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Locus of Control and Interest on Procrastination

Does Locus of Control and Task Interest Have an Effect on Procrastination?

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This study aimed to explore the effect of locus of and task interest on an individual's procrastination behavior. Forty undergraduate university students were asked to complete a Rotter's Locus of Control Scale, a subject interest rating sheet, and a sheet containing a hypothetical situation about a university assignment and assignment start date. Participants were randomly assigned into either a high interest group or a low interest group and were sorted into locus of control groups based on the results of Rotter's Locus of Control Scale. Upon analysis no significant main effects were found.

Procrastination is a common occurrence in university settings. University students can often be found delaying assignments until the last minute. Solomon and Rothblum (1984) reported that 46% of their participants always or almost always procrastinated completing term papers. Another study by Ellis and Knaus (1977) reported that approximately 95% of college students procrastinate. Either way a large percentage of post secondary students are engaging in procrastination behaviors. Due to the commonality of this bad habit, procrastination has been an area of increasing interest to many researchers. Solomon and Rothblum (1984) created the Procrastination Assessment Scale - Students (PASS) in an attempt to measure procrastination behavior. The PASS was a self-report assessment tool that looked at different areas students commonly procrastinate in, such as term papers, tests and readings. The PASS also looks at the degree to which procrastination is a problem as well as reasons why procrastination behavior occurs. The PASS has become a common method for measuring procrastination behavior and has been used in many studies. Schouwenburg
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(1992) was curious why individuals procrastinate in the first place. Some common reasons he found attributing to procrastination behavior were; fear of failure, feeling overwhelmed, trouble choosing topics to study, waiting for more information to be given in class, waiting for classmates to begin so you can ask them questions, not having enough energy, other assignments demanding the students attention, and, liking the challenge and excitement of waiting until the last possible minute. Not only are there external factors, such those mentioned previously, contributing to procrastination behavior, but other internal factors such as personality traits also have been found to be related to procrastination behavior. A personality trait that is commonly studied in relation to procrastination is locus of control. Locus of control can be divided into internal locus of control and external locus of control. External locus of control is when one attributes events that occur to them as due to external factors such as luck, chance or the powers of a higher being (Rotter, 1966). An example of an individual with an external locus of control would be a person who fails a test and blames it on bad luck. Internal locus of control is when one attributes the outcome of an event to be due to their own behavior (Rotter, 1966). An example of an individual with an internal locus of control would be a person who fails a test and claims it was because they failed to study for it. A study carried out by Brownlow and Reasinger (2000) measured procrastination behavior in undergrad students using the PASS. The Work Preference Inventory was used to measure students’ internal and external motivation towards schoolwork. This study used a shorter version of Rotter’s Locus of Control Scale to measure locus of control. It was found that those that received high scores for academic procrastination were found to be less intrinsically motivated than those who received low scores for academic procrastination. Brownlow and Reasinger (2000) found that those who scored
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low on procrastination behavior were more satisfied doing school tasks than those who procrastinated a lot. A study by Beck, Koons, and Milgrim (2000) showed that those who procrastinated tended to do significantly worse on exams than those who did not. They had university students complete the PASS in order to measure procrastination behavior. They then had participants fill out the Self-Handicapping Scale and the Self-Consciousness Scale. It was found that those who scored high on the Self-Handicapping Scale also tended to score high for procrastination. Those who scored high for academic procrastination were found to study significantly less than those who scored low for academic procrastination. Those who were found to be self-handicappers as well as procrastinate more, unsurprisingly, also tended to do worse on exams than those who scored low in procrastination.

A study done by Janssen and Carton (1999) not only looked at locus of control and procrastination like some of the previous studies mentioned, but they also looked at task difficulty. They predicted that those with an external locus of control will procrastinate more than those with an internal locus of control. They also predicted that students completing the difficult task will procrastinate more than those completing the easy task. Janssen and Carton’s (1999) third prediction was that there would be an interaction effect and that those who received the difficult task and had an external locus of control would procrastinate the most. One major difference separating this study from previous studies is that procrastination was measured using actual task start and completion times and not theoretical scenarios as used in the PASS. The Academic Locus of Control Scale (ALC) was used to measure locus of control. The ALC is thought to be correlated not only with Rotter’s Locus of Control Scale, but also with things that are important in an academic setting such as academic achievement, and
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homework completion. Janssen and Carton (1999) tested university undergraduate students by first having them complete the ALC scale. The participants were enrolled in a psychology course. Participants were assigned an article to read and questions to answer. Task difficulty was manipulated by the difficulty of the reading assigned. One group of participants was given an easy article to read while the other was given a hard article to read pertaining to the same topic. Participants were instructed to record when they started, completed and handed in the assignment. It was through these measures that procrastination was determined. This is a more accurate way of measuring procrastination behavior than is the PASS, as it is harder for participants to simply answer the way they believe that they will be seen as most desirable. It was found that students with an internal locus of control began the assignment significantly earlier than those with an external locus of control. There was no significant effect of task difficulty on procrastination found. There was also no significant interaction effect found.

