



## A STUDY ON THE RELATIONSHIP BETWEEN THINKING STYLES (ATTITUDES) AND COLLABORATION ATTITUDES OF COLLEGE STUDENTS IN TAIWAN

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### Abstract

A series of Research concerning thinking styles have been expanded dramatically in recent years, particularly addressing the styles and functions of positive and negative thinking. These thinking styles were concluded to be highly related to intra-personal and interpersonal relationship which significantly influences the collaborative attitudes in whole career. Research on different thinking styles was therefore highly concerned with the factors which result in positive thinking, negative thinking, and collaborative attitudes.

For the crucial reasons aforementioned, this study was conducted to identify the structural mechanism of thinking styles and their factors, and even consequent influences on collaborative attitudes. The sample participating this study was 970 college students, aging from 18 to 22, registered in various Majors of university of Science and Technology in Taiwan. The collected data, from questionnaire survey methodology, were statistically analyzed using SPSS 18.0 for Windows through series of statistical strategies such as Confirmatory Factor Analysis (CFA) for examine hypotheses. Also the study employed the Maximum Likelihood Estimation to analyze the linear relationships among the major three variables in order to further understand the functions of each variable. After the findings were tested and concluded, their implications were also further extensively investigated and interpreted, Finally, future researches were also proposed to investigate in-depth on thinking styles scale development and on the complex relationship mechanism among thinking styles, life experience, and collaborative environment.

**Key Words** : Thinking styles, positive thinking, negative thinking, collaborative attitudes.

### INTRODUCTION

Positive thinking is a mental attitude that admits into the mind thoughts, words and images that are conducive to growth, expansion and success. It is a mental attitude that expects good and favorable results. A positive mind anticipates happiness, joy, health and a successful outcome of every situation and action. However, positive thinking actually means approaching life's challenges with a positive outlook. It doesn't necessarily mean avoiding or ignoring the bad things; instead, it involves making the most of potentially bad situations, trying to see the best in other people and viewing yourself and your abilities in a positive light.



Our Heart tells us that there are countless negative points in a thing and we should to avoid them to bits. Within the framework of positive psychology (Seligman & Csikszentmihalyi ,2000), one can find a comprehension scheme for understanding and promoting positive youth development.

Negative thinking appears to be more prevalent than positive thinking. It seems that with most people positive thinking requires some effort, whereas negative thinking comes easily and uninvited. This has much to do with education and the environment one has been living in. Negative thinking is often a symptom of depression and bipolar disorder (manic depression). According to Smith and Kirby (2001), specific negative affect is identified through appraisal. These specific negative affects are characterized by ruminations. Examples of negative affects that are ruminative to thought processes are goal blockage, anger, worry, and anxiety (Berkowitz, 1989; Carver & Scheier, 1998; Kelly & Barsade, 2001; Martin & Tesser, 1996).

Collaboration refers to shared decision making in governance, planning delivery, and evaluation of programs. It is a pluralistic form of education where people of dissimilar backgrounds work together with equal status.

#### Research purpose

This study purported to identify the relationships between thinking styles and collaborative attitude of college students in Taiwan.

#### Research question

Based on the forementioned research purpose, this mainly focused on the following research questions:

1. What are the positive thinking and negative thinking the current college students possess toward the typical social issues?
2. How are the students' thinking (both positive and negative) related to their collaboration attitude?

### LITERATURE

#### Cognitive Development

Cognitive development is the construction of thought processes, including remembering, problem solving, and decision-making, from childhood through adolescence to adulthood(Wells, 2008). Cognition is the process involved in thinking and mental activity, such as attention, memory and problem solving(Ashcraft, 2005). However, cognitive development refers to how a person thinks, perceives, and gains understanding of his or her world through the interaction of genetic and learned factors. According to Piaget's theory, cognitive development occurs in a series of four distinct including.

