THE POSITIVE PROJECT TEAM
THE IMPACT OF POSITIVE AFFECTIVITY ON PROJECT SUCCESS

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Thesis of 12 ETCS credits
Master of Project Management (MPM)

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Hafdís Huld Björnsdóttir[1]

Paper presented as part of requirements for the degree of Master of Project Management (MPM) Reykjavik University - April 2015.

ABSTRACT

What is the impact of positive affectivity on project success? The primary purpose of this paper is to answer that question by comparing two project groups based on their psychological traits and attitudes and see whether it has an influence on project success. It is done by administering psychometric tests, Life Orientation Test-Revised (LOT-R) and Positive and Negative Affect Schedule (PANAS) to both groups, along with questions regarding group dynamic based on positive psychology. Do their views affect how they experience the group dynamic?

We find that there are some differences between the groups. Group A is both more optimistic and higher on the positive affect scale than group B. In compliment with this group A is also lower on the negative affect scale. Group A is more open to change, responsibility and roles are clearer and there is more happiness within the group. The sponsors of the projects confirm that positivity is higher in group A and based on the sponsors definition of success there is a reason to belief that positive affectivity translates into greater success of the project.

The main findings in this research indicate that a mind-set of optimism and positive affectivity can have a positive effect on project success.

Key words: *positive psychology, optimism, positive affectivity, group dynamic and success.*

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1 INTRODUCTION

Virgil, the roman poet once said *they can because they think they can*. How much influence does the mind have on us? Does it matter whether our mind-set is positive or negative? Does it matter whether we are optimists or pessimists?

Those working as project managers can agree that most projects require collaboration of people. We are all different and have our unique way of looking at life, but in projects we have to work together and develop a mutual understanding of various things. It can sometimes be challenging. Who hasn't worked with the negative Nancy who constantly complains and has a negative influence on others? In your group there could also be someone acting as Pollyanna, who is a blindly optimistic person. What affect do these individual have on the group dynamic and the ability of the group to succeed?

The inspiration for this research comes from the book *Project Psychology, Using Psychological Models and Techniques to create a Successful Project* by Sharon de Mascia (2012). There it is stated that items causing both failure and success of projects are highly combined with human elements. That underlines the significance of psychology in project management. While working with people in a project one can see that each individual has his own set of views and personal traits which he brings to the project work. Too what extent does it affect the project success? And how can we as project managers affect those views in order to maximize the project's success? Those are a few of the questions that the researcher, who is a young project manager, has asked herself in the beginning of her path of managing projects and working with various types of individuals in teams. It is easier to focus on the negative things and complaining without coming up with a solution. In order to succeed it is important to think of ways to improve things and focus on what we can do, not what we cannot. On her brief journey the researcher has also found it helpful to be optimistic, but still critical. That type of attitude can help individuals to cope through demanding times, but does it lead to success?

In order to shed some light on that topic we will investigate the impact of life orientation i.e., optimism or pessimism and positive and negative affectivity on project success. Also how positive psychology can be applied in project management. The aim of this research is to answer the research question:

What is the impact of positive affectivity on project success?

Along with the research question the following hypotheses are stated:

- Mind-set does affect project success.
- It can be beneficial to use positive psychology in project management.
- Positive and optimistic project groups are more successful than groups that are more negative.

To answer this question and prove or reject these hypotheses this research will contain a comparative study between two groups who are parallel in comparative projects. The projects revolve around implementing lean culture which requires a lot of changes and improvements of processes. Therefore it is really interesting to study those groups in regards to their mind-set. The research will focus on whether there is any difference between the groups in terms of personality traits and their views of the group dynamic. That will be done by measuring optimism and positivity of the groups to see if it has an effect on how the individuals experience the dynamic of the group. To research whether there is any connection between mind-set and project success both sponsors of the projects were asked to define success those for projects. Their view is then compared to the positive affect of the groups.

2 LITERATURE REVIEW

In order to understand the research material, it is important for us to stand on the shoulders of those who have gone before us. Therefore we are going to go through the history of positive psychology. We will see how our predecessors have defined terms such as positive affectivity, happiness and optimism. To be able to compare our findings from the comparative study to the view of the sponsors we have to have a mutual agreement of what success means to us.

2.1 POSITIVE PSYCHOLOGY

It has been argued that psychology has through the years primarily focused on deficits and disability and trying to undo the worst in human behavior. The critical psychology tradition in the UK has drawn attention to the shortcomings of this approach (Johnstone, 2000; Newnes, Holmes, & Dunn, 1999; 2001). Martin Seligman and his colleagues have laid the foundation for a positive psychology to complement deficit-based approaches (Seligman, 2004; Seligman & Csikszentmihalyi, 2000; Lopez & Snyder, 2003). Martin Seligman, often referred to as the father of positive psychology, made a plea for a major shift in psychology´s focus. Instead of focusing on the negative aspect of human behavior, for example finding what is wrong and fixing it, he focuses on life above zero, where zero is a neutral space where not so much is wrong but neither right (Baumgardner, 2010). Life above zero is flourishing, that is to live within an optimal range of human functioning, which implies goodness, generativity, growth, and resilience (Fredrickson & Losada, 2005). Flourishing is a measure of overall well-being and is thought to be important to the idea of happiness (Fredrickson & Losada, 2005; Dunn & Dougherty, 2008).

