ADVENTURE AS STIMULUS TO ENHANCE EMOTIONAL INTELLIGENCE IN YOUNG ADULTS (Aged between 17 and 19)

1. INTRODUCTION

1.1 Background to this project.

I grew up on a farm in Southern Africa 50 years ago. Our lifestyle isolated us from city life and social activities often found within town, but in a way I found myself developing confidence behind the small rifle in my hand and the skill to navigate myself on a farm covered with savanna, mountains and wild animals. As a child, I was used to play with children from other cultures, as our play was free from politics and other complex social structures. I found myself eating off their tables over weekends when we were used to play all day long away from home.

I've read a lot in later years about behavior and the powers that influenced the social structures in Southern Africa and over time this lead into a curiosity for understanding human behavior. I've ventured into studying spirituality, as I had a negative perception about psychology. Maybe this was the result of connecting psychologists to sick people, small rooms and medication. There was no place for such thoughts in my mind as I've always been active…too active for any normal human being. My soul found peace in the veld[1], the mountains and rivers that covered our farm and sometimes on the coastline when we were visiting the Natal coast once a year. It took me years to get a grip on self-discovery and to understand something about personal development via the medium of adventure as stimulus. It even took me longer to sense that I'm a human soul longing for social interaction, but my over-developed need for adventure limited my interpersonal skills development, as I never had the time for this.

The trigger for understanding the milieu for understanding one's self, went off years ago, but the ability to put the process into words happened in the last 24 months. Understanding something about emotional intelligence, the pre-frontal cortex and the hippocampus, helped me put the puzzle pieces together.

I had to test this with the students taking part in our gap year program. The process started by motivating the students to explain why they've enrolled into the program. Students then did the first SEI test in the beginning of the year. Based on these results, we explained to them what Emotional Intelligence is all about. We explained the results of the SEI tests in a group context. Individual feedback followed and we challenged students to look at the high and low scores by identifying moments in their lives that stands out as positive and negative experiences. They had to start their personal journal and we helped them in the process of reflecting on good and great moments and connecting the dots between emotions and behavior.

1.2 Purpose and objectives of the study.

The outcome of the iALA gap year program is being built around the John Whitmore's[2] coaching model (Whitmore, 2009:10);

"Coaching is unlocking people's potential to maximize their own performance"

We focus on potential and the way that the hippocampus functions as the base theory to create an environment for personal development. The principles of emotional intelligence are the backbone to unlock potential in our program as it correspondence with the way that the prefrontal cortex reacts on stimulation to the hippocampus. We apply the Six Seconds Emotional Intelligence Inventory model to be able to measure the outcome of both the adventure stimulus and the coaching.

The question may be asked why emotional intelligence? The coaching methodology is not based on the principles of psychology per se but maybe more to what Seligman[3] (Hanin, 2000:136) is referring to as positive psychology. We work on potential and the future. We do not unravel pathology, as we are in the process of unlocking growth potential in clients with their existential questions;

i)   Who am I ?

ii) What can I be?

1.3 Discuss expected outcomes.

The outcome of the research was maybe positively influenced as the students enroll into the GAP Year program on their own free will. They were mentally on board the process in a minor or major capacity, but at least curious about the potential growth that might take place during the year. It was in the first place important for us to enhance their emotional literacy by taking part in exercises to teach them emotional vocabulary. Second to this we made them aware of emotional intelligence as reality in their own psyche. The difference between emotions and behavior were the next step and this was showed to them by means of their lifeline. They had to apply their minds to identify components in their lives that stood out and they had to connect emotions to this, pretty much like categorizing functional and dysfunctional emotions the way Hanin[3] (2000:65) explained it. Lastly we motivated them to engage in the results of their test, the potential personal development and the responsibility they have to commit themselves to unlock potential in order to reach a point of "performance", by connecting the dots between emotions and behavior in their own lives.

1.4 Convey the sense of excitement, passion, and engagement.
For the last 30 years I have been involved in adventure as stimulus to develop children and young adults. That doesn't make me a competent coach to say the least. It only explains my passion for people and the outdoors, but I had to understand the process of the brain, emotions and behavior myself before I could apply the coaching methodology of the emotional intelligence model. I also believe in the medium of adventure as it resonates with what the hippocampus needs to function on an optimal level. Google's designer Demis Hassabis built this $650 million plan to develop artificial intelligence on the knowledge of how the hippocampus functions. The part of the brain concerned with the past is crucial in planning for the future (Simonite, 2015:62)[4]. Emotional Intelligence is that science that enables people to influence their future, if they could travel the journey between emotions and behavior!

