-evaluation conditions judged their fraction capabilities at the end of each of the first six sessions. This assessment was similar to pretest self-efficacy measure that children judged their capabilities for solving types of fraction problems covered during that session. To control for potential effects of making judgments, children assigned to the two no-self-evaluation conditions judged how much they liked working fractions.

The posttest was given on the day following the last instructional session. It was similar to the pretest except that a parallel form of the skill test was used.

With some exceptions the pattern of results generally supported the hypotheses. Significant effects for learning goals were obtained on posttest measures of skill, task and ego orientation, and lesson performance (number of problems completed). Self-evaluation influenced self-efficacy, skill, persistence, ego orientation, and lesson performance. A significant goal x self-evaluation interaction was obtained on measures of self-efficacy, task and ego orientation.

Post-hoc analyses revealed the following findings. The LG-SE, LG-NoSE, and PG-SE conditions did not differ significantly but each scored higher than the PG-NoSE condition on self-efficacy, skill, task orientation, and lesson performance, and lower on ego orientation. LG-SE students persisted longer than did PG-NoSe children.

Product-momemt correlations showed that lesson performance related positively to self-efficacy, skill, and persistence, and negatively to ego orientation. Self-efficacy, skill, and persistence, were positively related. Task orientation related positively to self-efficacy and skill; ego orientation correlated negatively with these measures.

This study demonstrated benefits of providing children with a learning goal with or without opportunities to assess their capabilities or a performance goal with self-evaluation. The hypothesized advantage of learning goals over performance goals was obtained only when the self-evaluative procedure was not in effect.

Study 2. Study 2 was designed to better explore the conditions under which learning goals might be more effective than performance goals in raising achievement outcomes. The self-evaluation treatment in Study 1 was powerful because children assessed their fraction capabilities six times. This type of repetitive self-evaluation may have made it clear to children that their skills were improving and likely outweighed any differential effects due to type of goal. Although Study 1 showed that learning goals are more effective than performance goals in the absence of explicit self-evaluation, possibly learning goals also would prove advantageous when self-evaluation is less frequent or more subtle, a type of situation more typical in school because learners typically do not evaluate their capabilities.

In Study 2 the procedure was modified. Subjects received a learning or performance goal but all received the opportunity for self-evaluation. The latter judgments were collected once rather than six times, near the end of the instructional program. The procedure was not only less frequent, it also varied in that children assessed their perceived progress in learning rather than their capabilities as in Study 1. Other measures included in Study 2 were self-efficacy for learning and self-satisfaction with progress in learning.

The fourth-grade subjects received the same pretest, instructional session, and posttest materials and procedures except as follows. After children received their goal instructions at the start of the first lesson, a tester administered the self-efficacy for learning measure. This was similar to pretest self-efficacy except children judged their capabilities for learning to solve types of problems rather than how certain they were that they could solve them. Self-evaluation and self-satisfaction were assessed at the end of the sixth session. For self-evaluation, children were asked to judge how well they were doing now compared with when the project began. The <u>self-satisfaction</u> measure assessed children's pleasure with their skill acquisition.

Significant goal effects were obtained on the following measures: posttest self-efficacy, skill, task, ego, and work-avoidant orientations; lesson performance; self-evaluation; self-satisfaction. All effects were in favor of the learning goal except for ego orientation and work-avoidant orientation. Results for persistence, affiliative orientation, and self-efficacy for learning, were nonsignificant.

Correlational analyses revealed the same patterns as in Study 1. In addition, self-efficacy for learning related positively to lesson performance (number of problems completed), as did self-evaluation and self-satisfaction. Self-evaluation and self-satisfaction correlated positively with self-efficacy, skill, and task orientation; self-evaluation related negatively to ego orientation. Self-evaluation and self-satisfaction were positively related.

In summary, these studies show that providing students with a learning goal enhances their self-efficacy, skill, motivation, and task goal orientation, and that these outcomes also are promoted by allowing students to evaluate their performance capabilities or progress in learning. Study 1, however, did not support the hypothesis that combining a learning goal with self-evaluation raises achievement outcomes more than does combining a performance goal with self-evaluation. A daily evaluation is intensive and should communicate to children that they are becoming skillful. When self-evaluation is salient, the type of goal may make little difference. In contrast, the single assessment in Study 2 may not have made it clear that subjects had become more competent. Given that this evaluation was closely tied to the learning goal, it complemented that goal better than the performance goal and may have been more likely to raise motivation and achievement.