Seligman also defined three aspects of positive psychology, they are: the study of positive emotion, the study of positive individual traits and the study of positive institutions (Seligman, 2004). Gable and Haidt (2005) stated a similar definition and viewed positive psychology as "the study of conditions and processes that contribute to the flourishing or optimal functioning of people, groups and institutions". Briefly, positive psychology can be explained by its mantra, which is, to "develop the strengths and manage the weaknesses" (Lopez & Snyder, 2003)

Positive psychology is a relatively new perspective towards psychology and the movement is not without its challengers and critics. Some criticisms seem to make the assumption that since it is positive psychology then the rest must be negative psychology and that is has evolved because the so called negative psychology hasn´t taught us enough. Gable and Haidt (2005) states that this interpretation is untrue and that psychology is mostly neutral but because of the lack of progress on positive topics the imbalance has become so strong. Another criticism of positive psychology is that it fails to recognize the negative sides of life and prefers the Pollyanna view of life (Gable & Haidt, 2005).

Positive psychology has also been criticized for a few conceptual problems. For example for excessive use of quantitative methodology, that is to focus too much on mathematisation of psychological processes which does not help to understand the human being (Fernández-Ríos & Cornes, 2009). Also it has been criticized for inappropriateness of high self-esteem, that the overemphasis on finding constant high self-esteem may weaken or interfere in personal autonomy (Crocker, 2006; Crocker & Park, 2004).

Positive psychology has also been criticized for its useless philosophical controversies, to accept the principles of positive psychology uncritically indicates a naive philosophy (Fernández-Ríos & Cornes, 2009).

Even so, positive psychology has much to offer to our knowledge of psychology and it is important not to uncritically accept the discussion of positive psychology. Our aim and others, who really are concerned about human well-being, should point at the same goal. That goal is to help people to live without problems and learn from mistakes (Fernández-Ríos & Cornes, 2009).

2.2 POSITIVE AND NEGATIVE AFFECTIVITY

In general, affect can be thought of as an umbrella term over a broad range of emotions which individuals experiences. This includes emotions which are in the moment and short term affective experiences and emotions which are stable tendencies to feel and act in certain ways (Watson & Clark, 1984). Affectivity can be both positive and negative.

Positive affectivity describes how we experience positive emotions and interact with others. Individuals who are high on positive affectivity tend to be enthusiastic, confident, energetic and cheerful. In contrast, individuals who are low in positive affectivity tend to experience lower levels of excitement, happiness, vigor and confidence (Naragon & Watson, 2009).

Negative affectivity is how individuals experiences negative emotions and poor self-concept (Watson & Clark, 1984). Individuals that are high on negative affectivity tend to experience anger, contempt, guilt, fear and disgust (Koch, Forgas, & Matovic, 2013). Research has shown that negative affectivity is strongly connected to life satisfaction and individuals with high negative affect will on average experience higher levels of distress and anxiety and tend to focus on the unpleasant aspects of themselves, the world, the future and other people (Jeronimus, Riese, Sanderman, & Ormel, 2014).

Positive and negative affectivity are relatively independent of one another. That means that it can be combined in various ways. (Naragon & Watson, 2009).

According to Fredrickson, (In Seligman 2004) people are more open to new ideas and experiences when they are feeling positive. Argyle and Crossland (1987) have as well suggested that happiness is related to positive affect and the absence of negative affect.

2.3 HAPPINESS

Argyle and Crossland (1987) believe that happiness is composed of three main components: the degree and frequency of positive affect or joy, the average level of satisfaction for a period and the absence of negative feelings. The Greek philosopher Aristoteles, on the other hand, thought that happiness is the final end or goal that encompasses the totality of one's life. Two definitions of happiness and well-being are hedonism and eudaimonism. In simple definition hedonia focuses on happiness as Argyle and Crossland define it (Kahneman, Diener, & Schwarz, 1999). While eudaimonia focuses on meaning (Ryan & Deci, 2001) and how an individual lives according to one´s true self and the good in life is more than pleasure (Waterman, 1993; Ryff & Singer, 2000).

Numerous studies show that happy individuals are successful across diverse life domains e.g. work performance and health (Lyubomirsky, King, & Diener, 2005). Whether the success makes individuals happy or vice versa has been argued. Lyubomirsky et al. (2005) findings suggest that happiness is associated with and precedes numerous successful outcomes. Also that "the evidence suggests that positive affect--the hallmark of well-being may be the cause of many of the desirable characteristics, resources, and successes correlated with happiness". A review of 225 studies on happiness and success by Lyubomirsky et al. (2005) shows that happiness may breed success rather than the other way around. They also found that happy employees have on average 31% higher productivity, their sales are 23% higher and their creativity is three times higher. The research of Staw et al. (1994) supports these findings where he studied over 200 workers and found that happier workers got better evaluations and higher pay than less happy workers. Oswald et.al (2014) also provides evidence of a link between happiness and productivity.

2.4 OPTIMISIM

Optimism can be defined in numerous ways. In everyday life we talk about optimism as the act of looking at the bright side of life. The other side of the coin is pessimism which can be defined as the belief that if something will go wrong, it will.

Carver, Scheier and Segerstorm (2010) have defined optimism as a variable that differs between individuals and reflects the extent to which people hold generalized favorable expectancies for their future. Seligman states that from a scientific perspective optimism does not equal positive thinking. He says that a pessimist can learn to be optimistic and that it

is all about the way you interpret something that happens to you. Seligman has defined optimism by using the concept of explanatory style, that is how we interpret events in our life. There are, three dimensions to this concept: permanence, pervasiveness and persona-lization. Permanence raises the question, is it likely to continue? Is it permanent or temporary? Pervasiveness is whether it is reflective of your whole life and personalization is whether it is internal or external (Seligman, 1998).

