Student-led seminars as an active learning strategy to enhance English as a foreign language procrastinating students' achievement

Majid Al-Amri

Taibah University, Saudi Arabia

Abstract

Research has demonstrated that high percentages of undergraduate college students self-report they engage in academic procrastination which has significant adverse effects on academic progress with relative consistency. The present study was designed to help English as a foreign language (EFL) procrastinators study on a regular basis, and also to extend the learning of the high achievers. To do so, seventy English as a Foreign Language students in the study were classified by level of procrastination based on scores on the Procrastination Scale (Tuckman, 1991). Half of the students experienced the student-led seminars condition; the other half experienced the assignments condition. Although the student-led seminars condition produced significantly higher scores overall on a final achievement examination than the outline condition did, a significant interaction between condition and student procrastination level reflected an almost 14% advantage for the student-led seminars condition among high procrastinators. There was almost no difference between student-led seminars and assignments conditions for medium and low procrastinators. In addition, the qualitative data revealed high levels of satisfaction among students in the experimental group regarding the seminars and the instructor, as well as the perceived amount of new information learned.

لقد أثبتت الدراسات السابقة ارتفاع نسبة التسويف الأكاديمي لدى طلاب الجامعات و تأثيره السلبي على تحصيلهم الأكاديمي. لذلك تم تصميم هذه الدراسة لغرض مساعدة المسوفين أكاديمياً من طلاب اللغة الإنجليزية كلغة أجنبية وكذلك لتعزيز مستوى الطلاب ذوي التحصيل الأكاديمي المرتفع. واشتملت عينة البحث على سبعين طالباً من طلاب اللغة الإنجليزية كلغة أجنبية في المرحلة الجامعية. وتم تقسيم الطلاب بناء على مقياس التسويف (1991 (Tuckman, 1991) الى ثلاث مستويات: عالى، متوسط، ومنخفض ، وتم استخدام الحلقات الدراسية التي يقودها الطالب مع إحدى الشعب الدراسية (30 طالب)، وتم أستخدام الواجبات الدراسية مع طلاب الشعبة الأخرى. أظهرت الدراسة فاعلية الحلقات الدراسية التي يقودها الطالب على الأداء الأكاديمي لدى الطلاب في المجموعة التجريبية وخصوصاً لدى الطلاب ذو المستوى العالي من التسويف الأكاديمي (14%). كذلك أظهرت الدراسة رضا الطلاب عن الحلقات الدراسية وأستاذ المقرر وكذلك كمية المعرفة الجديدة التي تم اكتسابها.

Introduction

Many of the duties and tasks that individuals undertake are done voluntarily. They require individuals to actively control their own behavior through monitoring, directing, and regulating their actions toward effectively accomplishing goals (Tuckman & Schouwenburg, 2004). This *self-regulated* performance is particularly important in schools where students are progressively becoming independent of their parents and teachers in order to undertake a number of academic duties and assignments for the purpose of learning and development, reaching a high point during the college years (Day, Mensink, & O'Sullivan, 2000; Klassen, Krawchuk, & Rajani, 2008).

The failure to self-regulate performance has been labeled procrastination – the tendency to delay or completely avoid responsibilities, decisions, or tasks that need to be done (Tuckman, 1997). Procrastination may result from a combination of (a) lack of *self-efficacy*: disbelieving in one's own capacity to succeed, creating a fear of failure that may prevent students from attempting situations in which they would have the opportunity to perform a task (Bandura, 1986); (b) self-imposing perfectionist standards and excessively high standard-setting behavior (Burka & Yuen, 1983; Hamachek, 1978; Missildine, 1963); (c) being unable to postpone gratification or legitimate activities

that may take precedence over school work (Tuckman, 1997); and (d) assigning blame for one's own predicament to external sources rather than one's own efforts (Ellis & Knaus, 1977; Tuckman, 1997).

