Inducing procrastination in the lab: An exploratory study

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Abstract

When procrastinating, an individual fails to regulate his behaviour towards achieving an intended goal. This common and prevailing phenomenon can occur in almost all domains of life and on a wide variety of tasks. However, it is highly personal what tasks people procrastinate on, and whether dilatory behaviour is in fact procrastination depends on individual reasons. As such, it is often measured with self-reports. In this explanatory study delay was induced in a lab setting. After three ego-depletion tasks, participants were given a writing task on which delays by browsing the web on unrelated tasks, were measured. Based in part on the fact that delay scores correlated significantly with conscientiousness and Lay's general procrastinations scale, we feel confident to interpret the observed delays as procrastination.

Introduction

Procrastination is a well-known concept that virtually everyone has experienced at some point in his or her life. Up to 46% of college students report that they have consistently procrastinated on specific academic tasks, and about 15% of the general population is chronically affected (Solomon & Rothblum, 1984; Harriott & Ferrari, 1996). As a widespread and daily phenomenon, procrastination can easily be overlooked or attributed to other causes. Clearly however, not being able to realise the ideas and goals we have, can have a profound impact on our experience as autonomous beings. Aside from stress and bad performance on tasks we in fact think of as important to us, it can lead to mistrust in our own doings and a preference for easier and less demanding tasks (Harriott & Ferrari, 1996). As such, procrastination can lead to anxiety and depression (Knaus, 1973; Steel, 2007).

Despite a large body of research on the topic, findings on procrastination seem inconclusive, and its causes and effects are opaque (Steel et al., 2001). In part, this seems to be related to the fact that most research on procrastination is measured with self-reports. To a degree, this is understandable, as people procrastinate on tasks or decisions they personally experience as unattractive, and this can vary widely: from making future plans, to cleaning the house, paying bills or doing sports (Van Eerde, 2000). This subjective nature of procrastination is a good fit for self-report measurements as opposed to observational measures in a laboratory setting. However, as Steel et al. (2001) showed, findings on correlates of procrastination differ when observable or self-reported procrastination criteria are used. This suggests that self-reported data not only reflect actual behaviour, but also are exposed to a self-assessment bias (Steel et al. 2001; DeWitte & Schouwenburg, 2002). Given the large amounts of research already conducted, this has given rise to the idea that it might be more fruitful to look for observational criteria and measures of procrastination. It would entail taking a more process-based approach, focusing on the similarities, not the differences, of individuals (Van Eerde, 2001). Few studies have used experimental designs. However, their setups tend to focus on monitoring behaviour on tasks of personal relevance in the wild, and often not performed in a controlled setting. Others have employed a lab setting, but focus only on chronic procrastinators (Ferrari, 2000; Van Eerde, 2001). Some studies have successfully induced procrastination in an experimental setup (Tice & Bratslavsky, 2000)¹.

This observational study serves the purpose of testing whether procrastination can be induced in a lab setting. Hence, we hope to identify dilatory behaviour on a task designed for delay (hereafter referred to as the delay task), and controlled variables to establish if the perceived delay should be labelled procrastination. We hypothesize that delay scores would positively correlate with general procrastination (GP) and negatively with conscientiousness. To validate that delay was not due to internet addiction, we expect that an compulsive internet scale does not correlate with the observed delay. To make participant more susceptible to delay, we exhausted self-control resources by ego-depletion tasks. A possible correlation would inform us on the influence of ego-depletion on task-delay. In a subsequent delay-task, we tried to induce

¹ This section is taken from my bachelor thesis "Procrastination and its mechanism" that serves as the theoretical framework underling this exploratory study (Haffmans, 2015).

procrastination by appealing to its multiple characteristics that could generally by interpreted as aversive. As a second aim, we hope to gain insight into the relation of observed procrastination and self-reported procrastination.