It is however possible to raise the question if optimism is always a good thing? In fact it has been argued and Seligman concludes that in many situations it is necessary to show a strong level of pessimism and realism (Seligman, 1998).

2.5 PROJECT SUCCESS

One could assume that defining project success should be a relatively simple task, but success is measured both subjective and objective ways and it can mean different things to different people (Freeman & Beale, 1992). In the beginning of the century Shenhar and Wideman (2000) concluded that there was no mutual understanding of success in either business or project management literature. In recent years the interest in success/failure factors has increased and numerous researchers have investigated those factors.

The common way to define project success is whether it has achieved all of its agreed goals. The early literature stated that project success was evaluated by three criteria: time, cost and quality, often referred as the iron triangle (Pinto & Slevin, 1988). In the late 20th century these criteria were criticized for being inadequate (Shenhar, Levi, & Dvir, 1997; Shanhar, Dvir, Levy, & Maltz, 2001; Atkinson, 1999).

De Wit (1988) was one of the first to recognize a difference between project success and project management success. He stated that project management success focuses on fulfilling the cost, time and quality criteria while project success is the effects of the project´s final deliverable, project goals, project purpose and satisfaction of stakeholders (De Wit, 1988).

The Project Excellence Model confirms those findings. According to Westerveld (2003) there are six results areas of the Project

Excellence Model: Project results (budget, schedule, quality) and appreciation by client, project personnel, users, contracting partners and stakeholders (Westerveld, 2003).

In a study by Jonasson and Ingason (2013) on Icelandic IPMA-certified project leaders it is stated that project leaders generally defined project success according to tradition. That is in terms of time, cost and quality with less emphasis on customer satisfaction. In fact only half of the project leaders tried to measure customers' satisfaction. It is interesting to see that the majority of the project leaders think that the project is successful in spite of poor results on defined success criteria. That means although time, cost and quality criteria fails and less than half of the project leaders tries to measure customers satisfaction, the project is success.

In the light of the complexity of success factors and how success factors can vary from project to project, it is important that each projects success factors are determined according to the particular project.

Since success can be defined in various ways there are also numerous factors that can affect the projects success, for example the group dynamic and leadership. Both factors are important in projects. The group is composed of different people who interact with one another in various ways.

2.6 GROUP DYNAMIC AND LEADERSHIP

In order to realize the combination of a group and to determine the suitability of individuals for team roles the Belbin Team Inventory Method (BTIM) can be used. BTIM is a personality test which evaluates the personality of individuals and whether they are suitable for a particular role within the team. There are nine Belbin roles in a team: Plant, Resource Investigator, Coordinator, Shaper, Monitor Evaluator, Team Worker, Implementer, Completer Finisher, and Specialist (Belbin, 2003). The definition of the roles are explained in Table 1.

Table 1 - Belbin team roles

Belbin team roles	
Plant	Creative, unorthodox and generator of ideas.
Resource Investigator	Extrovert, enthusiastic, explores opportunities and develops contacts.
Coordinator	Mature, confident and clarifies goals.
Shaper	Challenging, thrives on pressure. Has the drive and courage to overcome obstacles.
Monitor Evaluator	Sober, strategic and sees all options.
Team Worker	Co-operative, mild and calms waters
Implementer	Disciplined, reliable and turns ideas into practical actions.
Completer Finisher	Painstaking, conscientious and searches out errors and omissions. Delivers on time.
Specialist	Single-minded and provides knowledge and skills in rare supply.

(Belbin, 2003)

Another scheme which can be used is Myers-Briggs Type Indicator (MBTI). It evaluates personality types and is based on four preferences:

- Extraversion versus introversion
- Sensing versus intuition
- Thinking versus feeling
- Judgmental versus perceptive.

Based on the combination of these preferences the test shows the personality type. According to the test there are sixteen personality types. This profile can help individuals in a number of ways, such as finding an appropriate career or identifying their leadership style.

Both tests can be helpful to evaluate groups and leaders and to recognize their behaviors. In order to lead the group the manager has to be able to understand himself and also the group. By doing so he can motivate the group in order to maximize the success (Denny, 2009).

In regard to leaders and success it is important that the manager is also competent of leading the group (Wren & Bedeian, 2009). Grace Murray Hopper, a computer programmer and inventor defined the difference between leadership versus management by the quote "You manage things; you lead people". But one cannot thrive without the other. Henry Mintzberg stated that separation of management and leadership is dysfunctional. If a leader doesn't manage he won't know what is going on and management without leadership is demoralizing.

Leadership competencies are a factor for project success. In order to be successful factor, different combinations of competencies are needed for different types of projects. The main thing is that successful leadership is based on finding the proper leadership style for the people to be led. The right leadership style can vary a lot between different people and different projects (Müller & Turner, 2010).

3 RESEARCH METHOD

To answer the research question convergent mixed methods were used. Both quantitative and qualitative methods were used to collect the data, this is the most effective methods (Creswell, 2003). By doing so we are able to capture views of a larger group and compare it to a personal perspective.

A self-reported measure in form of a questionnaire in three sections was administered. The first section contained the Life Orientation Test- Revised (LOT-R) (Scheier, Carver, & Bridges, 1994). The second section contained Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). The last section contained questions related to how the individual experiences the group dynamic based on the aspects of positive psychology.

