Social Knowledge Exchange:
How Individuals exchange and interpret information to receive correct understanding.

Social Kunskaps Utbyte:
Hur individer utbyter och tolkar information för att få korrekt förståelse.

Simon Hagstrand

Handledare: Anette Lundin
Examinator: Susanna Nordström

Abstract

In modern forms of education, students are faced with exams that question their understanding and interpretation of information, which in today's society exists everywhere. The study has its foundations in Social Exchange and Social Resource Theory to understand the exchange and interpretation of information. The purpose of this study is to provide a clear understanding how individuals exchange and interpret information provided to them to further their own understanding of a subject matter. For this purpose a Quantitative survey study was done using mock up tests to grade participants and observe if information exchange allowed for greater scores and more individuals passing the tests. The results was shown to be as expected based on the theoretical foundation that if individuals exchange information their own performance will increase, as shown through H1 and the significant result it generated. Furthermore, time as an aspect of stress during exams was explored and a correlation of H2 showed that with a time limit individual's perceived higher stress alongside issues answering questions. Despite the results being significant using information exchange as a way of learning is not a foolproof method as there will still be failing grades.

Keywords: Demonstrability, Social Exchange, Social Resource Theory, Learning

Abstrakt

Inom moderna former av studier så möter studenter tentor som ifrågasätter deras förståelse och tolkning av information, som i dagens samhälle existerar överallt. Studien har sin grund inom Socialt Utbyte och Sociala Resursteorin för att förstå utbytet och tolkningen av information. Studiens syfte är att bidra med förståelse för hur individer utbyter och tolkar information som finns tillgänglig för att förstärka sin egen förståelse av ämnet. För detta syfte så användes en kvantitativ enkätstudie som genom påhittade tentor betygsatte deltagarna och observerade om informations utbyte tillät för högre poäng på tentorna samt fler godkända individer. Resultaten var som förväntades med grund i de teoretiska utgångspunkterna, som påvisades genom H1 och det signifikanta resultat som genererades. Vidare så utforskades tid som en aspekt av stress under tentor vilket sedan korrelerades och påvisade genom H2. När det existerar en tidsgräns så

upplever individer en högre grad av stress samt svårigheter när det kommer till att svara på frågor. Trots resultatens signifikans angående informations utbyte som möjlighet för lärande så är det inte en idiotsäker metod då vissa kan fortfarande få ett icke godkänt resultat.

Nyckelord: Demonstrabilitet, Socialt Utbyte, Social Resurs Teori, Lärning

Innehåll

1. Introduction:

Over the past decade the internet and social media has gained popularity due to the accessibility to information it affords individuals. This accessibility in general has allowed for the social media giant Facebook to achieve a million users in a single day (Expressen 2015). This is a single example of how social media has grown over the past decade due to the accessibility of the internet. This accessibility has also allowed for other websites making a strong presence one of the strongest in terms of information being Wikipedia, which is an open source encyclopedia. Anyone with access to the website can create or edit an article (Wikipedia 2016). This open-ended nature of Wikipedia has resulted in a lot of the information available on the website to be unreliable. Wikipedia has reported about 300 thousand people accessing the website on a daily basis despite the unreliable nature of the information available (Wikipedia 2016). The problem this accessible information present is it allows individuals to become self-proclaimed experts concerning a variety of subjects, such as self-diagnosis with an illness based on symptoms they read online.

School, college, both institutions that most people spend a majority of their lives at learning and absorbing new knowledge concerning a wide variety of subjects. Most of these institutions employ professors to teach subjects they are knowledgeable about in lectures. Students attend these lectures to learn and absorb information. Generally, these subjects result in an examination, where the student proves the information is understood and can apply the knowledge they have learned (Högskolan i Skövde 2016). Everyone interprets information differently; people will never understand it the same way, but there is a way to allow for a better understanding and a more accurate interpretation of the subject matter. By exchanging information with other classmates, other students and individuals may increase their understanding and correct any corrupt interpretations of the information (Blau 2008). This allows a student to access a broader and more accurate interpretation of the subject during examinations where their knowledge will be tested making them more likely to pass the examination. As with Wikipedia the problem lies in how reliable the information is, everyone interprets information differently, leading to several accurate along with several inaccurate corrupt

interpretations of the information. This in conjunction with any sub group an individual associates with may lead to not only a single individual with corrupt information but several with corrupt information resulting in below average performances on examinations (Blau 2008, Johansson & Lalander 2012). The group as a whole misunderstands and misinterprets the information they were provided with or alters their own understanding to fit that of the group.

This study aims to enlighten through a Social Exchange perspective how knowledge as an information resource transfers between individuals and how it affects examination performance, along with enlightening how sub groups may correct or corrupt information, positively or negatively affect performance respectively. The reason for this is to allow for greater understanding how students learn and allow for further studies into optimizing the learning experience for students so that more can graduate. Further explaining the social psychological significance in this Social Exchange, it pertains to prevent students from failing or dropping out from college due to not properly understanding or interpreting the information, they are provided. Through Social Exchange, it is believed that individuals and primarily students will benefit from properly understanding information given to them.

2. Purpose and Hypothesis:

The purpose of this study is to highlight the use of Social Exchange by focusing on how individuals find and exchange information through various means to develop their understanding of the subject matter and how this exchange affects individual performance during a test. Another purpose is to understand how the notion of a time restriction may influence the individuals' potential to answer during a test.

H_1: Individuals exchanging information through various means has a positive effect on individual performance

H_2: Time restriction has a perceived negative effect on individual performance

3. Disposition

Below in chapter 4 and 5, the previous research and theoretical backgrounds will be fully explored and detailed alongside how they connect to the current study. Chapter 6 and 7 will pertain to the narrowing of the subject matter alongside information pertaining to the method used such as sample size, instrument, and distribution. In the following chapter 8, the results and data of the study will be written out and analyzed. To finish off the paper will be chapter 9 pertaining to conclusions and the researchers own reflections concerning the paper.

