

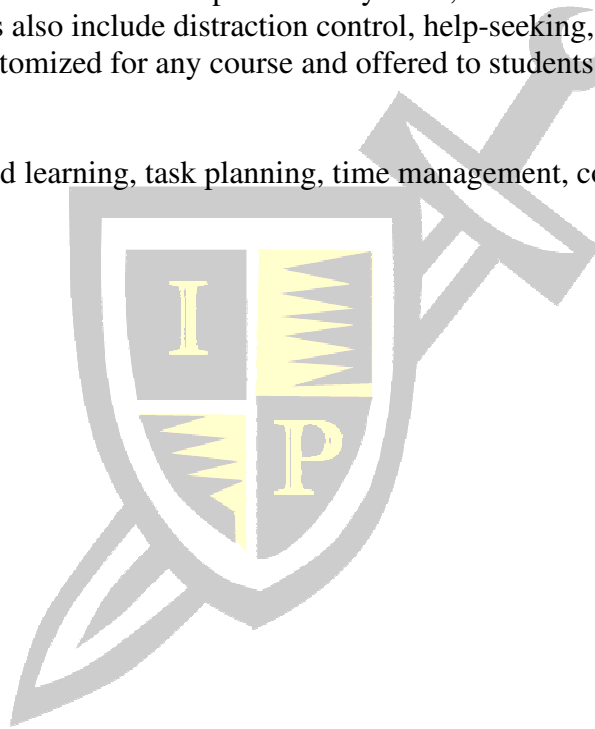
A course-embedded study task planning intervention activity for college students

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ABSTRACT

This paper provides a self-regulated learning intervention activity to help college students who are struggling with time management and study efforts. The activity is modeled on theory and empirical evidence related to the science of learning. The intervention activity is a weekly course completion plan designed for a specific course. Students are prompted to motivate their study efforts, plan and schedule course-specific study tasks, and work through strategies to complete tasks. Prompts also include distraction control, help-seeking, and metacognition. The weekly plan may be customized for any course and offered to students who need guidance in learning.

Keywords: self-regulated learning, task planning, time management, college student



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INTRODUCTION

Self-regulated learning (SRL) is the process of setting learning goals, planning how to achieve these goals, implementing the learning plan, monitoring learning efforts, evaluating efforts, and making appropriate adjustments. SRL is highly correlated with academic achievement in high school students (Dignath & Büttner, 2008). However, some students enter college with relatively less knowledge of how to regulate their learning (e.g., Dabbagh et al., 2019).

In the author's experience, some college students exhibit deficiencies with the first parts of the SRL process: setting learning goals and planning how to achieve those goals. Difficulty with goal setting and planning learning tasks is often coupled with time management issues. Anecdotally, students are challenged to carve out study time amid work and family demands, tend to procrastinate, or employ ineffective study strategies. Such students often end up in the lower part of the course grade distribution. These less-developed SRL skills are well-documented in the literature and are empirically associated with worse academic outcomes (e.g., Jansen et al., 2019). As observed by Beattie et al. (2018, p. 181), "students at the bottom of the grade distribution severely lack time management skills, are aware of these issues, but are lost when it comes to finding solutions."

This paper provides an evidence-based SRL intervention activity to help students who are struggling with time management and study efforts. The activity demonstrates how to break down, plan, schedule, and complete course activities over the week. Because the literature suggests that learning skills interventions are most effective when embedded in a course, (e.g., Hattie et al., 1996; Jansen et al., 2019), this activity is customized to a specific course, the introductory corporate finance course at the author's institution.

The intervention activity is inspired by the desire to help struggling students enrolled in the online section of the course. Struggling students have identified time management, procrastination, and ineffective study skills as their main barriers to success in the course.

The activity is a basic task/time management tool similar to task/time management apps, to-do lists, or other resources that are readily available to students. The problem is to help students effectively employ these tools for completing coursework. The activity in this paper shows students how to meaningfully break down and manage course tasks. In other words, the activity described in this paper is not a novel idea but is a novel application to a specific course. The main contribution is to provide an example of a time/task management tool that may be customized to any course and shared with students.