<u>Pilot</u>

A pilot study with 21 participants was conducted to fine-tune the delay task. In the design of the task certain criteria had to be included. Tasks are perceived as aversive when they are frustrating, boring, difficult, ambiguous or when they lack personal meaning (Blunt and Pychyl, 2000). However, in order for participant to procrastinate, they had to intent to bring the task to a good end. It is thought that intrinsic motivation, as opposed to extrinsic motivation, is more effective in goal striving (Ryan & Deci, 2000). As such, we used the cover story of testing an alternative method for measuring IQ and Creativity. As an extra incentive, two bonuses of $\in 15$ were handed out: one for writing style and one for creativity. Feedback on the pilot study supported the intuition that many students experience essay writing as time consuming and difficult. Furthermore, it is associated with homework and deadlines. For measurement purposes we wanted to avoid writing tasks that would tempt participants to browse the web for information. Also, we tried to avoid typical letter structures. A first, open ended, writing task involved writing a fictional story. Against expectation this task was experienced as very interesting and as an opportunity to "finally write something in which you can adopt any writing style and use whatever you want" (Feedback of a participant.) We concluded that the task seemed to replenish ego-recourses in certain participants (at face-value). Another writing task asked participants to write 'why they would be a good mentor to new students' in 300 words. This seemed to easy as many general arguments were given, and the word count seemed to invite participants to quickly finished, or delayed rationally (at face-value). As such, the final task tried to find a balance in the results of the pilot study.

Ego-depletion

In order to make people more susceptible to procrastination, we decided to use an ego-depletion task. By exhausting the self-control mechanisms in place for acquiring a certain goal, behaviour can result in procrastination (Baumeister et al., 2007). Known as 'the strength model of self-control', the idea is that the exertion of self-control over dominant responses is a limited resource (Baumeister et al., 2007; Carter and McCullough 2014). When self-control is low and there is no time for rest and relaxation it causes short-term impairments (called ego-depletion) on subsequent (unrelated) tasks² (Baumeister et al., 2007; Tyler & Burns, 2008). As procrastination occurs more often when more self-control is required, procrastination can directly result from ego depletion (Schraw et al., 2007). In an experimental setting the dual task paradigm is often applied to exhaust self-control mechanisms. Based on the view that human processing resources can be subdivided into several classes, some self-control tasks interfere with each other when performed simultaneously (Wickens, 1991). In such cases it is assumed that they both use the same information

² This theory has been supported in the domain of eating, drinking, spending, sexuality, intelligent thought, making choices, and interpersonal behaviour (Baumeister et al., 2007).

processing resource³. Such tasks involve an effortful suppression of an impulse or the overriding of a habitual or dominant response especially when a task is difficult or complex (Hagger et al., 2010).

In general it can be said that a longer duration of the depletion task in the dual-task paradigm leads to a greater impairment on performance in the follow up task (Hagger et al., 2010). After a period of rest or focus on an unrelated task (especially when the task lifts up the mood) individuals' self-control, resources can regenerate (Baumeister et al., 2007; Hagger et al., 2010). When able to allocate resources in anticipation of another task, participants' showed lower levels of depletion in relation to a depleted control group (Baumeister et al., 2007). As such it is preferred to give as little information as possible in regard to the length and amount of depletion tasks. Individual differences in depletion effect are to be expected, as: (a) it is hypothesized that exertion of self-control can be strengthened by learning; (b) some people are better at allocating self-regulatory resources among different tasks (Hagger et al., 2010), and; (c) depleted levels are generally higher at the end of the day (Baumeister et al., 2007). Despite these differences, all individuals are vulnerable to state depletion (2007). We decided upon the use of two stable and easy to implement tasks: The Cross out letters task (involves switching between actions) and an incongruent version of the Stroop task (requires inhibition) (Hagger et al., 2010). As a third task we introduced a distraction task⁴.

Environmental factors

It is difficult to create experimental circumstances that can mirror the setting as well as the stakes people experience in the wild. Procrastination is personal in the sense that it depends what tasks people find aversive and procrastinate on. A lab experiment with a general task can hardly be expected to match up to a task that involves high stake long-term goals one has been delaying over and over again and as such is met with strong aversion. Apart from missing out on potential strong feeling people have in relation to personal tasks, dilatory behaviour related to other factors of long-term planning can also not arise during the duration of the experiment (such as bad goal design). People might even feel encouraged by the duration of the experiment, as the burden of continuing a dreadful task for 10 more minutes is surmountable. Types of procrastination such as structured procrastination (procrastinating on the task that has the highest priority by doing tasks of a lower priority, but that are also important) (Perry, 1995) cannot be invoked on a general task.

It is expected that the laboratory environment will alter participant's actions to conform to the behaviour that they believe the experimenter desires (Levitt and List, 2007). We tried to minimize compliance behaviour with a distraction task in which multiple websites were visited with different (entertaining) content. In this way, we tried to invite participants to use the browser of the Lab-computer in a way that resembles their personal computer or laptop. Unfortunately, some of the rooms had cameras in them. At least 2 participants reported feelings of being monitored; this might have encouraged compliance behaviour.