Two groups were investigated, to maintain confidentiality we will call them group A and group B. Group A contained 10 individuals while B contained 11 individuals. Both groups were within the same company. Their projects involved lean cultural implementation and demanded a lot of changes of work procedures. Both groups were working on comparable projects which were parallel in time. The groups were easy to access and deeper insight into their emotions helped the researcher since she is a project manager of one of the groups. Overall the groups contained mostly males. Division between gender overall was 90.5% male and 9.5% female. The questionnaire was administered on paper on the 19th, 20th and 23rd of February 2015. Response rate was 100%.

Basic statistical analyses were conducted using SPSS 22.0. Because the sample size (N) only contained 21 individuals it was clear that the research sample is small. Therefore it was only possible to compare the groups but not make any assumptions based on statistical significance and interpret it to other groups.

The other angle of this research is the success factor. To get a better understanding of the projects success two expert deep interviews were taken with both sponsors of the projects. The interviews were open questions about the sponsors view of their projects success in those specific projects and what their views were of difference between group A and B.

3.1 OPTIMISIM

To measure individual optimism the LOT-R test was used. The LOT test was originally generated by Scheier and Carver (1985) to measure optimism. The LOT is a self-report measure and throughout the years it has met critique and challenges. Most of the criticism is aimed at the scale involving the third variable problem, that is when two variables appear to be related to each other but there is another unknown variable that is the real reason for the link between the first two variables (Scheier, Carver, & Bridges, 1994). Later on the Life Orientation Test-Revised (LOT-R) was developed. It is a revised version of the original LOT which aims to assess individual differences in generalized optimism versus pessimism (Scheier, Carver, & Bridges, 1994). The LOT-R is easy to use, reliable and has been used in numerous studies on the behavioral, affective, and health consequences of optimism versus pessimism (University of Miami, Department of Psychology, 2007; Carver, Scheier, & Segerstorm, 2010).

The LOT-R questionnaire according to Scheier et.al (1994) is a 10 item measurement where 3 items measure optimism, 3 items measure pessimism and 4 items serve as fillers. The respondents rated each item on a 5-point scale were 0 is strongly disagreeing to 4 which is strongly agreeing. The questions are as listed in Table 2.

Table 2 - LOT-R ITEMS

Items
1. In uncertain times, I usually expect the best.
2. It is easy for me to relax. (Filler item)
3. If something can go wrong for me, it will.*
4. I'm always optimistic about my future.
5. I enjoy my friends a lot. (Filler item)
6. It is important for me to keep busy. (Filler item)
7. I hardly ever expect things to go my way.*
8. I don't get upset too easily. (Filler item)
9. I rarely count on good things happening to me.*
10. Overall, I expect more good things to happen to me than bad.

* These items will be reverse scored

As shown in Table 2 items 3, 7 and 9 are reverse scored. Items 2, 5, 6 and 8 are fillers and are not scored. Scoring can range from 0 - 24. The closer to 24 the more optimistic the person is. Norms in the scoring are 0-13 = low optimism, 14-18 = moderate optimism and 19-24 is high optimism.

Mean LOT-R norm score is 14.33-15.15 (standard deviation of 4.05-4.33) (Scheier, Carver, & Bridges, 1994).

3.2 POSITIVE AND NEGATIVE AFFECTIVITY

To measure individuals emotions the participants were asked to fill out the Positive and Negative Affect Schedule (PANAS) based on the last two weeks. PANAS measures and comprises two mood scales, one which measures positive affect (PA) and the other which measures negative affect (NA). PANAS was consciously used instead of PANAS-X (Watson & Clark, The PANAX-X: Manual for the Positive and Negative Affect Schedule - Expanded Form, 1994) because it is shorter and easier to use. Research has also provided evidence that it is a reliable and valid self-report measure (Terracciano, McCrae, & Costa, 2010). The scale shows the relationship between these affects based on personality state and traits. The scale consists of 20 items, 10 of them are connected to positive affect and 10 of them to negative affect. Table 3 shows the items and which mood scale they belong to (Watson, Clark, & Tellegen, 1988).

Table 3 - PANAS

PANAS	
Positive Affect (PA)	**Negative Affect (NA)**
Interested	Distressed
Excited	Upset
Strong	Guilty
Enthusiastic	Scared
Proud	Hostile
Alert	Irritable
Inspired	Ashamed
Determined	Nervous
Attentive	Jittery
Active	Afraid

The scores can vary from 10-50. On the PA scale a higher score represents higher levels of positive affect. As well as a higher score on the NA scale represents higher level of negative affect. Scoring instructions are: PA weekly mean of 33.3 (SD 7.2) and NA weekly mean 17.4 (SD 6.2) (Watson, Clark, & Tellegen, 1988).

3.3 GROUP DYNAMIC

In the last section of the questionnaire were questions related to how the individual experiences the group dynamic. The questions were based on positive psychology and are stated in Table 4. Each item was scored on a 5-point scale were 0 = strongly disagreeing, 1 = disagreeing, 2 = neutral, 3 = agreeing, 4 = strongly agreeing.

Table 4 - Group dynamic

Items
1. We praise each other.
2. We show each other gratitude.
3. We work as one group.
4. There is happiness in the group.
5. We learn from our mistakes.
6. We embrace changes.
7. Role and responsibility are clear.
8. We encourage each other.
9. Our job has a purpose.
10. We are all participants.
11. We have fun at work.