In summary, these findings support theory and research on the benefits of goals and self-evaluation on self-regulation processes and achievement (Bandura, 1988; Schunk, 1990; Zimmerman, 1989, 1994). These results also are consistent with those of Elliott and Dweck (1988), who found that learning goals promoted a mastery motivational orientation regardless of type of ability feedback but that performance goals were effective only when students received high-ability feedback.

Computer Learning

During this past year, Peg Ertmer and I have been conducting research with college students enrolled in their first computer class--Introduction to Computers in Education. Students are junior and senior elementary education majors. The course covers instructional uses of microcomputers including the selection, evaluation, and management of hardware and software and curriculum applications. Students enter with minimal computer skills, usually limited to word processing. They acquire skills in applications involving Excel, Hypercard, PowerPoint, and others.

This research represents a follow-up to the prior research in elementary children's learning of mathematical skills in that we are looking at the same variables--goals and self-evaluation--in the context of learning. We also are exploring students' use of self-regulatory learning strategies.

Study 1. In the first study we used Hypercard as the subject matter. Students were pretested on Hypercard self-efficacy and skill, and computer skill self-regulatory strategies. For the self-efficacy assessment, students judged how confident they were that they could perform 12 Hypercard tasks (e.g., add and format fields, create an exit button, use different fonts) at an exemplary level of performance (defined by models of Hypercard projects shown to students earlier in the course). For the skill test, students were asked to create a 5-card Hypercard stack that required them to employ the skills listed on the self-efficacy assessment.

For the self-regulatory strategy measure, students judged how well they performed (competency) and how often they performed (frequency) various strategies while working on computer learning tasks. These strategies tapped the dimensions of self-regulation identified by Zimmerman (1994): motives (e.g., "find ways to motivate myself to finish a lab project even when it holds little interest for me"); methods (e.g., "locate and use appropriate manuals when I need to accomplish an unfamiliar computer task"); performance outcomes (e.g., "set specific goals for myself in this course"); and social/environmental resources (e.g., "find peers who will give critical feedback on early versions of my projects").

Students attend large-group instruction and labs each week. The course is designed such that students are expected to master basic objectives for each unit. The objectives for the Hypercard unit were substantially similar to those included on the self-efficacy and skill tests.

Following the pretest students were assigned to one of four conditions: learning goal with self-evaluation (LG-SE), performance goal with self-evaluation (PG-SE), learning goal with no self-evaluation (LG-NoSE), performance goal with no self-evaluation (PG-NoSE). At the start of the first laboratory period, learning-goal subjects were given goal instructions that advised them to adopt a goal of learning those skills identified as objectives for the unit, which were reiterated. The procedure for performance-goal subjects was similar except they were advised to work productively during the session and complete assignments.

Students assigned to the two self-evaluation conditions completed this assessment during the second week of instruction (the midpoint). The measure was similar to pretest self-efficacy except that students judged how much progress they had made in acquiring the various skills since the project began. To control for potential effects of making personal judgments, students assigned to the no-self-evaluation conditions assessed how much they enjoyed working on Hypercard tasks.

Analyses of posttest measures yielded significant effects due to goals on the measures of self-efficacy, competency, and frequency; there also was a significant goals x self-evaluation interaction obtained on self-efficacy. Post hoc tests showed that students who received learning goals with or without self-evaluation (LG-SE, LG-NoSE conditions) judged self-efficacy, strategy competency, and strategy frequency, significantly higher than students assigned to the PG-NoSE condition. Students in the LG-SE condition judged self-efficacy higher than those in the LG-NoSE and PG-SE conditions; LG-NoSE students judged self-efficacy higher than did PG-SE students.