4. Previous Research

4.1 Interpersonal Understanding

Dare A. Baldwin (2000) brings up the notion of interpersonal understanding which according to studies done by Baldwin show that infants use interpersonal understanding to draw conclusions about what a speaker is referring to when discussing an object. Infants would look towards the speaker and follow their gaze to find the source of the discussion as not to wrongfully associate the word with another object (Baldwin 2000). It was also shown that while infants more often than not will correctly map a word to an object there are instances where the infant would inavertedly produce a mapping error between a word spoken and object focus. This was shown by Baldwin (1991) to be on a case by case basis were as there was no difference found between an infant with a singular object and infant with multiple objects. The infant would follow the speakers gaze correctly identifying the object being referred to even if there were multiple other objects around (Baldwin 2000).

Baldwin (2000) partially brings up how interpersonal understanding also provides infants with a reference point concerning the speakers' intentions, not only when referring to an object but also emotional reference points. If a speaker shows disgust, anger or other negative emotions concerning objects or situations, Baldwin (2000) proposes usage of interpersonal understanding allows for the infant to avoid imminent

or otherwise dangerous objects. Baldwin (2000) found that similar to how infants understood language via interpersonal understanding, they also referred to the speaker to confirm whether or not the speaker is emotionally referring to the item they're actively engaging with. Majority of the time specifically in infants of 12 months and older they would correctly understand the speakers intentions and what they were directing themselves towards (Baldwin 1993). The relevance of this article to the current study comes from the interpersonal understanding, how infants constantly refer to the speaker to understand the meaning of what is being said and what object is referred too. This constant referring to the original speaker can be applied to the study in the form of a filter, in general interactions, individuals. That receive information henceforth receiver, tend to make use of interpersonal understanding to make sure what's being said is of relevance to the receiver such as to filter away information that isn't of relevance. Similar to how infants will check on the speaker to confirm if the speaker is referring to the object the infant is currently interacting with (Baldwin 2000). What this implies for the study is that individuals require a level of Interpersonal Understanding as to filter away irrelevant information to perform well on the tests.

4.2 Knowledge Transfer Potential

Aimée A. Kane (2010) performed a study on how knowledge is transferred between organizational groups and factors that affect the knowledge transfer potential. One of the most important factors concerning the potential of knowledge transfer between groups is knowledge demonstrability (Kane 2010) which revolves around demonstrating the usefulness of the knowledge, demonstrating the value of the knowledge, how useful it is. Kane (2010) points out that the demonstrability of knowledge is of higher importance than the value of the knowledge, this can be explained as the knowledge standing out more when it possesses a high demonstrability compared to low demonstrable knowledge not standing out. Another factor that affects knowledge transfer potential is the connection between the groups. This is described as Superordinate social identity which refers to an overarching identity or a collective

identity which encompasses several groups under a singular one (Kane 2010). One example of this is organizational departments, which are sub groups within the larger group of the company as a whole the Superordinate Social Identity therefor functions as a label for the company group as a whole unifying the departments within the company (Kane 2010).

The last factor is quite a simple thing, but in terms of knowledge transfer, it does have a significant impact; consideration. Considering something is usually seen as a simple task that can be resolved easily. In terms of knowledge transfer groups have to consider incoming knowledge to decide if the knowledge is of significance to the group as a whole. This knowledge consideration stems from knowledge being transferred between groups not necessarily sharing the same superordinate social identity (Kane 2010). To simplify, one can consider a superordinate social identity a single department within an organization with smaller work groups underneath, now a transfer of a single group member occurs between the two departments, as the new group member is being integrated into this new superordinate social identity and group this individual will work with from now on. Any knowledge this individual brings has to be considered to such an extent the group can decide if it is or is not of significant value, seeing as the individual transferred from a separate department, another superordinate social identity. It is therefore unsure if his knowledge has any value at all if he had transferred from another group within the same department and the same superordinate social identity. In such a case this individuals knowledge would be of greater value and would therefore be under consideration for a greater period than the individual outside of the same superordinate social identity. (Kane 2010) To simplify, if a new member joins from another sub group this this individuals suggestions will be under shorter consideration compared to if a current member of the sub group came with the same identical suggestion. Implying that groups are more inclined to consider new information if it comes from a pre-existing member rather than a new one. To apply this to the study at hand, one can relate superordinate social identity to different classes, for instance psychology contra robotics. In this instance, any knowledge a robotics student may transfer to a class with psychology students does not necessarily have any significant

value to any of the psychology students. But if the transfer of knowledge is between two psychology students then the information may possess high enough value for the receiving student to consider it more highly than the robotic students' knowledge.

5. Theoretical foundation

5.1 Social Resource Theory

The very basic framework of Social Resource Theory revolves around every interaction including an exchange of a resource. The most common and understandable exchange lies in the exchange of money for goods, individuals enter shops purchase a product using money to pay for it. The definition of a resource is anything that can be exchanged or given to another person, which is a broad definition. Usually resources are divided into categories of six. Foa (1971) has defined these six categories as intangible and tangible resources. Status, Love and Information are three of the resource categories, which are defined as intangible. While the remaining three: Money, Goods and Services are defined as tangible for it usually involves an object or physical outcome.

Törnblom and Kazemi (2012) explain that resources are not restricted to a singular category but can lean towards other categories. They also mention Particularism, how certain resources are only useful in particular situations such as Status and Information being particular to an individual, in opposition to Particularism there's Concreteness in how concrete a resources is. Resources such as Services and Goods fall on the far end of Concreteness, with Services being a more concrete and more Particular than a resource like Information, which is less concrete and less particular.

Social Resource Theory fits into this study due to the way it deals with the exchange of resources, in this study the main resource being exchange is information. But some argue that time can be seen as a seventh resource which will be examined during this study along with the transfer of information (Törnblom & Kazemi 2012).