³ Depletion tasks have been tested within different domains such as controlling attention, controlling emotions, controlling impulses, controlling thoughts, cognitive processing, choice and volition, and social processing (Baumeister et al., 2007).

⁴ Loosely based on a section of my bachelor thesis "Procrastination and its mechanisms" (Haffmans, 2015).

Method

Participants

In total 104 people participated in the study. 14 participants did not return the post-questionnaire, and the data of 11 other participants were incomplete. As such, this study includes the data of 79 participants. The sample comprised 51 women (64.6%) and 28 men (35.4%) with age ranging from 20 to 30 years old (M= 21.5 years, SD= 2.4 years). All participants were students at Utrecht University or Hogeschool Utrecht. They were recruited through different websites for experiments (e.g., http://www.proefbunny.nl) and of student unions (e.g., https://www.uscki.nl), as well as by flyers that were distributed throughout the university campus.

Design and material

The study was observational in nature and did not have a control group. The study consists of 3 parts, each of which are outlined below. The experiment took place in four research cubicles and was performed on Macintosh computers for technical reasons (also outlined below). Participants were offered a payment of $\in 6$ for the experiment.

ii-app The Mac OS X software application ii-app ('double i-app') is the main measurement instrument (Kamphorst, 2011). Linking its data to a unique participant number, it runs in the background and registers the participants' behaviour on the computer. When running, the application is recognizable by a small red icon in the right upper corner of the screen. When clicked, it does not reveal any information. As such, its function is not identifiable for participants.

Ego Depletion This part of the experiment was aimed at depleting participants, so they are more susceptible to temptations during the follow-up task (See Hagger et al., 2010). This part was designed as an online survey of about half an hour and consists of three different depletion tasks. The survey started with a computational version of an incongruent Stroop task of 41 items, as this was the average amount of items participants in the pilot solved in 5 minutes (Stroop J.R., 1935; MacLeod C.M., 1992). Each colour was mapped to a specific key on the keyboard (e.g., "green" is mapped to the letter "g"). The second task was a computational version of the crossing out e task (Baumeister et al., 1998). After 15 minutes, participants were automatically directed to the final depletion task. This was a novel distraction task that consisted of 41 items. Participants were asked to follow a link to a website and enter a certain word from the website into a blank box in the survey. (e.g. "*what is the third word on this website*?", where 'this' was a hyperlink). The websites had themes that, in general, were of relevance to the target group such as music, games, fashion, literature, news, film and humour. The entire list of websites has been added as Appendix A.

Writing task The goal of this 30-minute task was to tempt participants to procrastinate. As discussed in the introduction, the task had to motivate participants enough to intend fulfilment of the task. At the same time it could not be too engaging, as this would undo the depletion effect. Under the cover story of testing an alternative method of measuring 'Creativity and IQ', participants were asked to write a 450-500 word motivational letter for a fictional company. The instructions stated that this company helps people, who live an isolated life due to social disabilities, to reintegrate into society. It was further mentioned that an expert would assess the assignments and would hand out two bonuses of $\in 15$; one for writing style and one for creativity. Participants were free to write what they ought best as long as they incorporated 5 words: (1) the third word from the most recent post on their Facebook wall; (2) the sixth word from the latest article on fake news site 'De Speld'; (3) the second word from the most recent tweet of famous Dutch comedian 'Jochem Meyer'; (4) the fourth word of the latest article on 'filmliefhebber.com', a film review site, and; (5) the eight word of the most recent article on 'nu.nl', a news site. A dictionary website was specified for looking up words and translating possible English words.

Post-questionnaire The day after the experiment, participants were sent an invitation to an online post-questionnaire.

Measures

ii-app The research application 'ii-app' was used to collect data on Part I and the writing task. As the application is available for Mac OS X only, the study was conducted on Macintosh computers. Linked to a unique participant number, this application registered (1) the opening and closing of applications such as the text editor and the browser; (2) The switches made between applications; and (3) The URLs visited and the time spent on them (Kamphorst, 2011). Delays where calculated by taking a 10 second margin on all the websites visited for looking up a word.

Writing task For the purpose of handing out two bonuses, the writing task was evaluated by an independent expert. The results were not used as a measure in the study itself.