The present study is based off of the study done by Janssen and Carton (1999). One major difference between the present study and the one done by Janssen and Carton (1999) is that the present study uses task interest rather than task difficulty. It was found that task difficulty has too many unwanted confounds such as length of task, rendering it too complicated to properly control. It is predicted that:

Hypothesis 1: individuals with an internal locus of control and high task interest will begin the assignment significantly sooner than those with external locus of control.

Hypothesis 2: Participants assigned the assignment of high interest will begin sooner than participants assigned the low interest task.
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Hypothesis 3: There will be an interaction effect in which those in the low interest condition with internal locus of control will not significantly differ in assignment start time compared to those with an external locus of control.

Method

Participants

Forty participants were recruited from Huron University College at The University Of Western Ontario. One participant was excluded from data analysis due to ambiguity in the way they completed the question booklet. The majority of the participants were recruited from the Student Activity Center at Huron University College. Huron University College is a small university that specializes in liberal arts education located at the University of Western Ontario. The remainder of the participants were friends and classmates of the researcher. No specific demographic information was taken from the participants. It is hypothesized that participants were likely between the ages of 18 and 24 due to the sample being obtained from a university setting. Both males and females participated in this study. All participants spoke fluent English.

Materials

Materials used in this study consisted of a letter of information, a consent form, a test booklet, and a debriefing form. A writing implement was also provided. The letter of information was two pages long and informed participants about the study as well as their rights as a participant including their right to confidentiality and their right to quit at any time. Contact information of the researcher and her adviser were also provided in the letter of information. A standard consent form was attached to the letter of information. The test booklet was five pages long and was composed of Rotter’s Locus
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of Control Scale, a topic interest rating sheet, and a sheet that described a hypothetical situation. The locus of control scale consisted of 29 dichotomous items taken from Rotter's Locus of Control Scale. Following the locus of control scale was a rating sheet (Appendix A). The rating sheet included instructions for the participant and a list of five items. The items on the rating sheet were human memory, the world economy, Canadian history, fictional literature, and world religions. The final page of the test booklet gave participants a hypothetical situation. The hypothetical situation informed participants that they had four weeks to complete a 10-page essay. The essay was dependent on the condition of the participant. In one condition the essay was on the topic of most interest to the participant, and in the other condition the essay was on the topic of least interest to the participant (Appendices B and C). Below the hypothetical situation was a list of dates from the current date to four weeks after the current date. The debriefing form was composed of a brief description of what was being studied. A reference for the background rational for the study was also provided on the debriefing form. Finally the debriefing form contained contact information of the researcher.

Procedure

The participants were approached at the convenience of the researcher and asked if they would be willing to participate in the study. The participants were not given any form of compensation for their participation in the study. Individuals who were willing to participate in the study were given a letter of information along with a consent form. Participants were instructed to read the letter of information and then to sign the consent form and hand it back to the researcher if they were willing to participate in the study. Once the consent form was returned participants were handed a question booklet. Participants were instructed to circle the answer to the question that best applied to them,
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and then to follow the instructions as stated in the booklet. Participants completed the 29 items on Rotter’s Scale of Locus of Control. Once participants completed the locus of control scale they found a rating page where they were asked to rate the items from one to five with one indicating that the topic was of most interest to them and five indicating that the topic was of least interest to them. Once completed the participants flipped the page and found a hypothetical situation. The participants were asked to imagine themselves in a situation in which they were just assigned a 10-page paper due in four weeks. The participants were randomly assigned to one of two conditions. In one of the two conditions the hypothetical situation informed participants that they would be writing a 10-page paper on the topic that they had previously indicated was of most interest to them. The other situation had participants write a 10-page essay on the topic that they had previously indicated was of least interest to them. Participants were presented with a list of dates from the current date to a date exactly four weeks (29 days) away. Participants were instructed to think back to times in which they had previously found themselves in similar situations and approximate the best they could the date on which they would be most likely to begin the assignment. Participants then returned the test booklet to the researcher, were thanked for their participation in the study and given a debriefing form.