3.4 PROJECT SUCCESS

Semi-structured interviews were taken with both sponsors of the projects. They both have sponsor reliability for both the projects of group A and B. To maintain confidentiality we will call them sponsor X and sponsor Y.

Both sponsors were asked the following open questions:

- How would you define project success based on projects A and B?
- How have the projects developed in context to positivity and success?
- What are the main difference between group A and B in regards to optimism and positive affectivity?

In order to visualize the development of the life cycle of each project, the sponsors were asked to draw a chart showing their development. By doing so they could visualize their opinion by drawing instead of talking about the difference.

4   RESEARCH RESULTS

The research results will be presented in the following order, first results for optimism then emotions and group dynamic as well as project success and finally limitations of this research.

4.1   OPTIMISM
The results from the LOT-R test are displayed in Table 5. Scoring of questions 3, 7 and 9 has been revised before analysis.

Table 5 - LOT-R Mean comparison

		N	Mean	SD
1. In uncertain times, I usually expect the best.	Group A	10	2.4000	1.07497
	Group B	11	2.0000	.77460
2. It is easy for me to relax. (Filler item)	Group A	10	2.8000	1.22927
	Group B	11	2.0000	1.09545
3. If something can go wrong for me, it will. (Revised)	Group A	10	2.6000	.96609
	Group B	11	2.6364	.92442
4. I'm always optimistic about my future.	Group A	10	3.2000	.42164
	Group B	11	3.0909	.70065
5. I enjoy my friends a lot. (Filler item)	Group A	10	3.6000	.69921
	Group B	11	3.7273	.46710
6. It is important for me to keep busy. (Filler item)	Group A	10	3.6000	.51640
	Group B	11	3.5455	.68755
7. I hardly ever expect things to go my way. (Revised)	Group A	10	3.0000	.47140
	Group B	11	3.0000	.89443
8. I don't get upset too easily. (Filler item)	Group A	10	2.8000	1.22927
	Group B	11	3.1818	.87386
9. I rarely count on good things happening to me. (Revised)	Group A	10	3.1000	.31623
	Group B	11	3.3636	1.12006
10. Overall, I expect more good things to happen to me than bad.	Group A	10	3.2000	.42164
	Group B	11	2.9091	.94388

Inspecting the results in Table 5, one sees that even though both groups have many similarities there are also some differences. First of all group A more often expects the best in uncertain times and overall they expect more good things to happen to them than bad things.

The results of the overall mean of the LOT-R without the filler questions are presented in Table 6.

Table 6 - LOT-R Overall mean comparison

	N	Mean	SD
Group A	10	17.50	2.46
Group B	11	17.00	4.24

Group A is more optimistic than group B. There is also less deviation between answers in group A than in group B.

4.2   POSITIVE AND NEGATIVE AFFECTIVITY
Looking at Table 7 it can be seen that group A has a higher mean than group B on the PA scale with much lower deviation than group B. In compliment with that group A has a lower mean on the NA scale.

Table 7 - PANAS results

		PA Scale		NA Scale	
	N	Mean	SD	Mean	SD
Group A	10	39.60	1.58	15.40	4.03
Group B	11	36.64	6.09	17.45	5.13

4.3   GROUP DYNAMIC
Inspecting Table 8 - Group dynamic, one sees that there is considerable difference between the groups. Group A has higher mean than group B in all cases except two. That are the following items: *We praise each other* and *We learn from our mistakes* there group B has slightly higher mean than group A. Overall group A has 0.44 higher mean than group B. If we investigate statements with a difference of mean greater than 0.8 we see that they were:

- *There is happiness in the group.*
- *We embrace changes.*
- *Role and responsibility are clear.*

Table 8 - Group dynamic

		N	Mean	SD
1. We praise each other	Group A	10	3.0000	.66667
	Group B	11	3.1818	.60302
2. We show each other gratitude	Group A	10	3.3000	.48305
	Group B	11	3.0000	.63246
3. We work as one group	Group A	10	3.1000	.99443
	Group B	11	2.8182	.75076
4. There is happiness in the group*	Group A	10	3.5000	.84984
	Group B	11	2.6364	.92442
5. We learn from our mistakes	Group A	10	2.9000	.87560
	Group B	11	2.9091	.53936
6. We embrace changes*	Group A	10	2.8000	.91894
	Group B	11	1.9091	1.04447
7. Role and responsibility are clear*	Group A	10	3.1000	.73786
	Group B	11	2.0000	1.09545
8. We encourage each other	Group A	10	2.9000	.73786
	Group B	11	2.5455	.68755
9. Our job has a purpose	Group A	10	3.6000	.51640
	Group B	11	3.2727	.46710
10. We are all participants	Group A	10	3.2000	1.03280
	Group B	11	2.8182	.87386
11. We have fun at work	Group A	10	3.3000	.67495
	Group B	11	2.8182	.75076

* Mean difference is higher than 0.8.

** Mean of group B is higher than mean of group A.

4.4 PROJECT SUCCESS

To evaluate the success of the projects interviews were taken with both sponsors of the projects. The first question was: *How would you define project success based on projects A and B?* Sponsor Y defines success as two aspects, tangible and intangible. Tangible successes are factors such as more efficiency, saved cost and customer and employee satisfaction. The intangible successes are things such as development of human resources and transformation of the manager from a controller to a leader. Intangible success can also be defined as the change of employees' minds, how they think and do their work. One success factor is also the fact that the focus has shifted to the customer and how the company can satisfy his needs.