In education and training, the term 'academic procrastination' is commonly used to denote "intentionally delaying or deferring work that must be completed" (Schraw, Wadkins, & Olafson, 2007). It is the most researched procrastination domain (Howell, Watson, Powell, & Buro, 2006). Research has demonstrated that high percentages of undergraduate college students self-report that they engage in academic procrastination, which has significant adverse effects on academic progress with relative consistency. Tice and Baumeister (1997), for example, found that one-third of the variation in final exam scores could be linked to procrastination. Such findings have led researchers to be on the lookout for effective strategies that may help students to self-regulate their own learning to enhance the recall and understanding of information (Tuckman, 1990; Zimmerman, 1989; Howell, Watson, Powell, & Buro, 2006). In the present study, one such approach was implemented, using student-led seminars as an active learning strategy to help procrastinators study on a regular basis, and also to extend the learning of high achievers.

To do so, I compared two strategies for enhancing the recall and understanding of content knowledge. The student-led seminars focused exclusively on students acting as daily discussion leaders for assigned readings, while the traditional approach focused on readings and problems for students to work on outside of class.

Literature review

It is generally accepted in higher education that the more students participate and engage in higher levels of thinking and learning, the more they recall and understand content knowledge (Lo, 2011; McKeachie & Svinicki, 2012; McMullen, 2014). The traditional college teaching approach, however, has been

to assign students readings and problems to work on outside of class, while listening to lectures and taking tests in class with some minimal student participation occurring during class discussions. (McMullen, 2014, p. 62)

How then do faculty go about getting procrastinators to actively participate and to engage on a regular basis? Active learning requires instructors to downplay their authority and create a structured learning experience for students with more opportunities for learning. In such a supportive environment the focus of instruction shifts from what the instructors should teach or deliver to what the instructors want students to be able to do with course material. Therefore, it

involves providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues and concerns of an academic subject. (Meyers & Jones, 1993, p. 6)

From a faculty point of view, Barkley (2010) sees active students as those who are involved in the academic task at hand and are using higher-order thinking skills such as analyzing information or solving problems. (p. 5)

They must come to class prepared to use assigned readings and reviewed material from previous classes to build on it (Abowitz, 1990; Jones, 2008). When students recognize that their course involves active learning, they will also recognize that they must be active if they are to succeed in the course (Cavanagh, 2011).

A number of active learning strategies have been used in classrooms and described in the literature to create such a learning environment. One strategy is the student-led seminar, described by Finkel (1999) as

an open-ended seminar to which students bring their own questions (about some topic or reading), and in which, through conversation and inquiry, they address some of these questions. (p. 33)

Finkel (1999) argues that the students' roles in the process of learning must be emphasized in order to help them learn and become more independent, and that when students bring their own inquiries/questions to class, they take more responsibility and ownership of their learning. This process of learning empowers students and increases their personal sense of agency, which in turn increases their motivation for learning.

Research studies have found that student-led seminars as an active strategy have a greater impact on subsequent achievement than more traditional strategies. Casteel and Bridges (2007) used a student-led seminar approach for teaching small classes of advanced undergraduates. The teacher's main role during the student-led discussions was

to facilitate discussion on issues or questions not directly addressed in the reading assignment or to get a discussion back on track if it wandered too far off topic. (Casteel & Bridges, 2007, p. 108)

Student survey responses revealed high levels of satisfaction with the courses and the instructors, as well as with the perceived amount of new information learned. They found that the students favored the discussion component of the course; students also commented positively on the seminar format. Casteel and Bridge concluded that "based on the response to the surveys, students appeared to become invested in the course" (Casteel & Bridge, 2007, p. 109).

Worth (2013) also focused on the creation of weekly student-led groups to extend the learning of high achievers, and to engage college low achievers and those who initially chose the course as an 'easier' option. The researcher chose not to assess the student-led seminars, promoting instead an environment where students were responsible to each other for providing an interesting and stimulating discussion without the pressure of formal assessment. Worth (2013) argued that

the seminars have been a success, as they afford students control of the learning space in a way they have not experienced before [... Students were] freer to experiment and trial ideas without the pressure of formal assessment. (p. 31)

The researcher added that the seminars support the learning outcomes of the course, especially students' grasp of theory as they create an atmosphere of inquiry and collaboration. In such collaborative environments, students worked together to deal with complex questions, puzzles and develop inquiries from individual readings. They had more opportunities to experiment and trial ideas without the pressure of formal assessment and their instructor's role as an authority.