Results

All hypotheses were proven to be null hypotheses. No significant data of any kind was found. A graph of the means can be found in Figure 1. A summary table of the data are provided in Appendix D. Completed Rotter’s Locus of Control Scales were scored by the experimenter according to the guidelines provided with the test. Each participant’s locus of control test was scored and the score was recorded. The scores
Figure 1. Means of locus of control and interest as a function of procrastination in days.
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were then organized from highest to lowest and a median split was performed grouping
any score 11 and above in the high external locus of control group and any score 10 or
below in the low external locus of control group. A 2 x 2 between-subjects ANOVA was
conducted with the start date of the assignment in days being the dependent variable.
Locus of control (high external/low external) and interest (high/low) were the predictor
variables. No significant main effect was found for locus of control $F(1,35) = 2.00$
partial $\eta^2 = 0.05$ or for interest $F(1,35) = 1.19$ partial $\eta^2 = 0.03$. No significant interaction
effect between locus of control and interest was found $F(1,35) = 0.39$ partial $\eta^2 = 0.01$.

Discussion

No significant main effects were found. All hypotheses were proven to be wrong.
Janssen and Carton (1999) found a significant main effect between locus of control and
procrastination behavior, but the present study is unable to support that finding. All
values found were far from significant. It is truly surprising that no significant effect was
found for locus of control and procrastination behavior because many studies have found
a significant correlation between the two (Brownlow & Reasinger 2000, Janssen &
Carton 1999). It is not all that surprising that hypothesis two and three were insignificant
as the study conducted by Janssen and Carton (1999) had similar findings. One possible
reason that Janssen and Carton (1999) found a significant main effect for procrastination
and locus of control is that they used a real university classroom assignment to measure
procrastination, while the present study used a hypothetical situation to determine
procrastination behavior. It would have been much better to use a real assignment rather
than a hypothetical situation to determine procrastination behavior, but due to the
powerless position the present researcher was in, this was not possible. In the
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hypothesitical situation it is far too easy for participants to claim that they will begin the assignment, before they actually would. Participants could be doing this knowingly, in order to make themselves look better, or unknowingly, because unexpected situations sometimes arise that prevent one from beginning an assignment when they intended. The assignment given to participants in Janssen and Carton (1999) was a much better way to measure procrastination behavior due to participants receiving a realistic assignment. Procrastination was not just measured by start date but by completion date, and date handed in as well. This allows for a true measure of procrastination, because, although participants could make up the start date and finish date, in order to present themselves in a better light, they were unable to make up the date they handed the assignment in, as it was also recorded by the researcher. Another major difference between the present study and the one by Janssen and Carton (1999) is that the present study used Rotter’s Locus of Control Scale to measure locus of control while Janssen and Carton (1999) used the ALC to measure locus of control. Although both tests measure locus of control, the ALC is most likely a more accurate measure of locus of control for academic settings. Feedback from participants suggests that Rotter’s Locus of Control Scale may not have been the best choice. Many participants commented that the questions were hard to understand. Participants also commented that they found the dichotomous nature of the test frustrating as they felt they could not identify with either of the choices given for certain items on the scale.

One major limitation of this study is that the sample of participants obtained was a convenience sample and not a random sample. Many of the participants were friends of the researcher. This could be greatly limiting the sample to individuals with certain common personality traits, as similar individuals tend to become friends. Another major
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limitation of the sample is that all participants were recruited at Huron University College, which is a small liberal arts college. This means that the large majority of, if not all of the participants were majors in the arts or social sciences. A sample of liberal arts undergraduate students may not be representative of all undergraduate students. Another major limitation of the study it that it used a hypothetical situation to determine procrastination rather than a real situation. Every effort was employed to make the hypothetical situation as real as possible. This was demonstrated by having participants imagine themselves in the situation and think back to similar situations in which they had found themselves. Despite these efforts it was very likely that some biases probably made the measure of procrastination behavior not as accurate as it could have been had a real university assignment been used rather than a hypothetical one. One major flaw of the study was that participants were not tested in a controlled environment. Participants were tested wherever they happened to be when the researcher approached them. This means that different participants had different background distractions. Some participants were approached while sitting in groups while others were approached while they were sitting individually. While efforts were made to try to ensure that participants only looked at their own test, it is possible that some participants could have been comparing answers with one another. If this occurred it could be a major limitation as participants would tend to answer similarly to one another. This could potentially be substantially different than how they would respond if they were completely alone at the time of completing the questionnaire.