Sponsor X states that success of lean implementation is:

> *To see the change of how people work together. How they take the initiative and drive the project forward. They always look for opportunities to improve.*

Sponsor X also states:

> *Whether they achieve the tangible objective of the project is not the main thing, it is whether they manage to change the culture and think differently.*

In context to that sponsor X also states:

> *If you are only focusing on the tangible objective then you are not driving cultural change, then you are driving optimization project.*

Sponsor X talks about the transformation of the manager in the group. Sponsor X also states that the project is management driven and therefore the development of the manager is crucial.

Question two was: *How have the projects developed in context to positivity and success?* Both sponsors rated group A as medium on positivity and group B low on positivity in the beginning of the projects. Both sponsors did also agree that positivity had exponentially increased throughout the projects. Drawn charts of the sponsors view of development of positivity can be seen in appendix I.

Regarding success, sponsor X estimates that the success in groups A and B are fairly similar to begin with but in the end turn out to be equal. Sponsor Y states that success is relatively higher in group A during the entire life cycle of the project. The success hits its high peak during the design phase but decreases during implementation and closure. The reason for the decrease, according to sponsor Y, is that manager in group B will not adequately try to maintain project success. Drawings of the development of success in charts are in appendix II.

Question three: *What is the main difference between group A and B regarding optimism and positive affectivity?* Both sponsors state that the biggest difference between the groups is management related. Both sponsors state that there are

management issues connected to the department manager in group B. In relation to that, sponsor Y states:

> *If the department manager in group B would act as the department manager in group A we would see more progress, because this is management driven, I think the biggest difference lies there.*

Sponsor X describes group A as more positive towards the project but they are also skeptical and critical. Group A also has a healthier attitude towards the project. Group B is more of a diverse group and they were more negative in the beginning of the project but now they can see the motive. Sponsor Y has similar views. He states that there is:

> *Much better atmosphere in group A.*

Both sponsors raise the question about the combination of the groups and whether that is the reason for the atmosphere. Sponsor Y says that there are two persons which are relatively younger and maybe boost things up in group A. While in group B there are more dominant types. Sponsor Y states in the context to the group combination:

> *This is all about balance, and certain mind-set towards work. Work can be intense and a lot to do, but you can choose to have fun at work. That is what group A had done but group B not, they just complain. I would always think that it is a certain culture.*

Sponsor X verifies this difference and also speculates whether the diversity of group B is affecting the group dynamic.

4.5 LIMITATIONS

This research encountered a few limitations that could have affected its findings. First of all the researcher is involved in one of the projects as a project manager. Therefore it is possible that her presence may have influenced the group and the sponsors view towards the subject even though she tried to maintain utmost neutrality.

Also, were the initial project end date was delayed by a month in both projects causing the end date to be later than the due date of this research. This caused it to be impossible to draw any conclusion from benefits and achieved initial goals.

It is also possible that the sponsors are to distant from the daily operations of the projects which in turn could have affected their opinion of the group dynamic.

The questionnaire was administered in Icelandic and there has not been any research to test its validity and reliability in Icelandic.

The background of the researcher is not in the field of psychology and therefore there are many terms, theories and methodologies of psychology that are new to her

It has also been argued whether using quantitative methods on a small sample is valid, since it does not allow generalization to the broader population. In the case of a small sample it is probably better to use qualitative methods (Creswell, 2003).

Finally, the third variable problem occurred where the research does not take into account the effect managers can have on the groups nor how the groups are combined.

5 DISCUSSION

To compare human behavior and emotions to success, a factor which has been argued to be more subjective than just time, cost and required quality, is a relatively complex thing to do. The research subject is considerably more challenging than expected.

The methods used in this research are good in the way that they give us certain indicators but to draw any common conclusion is hard. Especially in light of the sample size. It is not possible to find any statistically significant difference which makes it impossible to interpret the results to groups in general. To do so we would need a much larger sample.

The research in fact brings up more questions than it answers. It could be interesting to research these questions further. For example how much affect leadership can have on emotions of groups and the success of projects. Both sponsors addressed the management issue in group B in the interviews. As well results indicate a lack of defined responsibility and clear roles in group B. There is a reason to believe that the behavior of the manager could affect both the positivity and success of the project.

The research also brings up the question of how groups should be composed in order to create positive atmosphere and gain success. This research does not have the means to answer that question. But administering a personality test to groups in the beginning of projects and talking about the results could help the individuals of the groups to understand each other and work better together. As well as testing for strengths to optimize the abilities of each individual.

In order to capture the emotions of the group it would be necessary to administer the questionnaire more frequently instead of just once. It could be done a few times during the project life cycle to get a harmonized picture of the development. By doing so one would get a measurement for individuals' views of the group dynamic and whether the group is growing in terms of cooperation and team spirit.

The success factor is only based on the sponsors view and therefore it could be beneficiary to take more interviews, use focus groups or even get a psychoanalyst to observe the project groups.

In relation to positive psychology and whether it is beneficial to use it in project management then it is probably most important for the project manager and others involved in the project to strengthen their ability to understand peoples' emotions and be able to encourage them and lead them through projects. Whether it is positive psychology or psychology in general it doesn't matter.

Both sponsors speculate whether the combination of the group is the root for the difference in the atmosphere in the groups. Looking into the standard deviation of many of the items of the questionnaire it is clear that the variance is greater in group B. That indicates that the group is more diverse than group A. It would be interesting to research that difference and compare it to personality tests such as BTIM and MBTI. The combination of the groups is definitely a variable that is valid to research further. By submitting the personality test it would give the manager and the individuals of the group a good view of personality types in the group and strengths and weaknesses of each individual. It would also be interesting to swap individuals between groups and see whether we would get comparable results.