2. The PROJECT
2.1 Defining Emotional Intelligence
Six Seconds defines emotional intelligence;

"the capacity to integrate thinking and feeling to make optimal decisions".

The Six Seconds model is drawn from leading research on emotional intelligence, including the pioneering work of Six Seconds' Advisory Board member Peter Salovey (Dean, Yale College) and his colleague, John Mayer (Professor of Psychology, University of New Hampshire). Their 1999 definition is:

"Emotional Intelligence refers to an ability to recognize the meaning of emotions and their relationships and to reason and problem solve on the basis of them. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotions-related feelings, understand the information of those emotions and manage them"(Mayer et al, 1999:267-298)[5].

The Daniel Goleman emotional intelligence model as described in his 1995 book, *Emotional Intelligence*, supports the principles of the SEI aspect *Self-Science*. The Six Seconds' EQ model also aligns with the 15 competencies defined by Reuven Bar-On, Ph.D, in his EQi test and the structure of Q- Metrics' test, the EQ Map created by Esther Orioli and advisory board member Robert Cooper, Ph.D. There are three principles for the development of the SEI tool;

- **Know Yourself** is increasing self-awareness. It is based on understanding how you function.

- **Choose Yourself** is building self-management. It focuses on consciously choosing your thoughts, feelings, and actions.

- **Give Yourself** is developing self-direction. It comes from using empathy and principled decision- making to increase wisdom and to create a more compassionate, healthy world.

Eight key skills, or fundamentals, of emotional intelligence forms the backbone of the SEI questionnaire. They are divided into the three parts of the model.

2.2   The iALA Gap Year program philosophy.

The iALA curriculum creates an outdoor classroom filled with adventure. These conditions are ideally suited to stimulate personal growth. The clients are between the ages of 18 – 25, the milieu is adventure therapy and the coaching tool, emotional intelligence. The proposed outcome is personal growth with the goal that the young adults starts to develop a sense of responsibility for success in their own lives. The approach is first of all to look at the theoretical approach of adventure therapy. Second to this we will consider Erikson's stages of psychosocial development and the seven developmental tasks of young adults as described by Chickering and last of all the three important emotional competencies (self-awareness, self-regulation, and self-motivation) that Hanin identifies as important aspects to establish sustainable emotion-performance relationships.

Adventure Therapy as a coaching model can be a distinct and separate form of psychological growth (Hanin, 2000:151)[3] Names like Csikszentmihalyi is connected to these concepts and theories. It explains the links between flow and quality experiences. The underlying philosophy largely refers to experiential learning (Kolb) even though we realize that a variety of learning and psychological theories have contributed towards adventure therapy as a field of study. Existing research on adventure therapy, reports and the proof of the possible outcomes in the effective improvement of self-concept and self-esteem do not really exist. Even with research reporting positive outcomes it appears that there are many disagreements about the underlying process that creates these positive outcomes (Crain, 2011)[6].

The possible outcome of adventure as medium for coaching, lies within the sphere of what happens within the hippocampus, as we've realized that behavior and emotions are interconnected and the cortex and hippocampus have something in common that relate to

the result of normal behavior. The hippocampus according to Hassabis, replays the memory of the day back to your cortex, while you are asleep. The SURVIVAL brain, as I would like to call it, receive these messages at the cortex. It is the virtual stimulation while taking part in adventure activities that the hippocampus needs to send positive messages to the rest of the brain. Why is it then that we are unsure about the impact of adventure as therapy? We haven't tested the impact on the right spot, as we don't quite understand where that target is! It's like aiming through the telescope of a hunting rifle without the rifle had been set up with the telescope. The possible hit can only be the result of luck, and that we cannot call science. This might become possible only now, as we are able to develop a tool to measure this impact. I believe that emotional intelligence is one of the tools to prove the impact of adventure therapy. The Six Seconds Inventory can therefore be one of the most valuable tools to apply in the development of people.

Adventure therapy as defined by Michael Gass (Gass, 2012:83)[7], is based upon the 5 components of;

- Skill development
- Strengthening the sense of self
- Insight
- Motivation
- Activities serves the purpose of frame of mind and related metaphor

The increase in skill one perceives after the successful meeting of challenges will leave the individual with a positive self-concept, defined as "flow" by Csikszentmihalyi (Hanin, 2000:151)[3]. This might the results of the combination of hormonal effects like cortisol and DHEA, but at least some evidence of positive emotions.