The paper continues with a discussion of the literature on the consequences of weak SRL skills for college students. Empirical evidence on the effectiveness of goal-setting, task planning, and time management interventions is also discussed. The intervention activity is described and discussed in the context of the literature. The paper concludes with a discussion of the intervention activity, student feedback from using the activity, and recommendations for implementing the activity in other courses.

Weak SRL Skills and Intervention Effectiveness

The relationship between SRL skills and academic achievement has been studied extensively for college students. Meta-analyses find a small positive correlation between SRL skills and college student achievement (e.g., Richardson et al., 2012; Broadbent & Poon, 2015;

Jansen et al., 2019). However, relatively weak SRL skills may contribute to unsatisfactory academic outcomes and retention issues for college students. For example, Beattie et al. (2018) find that students with the lowest academic performance are more likely to drop out after their freshman year or continue to underperform, are less patient regarding academic work, and are more likely to procrastinate.

Macan et al. (1990) suggest that time management involves distinct aspects that contribute to academic performance, including goal setting, planning, and scheduling task completion. Britton and Tesser (1991) find that short-range planning (identifying tasks, setting goals, scheduling time) and productive control of time (time attitude) are positively associated with a student's grade point average. For first-year students, Krumrei-Mancuso et al. (2013) suggest that academic self-efficacy (belief that the student can earn good grades) along with setting goals and keeping up with them (organization and attention to study) are the most highly predictive of student grades.

SRL interventions in higher education are shown to positively influence both SRL activity and academic achievement (e.g., Azevedo & Cromley, 2004). However, the effect of SRL interventions on academic achievement in higher education is overall smaller compared to studies involving primary and secondary education students (Jansen et al., 2019). The smaller impact of SRL interventions on academic achievement indicate that many college students already employ metacognitive learning strategies gained in primary and secondary education. For students who are struggling with SRL skills, Jansen et al. (2019) suggest that college students may benefit from interventions that support SRL activities such as how to set goals, plan for learning, or monitor learning efforts.

The evidence on the effectiveness of training college students in goal-setting, task planning, and time management is mixed. Häfner et al. (2014) provide small-sample evidence that time management intervention helps mitigate academic procrastination. Grunschel et al. (2018) find that college students who complete training in goal setting, task planning, time management, and distraction control significantly reduce procrastination. Gustavson and Miyake (2017) also train college students how to develop goals and control distractions but find that training does not influence procrastination. Baker et al. (2019) have had success with prompting students to schedule time to engage in online instructional content. The effects are greater for students with lower self-reported time management skills but diminished over time. However, the effects of the prompts lasted only while students received prompts.

In summary, time management interventions are largely successful in mitigating procrastination. The intervention in Grunschel et al. (2018) focuses on helping students break down complex academic tasks (e.g., writing papers) into subgoals, whereas the intervention in Gustavson and Miyake (2017) asks students to write SMART goals and implementation intentions, but students are not trained to articulate subgoals or strategies to achieve the larger goal. Together, these results imply that a task planning intervention combined with goal-setting and time management may be more effective in helping struggling students to achieve course-related goals. Although effective, the time management prompts in Baker et al. (2019) are a form of external motivation. Gustavson and Miyake find a weak positive relationship between external motivation and procrastination in targeted academic domains (such as writing papers) but a moderate inverse relationship between internal motivation and academic procrastination.

Theoretically, motivation to complete a task interacts with the SRL process (e.g., Winne & Hadwin, 2008). Pintrich (1999) outlines three features of motivation: self-efficacy (self-judgement of capabilities to perform an academic task), task value (beliefs about task

importance, why the task is important to perform), and goal orientation (intrinsic motivation such as mastery and learning, or extrinsic motivation such as grades). Empirically, intrinsic motivation is positively associated with depth of processing during tasks, performance on tests, and persistence (Vansteenkiste et al., 2004). Reeve et al. (2008) suggest that a meaningful level of autonomous motivation is more likely to prompt a student to effectively use learned SRL skills. The authors also suggest that SRL interventions may be more effective by facilitating autonomy as well as helping students improve skills.