6 CONCLUSIONS

The main findings in this research indicate that a mind-set of optimism and positive affectivity can have a positive effect on project success. Both groups are moderately optimistic. Group A is more likely to be optimistic than group B. Group A also scored higher on the PA scale and lower on the NA scale. Both sponsors believe that group A has been more positive over the project life cycle. Sponsor X thinks that success is relatively higher in group A throughout the project but nearing the end the success turns out to be the same in both projects. Sponsor Y claims the success to be much higher in group A throughout the life time of the project. That alone cannot prove that positive and optimistic project teams are more successful than negative and pessimistic teams. It however indicates that there could be a connection but further research is required.

Since projects are built on the people involved, psychology in general can be useful in project management. It doesn't matter how you define it. Whether it is positive, negative or neutral. The golden mean is to draw out the best in all sectors of psychology and is possibly the best way to go.

To summarize the findings, this research indicates that positive affectivity can have a positive effect on project success. It also indicates that frame of mind does affect success. Although further research is required to make any general assumptions.

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9 APPENDIX

9.1 APPENDIX I

Sponsors view of development of positivity in the groups during the life cycle of the projects. Group A is represented by a red color and group B with a green color.
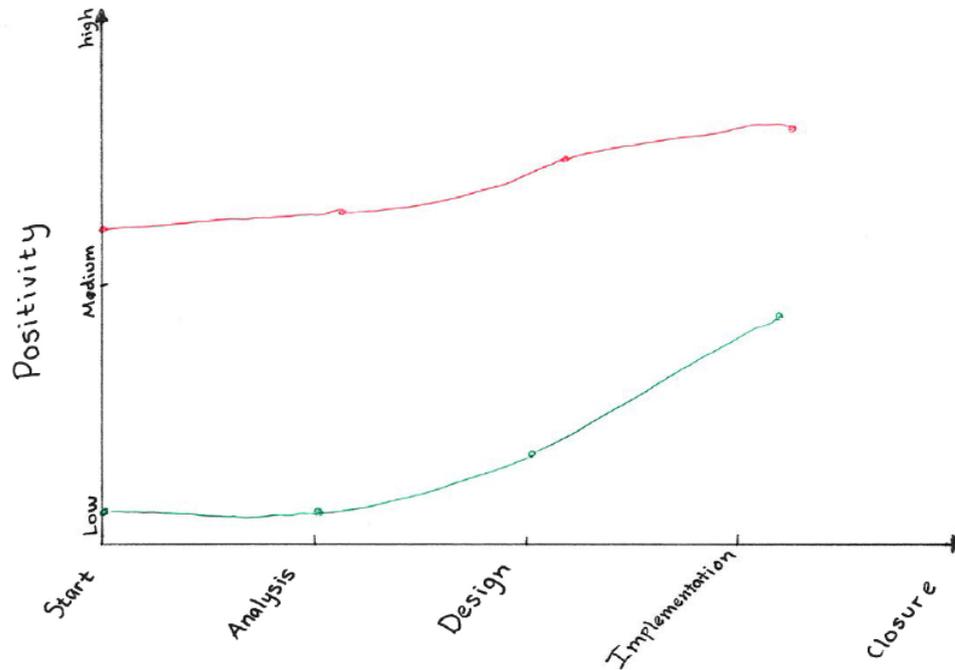

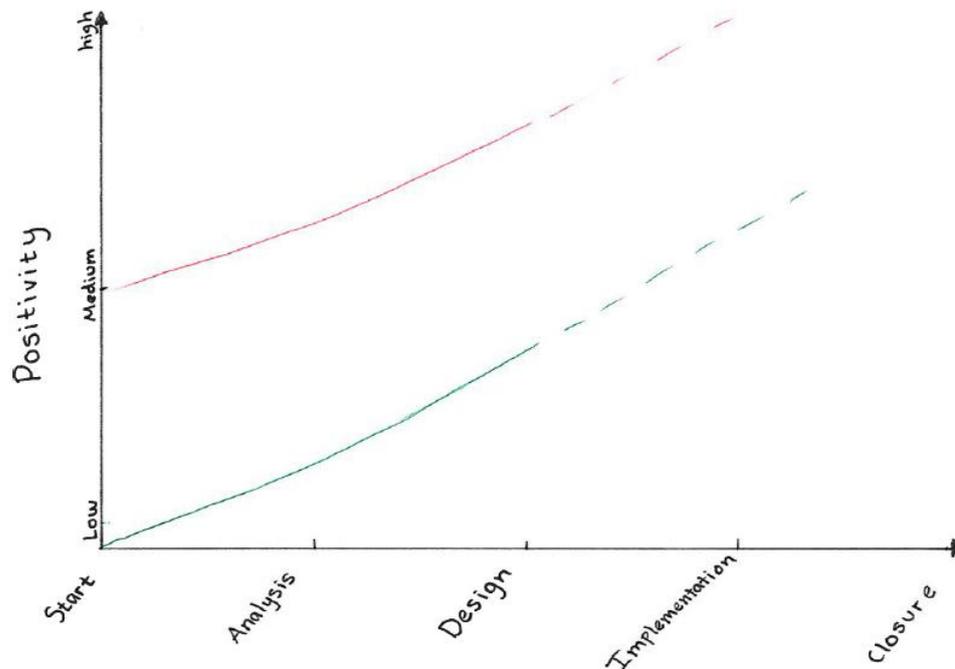
Figure 1 - Sponsors X view of positivity in the groups