McMullen (2014) also used student-led seminars as an active learning strategy to increase student learning. She created an atmosphere of inquiry and collaboration where students were accountable to each other for providing an interesting and stimulating discussion. Her main role during the student-led discussions was to provide feedback on well-made points, to outline alternative arguments, and to invite the comments of quieter class members. She found that students started to participate regularly, and to synthesize and integrate what they had learned in previous classes in order to prepare for teaching. The researcher concluded that

this was clearly the semester in which students learned the most. The students wrote more indepth papers, discussed relevant issues at length and in-depth, and demonstrated a deeper understanding of the material. (p. 65).

Research Question and Hypothesis

The main purpose of the study is to help procrastinators study on a regular basis, and also to extend the learning of the high achievers. To achieve this purpose of the study, the following research question should be answered: Do the student-led seminars have positive effects on the procrastinators' academic achievement? Our hypothesis was that on the achievement test,

procrastinators involved in seminars will outperform procrastinators working with assignments, because the seminar condition will more likely help procrastinators study on a regular basis, take ownership of their learning, and actively participate in class on a regular basis, with positive effects on their achievement.

Methodology

Design of the study

The study was designed to "improve our understanding of a problem, with the intent of contributing to the solution of that problem" (Bickman & Rog, 2009, p. x). It was "grounded in systematic and scientific methodology and is highly pragmatic in nature" (Guest, Namey, & Mitchell, 2013, p. 2). In other words, the study conducted a controlled comparison to help procrastinators study on a regular basis, and also to extend the learning of the high achievers. A two-way factorial design was used. Seventy EFL students in the study were classified by level of procrastination based on scores on the Procrastination Scale (Tuckman, 1991). Half of the students experienced a student-led seminars condition; the other half experienced an assignments condition.

In addition, qualitative data was collected to understand the meaning students have constructed, that is, "how they make sense of their world and the experiences they have in the world" (Merriam, 2009, p. 13). During the last week of classes, an outside observer from the Department of Curriculum and Instruction was invited to hold an interview with the experimental group without the researcher being present, to evaluate their satisfaction with the seminar and with the instructor, as well as the perceived amount of new information learned. The interview was conducted in Arabic. The responses were later written into English after a careful process of translation and checking against back-translation.

Participants

Seventy college students, preparing to be EFL teachers, participated in this study. The average age of the students was 26. They were enrolled in two sections of English Language Teaching Methods required for the EFL teacher diploma. A comparison of the following factors between the two sections showed them to be equivalent: age, self-reports of scores on the combined general aptitude and educational achievement of the Scholastic Achievement Admission Test (SAAT), prior semester's GPA, and grade expectation. The Pearson correlation coefficient was used to measure the strength of a linear association between SAAT scores and achievement in this course; there was found to be a positive correlation (r = .54). Both sections met once a week, covered the same content (English Language Teaching Approaches and Methods), and used the same textbook. The same instructor taught both sections.

Procedures of the study

The design of the experiment took into account that integrating active learning strategies into teaching takes time to prepare (Meyers & Jones, 1993), and that students and faculty may have different perceptions of what constitutes adequate preparation for class (Fassinger, 2000; McMullen, 2014).

For the class in the assignment-based condition, each session began with a lecture, running for approximately one hour. The second half of the session (approximately 40 minutes) was assigned for assignment feedback discussions. The class was given the homework assignment of preparing an outline of the assigned chapter that was arranged hierarchically and that covered major ideas and topics with students' own explanations. This approach is constructed to be a cognitive strategy for extracting and constructing meaning from text and creating knowledge structures in long-term

memory (Weaver, 1994; Smith, 2004). The students turned in their outlines on a weekly basis, and were given written feedback comparable to that given following the student-led seminars.