I want to complete this section of our article with the statement of Peter Senge where he refers to the "Ladder of Inference" (Senge, 2009:243)[8]. He refers to the reflexive loop, where our beliefs affect what data to select next time. This is been based on the perception that our beliefs "are the truth", the truth "is obvious", our beliefs are based on "real data" and the date we select are "the real data".

My years of involvement with adventure have shown me that the setting can change people. It is however false to think that adventure will change people. To use my previous example about the hunting rifle and the topic of the ladder of inference, I must conclude that having a rifle and a telescope doesn't imply that you are a hunter and that you might be successful in your hunt. It is not activities that changes behavior, it is the therapeutic process being build up by models like the Six Seconds Coaching methodology linked to the adventure stimulus that causes the positive effects to stimulate personal growth.

2.3. Describe the methodology:

2.3.1 Overview of the participants.

According to Erikson's stages of psychosocial development, he stated that 13–19 year old adolescents asks the existential question:

Who Am I and What Can I Be?

This turning point in human development seems to be the reconciliation between 'the person one has come to be' and 'the person society expects one to be'. This emerging sense of self will be established by 'forging' past experiences with anticipations of the future. In relation to the eight life stages as a

whole, the fifth stage corresponds to the crossroads. What is unique about the stage of Identity is that it is a special sort of synthesis of earlier stages and a special sort of anticipation of later ones. Youth has a certain unique quality; it is a bridge between childhood and adulthood. Youth is a time of radical change—the great body changes accompanying puberty, the ability of the mind to search one's own intentions and the intentions of others, the suddenly sharpened awareness of the roles society has offered for later life.

The adolescent is concerned with how they appear to others. Super-ego identity is the accrued confidence that the outer sameness and continuity prepared in the future are matched by the sameness and continuity of one's meaning for oneself, as evidenced in the promise of a career. Erikson is credited with coining the term "Identity Crisis **(**Erikson, 1993:242)[9]. Each stage that came before and that follows has its own 'crisis', but even more so now, for this marks the transition from childhood to adulthood.

2.3.2   Research design.

The present study make use of a quantitative, non-experimental cross sectional of all the students at the 2015 intake on a set of SEI questionnaires. This type of research is used to describe attributes that exist in a population, but does not seek to determine cause and effect relationships among different variables or sub-groups. For the sampling procedure, the researcher used a convenient, available sample for the research group and the respondents completed the questionnaire consisting of the questions of a leadership SEI test, based on the latest 2014 SEI edition.