Figure 2 - Sponsors Y view of positivity in the groups

9.2 APPENDIX II

Sponsors view of development of positivity in the groups during the life cycle of the projects. Group A is represented by a red color and group B with a green color.
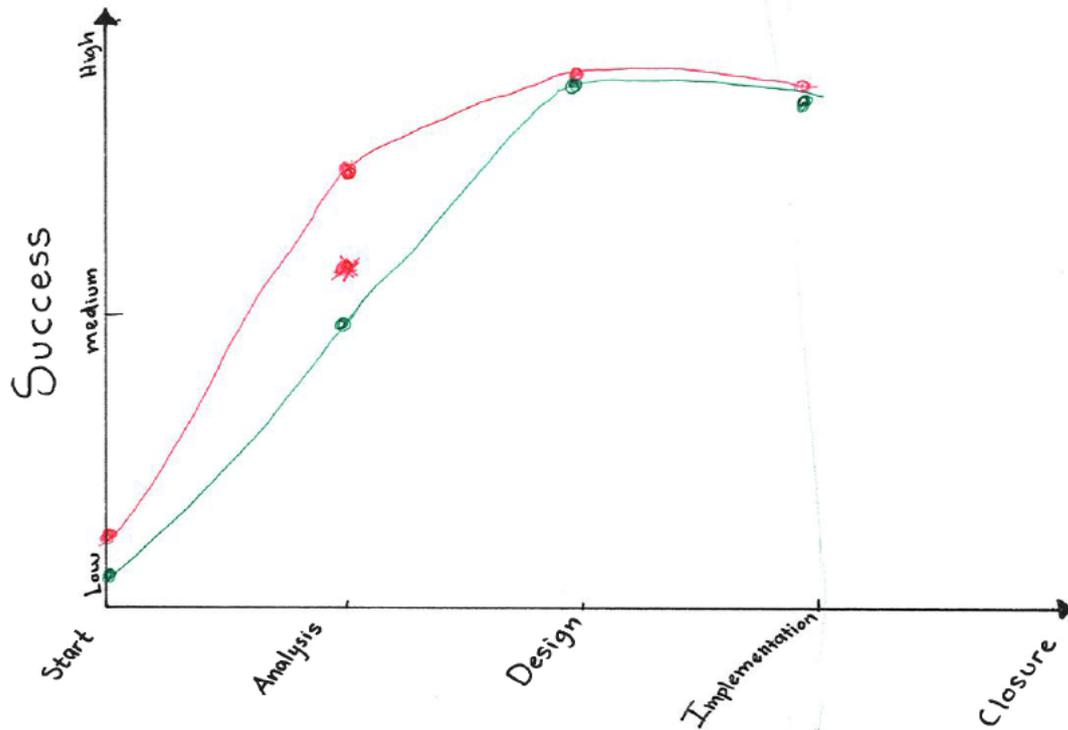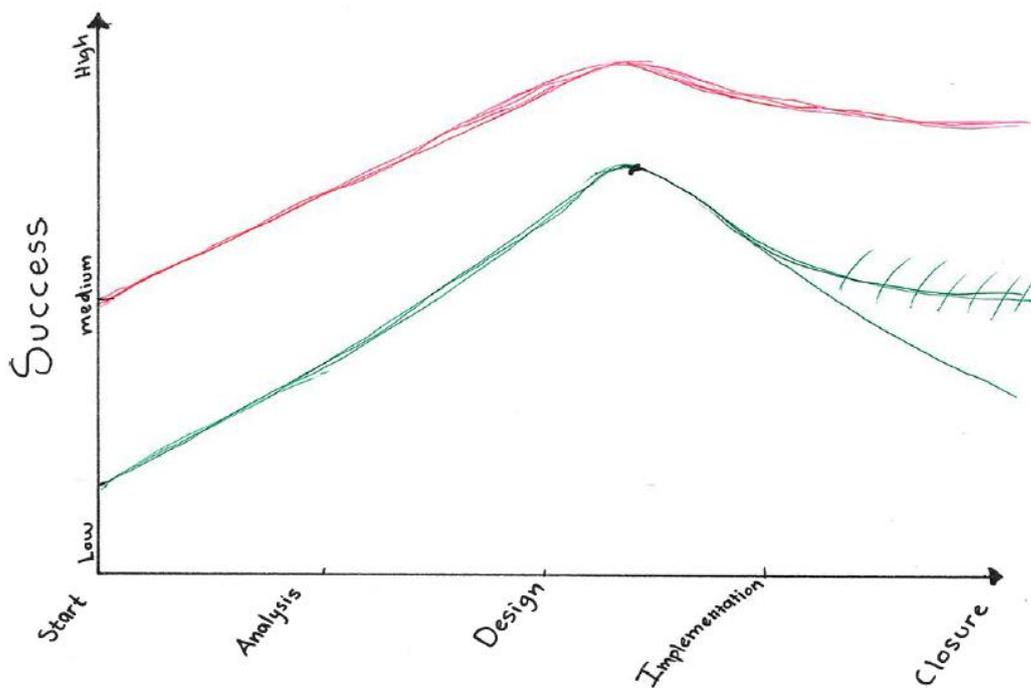

Figure 3 - Sponsors X view of success in the groups

Figure 4 - Sponsors Y view of success in the groups