In the student-led seminar condition, students were directed to prepare for student-led seminars by:

- Reading the chapter/assigned readings and take notes,
- o Reviewing the supplementary materials about the chapter posted online,
- O Developing three questions that go beyond recall and bringing them to class:
 - Comprehension (e.g. Retelling)
 - Application (e.g., How is ... related to ...?)
 - Analysis (e.g. How would you compare/contrast ...?)
 - Synthesis (e.g. What do you predict/infer about...?)
 - Evaluation (e.g. What are your points of agreement/ disagreement and why?)
- Writing a 2-3-page summary of the chapter/assigned readings, exchanging them on the website, and preparing a 1-paragraph summary of the other person's 2-3-page summary to bring to class.
- o Taking a ten-question multiple-choice quiz online prior to coming to class.
- o Reading the format of the class online.
- o Reading about how to lead discussions.
- Bringing their textbooks and all handouts to class.

In this condition, each one-hour-forty minute session began with a lecture, running for approximately forty minutes; the second half of the session was led by students. Prior to the first student-led seminar, students were told that they were responsible for running the class and that the instructor would be observing but not participating in the discussion. Students worked in small groups of approximately five to discuss their questions on a weekly basis (10 minutes). One group was then randomly chosen to lead discussions for their classmates (20 minutes). Students were directed to take notes during presentations and encouraged to ask *why* and *how* questions. The presenters then sought oral feedback from other groups (20 minutes). While it is not possible to show the full range of questions developed by individual groups, examples of the types of questions developed by the participants include:

- o How does Communicative Language Teaching [CLT] differ from other teaching approaches?
- What is the position regarding the teaching of pronunciation in CLT?
- o How possible is it to implement the grammar-translation method in our classroom today?
- o Is the comprehension-based approach compatible with the Natural Approach?
- o Is there any relationship between syllabus and curriculum design?
- O How can we make a connection between the terms World Englishes and EFL in Saudi Arabia?
- o What has been the role of the native language and the target language in designer methods?
- O How can we articulate guiding principles for EFL curriculum planning?

Summative assessments were not used to assess the student-led discussion groups. Instead, 10 minutes' feedback was provided to each group at the end of the session. In addition, notes were taken about particular points (e.g., supporting an argument with more examples or teaching experiences, showing more differences or similarities between two teaching approaches, giving a clear conclusion for a discussion, etc.) and posted anonymously on the course website following class. In the first meeting, confidentiality and legal status of narratives, anonymity, and research use of the data were discussed with students.

Data collection and analysis

At the beginning of the course, all students completed Tuckman's (1991) 16-item Procrastination Scale (see Appendix) Scores can range from 16 to 64, with higher scores indicating a greater tendency to procrastinate. Actual scores varied from 30-64 with a mean of 42.5 (sd=9.22). Students were classified into high (50-64), medium (38-49), and low (30-37) procrastinators on the basis of a tertile split. Items on the scale include "I delay making tough decisions"; "I keep putting off improving my work habits"; "I manage to find an excuse for not doing something." There were four negatively-stated items (7, 12, 14, and 16): "I put the necessary time into even boring tasks, like studying"; "Whenever I make a plan of action, I follow it"; "I always finish important jobs with time to spare"; and "Putting something off until tomorrow is not the way I do it." Reverse codings were used for those items before summating the scores. According to Nunnally (1978), Cronbach's alpha should ideally be over 0.70. Tuckman (1991) reported that the scale had Cronbach's alphas of .86 (n = 50) and .90 (n = 183). In the present study, a Cronbach alpha reliability coefficient of 89 was obtained. Tuckman (1991) also found a correlation of -.54 between scores on the scale and performance on a voluntary task (writing weekly test items) that reflected the motivational tendency to self-regulate. He reported that scores on the 16-item scale were negatively related to scores on the General Self-Efficacy Scale (-.47).