The study task planning intervention activity presented herein incorporates training in goal-setting, task planning, and time management suggested by the SRL intervention studies discussed above. Following theoretical and empirical work on motivation, the activity also includes a prompt for the student to articulate both external and intrinsic motivation for completing study tasks. The activity is described next.

STUDY TASK PLANNING INTERVENTION ACTIVITY

Weekly Course Completion Plan

The intervention activity is a weekly course completion plan for use by students enrolled in an online section of an introductory finance course. The plan is provided in the Appendix.

The introductory finance course has well-defined subtasks that, if completed when offered, will aid the student in earning a passing course grade. Subtasks are based on the mode of course delivery along with course structure, content, and activities. The course is delivered online over a sixteen-week period during a Fall or Spring semester and an eight-week period during the Summer session. The course contains weekly modules covering one or two textbook chapters. Beginning in the second week, students complete a test every other week in the Fall or Spring semester and every week during the Summer session. In addition to a test, activities include working to meet weekly learning objectives that align with Bloom's taxonomy knowledge areas of Understand and Apply (Anderson & Krathwohl, 2001). Students are asked to study new learning content and complete related assignments. Assignments include completion of a learning guide, solving problems administered through an online homework manager (Connect), and a stock trading assignment. The learning guide asks students to answer a series of questions related to the weekly learning objectives (e.g., explain, paraphrase, compare, interpret, provide an example). For the online homework, students calculate solutions to financial problems related to the week's learning content. The trading project asks students to complete required trades that are related to the weekly learning content and prepare a brief summary report.

This weekly course completion plan is a resource provided to students by the instructor and is not part of the course grade. The author has worked with a small group of students enrolled in a Summer session of the course to gain feedback on the plan. Students committed to using the plan and their feedback is incorporated in the weekly plan presented in this paper.

The activity contains three sections. The first section is a brief orienting task in which the student lists graded items due for the week and their due dates. Listing graded items and their respective due dates serves as a form of external motivation for completing course work. The second section addresses intrinsic motivation for following through with the plan. Following Pintrich (1999) and others, the student is asked to write their reason for committing to their plan and also a personal mantra or slogan for powering through difficult moments. Examples are

provided to help students complete this section. Sample motivating statements include “I want to finish my degree” and “I want to pass this course.” Sample personal mantras include “I can do this” and “challenge accepted.”

The third section lists weekly subtasks (referred to as “tasks” for students), time commitments, and strategies for completing each subtask. The strategies contain both cognitive and metacognitive elements modeled on the work of Ertmer and Newby (1996) and Tanner (2012). Ertmer and Newby provide sample questions to illustrate the plan-monitor-evaluate metacognitive cycle. Each part of the cycle is subdivided into cognitive, motivational, and environmental components. Tanner builds on Ertmer and Newby and provides sample questions to promote metacognition for a variety of academic tasks, including completing assignments. Study-related strategies are based on the Study Cycle from Christ (1997) and McGuire and McGuire (2015). The student is encouraged to modify the subtasks, time commitments, and strategies to suit their workflow and needs. In essence, the plan spells out exactly what a student should do to complete the work in the online course for the week.

The weekly subtasks include organizing time to work on the course, studying for a test, reviewing new learning content, completing each assignment, ensuring that all assignments are submitted for grading, and reflecting on the student’s progress over the week. For each subtask, students are prompted to identify a time commitment and are provided a suggestion of the time needed for the subtask. Each subtask also contains a list of strategies to employ in fulfilling the subtask. Strategies are “how to” guidance for completing each subtask and nudges for avoiding procrastination, controlling distractions, metacognition, and seeking help.

The first subtask prompts students to organize time to work on the course during the week. The suggested time is at the beginning of the week, spending no more than 20 minutes. Strategies include checking the learning management system for announcements, reading the week overview and noting learning objectives, listing the number of lessons and assignments for the week in Part I (identify graded items and due dates), setting calendar reminders, blocking out time during the week to work on the course, and a prompt to control procrastination and distractions.