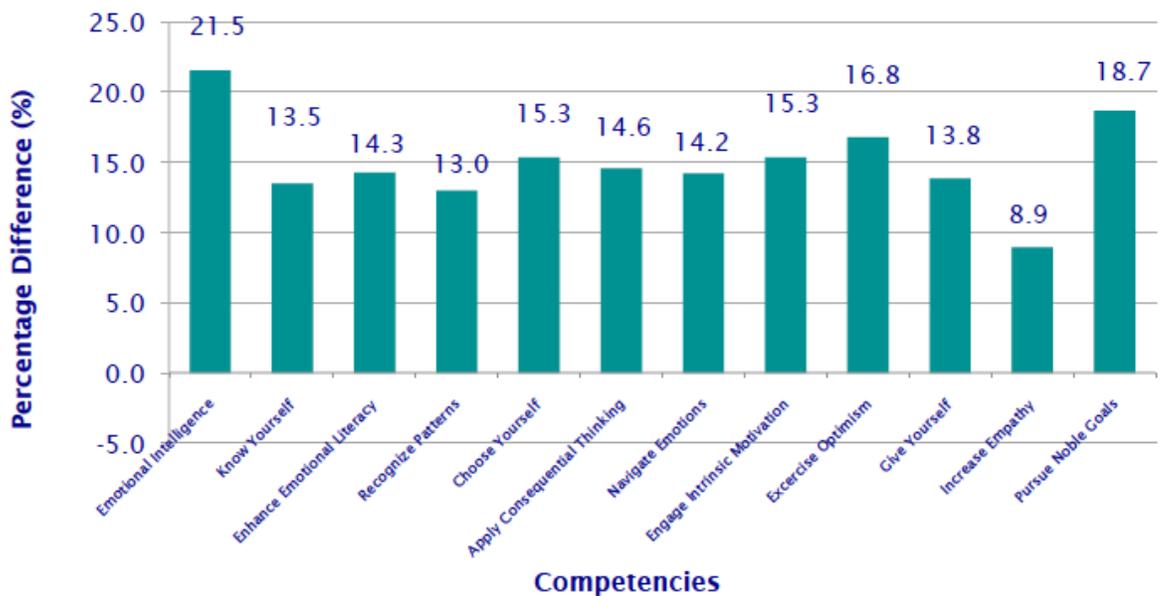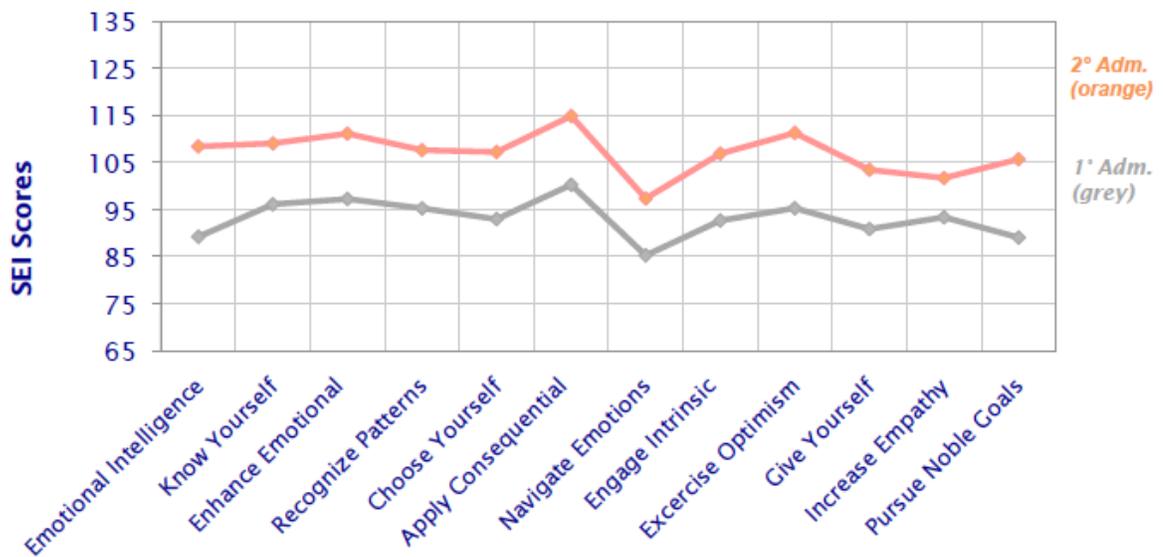2.4. Pre-and-Post- assessments and results.

2.4.1.   Data and statistical analysis (Quantitative research).
        2.4.1.1. Summary of mean scores

The following three graphs all give a different view on what happened with our research results. The percentage (%) column shows the increase (or decrease) of the SEI scores.

AREA	Group Mean 1st Adm.	Group Mean 2nd Adm.	% change
EI	89.2	108.4	21.5
KY	96.1	109.1	13.5
EEL	97.2	111.1	14.3
RP	95.3	107.6	13.0
CY	92.9	107.2	15.3
ACT	100.2	114.8	14.6
NE	85.2	97.3	14.2
EIM	92.7	106.9	15.3
EO	95.3	111.3	16.8
GY	90.8	103.4	13.8
IE	93.4	101.7	8.9
PNG	89.1	105.7	18.7

The last column on the right illustrates the change between the pre-test (1st Admin) and the post-test (2nd Admin) results in competencies. In other words, the t- test assesses whether the means of two groups are statistically different from each other. This analysis is appropriate whenever you want to compare the means of two groups. The t-value will be positive if the first mean is larger than the second and negative if it is smaller. A lower t means there is likely a causal relationship.