- (1) sensorimotor stage (infancy),
  - (2) pre-operational stage (toddlerhood and early childhood),
  - (3) concrete operational stage (elementary and early adolescence),
  - (4) and formal operational stage (adolescence and adulthood)
- ( <http://www.healthofchildren.com/C/Cognitive-Development.html>)

Adolescent cognitive development, adolescence is within a period Piaget named the "formal operational stage," starting from 12 or 13 years of age. Adolescents develop advanced reasoning skills, such as the capacity to think about various options and possibilities. They can also process thoughts logically, think about things hypothetically, and obtain abstract thinking skill, so they are able to comprehend abstract concepts such as trust, beliefs, faith and spirituality. Moreover, they attain the ability to think about how other people perceive them, and develop strategies in a process known as "meta-cognition"(Huebner, 2000) They are highly curious about their own physical development, so they pay much attention to themselves, sometimes considering themselves the center of attention. Adolescents are able to meke their own judgments, although their judgments might differ from social standards , and this sometimes leads to anti-social or anti-authority thoughts and behaviors. Next, their concept of "self" gradually becomes "more differentiated and better organized" (Steinberg&Morris, 2001), and they are able to progress from feeling themselves subjectively to observing themselves objectively (Lee, 1997).

### Thinking styles

What is thinking? You and I are not what we eat; we are what we think (Anderson, 1998). Different people have various definitions of thinking. Every one can have his own meaning of thinking. In Pogrow's(2005) definition, thinking skills are valued because they are believed to better prepare students for the challenges of adult work and daily life and advanced academic work and higher order thinking may also help raise standardized test scores. His research covers topics including measuring thinking skills, learning to plan an assessment, & making assessment work in the classroom. His five categories of thinking skills are defined as: (1) recall; (2) analysis; (3) comparison; (4) inferences; and (5) evaluation (Stiggins et.al 1988). Thinking style is one of many types of style studied, and it is not very different from the definition of cognitive style. Some researchers consider cognitive styles to be thinking styles, and others argue that thinking style is an element of cognitive styles (Jones, 2006). Grigorenko and Sternberg (1995) defined thinking style as "a preferred way of expressing or using one or more abilities" (p. 220) and proposed a model of mental self-government for identifying thinking styles and how intelligence is primarily directed to understanding preference, rather than abilities. De Bono (1991, p. 33) gives a broad meaning of thinking which can include most of the other definitions by stating that 'Thinking is the deliberate exploration of experience for a purpose. That purpose may be understanding, decision making, planning, problem solving, judgement, action and so on.' Swartz and Perkins(1991) describe good thinking is, at its roots, something with which we are all familiar. We accomplish it at times when we make careful choices and solve problems effectively. It involves the use of keen critical skills and opens creative exploration in which we call up and gather relevant information that we bring to bear on the issues with which we are grappling. Zhang(2002) research on thinking styles within an educational context has yielded several findings. First, students' thinking styles vary as a function of their personal characteristics and their learning environment. Second, the thinking styles of teachers, as manifested in teaching, differ depending on their personal characteristics, their teaching experiences, and the school environment. Third, students tend to achieve better academic results when their thinking styles match the thinking styles of their teachers. Finally, students' thinking styles contribute to their academic achievement beyond what can be explained by their abilities, as assessed by both self-rating and performance tests (for details, see Grigorenko & Sternberg, 1997; Sternberg & Grigorenko, 1995; Zhang, 1999b, 2001a, 2001b;Zhang & Sternberg, 1998).

In this study, particular interest concerning thinking style was the preference for representation and processing of information in the mind, bound to the constituent structure of personality, the consistent way of interacting with the environment, and adapting new information(Kim, 2011). The study enables students to acquire strategies for thinking related to enquiry, processing information, reasoning, problem solving, evaluation and reflection.

### Positive Thinking

#### (1) The definition of positive thinking

The mission of positive psychology is to understand and foster the factors that allow individuals, communities, and societies to flourish (Seligman & Csikszentmihalyi, 2000). Positive thinking in people's lives characterized by experiences of positive emotions—such as joy, interest, contentment, love, and the like—are moments in which they are not plagued by negative emotions—such as anxiety, sadness, anger, and despair(Fredrickson, 2001). Positive thinking is a mental attitude that admits into the mind thoughts, words and images that are conducive to growth, expansion and success(Sasson, 2011).