Post-questionnaire The questionnaire mainly used multi-item scales with acceptable internal consistencies. When possible, existing measures and their scales where used. Participants completed 12 items of the NEO-FFI as a measure of conscientiousness and 8 items of the NEO-PI-R as a measure of impulsivity (Costa & McCrae, 1992; translated and validated by Hoekstra 1996). The Dutch CUIS scale was used as an indication of compulsive Internet usage (14 items on a 5-point scale 1 = never, 5 = always) (Meerkerk et al., 2006). A validated Dutch version of Lay's general procrastination scale was completed as a measure of procrastination (Lay 1986, translated and validated by Schouwenburg, 1994).

In addition, there were a number of general questions that asked participants about usage of Twitter, Facebook and news sites, as well as their experience in, and fondness of, writing tasks. To get an impression of participants' motivation to perform well on the writing task, participants were asked how important they thought it to be a creative and an intelligent person, as well as about their financial situation (on a 7 point scale, where 1 = not important at all, 7 = extremely important). As a manipulation check for the depletion tasks four standard items asked participants about the difficulty of the tasks. (1 = not at all, 4 = very much). We also asked them to report whether and on what they themselves thought they procrastinated during the writing task, and if so, for how much of the time they procrastinated.

Procedure

After verifying that participants had a Facebook account, they were asked to put their phones and other belongings in a locker. This was done to optimize the chances that if participants would delay, they would do so by using the laboratory computer. In the meantime, the ii-app was started with a unique participant number. They were then told they would participate in an experiment about creativity and IQ, after which the examiner directed them to a cubicle. They were handed a participant number and told that after clicking 'Task I' they would be guided through the experiment and instructions would be given along the way. No further information about the experiment was given in order to minimise the chances that participants would be distributing self-control over the tasks to come, and thus diminish the depletion effect (Hagger et al, 2010). At the end of Part I they were directed to an envelope next to them, that contained instructions for the Writing Task. When necessary, specific Macintosh operations were also explained (e.g. closing of applications). Participants who finished ahead of time were instructed to close Microsoft Word and wait for the experimenter. This way, ii-app data recovered after the closing of Word could be excluded as possible procrastinating behaviour. After one hour the experimenter came to pick up the participant and debriefed them. Participants were asked if they were willing to fill out a final online questionnaire the next day. If so, they were emailed the post-questionnaire. Participants were thanked for their participation in the experiment. Lastly, the experimenter exported the ii-app data and the application was closed.

Results

Descriptives

Was there a gender difference in delaying? (Men: M=68.8, Women: M=75.6) Overall, participants spent an average of 73 seconds delaying by browsing the Internet, unrelated to the task (SD=65.6). Of the 79 participants, 74 spend at least 2 seconds delaying. 13 participants reported having procrastinated. Notably, two of these had a delay score of 0. 7 out of 13 reported that, at that time, they felt like they were worse of due to the delay. ("*Toen je aan het uitstellen was, had je toen het idee dat het ten koste ging van de kwaliteit van je geschreven tekst*?") 11 of the 13 reported that, afterwards, they felt like they could have done better if they had not delayed ("*Nu je er op terugkijkt, heb je nu het idee dat het ten koste is gegaan van de kwaliteit van je geschreven tekst*?"). One participant reported that at the moment itself, as well as afterwards, he felt like he performed better due to his delay.



Analyses

To test for outliers, first, the data is graphed on a histogram and a box plot to test for normal distribution and appearing outliers. All variables are approximately normally distributed. In order to test whether these points should be excluded from the data, the outlier-labelling rule is applied. Spss calculates the 25th percentile

range (Q1) and the 75th percentile range (Q3). The following formula calculates a lower and upper bound in which the data points should fall in order to be included in the data:

				Lower	Upper
	Q1	Q3	g	bound	bound
Lays GP	52.00	70.00	2.2	12.40	109.60
Conscientiousness	36.00	46.00	2.2	14.00	68.00
Impulsiveness	22.00	29.00	2.2	6.60	44.40
Internet Addiction	1.64	2.71	2.2	-0.71	5.06
Manipulation check	2.25	3.00	2.2	0.60	4.65
Delay writing	32	97	2.2	-111	240

Figure 1 Lower bound = Q1- $(g^*(Q3-Q1))$, Upper bound = $Q3+(g^*(Q3-Q1))$, g=2.2 is used as this is the value appropriate for a small sample size which is normally distributed.