5.2 Social Association and Social Exchange

Social Association is the idea that individuals seek to socially associate with others in such a way that the individual in some shape or form gain something from the association with another (Blau 2008). This basically means that any interaction with another individual should result in a gain, be it information, money, status etc. Blau (2008) explains that Social Attraction is the motivation behind Social Association, that social attraction creates the motivation for individuals wanting to associate with another to gain something. This is so in the sense that individuals will measure what they may gain or lose by interacting with certain individuals and the risk contra reward they might experience. Social Attraction leads to interaction. Social Association states that any interaction should lead to a gain or a profitable exchange of some sort, which means that Social Attraction starts a chain of exchanges for the individual to eventually gain something from the exchanges (Blau 2008). The basic idea behind Social Exchange theory is that every interaction leads to an exchange and every exchange goes both ways (Blau 2008). This can be simplified as stating that an individual performs a task voluntarily for someone else with the expectation of the exchange being reciprocated further on, be it by a payment or a task being performed for the individual. The way this fits in with the study is that by way of Social Association leading to the formation of groups, exchanges of resources can occur in such a way that the individual gains something from associating with the group in the case of the study knowledge.

5.5 Group Theory

Groups are generally formed in one of two ways, to accomplish a goal of some kind or by association. The most fundamental group for most people comes in the form of family. The other type of group most commonly known as work group is usually created when several individuals come together to work towards completing a common goal or purpose (Wheelan 2004).

Groups can also be defined as a gathering of people that communicate over a longer period of time but also possess norms, roles and have developed relations with each other (Svedberg 2012). It's said that groups are meant to persist over a long period of time for a specific goal or purpose. They develop a structure of communication along with roles that they inherit along with creating norms for how the group functions

(Wheelan 2004, Biel & Gärling 2012). It is not uncommon for groups that have been established for a long time to develop various rites and symbolism that new members may not understand. The most common rite a new member encounter is usually an initiation most commonly found at colleges, clubs or sororities. New members are subjugated to trials to prove their worth. If the new member passes these trials they're allowed into the group where group knowledge will be obtained as well as passing on their own knowledge to the group (Johansson & Lalander 2012). The strength in groups lies in their Social Resources where group members exchange information and emotional resources. The group as a whole may possess various resources which may be exchanged with other groups.

An exchange between groups may take different appearances depending on the situation. For example there may difference kinds of exchanges depending on whether the two groups are part of the same Superordinate Social Identity or not. Meaning that they make up two sub groups within a larger main group, compared to if the interaction was between two sub groups from different main groups. Since the goal of the study is to examine the transfer of knowledge between students it's often important to note that the class as a whole can be considered a group from which there may stem sub groups. This usually results in reoccurring groups for group assignments. Due to how each individual member may interpret information, the collective knowledge of a small group may look completely different from that of another group within the class.

Kane (2010) and Blau (2008) both bring up the importance of Social Identity in terms of Social Exchange and how a positive reinforcement to Social Identity facilitates for Social Exchange as an end result to an interaction. Thus, every interaction leads to a Social Exchange. Starting at Social Identity an individual seeks for positive reinforcement of their social identity, leading them to seek other individuals who may provide this positive reinforcement (Blau 2008). The search for other individuals, who may provide a positive reinforcement, follows the path of Social Attraction, where the individual is seeking interaction through association to gain something through an

exchange. This Social Attraction will result in a Group being created where every member of the group stand to gain something from the other members depending on the reason for the groups creation (Wheelan 2004), as a result of various Social exchanges resulting in the exchange of resources. The problem with these exchanges lies in the value of the resources for each member as not all resources possess the same value for every individual. Similar to how infants use interpersonal understanding to reference the speaker for contextual clues so must the individual group members reference each other through interpersonal understanding (Baldwin 2000) to understand the contextual value of another members resources.

6. Narrowing the Research

Due to the purpose of the study being to understand and illuminate how individuals use information exchange to complete exams, the study first narrowed down to only focusing on students and how students exchange information between each other and within groups as to complete exams. Due to unforeseen circumstances this approach had to be rethought. From there the study turned towards the average individual who at some point in their lives most likely have performed an exam. Using this new population focus the actual design for the study had to be chosen and through the previous research mostly being quantitative studies and the theoretical foundations lending itself to both qualitative and quantitative studies. The study turned from an experimental method as originally intended given the population focus on students and their interactions towards a quantitative design that could be applied to the average individual. As such gender and age did not pertain to the overall purpose of the study allowing for a greater population to participate in the study. Despite the irrelevance of gender to the purpose of the study there was interest in seeing if there did exist a significant difference between genders and from there further suggested studies concerning this difference.

7. Method

The original method developed for this study was in the form of an experimental design, consisting of control groups and experiment groups. This method fell through in favor

of a quantitative design due to lack of participants. The reason behind using a quantitative design over a qualitative design as the backup stemmed from the purpose of the study, which required the ability to measure individual performance. This meant that a qualitative design which use detailed information as data, be it through interviews or observations (Bryman 2008) was not possible to be used. In comparison, quantitative design allows the researcher to operationalize their hypothesis and create numerical measurements which will provide statistical results (Bryman 2008). This is why a quantitative design was chosen over a qualitative design since only the statistical results from the tests were deemed necessary to fulfill the purpose of the study. The quantitative design that was chosen to replace the original experiment was in the form of a two part test survey distributed through the Social Media platform, Facebook.

7.1 Sample

For the initial experimental design, the population consisted of students in their first or second year of studies were they would be capable of volunteering for the experiment. The minimum amount of volunteers that were deemed necessary was 30 individuals, only 5 individuals volunteered to participant in the experiment (Maclin 2009).

For the secondary design that became the final method used, the population that was chosen for the study was decided through a randomized selection(Maclin 2009), using first a convenience method of distributing the survey through Facebook. Friends of the researcher were then asked to share and help distribute the survey to reach a larger population. To finalize the amount of responses, the survey was left open until the end of the day that it received the minimum of 60 responses, gathering 63 responses in total.