The final achievement test contained 60 multiple-choice items, most of which measured conceptual, rather than factual, knowledge. The general content domain of the test corresponded equally to the content domain of the seminars and the outlines. The reliability of the test (Kuder-Richardson) was .74. The students were also required to keep a log of time spent either preparing for the seminars or completing outlines and to turn the log in on a weekly basis.

Results and discussion

Factorial analysis of variance (ANOVA) is used to address research questions that focus on the difference in the means of one dependent variable when there are two or more independent variables (Hinkle, Wiersma, & Jurs, 2003). Therefore, in this study the factorial ANOVA was conducted on students' final achievement test scores, with the condition (student-led seminars vs. assignments) and procrastination score (high, medium, low) as the independent variables. The results of the ANOVA are shown in Table 1, and the means and standard deviations are shown in Table 2. The main effect for condition was significant at .01 level with the seminars students outperforming the assignments students on the achievement test (76.4% to 70.57%). The main effect of procrastination was not significant. The interaction of condition and procrastination level was significant at the .05 level. A comparison of means using the least significant difference approach revealed that although low and medium procrastinators differed only slightly on achievement between the two conditions (74.3% to 71.7% in favor of student-led seminars for lows; 74.6% to 73.8% in favor of student-led seminars for mediums), high procrastinators differed significantly in achievement between the two conditions, t(28)=3.51, p<.01 (80.3% to 66.2% in favor of student-led seminars). In other words, high procrastinators who joined student-led seminars on each assigned chapter obtained significantly higher achievement test scores on the final exam than high procrastinators who submitted assignments. No such advantage based on student-led seminars was found for low procrastinators.

Time-log scores for class preparation by the participants in the two conditions showed no significant differences: the students in both conditions reported an average of approximately two and a half hours of preparation time per week. The relative independence of procrastination, by itself, and achievement was reflected in a correlation of -.05.

Table 1: ANOVA of achievement test score, by condition and procrastination level.

Source	df	SS	MS	F
Condition	1	533.11	533.11	6.02**
Procrastination level	2	62.26	32.61	0.71
Interaction	2	542.61	273.19	3.13*
Error	74	6,633.42	86.16	

^{*}p< .05.**p < .01.

Table 2: Mean achievement test scores and standard deviations for the two treatment groups, by procrastination level.

Procrastination Level							
Treatment Group	Low	Middle	High	Combined			
Student-Led Seminar							
M	74.3	74.6	80.3*	76.4*			
SD	7.9	8.1	9.5	8.5			
Assignment							
M	71.7	73.8	66.2*	70.57*			
SD	8.1	9.6	7.6	8.4			
Combined							
M	73.3	74.8	71.2				
SD	7.8	8.1	10.2				

^{*} Significantly different from mean for other treatment (p < .01).

These findings support previous research that students learn more when they engage with material and receive feedback, and continually refine their understanding and build new knowledge than when they receive traditional instruction alone (Meyers & Jones, 1993; Barkley, 2010; Cavanagh, 2011). In other words, student-led seminars helped students to regularly synthesize and integrate what they had learned in previous classes in order to prepare for teaching. They regularly wrote more in-depth papers, discussed relevant issues at length and in-depth, and demonstrated a deeper understanding of the material (McMullen, 2014). Also, when students bring their own inquiries/questions to class on a regular basis, they take more responsibility and ownership of their learning. This process of learning empowers students and increases their personal sense of agency, which in turn increases their motivation for learning (Finkel, 1999). In such learning environments, students had more opportunities to work together to deal with complex questions, puzzles and develop inquiries from individual readings. They also had more opportunities to experiment and trial ideas without the pressure of formal assessment and their instructor's role as an authority.

As mentioned earlier, during the last week of class an outside observer from the Department of Curriculum and Instruction taped students in the experimental group responding to a series of questions without the instructor present. When asked to describe a student-led seminar, one student said:

We read assigned chapters at home. We also read supplementary materials to help us understand more about the topics in the chapters. Then we develop our own questions and bring them to class for discussion.