When looking at the boxplot (see Appendix B), conscientiousness appears to have an outlier value, namely observation number 73. However, when looking up this value, observation nr. 73 has a score 21. As the lower bound is 14 (and 21 > 14) it is concluded that this is no outlier. When looking at the boxplot of manipulation check, observation nr. 19 appears to be a possible outlier. Looking up this value shows that nr. 19 has a score of 1.25. Since the lower bound of manipulation is 0.6, nr. 19 is no outlier and will not be taken out of the data set (see Appendix B). Moreover, the delay boxplot shows more than one possible outlier: namely observation numbers 35, 64, 56 and 73. When looking up these observations in the table, we see that nr. 35 (Delay=397, GP=35, Lay=80) and nr. 64 (Delay=266, GP=32, Lay=64) are larger than the upper bound, which is 240. Hence these values are outliers. In the discussion the effect of the outliers on the correlations will be examined.

			Adjusted for outliers	
			Pearson's	
Variable	Pearson's r	Probability	r	Probability
Lay GP	0.241	0.032	0.191	0.097
Conscientiousness	-0.245	0.029	-0.199	0.082
Impulsiveness	-0.140	0.219	-0.187	0.104
Internet Addiction	0.110	0.335	0.088	0.447
Manipulation Check	0.042	0.711	-0.160	0.890
Proc. self reported	0.069	0.546	-0.071	0.542

Figure 2 Pearson's r for delay scores.

Self-reported GP scores were correlated with the behavioural procrastination score on the writing task. In line with our hypotheses, GP scores (M=3.1, SD=0.66) were positively correlated with time spent delaying (r= 0.24, p = 0.032, meaning that on a 5% level this is significant). As expected, conscientiousness (M= 3.4, SD=0.64) is significantly and negatively correlated with writing delays (r= 0.25, p=0.03). As scores on an

compulsive Internet scale (M=2.2, SD=0.60) showed no significant correlation to the perceived delays, we exclude this variable. There was no significant correlation between self-reported procrastination and observed delay.

Discussion

In 'Procrastination and its Mechanisms' (Haffmans, 2015) possible definitions of procrastination were extensively discussed. To interpret delay as procrastination we can use the four criteria of Wieber and Gollwitzer (2010, pp. 185) designed to judge if behaviour is procrastination. "Participants have the opportunity to act on the goal" (criteria 2) is controlled by the lab setup. "Participants voluntarily decide to put off the intended action or inaction until a later point" (criteria 4) is partially controlled by the lab setting. "Participants expect to be worse off later in the case of a delay" (criteria 3) is mostly controlled by the questionnaire. The data revealed that one participant delayed in expectance of being better of due to the delay. Regardless of the truth of this assumption, this can be regarded a rational delay and should be excluded from procrastination scores. Furthermore, that delay scores and Internet addiction score do not correlate makes it plausible that delays are not due to a general preference of Internet use above the originally intended action of writing a text. "Participants commit to the goal in question" (criteria 1) is most difficult to check, even with intrinsic and extrinsic motivators serving the purpose of engaging participants in bringing the task to a successful end. It is difficult to validate if a report of low motivation, involves never intended to fulfil the task in the first place, or if it involves low engagement due to a depletion effect or taskcharacteristics. Conscientiousness is trait procrastination's main correlate. This is reflected in the significant correlation between conscientiousness and Lay's general procrastination scale (r = 0.6). As both show significant correlations with the observed delay time of participants, these findings can substantiate the assumption that at least a substantial amount of the observed delays can be labelled procrastination.

When asked if participants procrastinated, two out of 13 participants that answered yes, had a delay score of 0 seconds. As such we can assume that not all procrastination is intercepted by the measurements. Participants can for instance procrastinate by just dozing of or thinking about other things. As one participant reported: 'Instead of just sitting here staring in front of me and browsing the web, I could have user my time wiser' (" (...) *Ik had mijn tijd ook ten volle kunnen benutten in plaats van voor me uit gaan zitten staren of op het internet zitten*")

When adjusting for outliers, the r for the Lay GP and conscientiousness become smaller (the r for the Lay GP decreases by 21% and the r of conscientiousness decreases by 19%). The significance of these Lay GP and conscientiousness also decrease, making them insignificant at a 5% level, yet still significant on a 10% level. Interestingly, both the correlation and the significance of impulsiveness become greater after taking out the outlying variables. However at a 10% significance level the value is still not significant,

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despite coming very close. However, there seems little need for excluding delay outliers. When looking at the GP and conscientiousness scores of observation nr. 35 and nr. 64, they can be interpreted as a genuine case of procrastination. Whereas observation nr. 64 reported procrastinating, 35 did not. Conscientiousness scores might account for some of the discrepancies in self-reported procrastination, as high conscientious people might be more aware of their procrastinating behaviour. However given there scores, this assumption can not account for the difference in between these two participants.