The second subtask is to study for the test if offered that week. The time commitment will vary by the student’s knowledge of the test topics and available time. The listed strategies prompt the student to note the learning objectives and topics covered on the test, quickly check comprehension of topics, and identify topics of which the student is least knowledgeable. The student is prompted to spend study time on learning objectives and topics that are least known. Study prompts follow evidence-based strategies in McGuire and McGuire (2015) that best fit the introductory finance course (make topic sheets, make a formula sheet, recall information, and rework problems without the aid of notes). Students are asked to work in small time blocks that fit with their schedules. Finally, the suggested strategies ask students to reflect on their work, make adjustments to stay on track, and to seek help if needed.

Studying new learning content for the week is the third subtask. The suggested time commitment is between 2.5 and 3 hours spread over the week depending on the student’s schedule. Subtask strategies follow the Study Cycle outlined in Christ (1997) and McGuire and McGuire (2015). Students are prompted to preview the new learning content, review the new learning content, make notes, and work actively by explaining concepts and working sample

problems. The final two prompts are to reflect on how the new learning content relates to the week's learning objectives and to review notes shortly after the session.

The next five subtasks are to complete specific assignments for the week. Each assignment is a subtask with a suggested time commitment and set of subtask completion strategies. The final assignment-related subtask prompts students to double check that all assignments are submitted to the learning management system by the end of the week.

The last subtask is a metacognitive activity based on Ertmer and Newby (1996) and Tanner (2012). Students are prompted to take 5-10 minutes at the end of the week to reflect on their work. The strategies are a series of questions for students to ask themselves regarding their level of interest in the topics studied during the week, how they feel about their progress, if they gave themselves enough time to complete coursework over the week, if they reached out for help if needed, what they would do differently if possible, and what they would change for the next week's work on the course.

DISCUSSION AND CONCLUSION

The task planning intervention activity discussed in this article is offered to students in an online section of an introductory finance course. The intervention activity is modeled on empirically-supported SRL models and companion, empirically-supported effective study strategies. The activity aims to help struggling students improve task completion and time management skills and ultimately succeed in the course. The weekly course completion plan is posted in the learning management system as a resource for all enrolled students. The plan is also offered to specific (struggling) students through direct outreach by the instructor.

Student feedback suggests that the weekly course completion plan is helpful. One formerly-struggling student who embraced the plan said that it was working so well that she modified the plan to use in other courses. Another student commented that the plan helped her to structure her study time and study techniques. Students with well-developed SRL skills concurred that the plan is consistent with strategies that they use in the course.

The activity presented in this paper is modeled on theory and empirical evidence related to the science of learning. Instructors who desire to help students build SRL skills to succeed in their courses may find this intervention activity to be a helpful template to customize for their courses. Subtasks such as organizing time to work on the course, studying for tests, reviewing learning content (equivalent to attending class), checking assignment submissions, and the metacognitive task are transferable to other courses after a few edits by the course instructor. The assignment-related subtasks would need to be articulated differently for other courses, but many subtask strategies apply to other types of assignments.

While most students enter college with well-developed SRL skills, the intervention activity in this paper targets students who would benefit from guidance in defining, planning, and implementing learning tasks. The aim is to help students succeed. Sometimes students need a little help with learning to self-regulate their learning.

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APPENDIX

Plan for Completing This Week’s Online Coursework

Part 1: Orient and focus by defining my tasks

Fill in the table below: List the items that I have to complete or turn in for points this week. Examples: take the weekly test, homework, trading project, discussion, etc. Also list due dates. Check off items that I have completed. Add more rows if needed.

Graded Item	Due Date	Completed

Part 2: Motivate myself

- 1. My motivation:** [Write my reason for committing to my plan and powering through difficult moments. Examples: I want to finish my degree, I want to know this subject, I want to pass this course, etc.]
- 2. My mantra or slogan:** [Write my own personal motivational slogan or saying to power through tough moments. Examples: “Just do it,” “I’m worth this,” “I can do this,” “I can do hard things,” “Challenge accepted,” etc.]

Part 3: Weekly Coursework Completion Plan

Follow the plan. Add my own time commitment (days of the week, time of day, etc.). Add tasks if needed.