Another student added:

Before coming to class, we also have to exchange our writings online. It's like an exchange of different ideas and opinions. Such an activity helps us to prepare our presentation and do online quizzes before coming to class and lead our discussions.

When asked to describe the role of the instructor, a student indicated:

He sometimes helped us when we needed clarifications or more examples to support our discussions. Also, he usually helped when we couldn't make some connections between a chapter and supplementary materials posted online.

Another commented, "He was like a guide to remind us of what important ideas have been left out."

When asked how well they felt the student-led seminars helped them to study on a regular basis, two students commented:

Student A: At the beginning I felt it was like so difficult to follow the structures and achieve the job very well at the same time. But then I started to see myself acting like a student who was able to cover the contents of the assigned readings and follow guidelines from the course instructor.

Student B: I agree, following the structure of the seminars was new experience to us, but then we realized that it helped us a lot to study regularly and not to spend much time to prepare for the final exam. We're able to cover one chapter every week, which was the pace.

Another commented:

The seminars helped me read and search carefully. I did my best to be always ready for classes. I had to think the way I presented and discussed in class. I did not like to be someone not prepared in front of others. I did not like to see myself in an embarrassing situation.

When asked how well they felt they learned the material as a result of the student-led seminars, one student commented:

The seminars motivated me to compare my understanding of the topic and how it changed when I came here to the university. Deep down I realized the importance of what I was doing and I put forth the effort.

Another student stated:

The seminars encouraged me to understand how to deal with my inquiry and work on it. I got inspired when I saw students took part and participate in class and try to invite each other to discussions. That really encouraged me to share my ideas and experiences and find answers for my inquiries and questions.

Another said:

First I felt like it was not my responsibility as a student to go far away from memorizing what's there in the chapter to find out information in other materials. But then I started to realize that I had to do something different from what I used to do, which was usually supported by the course instructor. I started to participate in groups, do a lot of presentations in front of students, and interact with other students a lot.

Students' responses in the interview revealed their satisfaction with the seminars and with the instructor, as well as the perceived amount of new information learned. We found that the students favored the discussion component of the course. Students also commented positively on the seminar format. Based on these responses, the seminars seem potentially applicable to teaching any advanced undergraduate topic, appeals to students, and emphasizes their active role. These findings are in alignment with what has been reported in the literature (Casteel & Bridges, 2007; Worth, 2013; McMullen, 2014).

Conclusion

In the present study, students who participated in student-led seminars outperformed to some extent the students who completed chapter outlines on the achievement test. The difference between the conditions was very clearly in the performance of procrastinators, who benefited most from the student-led seminars. In addition, the study revealed high levels of satisfaction among the students with the seminars and with the instructor, as well as the perceived amount of new

information learned. These findings support previous research that students learn more when they receive feedback, continually refine their understanding and build new knowledge than when they receive traditional instruction alone (Meyers & Jones, 1993; Barkley, 2010; Cavanagh, 2011). Also, the findings of the study align with findings from previous studies that demonstrated high levels of satisfaction among students in the experimental group for the seminars and with the instructor, as well as the perceived amount of new information learned (Casteel & Bridges, 2007; Worth, 2013; McMullen, 2014).

Student-led seminars, as an instructional intervention, led procrastinators to study continually over an entire course. They began to study on a daily or weekly basis, rather than perhaps postponing studying until the middle or end of the course. Moreover, completing assignments did not have the same impact on procrastinators as weekly student-led seminars did, despite students' reports that they spent an equivalent amount of time completing assignments as preparing for student-led seminars.

Regular student-led seminars around assigned material appear to be a helpful stimulus for causing timely studying by procrastinators. Procrastinators may have difficulty acquiring new knowledge if steps are not taken to create an appropriate learning environment. Frequent student-led seminars may be thought of as a motivational 'equalizer'. Additional research should be undertaken to examine the long-term effects of this approach, especially in regard to transfer.