No consideration was taken in terms of achieving a balance between genders or various age groups as neither was deemed necessary for the overall results

7.2 Instruments

The instruments used for the study were two 8-question exam surveys based on previous exams within Social Psychology. Neither survey required any previous knowledge of Social Psychology for they were based around educated guess and

searching for information respectively. The first survey was constructed around educated guesses, and was therefore simple for someone within the field of Social Psychology, but still posed a challenge for those outside the field. For the first survey, the participants were instructed to perform the test alone, in order to establish a baseline score and assigning a grade to each test score if the individual had enough points to receive a passing grade or a failing grade. This was done to understand how any increase found in the scores of the second survey would affect the amount of individuals passing the test had it been a proper exam. The second survey was based around using various sources of information to find the correct answers, as such they were instructed to make use of google, friends, books any kind of information source the participants had access too. This was done as to establish the test score to which the baseline would be compared as to answer H_1. The reason for a two part survey was too allow for participants to be capable of finishing one part of the survey before performing the second part of the survey

7.3 Procedure

The two surveys were distributed through the social media Facebook. In the surveys, the participants found information concerning ethics and instructions for how to proceed with the test. To further explain how the distribution method took place, the researcher created the two surveys using Google Forms, which allowed for digital distribution through Social Media. The link that then lead to the Google Form containing the two surveys were then posted to the researchers personal Facebook with request that friends should participate and share it further. This allowed the survey to reach as many individuals as possible during the sample selection. The survey was left open until the end of the day that the survey received its 60th response which was the minimum for a survey based report. By the time the survey was closed 63 people had successfully performed the test. Due to limitations on the researchers understanding of Google Form, it was not an option for individuals not to answer all the questions, as by standard all questions were deemed obligatory for continuation, leaving no possibility for faulty answers.

7.4 Study Design

The design for the study was a Survey Design with independent and dependent variable. The dependent variable was a test score of correct answers the participants artificially received during data analysis. The independent variables were Communication and Time. Communication was controlled through instructions on how to proceed with the test to either perform it individually or the possibility and encouragement of using external sources to find answers to the questions. What this means is that the variable that changed between each part of the survey was that of communication if the individual performed it by themselves or was encouraged to seek third party information. The meaning of independent variable and control of it is that the researcher is capable of changing the state of the independent variable. It is the variable that is being studied or manipulated in some regard which is where control is applied in the sense of how the researcher is manipulating it. Time was not possible to control due to limitations of the instrument available where as it was not possible to assign a time limit to the surveys. Rather time became a measurement of perceived stress, if an individual experienced a time restraint that their perceived stress would most likely go up. This allowed for an understanding whether time really was a factor to consider during exams.

7.5 Limitations

Reliability and Validity are both significant issues with the study. Reliability revolves around the notion of the results being replicable if the study was to be performed again, as in would the study receives the same or similar results (Maclin 2009). Validity, both external and internal, revolves around how generalizable the results are. Internal validity questions if the results are only applicable to the population performing the test. If only students performed the test, for example would the results be applicable to all kinds of students. External Validity questions the global generalization, meaning how well can the results be applied to everyone possible in any situation (Maclin 2009). While the instrument of conducting the study seems to possess a reasonable validity based on the purpose of the study, there is no guarantee that the instrument and the results will accurately measure what is expected. The selection of participant's causes an issue with

reliability in the sense that the results may possibly be skewed due to participants not following instructions. This leaves the study with low reliability and low internal validity. Despite this the study does possess external validity grounded in the theoretical foundation and previous research. When information is exchanged and if it is highly demonstrable (Kane 2010) there will be an increase in the results.

7.6 Expected Results

Based on the overarching hypothesis, the results of the study will display that allowing individuals to communicate openly and exchange information with each other will result in a significantly higher individual test results. The results may also show overall negativity towards time limits, affecting individuals potential to answer the questions along with high perceived stress.

7.7 Ethics

In terms of ethical guidelines as outlined in Maclin (2009), the ones of concern for the study being Integrity and Respect, Anonymity, Usage and Responsibility along with making sure no harm is done to participants. Due to the nature of the study, integrity and respect are taken into consideration as the study does not require any personal information that could threaten a participant's integrity or respect. Due to anonymity of the experiment, there is no risk for any bias or unjust results based on the participant's identity. The purpose of the study being to enlighten how individuals use resource exchange to trade information, the results from the study could be used in a beneficial manner furthering studies into the subject. Being a bachelor project the researcher has to take full responsibility for how the study is conducted. As a final ethical guideline (Maclin 2009) no animals or humans were injured during the course of this study. The Participants were fully informed of the purpose of the study and the usage of the data collected, alongside information that their answers would remain anonymous

8. Results and Analysis

8.1 Observed Results:

During initial observation of results provided from the first section of the test, which was performed individually, 67% of participants failed to pass the test with a mean score of 3.8 across the population (Table 1).

Section 1 Passed or F

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Passed	21	33,3	33,3	33,3
	Failed	42	66,7	66,7	100,0
	Total	63	100,0	100,0	

(Table 1. Descriptive statistics of how many failed and passed the first test)

In comparison during the second part of the test where the participants were allowed to exchange information, 62% of the participants passed the test with an increased mean score of 5.2 across the population (Table 2).

Section 2 Passed or F

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Passed	39	61,9	61,9	61,9
	Failed	24	38,1	38,1	100,0
	Total	63	100,0	100,0	

(Table 2. Descriptive statistics of how many failed and passed the second test)

Initial observation of results would conclude that there might be significance in the different examination methods.

8.2 Statistical Results

A paired-samples t-test was conducted to test H_1 and evaluate if there is a significant difference between participants doing an exam on their own or using available method of information exchange. There was a statistically significant difference in exam results from the first section of the exam ($M = 3.85, SD = 1.66$) to the second section of the exam ($M = 5.22, SD = 1.71; t (62) = -5.55, p < .001$). As such, the Null Hypothesis is discarded.