A person with a positive attitude always sees the brighter side of every situation(Mohanty, 2009). Such a person concentrates on good aspects only with the conviction that whatever is going to happen will work out well(Mohanty, 2009). Positive thinking is a common motivational method used to boost one's attitude and promote self growth(Anne, 2008). Slowly and gradually these thoughts grows and expands as well. People simply think in a positive way, they can most certainly affect the outcome of their actions. Wherever people do begins with a thought. Positive thinking is a virtue and a necessity in today's world. The single attribute of positive thinking can help in making a difference to our lives and also to the people in our surroundings(<http://www.positivethinking.co.in/> ). Researchs on the cancers or AIDS, positive thinking is

usually based in some kind of assessment of their “mental adjustment”, “adaptation”, or “coping style” and its possible influence on overall mental and physical health(Wilkinson & Kitzinger, 2000).

By definition, positive thinking represents the experiences of personal meaning to various life events. As such, this type of thinking might relate to the attitude of college students in life, more generally. To explore this notion, participants completed a measure of attitude in life. Analyses explored the potential relationship of positive thinking to the attitude of college students in life.

## (2) Positive thinking traits

Positive thinking traits have beyond their pleasant subjective feel, positive emotions, positive moods, and positive sentiments carry multiple, interrelated benefits. First, these good feelings alter people’s mindsets (Fredrickson & Branigan, 2005; Rowe, Hirsch, & Anderson, 2005), broadens behavioral repertoires (Fredrickson & Branigan, 2005), and increases intuition (Bolte, Goschkey, & Kuhl, 2003) and creativity (Isen, Daubman, & Nowicki, 1987). Second, good feelings alter people’s bodily systems. Fredrickson’s (1998, 2001) broaden-and build functional model of positive emotions posits that positive emotions broaden an individual’s scope of cognition, attention, and action and build the individual’s physical, intellectual, and social resources. Isen and colleagues’ (Isen & Daubman, 1984; Isen, Daubman, & Nowicki, 1987) research provided early evidence for the broadening aspects of positive emotions such that induced positive emotions led to more flexible and creative processing. In this study, positive thinking contains daily functioning, future expectations, self-evaluation, and other evaluation(Ingram & Wisnicki, 1988). Research finds that high expectations of success lead to strong performance, and strong performance leads to high expectations of success. Expectations are thus informed by past experiences and thereby represent a person’s performance history (Bandura, 1977, 1997; Mischel, 1973; Mischel, Cantor, & Feldman, 1996; Olson, Roese, & Zanna, 1996). The self-evaluation process can result in substantial benefits for the individual, particularly better self understanding. The self-evaluations have four major themes such as self-enhancement, self-verification, self-understanding and self-assessment. The self-enhancement motive refers to people’s desire to enhance the positivity or decrease the negativity of the self-concept. The selfverification motive refers to people’s desire to confirm and maintain the self-concept, be it positive or negative. Along with better self-understanding comes a greater likelihood of positive outcomes. The self-assessment motive refers to people’s desire to re -duce uncertainty about the self-concept regardless of whether the uncertainty reduction process is likely to result in favorable or unfavorable implications for the self(Michael, 1995).