All participants were randomly assigned to either the low interest or high interest task. This allowed for a more accurate measure of the effect of task interest on procrastination. Rotter’s Locus of Control Scale is a commonly used locus of control
Locus of Control and Interest on Procrastination scale and has been widely studied and found to be both reliable and valid (Rotter 1966). The Task Interest Rating Scale and the Hypothetical Situation, and Procrastination Rating Scale on the other hand were made up for the purpose of this study and have no collected information about their reliability and validity.

The results of this study and ones like it are extremely important in the realm of education, especially post secondary education. It is widely known that students who procrastinate a lot do worse on academic tasks than those who do not (Beck, Koons, & Milgrim 2000). Students know that procrastination is bad yet a large percentage of university students partake in such behaviors. It is important to know what factors might be linked to procrastination. Knowing this will not only let us minimize factors that lend themselves to procrastination in an educational setting but also allow individuals to choose career trajectories where they will be the most productive and happy. This could be especially important if factors such as task difficulty were correlated with procrastination. If this were the case it would be helpful to know this when selecting a job because someone who scores low for procrastination might be better off in a more difficult job than someone who scores high for procrastination. These types of studies could also possibly be of use to educators or employers in being able to know what kind of characteristics might be present in students or employees that could be correlated with increased procrastination behaviors. That being said, it is likely that even if these links are found that they would just be corelational which means that there could be other factors contributing to any effects seen. Future research should go back to looking at task difficulty, rather than task interest. Although task difficulty is much harder to experimentally control for it is more likely to lead to significant results. Results relating to task difficulty and procrastination could be important not only to post secondary
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institutions but also to work places. If the effect of task interest on procrastination is to be further studied it is suggested that a completely different paradigm is used for measuring task interest since the results of this study were nowhere close to significant. Future research should also look into the type of tasks that lend themselves more to procrastination such as tasks where the individual has a lot of control over what they are doing vs. tasks where the individual has no control over what they are doing.

Overall no significant findings were found. In the future, steps can be taken to reduce the confounds having to do with sample size. One simple way to do this would be to sample students at a larger university with a broader area of study rather than at a small liberal arts university. Results may also be better if an actual task is used to measure procrastination rather than a hypothetical task. Nothing significant was found in this study, but with a few tweaks it is possible that significant results might be able to be found. Further research in this area could potentially substantially change the way we teach our next generation. Minimizing procrastination behaviors could increase productivity both in the workplace and the educational setting.
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References


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Appendix A

Topic Interest Rating Sheet

Please rate the following five topics on how interesting each is to you. Please put a number between 1 and 5 beside each topic. 1 indicates that the topic is of most interest to you and 5 indicates that the topic is of least interest to you. You must use every number between 1 and 5. You may not rate two different topics as having the same interest level for example two topics may not be rated as having an interest level of 1.

___ Human Memory
___ The World Economy
___ Canadian History
___ Fictional Literature
___ World Religions
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Appendix B

Hypothetical Situation of Most Interest and Assignment Start Date

Imagine that you are in a class. You have just been assigned a 10-page essay on the topic from the previous page that you indicated was of the most interest to you. The essay is due in 4 weeks at the current time on April 25. Based on your previous experience with similar situations please circle the date below on which you think that you would be the most likely to start this essay.

March: 28, 29, 30, 31

April: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

Thank you for your participation in this study. Please hand this booklet back to the researcher.
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Appendix C

Hypothetical Situation of Least Interest and Assignment Start Date

Imagine that you are in a class. You have just been assigned a 10-page essay on the topic from the previous page that you indicated was of the least interest to you. The essay is due in 4 weeks at the current time on April 25. Based on your previous experience with similar situations please circle the date below on which you think that you would be the most likely to start this essay.

March: 28, 29, 30, 31
April: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

Thank you for your participation in this study. Please hand this booklet back to the researcher.
### Appendix D

#### Summary Table

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