For H_2 a Spearman Ranked Order Correlation was performed to measure the relationship between perceived ability to answer questions during imposed time limit and perceived stress during imposed time limit. A significant, moderate, positive correlation was found between the variables, $r =-.35, n=63, p = .005$. Imposing a time limit will increase perceived stress levels along with increasing perceived limitations on fully answering questions, with 76% of the population preferring not to have a time limit. Therefore the Null Hypothesis is discarded

8.3 Data Analysis

The results showing a significant difference between the two examination methods was expected based on the previous research indicating that information exchange is a valuable tool in understanding a subject matter. Due to the online-based nature of the test survey, it should be assumed that the participants did not follow instructions as outlined, despite this possibility of a potential type one error. Where the null hypothesis has been rejected despite possibility of being valid, the previous research does support the current results reducing the possibility of type one error. It is therefore assumed that each test was performed according to instructions and the results are indicative of how social exchange of resources allow for higher individual results compared to not exchanging information. The results also display the effect of knowledge transfer potential on demonstrable information causing possibility to either pass or fail an exam.

It is to note that the results for H_1 do not possess any internal validity due to the possibility that instructions were not followed. Following this another threat to the internal validity is that the instrument of the study was changed from an experiment to an online test survey due to lack of participants. If grounded in the previous research

alongside expected results it can be debated if the results possess external validity as well as reliability.

The results concerning the relationship between perceived ability to answer questions during an imposed time limit and perceived stress during an imposed time limit, were deemed significant in such a way that imposing a time limit on a test will reduce the ability to correctly answer questions alongside increasing perceived stress in the individual. This result was expected to some degree due to the time limits enforcing a limited duration on which to display full understanding of subject matter. The data used for the results was also subject to outliers that defied the expectations that high-perceived stress during time limits cause hindrance in ability to answer questions properly. Rather these outliers imply that the individuals while not feeling perceived stress during a time limit still find a time limit to hinder their ability to answer correctly. (Figure 1.)
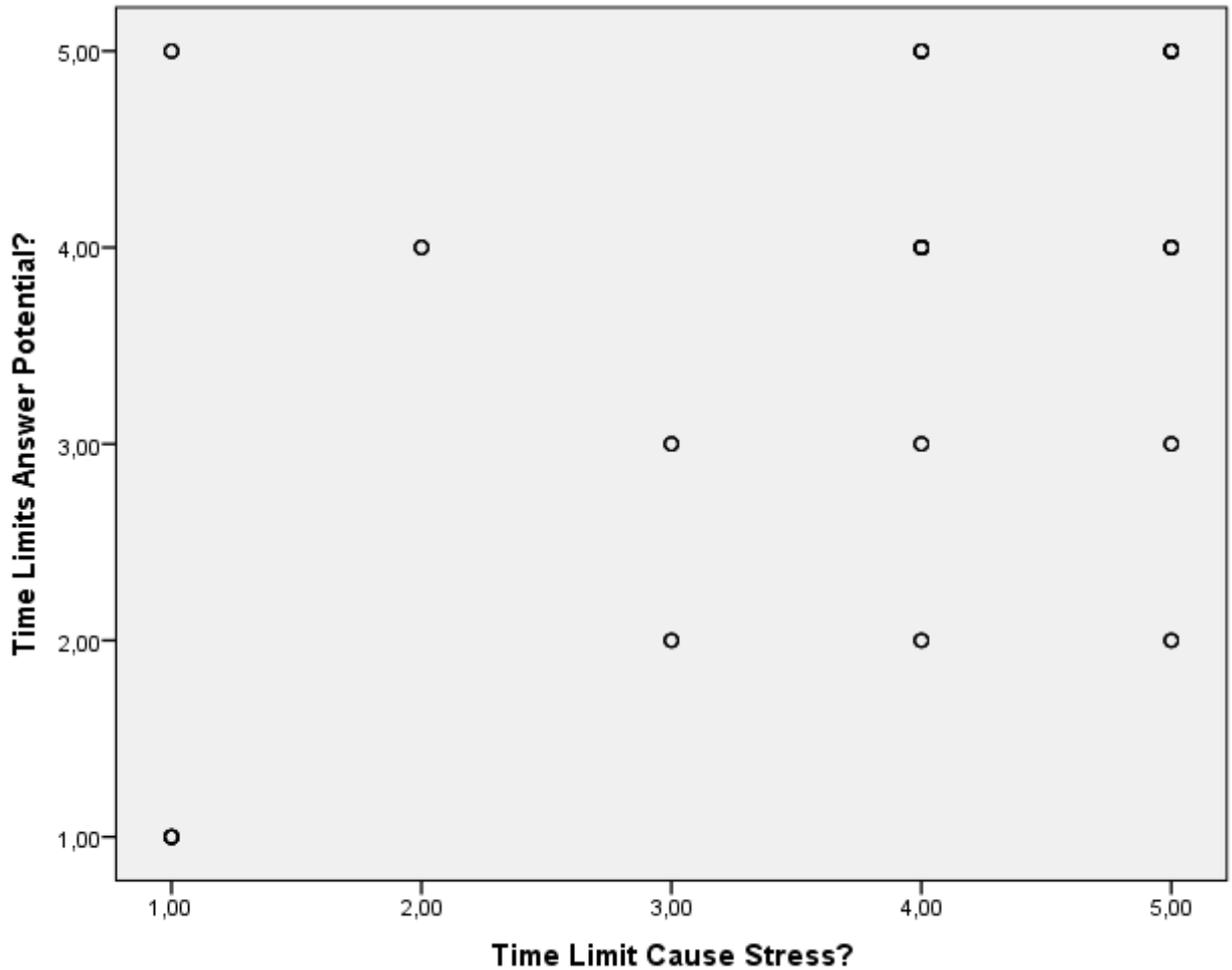
(Figure 1. Outliers in Dataset)

It shall be noted that the data shown is not representative of the amount of answers gathered but distribution of the answers provided. Ignoring the outliers it is easy to observe that individuals feel that a time limit causes stress along with either partially or fully limiting their potential to answer questions given. Highlighting how exchanging time for information can cause issues when the time allowed for exchange is limited, limiting the amount of information exchanged.