Analyses of the self-regulation competency and frequency subscales revealed the greatest differences in the areas of motives, methods, and performance outcomes; the environment subscale yielded nonsignificant results. The four conditions did not differ on the skill measure. Correlational analyses revealed significant and positive correlations between perceived competency and frequency of strategy use and self-efficacy. Skill did not correlate with other measures, possibly because posttest skill scores were high and variability was low.

This study shows that combining goals with self-evaluation of progress in learning is an effective way to raise college students' self-efficacy and perceived competency for using self-regulatory strategies during computer skill learning and also may increase the frequency of strategy use. In addition, we found benefits of goals without self-evaluation as a means for raising self-efficacy. We did not obtain definitive results for self-evaluation and it is not clear why this was the case. One possibility is that these college students may have already been monitoring their learning progress. The previous research suggests that directed self-evaluation is beneficial when it is done frequently or when students do not do it normally without prompting (Schunk, 1996). In the computer learning study, formal self-evaluation was completed only once but students may have assessed their own progress by continually referring to explicit project requirements.

To further explore these issues, we presently are replicating this study with two important modifications. First, we are providing more frequent opportunities for self-evaluation. Students in the self-evaluation conditions are performing self-evaluations of progress in learning once a week for three weeks, instead of only once as in Study 1. We are interested in determining whether more frequent self-evaluation will influence the effects of learning goals found in Study 1. Second, we have dropped the PG-NoSE condition because Study 1 showed that to not be an effective combination. This result replicates that found in the mathematical research discussed earlier.

Future Research Directions

We can summarize our findings to date as follows:

1. Learning goals are important for self-regulation.

2. Self-evaluation is important when it is frequent or conveys information that students may not acquire on their own.

3. The combination of learning goals and self-evaluation is powerful when self-evaluation is linked directly to the goals and other factors may preclude self-evaluation (e.g., context provides few cues about performance, young children may not spontaneously evaluate their learning progress).

More research is necessary to clarify the role of self-evaluation in self-regulated learning. One suggestion is to conduct in-depth research on learners to determine to what extent they naturally evaluate their learning progress or capabilities. Thus, college students may be likely to engage in self-evaluation frequently because they generally are strategic and good learners. In contrast, children may rely more on feedback from teachers, parents, and coaches, as indicators of progress, and they may possess developmental limitations that constrain their capability to compare present and past performance. This type of research may require interviews and think-aloud protocols to assess the extent of actual self-evaluative and self-regulatory activities during learning.

Second, we might examine content. Some subject matter may allow for better self-evaluation than others. For example, students who are able to check their answers in mathematical computation may also be more likely to assess their competencies. This situation may not be obtained with content areas where improvement is not apparent (e.g., competency in composing written text).

A third area of suggested research is to examine context to determine what contextual cues are important for self-evaluation. The computer classes we are using for research are set up as mastery learning environments where students are expected to master basic skills in each of the topics. Thus, it may be quite straightforward for students to assess their progress against the course objectives. In general, computer learning may allow for self-evaluation easily, since it typically is apparent when one has performed operations correctly or made errors (e.g., screen goes blank, commands produce nothing).

Contexts also differ in the amount of feedback they provide. Where teachers closely monitor students' work the opportunities for self-evaluation may be enhanced due to the high amount of teacher feedback. In contrast, independent learning may come closer to the definition of self-regulated learning. In these contexts, students may benefit more from directed opportunities for self-evaluation.

Implications for Teaching and Learning

The results of the theory and research have implications for teaching and learning. One implication is for teachers to provide students with opportunities for self-evaluation. Teachers might periodically show students sample tasks and ask them to evaluate how much progress they have made in learning to successfully complete those tasks. In line with this, teachers may need to point out student progress, such as by showing them how their spelling or arithmetic performance on quizzes has improved over a period of time.

Another implication is to design learning environments to provide information about progress. This is especially helpful when progress otherwise may be difficult to ascertain. The use of portfolios can be beneficial; students can keep samples of their work over time and note improvements. Computers also can help track progress. As students work on computer programs, information can be stored showing how well students are answering questions, and these data can periodically be accessed to show improvement over time.