SEI Scores

135
125 — 2° Adm. (orange)
115
105 — 1' Adm. (grey)
95
85
75
65

Emotional Intelligence, Know Yourself, Enhance Emotional, Recognize Patterns, Choose Yourself, Apply Consequential, Navigate Emotions, Engage Intrinsic, Excercise Optimism, Give Yourself, Increase Empathy, Pursue Noble Goals

Percentage Difference (%)

25.0
21.5
20.0
16.8   18.7
15.3   15.3
13.5   14.3   15.3 14.6 14.2   13.8
      13.0   8.9
15.0
10.0
5.0
0.0
-5.0

Emotional Intelligence, Know Yourself, Enhance Emotional Literacy, Recognize Patterns, Choose Yourself, Apply Consequential Thinking, Navigate Emotions, Engage Intrinsic Motivation, Excercise Optimism, Give Yourself, Increase Empathy, Pursue Noble Goals

Competencies

2.4.2   Outcomes, meaning and implication.

Once again, I'm still in the starting phase of discovering SEI, so for me to give you as educators a summary on what I saw in the research results might be too much of a speculation exercise. I'd prefer if you could abbreviate on what you actually see in the results?

3. REFLECT

3.1. State the contribution to the field.

I'm not sure what I should say in this section about how you feel, this contribute towards SEI?

3.2. Consider potential applications to other settings.

Hanin (2000;65) [3] describes in his analysis of emotions in sport that we have to deal with functional and

dysfunctional emotions. He states it as follows;

  i.   Pleasant and functionally optimal emotions (P+).
  ii.   Unpleasant and functionally optimal emotions (N+).
  iii.   Pleasant and dysfunctional emotions (P-).
  iv.   Unpleasant and dysfunctional (N-) emotions.

The idea of funtional and dysfunctional emotions are not the focus of developing emotional intelligence, as it is really a question of what an athlete needs to know about his emotional condition to be able to perform in a sports specific event. In the iALA program we do not follow this philosophy. Hanin illustrates that emotions indeed influence performance in sport. Developing the skill to understand how emotions influence behaviour, is the art and or skill of emotional intelligence for elite sport, but also for human behaviour. This was illustrated in the past few weeks during the American Open Tennis Championships (as early as September 2016). Athletes indicated afterwards that their ability to deal with the environment did indeed influence the outcome of their performance.

The application of emotional intelligence to other settings within the coaching milieu is under discussion in this document as tool for life skills development for young adults. Profiling athletes in terms of their emotional intellegence is already been done in preparing athletes for big tournaments and even the olympic games.

Not all of us will end up as super athletes though, but most of us must prepare for our careers. Being involved in the career development of young adults and the application process within our community for various high profile jobs, it became ivident that those applicants with advanced emotional skills did much better in their interviews. It is not your qualification only that will assure a great future, it will be your emotional skills, that will help you to advance to the next level, within your career. Yes, other forms of intelligence will also be needed, but emotional intelligence is one of the important skills needed.

3.3. Lay out next steps and future direction.

Although questions remain regarding the efficacy of adventure therapy, some research suggests adventure therapy is an effective modality for treatment (Eysenck, 2000)[10]. This study of the effects of adventure as stimulus on 27 students, illustrates the growth in emotional intelligence over a six-month period and a long lasting improvement in behavior. Another study on adventure therapy effectiveness reports that adventure therapy is effective because specifically designed activities can bring about specific outcomes.

This might be true, but it is not activities that changes behaviour, it is the therapeutic process being build up by the Six Seconds Coaching methodology linked to the adventure stimulus that causes the positive effects to stimulate personal growth. Clients need more structure for a proper reflective process and they work better with an informal, tactile-kinesthetic design. Having been involved with adventure therapy for the past 20 years, it was evident that the environment stimulates growth, but I still didn't understand how it happened. I've only started to see some light when I developed some insight into what happens when people is being coached on emotional intelligence. I did not develop the insight on how the brain functions from personal research, but after reading about the results and findings on the funtionality of the brain, it became evident that what happened in the brain, the hippocampus and the pre-frontal cortex, after virtual stimulation such as adventure activities, must result in a very effective therapeutic process (Bar On, 2000:40)[11]. 62.2% of adolescents who participated in adventure therapy groups have a better advantage in coping with adolescent issues than adolescents that did not (Petrides, 2003:39)[12]. There is a 12.2% improvement in self-concept for adolescents who participate in adventure therapy. Adolescents are approximately 30% better off in their ability to cope with mental health issues than those that do not participate in psychotherapeutic

treatment, implicating that adventure therapy effectiveness is comparable to the effectiveness of psychotherapeutic treatment (Micholajczak, 2007:338)[13].