While not significant for the research purpose this paper is based on, the results concerning male and female mean scores were deemed interesting for it implies no bias in terms of how one-gender scores compared to the other. Due to the fact this trend

continued across both tests with no significant difference in mean scores implies that men and women share similar levels of understand and search methods for finding answers. There was no significance expected from these results, meaning that the results are as expected not significant. If there was significance the implications would be interesting to further study

9. Conclusion and Reflection

Based on the results that were observed in terms of the descriptive statistics related to the two tests and the statistical result it is to be concluded that while information exchange increase the individual performance it is not a foolproof method. While the results are significant, the observed percentage of passing individuals 61% during the second part of the test is relatively close to 50% alongside the mean score of 5.2 across the population during the second test. With the cutoff point for a passing grade being 5 points, it is not an ideal result in terms of the observable data.

The reasoning behind why the observable data may not be as ideal as one would hope for despite being significant can be explained through Knowledge Transfer Potential (Kane 2010) whereupon the knowledge being transferred has to be demonstrable useful. Implying that while individuals may find the same answer through various sources it is the explanation and demonstrability of this knowledge that makes the difference regarding if the knowledge transfer is successful or not to the individual. This would in turn explain how individuals have answered wrong on different questions, because the demonstrability (Kane 2010) of the information they found was low resulting in the participants answering the question wrong despite having found the correct answer. Additionally, Knowledge Transfer Potential (Kane 2010) provides a value for information resource exchange (Foa 1971), wherein if the information does not possess high demonstrability the perceived value of the information is lower.

Sadly results are not available to showcase the general method used for gathering information for the second portion of the test, this due to an error on the researchers part wherein the source of information was not deemed important for the overarching result of the test. So as such only assumptions anchored in theory can be used to try to explain the reasoning to why individuals still failed despite having free reign over their method for gathering the information needed to pass the test.

As such, an assumption is made that between available information resources that those possessing high demonstrability may be chosen over those with low demonstrability (Kane 2010). This is so due to high demonstrable information generally possessing high

value in resource exchange. This higher value also implies a higher gain (Blau 2008) from using said source. Despite the method not necessarily being a social exchange the parallel can be drawn that sources possess highly demonstrable (Kane 2010). Information may possess a perceived higher gain as such they will be used (Blau 2008). To give an example, Wikipedia is an open source website meaning most of the content is either user created or user edited. This is why academia generally does not reference Wikipedia as a reliable source due to the potential for corrupt information alongside the potential of anyone editing said information. But the information available on Wikipedia being user created or user edited generally tend to possess a high demonstrability (Kane 2010), which as implied entails a higher value and therefore a higher gain if used. To further evolve this example and gain further insight to the possibility as to why participants were still capable of failing the test. Most of the research used throughout this study is available in simplified understandable and highly demonstrable (Kane 2010) articles on Wikipedia, yet these articles do not go as in depth on the subject as the actual researched used. For the average individual trying to understand a subject, the complex and long articles describing a subject in depth possess low demonstrability, low value for the timed exchanged on gaining the information (Blau 2008, Kane 2010, Törnblom & Kazemi 2012). In comparison the simplified condensed information available through Wikipedia has a higher perceived gain (Blau 2008) for the resources spent attaining the information; this implies that through social exchange an individual is more likely to make use of Wikipedia than the scientific article for the same subject. It is to note that while not a social interaction parallels can be drawn between social exchange and various information sources by extrapolating how the social interaction may have taken place if the source was a human. This is only assuming non-human sources used such as Wikipedia. It is also possible that the individuals that failed despite having access to search engines, books or their choice of method in seeking information is due to being incapable of properly filtering information that was not relevant to their current task (Baldwin 2000). To evolve that while high demonstrable knowledge (Kane 2010) is easier for an individual to learn, all information comes with non-relevant data that normally individuals filter out (Baldwin 2000) for it does not have any relevance to their current task. What this implies for

example that lectures are usually condensations of course books highlighting important aspects of the reading material for further studying. If an individual is solely reading the coursework, it is possible that non-relevant information is not filtered out properly (Baldwin 2000) to explain the consequences of this. Usually college courses focus on particular subjects sometimes skipping chapters in course books that are not relevant for the current course. This entails that the individual who purely read the course book start to finish will have to properly filter out the non-relevant information during an exam. To conclude this means that the individuals that failed to pass the test despite capability of searching and finding the answers may have only encountered low demonstrable information or high demonstrable (Kane 2010) corrupt information, alongside the possibility of improperly filtering out the information that was relevant to the current question (Baldwin 2000)

While previous conclusion and assumptions based on the results may explain the possibility of participants failing the test, it also provides foundation for why the results are significant. The basis remains the same that highly demonstrable (Kane 2010) information transfers to the individual for it is perceived to have a higher gain in comparison to a complex article concerning the same subject. Assuming the highly demonstrable information is correct and not corrupted, it stands to reason that the knowledge transfer potential (Kane 2010) is high allowing for a better understanding of the subject matter if only partial understanding is required. If complete, understanding is required of the subject matter, highly demonstrable information has the side effect of increasing the value and demonstrability of what was before considered low demonstrable information (Blau 2008, Kane 2010, Törnblom & Kazemi 2012). This due to the individuals understanding of the subject having grown to encompass the basics required for the complex information to be demonstrable. As stated by social exchange theory(Blau 2008) and group theories (Biel & Gärling 2012, Johansson & Lalander 2012, Svedberg 2012, Wheelan 2004), individuals tend to seek out others who possess a higher level of understanding than themselves to evolve their own understanding through exchanging resources (Foa 1971) . Eventually the individuals will possess the same level of understanding and the gain from social exchange (Blau 2008) is void as