Finally, a recommendation is to use learning goals and provide feedback on goal progress. This can be done formally; for example, teacher and student can hold a goal-setting conference at the start of a unit where goals are established and then at different times during the unit to assess progress. It also can be accomplished informally, such as when teachers provide students information on what the learning goal for the lesson is. Once goals are attained, students can set new learning goals. Combined with progress feedback, learning goals offer an important means for promoting self-regulatory strategy use and developing skills and achievement beliefs.

References

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. Journal of Educational Psychology, 84, 261-271.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1988). Self-regulation of motivation and action through goal systems. In V. Hamilton, G. H. Bower, & N. H. Frijda (Eds.), Cognitive perspectives on emotion and motivation (pp. 37-61). Dordrecht, The Netherlands: Kluwer Academic Publishers.

Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational Behavior and Human Decision Processes, 50, 248-287.

Bouffard-Bouchard, T., Parent, S., & Larivee, S. (1991). Influence of self-efficacy on self-regulation and performance among junior and senior high-school age students. International Journal of Behavioral Development, 14, 153-164.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. Psychological Review, 95, 256-273.

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. Journal of Personality and Social Psychology, 54, 5-12.

Kanfer, F. H., & Gaelick, L. (1986). Self-management methods. In F. H. Kanfer & A. P. Goldstein (Eds.), Helping people change: A textbook of methods (3rd ed., pp. 283-345). New York: Pergamon.

Locke, E. A., & Latham, G. P. (1990). A theory of goal setting and task performance. Englewood Cliffs, NJ: Prentice Hall.

Meece, J. L. (1991). The classroom context and students' motivational goals. In M. L. Maehr & P. R. Pintrich (Eds.), Advances in motivation and achievement (Vol. 7, pp. 261-285). Greenwich, CT: JAI Press.

Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. H. Schunk & J. L. Meece (Eds.), Student perceptions in the classroom (pp. 149-183). Hillsdale, NJ: Lawrence Erlbaum Associates.

Schunk, D. H. (1990). Goal setting and self-efficacy during self-regulated learning. Educational Psychologist, 25, 71-86.

Schunk, D. H. (1991). Goal setting and self-evaluation: A social cognitive perspective on self-regulation. In M. L. Maehr & P. R. Pintrich (Eds.), Advances in motivation and achievement (Vol. 7, pp. 85-113). Greenwich, CT: JAI Press.

Schunk, D. H. (1994). Self-regulation of self-efficacy and attributions in academic settings. In D. H. Schunk & B. J. Zimmerman (Eds.), Self-regulation of learning and performance: Issues and educational applications (pp. 75-99). Hillsdale, NJ: Lawrence Erlbaum Associates.

Schunk, D. H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. American Educational Research Journal, 33, 359-382.

Weinstein, C. E., Goetz, E. T., & Alexander, P. A. (Eds.) (1988). Learning and study strategies: Issues in assessment, instruction, and evaluation. San Diego: Academic Press.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. Journal of Educational Psychology, 81, 329-339.

Zimmerman, B. J. (1990). Self-regulating academic learning and achievement: The emergence of a social cognitive perspective. Educational Psychology Review, 2, 173-201.

Zimmerman, B. J. (1994). Dimensions of academic self-regulation: A conceptual framework for education. In D. H. Schunk & B. J. Zimmerman (Eds.), Self-regulation of learning and performance: Issues and educational applications (pp. 3-21). Hillsdale, NJ: Lawrence Erlbaum Associates.

Zimmerman, B. J., & Kitsantas, A. (1996). Self-regulated learning of a motoric skill: The role of goal setting and self-monitoring. Journal of Applied Sport Psychology, 8, 60-75.

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

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title:
Self-Evaluation and Self-Regulated Learning

Author(s): Dale H. Schunk

Corporate Source:

Publication Date:

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.

XX

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

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: Dale H Schunk	Printed Name/Position/Title: Dale H. Schunk, Professor	
Organization/Address: 1446 LAEB Room 5108 Purdue University West Lafayette, IN 47907-1446	Telephone: 317-494-9170	FAX: 317-496-1228
	E-Mail Address: soclng@vm.cc.purdue.edu	Date: November 18, 1996

(over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, *or*, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2d Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com