To the best of the researcher's knowledge, there is no prior study that used student-led seminars as an active learning strategy to help EFL procrastinators study on a regular basis, and also to extend the learning of the high achievers. Therefore, this research will contribute to the body of the literature concerning procrastination among EFL college students in Saudi Arabia and other countries. However, although the present study would point researchers toward useful procedures that can be applied in the future research and practice, there are several limitations to the study. One limitation here is that this study was conducted with a limited number of Saudi male undergraduate EFL students in a particular academic course. Results might vary according to the number, setting, gender, language proficiency level, educational or cultural backgrounds of participants. Another limitation is that even though students were asked to not discuss the seminars amongst their peers, this behavior was never verified. It can be assumed that any such discussion could benefit the control group's assessments. Finally, the present study used only a qualitative research method to evaluate students' satisfaction in the experimental group; future research may implement both qualitative and quantitative methods to evaluate satisfaction among high, medium and low procrastinators.

Acknowledgement

I would like to thank the journal editor and anonymous reviewers for their insightful comments and feedback. Any remaining errors or omissions are my own.

References

Abowitz, D. A. (1990). Teaching demography to undergraduates: a pedagogical dilemma. *Teaching Sociology*, *18* (1): 63-8. http://dx.doi.org/10.2307/1318233

Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall. http://dx.doi.org/10.4135/9781446221129.n6

Barkley, E. F. (2010). *Student engagement techniques: a handbook for college faculty*. San Francisco, CA: Jossey-Bass.

Bickman, L., & Rog, D. (2009). *Handbook of applied social research methods*. Thousand Oaks, CA: Sage. http://dx.doi.org/10.4135/9781483348858

Burka, J. B., & Yuen, L. M. (1983). *Procrastination: why you do it, what to do about it.* Cambridge, MA: Da Capo Press.

Casteel, M., & Bridges, K. (2007). Goodbye lecture: a student-led seminar approach for teaching upper division courses. *Teaching of Psychology, 34*(2): 107-110. http://dx.doi.org/10.1080/00986280701293123

Cavanagh, M. (2011). Students' experiences of active engagement through cooperative learning activities in lectures. *Active Learning in Higher Education*, *12*(1): 23-33. https://doi.org/10.1177/1469787410387724

Day, V., Mensink, D., & O'Sullivan, M. (2000). Patterns of academic procrastination. *Journal of College Reading and Learning*, 30, 120-134. http://dx.doi.org/10.1080/10790195.2000.10850090

Ellis, A., & Knaus, W. J. (1977). Overcoming procrastination. New York: Institute for Rational Living.

Fassinger, P. A. (2000). How classes influence students' participation in college classrooms. *Journal of Classroom Interaction*, *35*, 38-47.

Finkel, D. L. (1999). Teaching with your mouth shut. Portsmouth, NH: Heinemann.

Guest, G., Namey, E., & Mitchell, M. (2013). *Collecting qualitative data: a field manual for applied research*. Los Angeles: Sage Publications.

Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology*, *15*, 27-33.

Hinkle, D. E., Wiersma, W., & Jurs. S. G. (2003). *Applied Statistics for the Behavioral Sciences*. Boston, MA: Houghton Mifflin.

Howell, A. J., Watson, D. C., Powell, R. A., & Buro, K. (2006). *Academic procrastination: the pattern and correlates of behavioural postponement. Personality and Individual Differences, 40,* 1519-1530. http://dx.doi.org/10.1016/j.paid.2005.11.023

Jones, R. C. (2008). The 'why' of class participation: a question worth asking. *College Teaching, 56* (1): 59-62.

Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic procrastination of undergraduates: low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary Educational Psychology*, 33(4), 915-931. http://dx.doi.org/10.1016/j.cedpsych.2007.07.001

Lo, C. C. (2011). Student learning and student satisfaction in an interactive classroom. *The Journal of General Education*, *59* (4): 238-63.