Tasks	My Time Commitment	Strategy
Organize my time to work on the course	Monday-Tuesday 10 to 20 minutes	<ul style="list-style-type: none"> • Check Blackboard announcements. • Read the week overview. Orient myself to what I need to know and do this week. • Note learning objectives. I need to focus my study time on these. • List the number of lessons that I need to review and assignments that I need to complete. Note deadlines. • Set calendar reminders and alarms for test, trading project, class meetings. • Block out time during the week for working on the course. Plan to work in small time blocks, 20-40 minutes at a time if I don’t have a lot of free time during the week. • Promise myself that I will not wait until deadline days to start working on the course. • Think of how I will control for distractions during my time for working on the course.

Tasks	My Time Commitment	Strategy
		<ul style="list-style-type: none"> Periodically check Blackboard announcements for any updates.
Study for test	Monday, time commitment varies	<ul style="list-style-type: none"> Note learning objectives and topics for the test. Quickly check my comprehension of topics that I know well. Focus on topics that I don't know well. I need to spend the most time on these topics. Make topic sheets. Write definitions, concepts, and sample problems for the topic. Make a formula sheet. Try to recall information without looking at notes. Explain topics in my own words. Rework homework problems. Focus on understanding and applying. Set a small, topic-related, achievable goal for each study session (e.g., I will learn how to solve single cash flow problems). Work in small time blocks, 20-40 minutes at a time if I don't have a lot of free time during the week. If my study effort is not going well or I'm behind schedule, what can I adjust right now to keep myself on track? Ask for help if needed.
Review new learning content for the week	Monday through Sunday, 2.5 to 3 hours total	<ul style="list-style-type: none"> Download the Chapter Preview and preview the learning objectives and topics Download and read learning guide to know what I need to focus on in the lesson. Set a small, achievable goal for each study session (e.g., I will finish Lesson 1 in this study session). Work in small time blocks, 20-40 minutes at a time. Control distractions. Watch recorded lectures or review Blackboard lessons. Stop and make notes by hand when I see something related to the chapter preview or learning guide. Explain definitions or concepts to myself. Work sample problems if provided. Explain the problems to myself. Think of how the recorded lectures or Blackboard lessons are related to the learning objectives. Review my notes when I reach the end of my time block for this task.
Complete Learning Guide(s)	Tuesday through Sunday 30 minutes to 1 hour total	<ul style="list-style-type: none"> Work in small time blocks if I don't have a lot of free time during the week. Work on one or two items at a time. Use the learning guide as a self-test. Try to complete a question without looking at notes.

Tasks	My Time Commitment	Strategy
		<ul style="list-style-type: none"> • Check my notes or the learning content to verify my answer or if I get stuck. • Remember to submit it to Blackboard by the deadline.
Trading Project	Monday through Sunday, time varies	<ul style="list-style-type: none"> • Note the required trades for the week. Research stocks for the required trades. • Make required trades by Friday at 3:00 p.m. • Prepare my report. • Check that I've followed all assignment instructions.
Complete Connect homework	Tuesday through Sunday 30 minutes to 1 hour total	<ul style="list-style-type: none"> • Try to complete a few problems if I don't have a lot of free time during the week. • Use homework as a self-test. Work problems without looking at my notes or the learning content. • If I get stuck, look at examples of how to do the problem. Ask for help if I need it.
Complete all other assignments	Throughout the week, time commitment varies	<ul style="list-style-type: none"> • Periodically check my list of assignments due this week and follow through with them. • Break assignments into smaller tasks if needed. • If an assignment is not going well or I'm behind schedule, what can I adjust right now to keep myself on track?
Double check assignment submissions	End of the week, 10 to 20 minutes	<ul style="list-style-type: none"> • Make sure that all of my assignments are complete and submitted. • Make a plan for finishing any remaining work that needs to be completed by Sunday.
Reflect on my work for the week	End of the week, 5 to 10 minutes	<ul style="list-style-type: none"> • What was my level of interest in the topics that I studied this week? • How do I feel about my progress? • Did I give myself or have enough time to complete this week's work? • Did I reach out for help if I got stuck on something, needed some advice, encouragement, or relief from work or personal life pressures? • Would I do something differently if I could start over? • What would I change for next week's coursework strategy?