Our research indeed illustrates an average increase in emotional intelligence of 20%. It puts it in line with other similar findings of therapy focused on adventure as stimulus. If we look at our methodology, we must admit that our clients were only briefly coached on the depth of emotional intelligence as we have focused on developing a vocabulary for emotional intelligence by making them aware of the terminology and possible benefits.

According to the SEI terminology we focused to "enhance their emotional literacy".

The approach we follow at iALA, to enhance emotional literacy of young adults, is therefore in line with what Chickering has fought for. The one sided approach of education that focusses on the so called intellectual capacity, is just not good enough any more. In their book, *Education and Identity*, Chickering and Reisser (1993) argue that higher education environments should foster broad-based development of human talent and potential. When Chickering first presented this argument in 1969, he encountered vitriolic attacks from those who believed that higher education should restrict itself to information transfer and cultivation of the intellect.

The argument at stake supports the developing of emotional intelligence as a tool to enhance behavior. This is a sound coaching approach that also supports the aspects of higher forms of thinking skills like Bloom's Taxonomy of Intellect, as it emphasizes the importance of skills like analyzing, evaluation and creativity.

3.4.   The way forward

The earliest roots of emotional intelligence can be traced to Charles Darwin's work on the importance of emotional expression for survival and adaptation. The importance of research to establish the impact and position of what model grounded SEI, is important.

Substantial disagreement exists regarding the definition of EQ, with respect to both terminology and operationalizations. Currently, there are three main models of EQ:

1.   Ability model

2.   Mixed model (usually subsumed under trait EQ)

3.   Trait model

<p align="center">Kluemper, D.H. (2008)[14] and Martins (2010)[15]</p>

Different models of EQ have led to the development of various instruments for the assessment of the construct. While some of these measures may overlap, most researchers agree that they tap different constructs.

I would like to position SEI as the tool to evaluate adventure as stimulis to personal development. We need something to help people to think outside the box. The four stages of learning postulates a 4 phase model where our performance is secured to be on a higher level. We call it "unconcious competence", this fourth stage of learning (Whitmore, 2011:101).

Emotional intelligence can help us to became unconciously competent in our behavior with effect in constructive behavior where the daunting internal obstacles can be identified as we focus on future possibilities not past mistakes. Adventure is doing just that, it forces us to look forward!

4. References
[1] Veld is the term describing the Savannah of Southern Africa.

[2] Whitmore, J. (2011). Coaching for performance. London: Nicholas Brealey Publishing.

[3] Hanin,Y.L. (2000). Emotions in sport. Champaign: Human Kinetics.

[4] Simonite, T. (2015). Google's intelligence designer. Skyways inflight magazine, May 2015. Kyalami: Panorama Media Corporation.

[5] Mayer, J.D.,Caruso,D.R & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. Intelligence, 27, 267-298.

[6] Crain, W. (2011). *Theories of Development: Concepts and Applications* (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

[7] Gass, M.A., Gillis, H.L. & Russell,K.C. (2012). Adventure Therapy. Theory, Research and Practice. New York:Routledge.

[8] Senge, P., Ross, R., Smith, B., Roberts, C. & Kleiner, A. (2009). The fifth discipline fieldbook. London: Nicholas Brealey Publishing.

[9] Erikson, E.H. (1993) [1950]. *Childhood and Society*. New York, NY: W. W. Norton & Company. p. 242.

[10] Eysenck,H.J. (2000). *Intelligence: A New Look*. ISBN 0-7658-0707-6

[11] Bar-On,R. & Parker,J.D.A. (2000). The Handbook of Emotional Intelligence: Theory, Development, Assessment, and Application at Home, School, and in the Workplace. San Francisco, California: Jossey-Bass. ISBN 0-7879-4984-1. pp. 40-59

[12] Petrides, K.V., & Furnham, A. (2003). Trait emotional intelligence: behavioral validation in two studies of emotion recognition and reactivity to mood induction. European Journal of Personality, 17, 39–75

[13] Mikolajczak, M., Luminet, O., Leroy, C., & Roy, E. (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire. *Journal of Personality Assessment*, 88, 338-353.

[14] Kluemper, D.H. (2008) Trait emotional intelligence: The impact of core-self evaluations and social desirability. *Personality and Individual Differences*, 44(6), 1402-1412.

[15] Martins, A.; Ramalho, N.; Morin, E. (2010). "A comprehensive meta-analysis of the relationship between emotional intelligence and health". *Journal of Personality and Individual Differences* **49** (6): 554–564.