there is nothing new to gain. Note this only applies to relevant information concerning a subject matter. When the individual has learned all there is to learn from a certain social exchange they will eventually have to move on and search for a new social exchange with a perceived higher gain (Blau 2008). Similar to how humans go through preliminary school, are taught the basics of math, language and history, individuals possess the possibility to further their understanding. To further develop those skills an individual will attend high school where the math is harder, language is more complicated and history more in depth. Additionally as the individual finishes high school they have learned all they can from the social exchanges that occurred resulting in even higher base understanding of a subject matter. From there they can further look for social exchanges they can gain from at a college or university level. What is implied is that as individuals learn through social exchange (Blau 2008), highly demonstrable information (Kane 2010) causes their base understanding of the subject matter to increase, and as a result, information that was previously complex and low demonstrability is now understandable and possesses a high demonstrability.

Further implications and assumptions follow that it is only natural that if an individual has access to highly demonstrable knowledge on the subject the results will display a better understanding of the subject than an individual possessing low demonstrable knowledge (Blau 2008, Kane 2010). For while the second individual may possess the correct answer, it does not imply that the individual understands why the answer is correct. Sadly due to the nature of the test done for the paper it is impossible to extrapolate if the participants understand why a certain answer was correct over another. So the conclusion of the results while significant, are not reliable and does not possess internal validity due to the possibility that instructions during the test may not have been followed, along with a change of instrument due to lack of participants for the originally planned experiment. It can be debated if the results possess external validity grounded in the previous research implying that if an individual is allowed to make use of information sources be it through search engines, friends or books that their overall result will be improved. This statement concerning the possibility of external validity can be generalized because the examination method is not new and has been used on

several occasions, therefore it can be concluded the significance of the results do possess external validity. As such, the acceptance of H_1 and consequent rejection of the Null Hypothesis is not due to a Type 1 Error.

Furthermore the results displayed a significant relationship between potential to answer questions and perceived stress during a time limit can be explained through resource exchange theory (Foa 1971) wherein time is debated to be an actual resource. The arguments for it stand clear that individuals exchange time for various services; individuals exchange time for money through work. Students exchange time for information during lectures. As to not drag on the debate for the purpose of this paper time is considered a resource that is exchanged. As such enforcing a time limit during an exam limits the available information for exchange, for example during a normal final there is a time limit of 5 hours which causes a limitation on the amount of information students can put down on paper to answer and display their understanding of the subject matter. Additionally the results provided explain there is a perceived increase of stress associated with time limits, the correlation between the perceived stress and the potential to answer questions may result in even less information available for exchange, as the student has to filter the information that is relevant to the question and what information to leave out.

9.1 Reflections

The purpose of the study was to explore how individuals make use of social exchange to further understand subject matter and how it reflects on individual performance, which is debateable if the study has achieved or not. The study has achieved gaining significant results concerning the usage of social exchange and various ways of finding and interpreting information. The interpretation of the data collected is what decides if the study fulfilled its purpose. The results along with the conclusions based from the results would indicate based on interpretation that the study did fulfill its purpose, sadly not in the way that was originally proposed.

The purpose of the study was first to examine how students made use of social exchange through an experiment, but lack of participants set the study onto a different

course making use of a test that was distributed through Facebook to receive results. The ethical concerns regarding the study remained the same throughout the study despite the change of method from an experiment to a survey test, wherein no personal information besides age and gender was attained for categorical purposes. Only gender ended up useful as a category for the results coincided with the expectation that gender had no significance on mean scores. Else, the ethical guidelines outlined alongside the ethical requirements remained intact through the entire study.

Further, on the main issue with this particular study concerning the original experimental method was the lack of participants volunteering. First round of participants that was looked into was students of Social Psychology freshmen's and second year students totaling around 90 people all together, only 5 people volunteered in total. Second round of participants that after consulting with mentor were students who had participated in a statistics course, no one replied or volunteered. Third round and what this study is now based on is every day individuals, after more consulting with mentor it was determined that at the time that an open survey distributed through social media would be fastest way to collect responses, meaning method had to be reworked and the test redesign to work for the average individual.

 To test the instrument used the first iteration was provided to the researchers significant other and a friend to establish how the average individual with no knowledge of social psychology would understand the questions. Further iterations went through same testing until a final iteration that was satisfying was developed and distributed. The results provided corresponded with the researchers expected results, the results also corresponded with the previous research that was done. Sadly due to method change the results were not as clear as would have been expected. The original experimental method concerning specifically students allowed for open-ended questions to be observed and recorded allowing for a clear understanding of why a wrong answer was wrong due to either false or corrupt information.

Despite the issues with the study, reason why the researcher would want to revisit the subject and one of the strengths of the essay. The goal of colleges and universities is to

make sure students graduate, yet a large amount of students drop out or fail to finish their studies despite being motivated to study. The intention was to understand if there is a problem in understanding the subject matter. Due to previous research and the researchers' experience, this would appear to be the case. While not concerning students Kane (2010) demonstrates that if superior knowledge or methods are provided to individuals and is not able to demonstrate why it is superior then the knowledge is discarded. In similar way, the researcher through past experience has observed how individuals have credited a greater understanding of a subject to discussions had with peers. As such, is it possible that teachers and professors are not providing high demonstrable information that students understand? Furthermore is it also possible that if information even if it is false or corrupted provides high demonstrability is more likely to affect the students understanding of the subject matter? Due to these questions and the issues that arose during this study the researcher would want to revisit the study and the subject at a later point.