Future research

The present study contained several limitations. In future studies this paradigm could be tested in an experimental setting with a non-depleted control group, to gain insight in the effect of task related aspects versus the depletion effect. With a bigger sample size –or possibly by preselecting participants on low conscientiousness scores- the self-assessment bias could be investigated buy relating self-reported procrastination and observational measures. Specifically in relation to the discrepancy between the opinion of participants regarding 'being worse off' at the moment itself and afterwards. An adjustment in measurements is also recommended, such that procrastinating in other ways than by browsing (i.e. 'doing nothing') can also be included.

On a side note: This exploratory study has a small sample size of students, therefore the sample population may not be representative for the total population of interest. As procrastination is domain specific, it could be regarded a threat to the external validity of the research. Future research could increase the scale of the research and include a more diverse set of individuals and control for more variables, i.e. different ethnicity, age, social economic status or line of work.

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Appendix A

Websites used in ego depletion task

- 1 www.vk.nl
- 2 www.melkweg.nl
- 3 www.abstrusegoose.com
- 4 www.wired.com
- 5 www.bitstorm.org/gameoflife/
- 6 www.phrasebank.manchester.ac.uk/being-critical/
- 7 www.codecademy.com
- 8 www.knowyourmeme.com
- 9 www.converse.com
- 10 www.gamershood.com
- 11 www.reddit.com/r/aww
- 12 www.terriblerealestateagentphotos.com
- 13 www.triodos.nl
- 14 www.fotostrips.nl
- 15 www.terriblerealestateagentphotos.com/
- 16 www.theteafactory.ca/
- 17 www.worldcommunitygrid.org/
- 18 www.boshuisbelastingadvies.nl
- 19 www.gamershood.com/26138/puzzle/tiger-eat-cow
- 20 www.paradiso.nl
- 21 www.funnygames.nl
- 22 www.charitywater.org/
- 23 www.inkomenshulpkroeze.nl/
- 24 www.foodgawker.com/page/2/
- 25 www.stylegawker.com
- 26 www.thekingsofsummermovie.com
- 27 www.asofterworld.com
- 28 www.skepdic.com/
- 29 www.mashable.com
- 30 www.zie.nl
- 31 www.dwellinggawker.com
- 32 www.cosmopolitan.com

- 33 www.kongregate.com/games/squidsquid/the-irregulargame-of-life
- 34 www.serveseattle.org/
- 35 www.collective-evolution.com
- 36 www.dilbert.com
- 37 www.1001spelletjes.nl/spellen/bubble+shooter.html
- 38 www.ted.com
- 39 www.netflix.com
- 40 www.dumpert.nl
- 41 www.cracked.com

Appendix B

Extreme Values					
			Case Number	Value	
Lay's	Highest	1	31	87	
Procrastination		2	68	84	
scale		3	53	83	
		4	77	83	
		5	35	80 ^a	
	Lowest	1	63	33	
		2	28	33	
		3	7	33	
		4	33	35	
		5	14	36	
Conscientiousness	Highest	1	28	59	
		2	7	57	
		3	47	53	
		4	52	53	
		5	67	53	
	Lowest	1	73	21	
		2	77	25	
		3	30	25	
		4	48	26	
		5	21	27	
Impulsiveness	Highest	1	44	36	
		2	54	36	
		3	21	35	
		4	48	34	
		5	57	34	
	Lowest	1	28	13	
		2	76	16	

		-	-	
		3	4	17
		4	10	18
		5	56	19 ^b
Internet Addiction	Highest	1	12	3.4
		2	9	3.3
		3	21	3.2
		4	44	3.1
		5	62	3.1
	Lowest	1	71	1.0
		2	42	1.1
		3	60	1.2
		4	55	1.2
		5	51	1.2
Manipulation check	Highest	1	77	3.75
Ego depletion		2	4	3.50
		3	9	3.50
		4	20	3.50
		5	42	3.50
	Lowest	1	19	1.25
		2	67	1.50
		3	51	1.50
		4	5	1.50
		5	70	1.75

			Case Number	Value
Observed	Highest	1	35	397
Delay		2	64	266
in seconds		3	56	237
		4	73	212
		5	55	183
	Lowest	1	43	0
		2	38	0
		3	33	0
		4	27	0
		5	17	0