McKeachie, W. & M. D. Svinicki. (2012). *McKeachie's teaching tips: strategies, research, and theory for college and university teachers*. Boston: Houghton Mifflin.

McMullen, V. (2014). Using student-led seminars and conceptual workshops to increase student participation. *College Teaching*, 62(2): 62-67. http://dx.doi.org/10.1080/87567555.2014.885876

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Meyers, C., & Jones, T. B. (1993). *Promoting active learning: strategies for the college classroom.* San Francisco: Jossey-Bass.

Missildine, W. H. (1963). Your inner child of the past. New York: Simon & Schuster.

Al-Amri, M. (2018). Student-led seminars as an active learning strategy to enhance English as a foreign language procrastinating students' achievement. *Learning and Teaching in Higher Education: Gulf Perspectives, 15*(1). https://doi.org/10.18538/lthe.v15.n1.302

Nunnally, J. C. (1978). Psychometric theory. New York, NY: McGraw-Hill.

Schraw, G., Wadkins, T., & Olafson, L. (2007). Doing the things we do: a grounded theory of academic procrastination. *Journal of Educational Psychology*, *99*(1), 12-25. http://dx.doi.org/10.1037/0022-0663.99.1.12

Smith, F. (2004). Understanding reading. Mahwah, New Jersey: Lawrence Erlbaum.

Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: the costs and benefits of dawdling. *Psychological Science*, *8*(6), 454-458. http://dx.doi.org/10.1111/j.1467-9280.1997.tb00460.x

Tuckman, B. W. (1990). Group versus goal-setting effects on the self-regulated performance of students differing in self-efficacy. *Journal of Experimental Education*, *58*, 291-298. http://dx.doi.org/10.1080/00220973.1990.10806543

Tuckman, B. W. (1991). The development and concurrent validity of the Procrastination Scale. *Educational and Psychological Measurement*, *51*, 473-480. http://dx.doi.org/10.1177/0013164491512022

Tuckman, B. W. (1997). Using tests as an incentive to motivate procrastinators to study. *Journal of Experimental Education*, 66, 141-147. http://dx.doi.org/10.1080/00220979809601400

Tuckman, B., & Schouwenburg, H. C. (2004). Behavioral Interventions for Reducing Procrastination among University Students. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counselling the Procrastinator in Academic Settings* (pp. 91-103). Washington DC: American Psychological Association. http://dx.doi.org/10.1037/10808-007

Weaver, C. (1994). *Reading process and practice: from socio-psycholinguistics to whole language*. Portsmouth, NH: Heinemann.

Worth, N. (2013). Experimenting with student-led seminars, *Planet*, *27*(2), 30-35. http://dx.doi.org/10.11120/plan.2013.00003

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *80*, 329-339. http://dx.doi.org/10.1037/0022-0663.81.3.329

Appendix

Tuckman's (1991) Procrastination Scale

This scale has been prepared so that you can indicate how much each statement listed below describes you. Please write the following letter(s) on the left of each statement indicating how much each statement describes you. Please be as frank and honest as possible.

SA (strongly agree), A (agree), D (disagree), or SD (strongly disagree)

1. I needlessly delay finishing jobs, even when they're important.	
2. I postpone starting in on things I don't like to do.	
3. When I have a deadline, I wait until the last minute.	
4. I delay making tough decisions.	
5. I keep putting off improving my work habits.	
6. I manage to find an excuse for not doing something.	
7. I put the necessary time into even boring tasks, like studying.	
8. I am an incurable time waster.	
9. I'm a time waster now but I can't seem to do anything about it.	
10. When something's too tough to tackle, I believe in postponing it.	
11. I promise myself I'll do something and then drag my feet.	
12. Whenever I make a plan of action, I follow it.	
13. Even though I hate myself if I don't get started, it doesn't get me going.	
14. I always finish important jobs with time to spare.	
15. I get stuck in neutral even though I know how important it is to get started.	
16. Putting something off until tomorrow is not the way I do it.	