The main weakness of this study and primarily one of the reasons it might have turned out as it did, is because the researcher was alone, no colleague to have discussions with or bounce ideas off, no one to assist with finding participants for the original experimental method. Secondary weakness of the study was the lack of participants, lack of volunteers for the original experiment causing stress responses concerning what to do and lack of time when a solution was found. Despite the weakness and the issues that have plagued the study, the researcher sees the experience as a learning opportunity and inspiration for future studies.

Future studies concerning the subject of this study should focus on performing an experiment to get reliable statistical and observational data. To determine if the issue lies with low demonstrability of information leading to misinterpretation of the information in question Or if high demonstrability can cause corrupted or false information to spread amongst participants causing more to fail. The results would be capable of providing insight into if the problem lies in the education system or with the individuals understanding of the knowledge provided.

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Bilagor: Enkät

Note, any swedish in the survey is due to Google Forms reporting my location as Sweden on automated text

Social Psychology Information exchange

This test is for my bachelor project. It revolves around information being exhanged between individuals (persons, professionals, etc.).

- The first page of the quiz is meant to give insight on your overall knowledge and should be completed by yourself

- The second page of the quiz is to test the knowledge you have access too. I.e. wikipedia, google, etc.

Disclaimer:

- The test is anonymous, no personal identifiable information (names, etc) will be used in the final report.

- The test is completely voluntary, if you at any point do not feel like completing the test you can just close it and nothing will be saved.

- Age and gender will be used to produce categorized results for the final report.

- The final report will only be shown to relevant personal at the University of Skövde.

*Obligatorisk

Quiz

Background Questions

Gender *

Markera endast en oval.

- o   Male
- o   Female

Age *

True or False

This first section will contain a series of statements, concerning various terms and theories. Please answer to the best of your knowledge with true or false.

Q1:The term used to describe an individual, when he/she is incapable of differentiating change in their lives/environment due to distractions is called "Change Blindness"? *

Markera endast en oval.

- o   True
- o   False

Q2: The term used to describe social gatherings that are meant to help social relations in a individuals life is called "Social Exchange"? *

Markera endast en oval.

- o   True
- o   False

Q3: The theory based around the assumption, that a human being is able to process that another individual possess thoughts and feeling is called "Theory of Mind"? *

Markera endast en oval.

- o   True
- o   False

Q4: The term used by social psychology to act as an overarching label for different sign languages is called "Symbolic Interaction"? *

Markera endast en oval.

- o   True
- o   False

Descriptions

This is the second part of the overall knowledge. I will provide descriptions of terms and theories, where you have to identify (using your own knowledge) with the correct term or theory.

Q1: A theory meant to describe basic psychological human needs. The most common model showcasing in the form of a pyramid. *

Markera endast en oval.

- o   Maslow's Heirarchy of Needs
- o   Asimov's laws of robotics
- o   The Philip's Needs Model
- o   Non of the above

Q2: Assigning characteristics to an individual, that are proven wrong due to situational reasons. *

Markera endast en oval.

- o   Fundamental Attribution Error
- o   Flawed Characteristics
- o   Contextual Bias
- o   Situational Character Error

Q3: Teaches us norms, rules, culture and is fundamental for our existence as humans. *

Markera endast en oval.

- o   Socialisation
- o   Symbolism
- o   Interpretative perception
- o   Non of the above

Q4: Being part of a group gives us a sense of belonging. To define who we are as individuals. *

Markera endast en oval.

- o   Social Identity Theory
- o   Group Identification
- o   Social Resource Exchange
- o   Social Attraction Theory

Information Exchange.

Welcome to the second page of this quiz. During this part of the quiz you are highly recommended to answer all the question with the help of friends or by searching for them online.

True or False

Below you will find a few statements, that are either true or false. As mentioned before you are highly recommended to answer these questions with the help of friends or by finding the answer online.

Q1: George Herbert Mead is considered to be one of the founding fathers of Social Psychology? *

Markera endast en oval.

- o   True
- o   False

Q2: In Social Resource Theory, it's stated that humans possess 6 fundamental resources we exchange with others. Love, Status, Goods, Information, Services, Money? *

Markera endast en oval.

- o   True
- o   False

Q3: Symbolic Interactionism, Social Exchange and Sociology form the core framework of Social Psychology? *

Markera endast en oval.

- o   True
- o   False

Q4: Subliminal priming is a concept based around unconsciously reacting to environmental stimuli? *

Markera endast en oval.

- o   True
- o   False

Descriptions

This is the second part of the knowledge gained by friends/internet. I will provide descriptions of terms and theories, where you have to identify with the correct term or theory. You are highly recommended to answer these questions with the help of friends or by finding the answer online.

Q1: A concept based around the evaluation of our actions. If we, as individuals, had personal control of our actions or did we get help by external stimuli. *

Markera endast en oval.

- o   Locus of Control
- o   Self Control Theory
- o   Action Evaluation Method
- o   Non of the above

Q2: A concept in Social Influence describing how the rarity of an item may influence an individual. *

Markera endast en oval.

- o Scarcity
- o Rarity
- o Collectionism
- o Influential Deficiency

Q3: The world is our stage and on this stage we perform roles, wearing costumes and masks that show the crowd our intentions and gives them expectations on our performance. *

Markera endast en oval.

- o Goffman's Theater Metaphor
- o Mead's Performance Theory
- o Stryker's Social Performance Model
- o Completely made up

Q4: The Milgram Experiment is prime example of this social concept in use. *
Markera endast en oval.

- o Power
- o Norms
- o Culture
- o Interaction

Tests and Time

This is the last part with three simple questions that will give me insight on your opinion of time limits.

If there was a time limit present to this quiz, would it prevent you from answering the questions properly? *

Markera endast en oval.

1 2 3 4 5

Not at all   It's very limiting

Do you feel a time limit would cause unwarranted stress as you answered the questions? *

Markera endast en oval.

     1 2 3 4 5

Not at all   Very stressful

At this time there is no time limit to this Quiz. Would you rather prefer there was a time limit? *

Markera endast en oval.

- o Yes, add a time limit.
- o No, leave it.

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