## Negative Thinking

### (1) The definition of negative thinking

Negative thinking appears to be more prevalent than positive thinking. It seems that with most people positive thinking requires some effort, whereas negative thinking comes easily and uninvited (Sasson, 2011). Negative thinking is often a symptom of depression and bipolar disorder. These illness can make it more difficult to see things in a positive way, feel hopeful about the future or believe your life is worthwhile. These thoughts might be automatic and lead to feelings of sadness or helplessness before you’re aware of them ([www.DBSAlliance.com](http://www.DBSAlliance.com)). Negative thinking (NT) is the predisposition to experience negative emotion across time and situations (Watson & Clark, 1984). It presumes that there is an overall tendency for individuals to experience a variety of negative emotions, including anger, anxiety, and depression. Negative thinking reflects individuals’ emotional sensitivity to the environment, it would follow that individuals high on this personality trait would be more likely to respond to provocation emotionally than would individuals who are low(Spector, 2011). Research shows that the role of self-referent speech in adult anxiety and depression has increasingly received an empirical focus (Arnkoff & Glass, 1989; Kendall & Watson, 1989) and is an area in need of scrutiny with children (Kendall & Ronan, 1990; Nelles & Barlow, 1988). Within negative affectivity, anxiety and depression have been the principally studied components. The primary distinguishing feature noted between anxiety and depression has been the relative absence of the capacity of depressed subjects to experience positive affect(Ronan & Kendall & Rowe, 1994). While both anxious and depressed persons tend toward experience that has a negative hue, anxious persons continue to be more capable of retaining interest in their surroundings and experiencing pleasurable feelings(Ronan & Kendall & Rowe, 1994).

## (2) Traits of negative thinking

Personal character traits are the attitudes you have toward your activities and challenges. These traits may be positive or negative, depending on the situation. Positive personal character traits lead to achievement, while negative traits can lead to failure or frustration. Most of these traits are established through training from parents, while others are gained from peer groups (Kurtus, 2007). Positive activating emotions enhance creativity, whereas negative activating emotions tend to lower it (and deactivating emotions have no effect) (Baas et al., 2008). Positive emotions seem to enhance performance on tasks that mostly require generation skills (i.e., coming up with as many solutions as possible), whereas negative emotions may help with tasks that mostly require evaluation skills (i.e., determining which ideas are best) (Davis, 2009). Negative emotions on the other hand indicate the presence of danger and call forth systematic, detail-oriented thinking strategies that may help with evaluating ideas. In keeping with this, Nettle (2006) proposed that the personality dimension of neuroticism (which is highly correlated with the experience of negative emotions) may have as its main adaptive benefit the enhanced detection of threatening stimuli. Negative people have less friends, less money and less happiness, they also suffer from a greater range of physical and mental ailments than their more positive contemporaries. This dangerous negativity can snow ball into a worse, self destructive state of mind, one that can have far reaching implication on one's self and society. When you develop the attitude that "the world is bad", you can give up both physically and mentally on life, even worse this "auto pilot" existence can lead to intellectual apathy and social decline (<http://www.articleflame.com/Art/1569/142/Negative-Thinking.html>).

## (3) Factors influencing negative thinking

Negative affectivity (NA) is the predisposition to experience negative emotion across time and situations (Watson & Clark, 1984). If we presume that NA reflects individuals' emotional sensitivity to the environment, it would follow that individuals high on this personality trait would be more likely to respond to provocation emotionally than would individuals who are low. Thus given the same perceived event, with the same appraisal and attribution, those high versus low on NA would be likely to experience negative emotion and subsequent counterproductive work behavior. Positive affect tends to increase risk-taking behavior, whereas negative affect tends to promote risk aversion (Knutson and Greer 2008). Some studies have shown that some demographics are more negative than other, some of these are locational.

## Collaboration attitudes

Research shows that collaboration is voluntary (Friend & Cook, 1992), interactive (Keys & Green, 2005), ongoing (Lawson, 2003), inclusive (Anfara, et al., 2008; Baker, et al., 2009), and requires commitment (Cahill and Mitra, 2008; Rubin, 2002) to a common goal (Friend & Cook). Friend and Cook assert collaboration is a means for solving problems and obtaining goals through a voluntary process whereby two or more stakeholders come together as equally valued participants to work on a mutual goal.

The purposes of collaborating are many and varied, but concerns about learning through collaboration have become increasingly prominent (Inkpen, 2000; Nooteboom, 2004). Much of the literature addresses attitudes to learning in either competitive (Ingram, 2002; Inkpen and Beamish, 1997) or collaborative (Inkpen and Tsang, 2005; Smith and Powell, 2004) frames.

Attitudes have so far been described as though they operate at a macro-level, throughout the life of a collaboration. Given the inherently dynamic nature of all aspects of collaboration (Ebers and Grandori, 1997; Huxham and Vangen, 2000; Koka and Prescott, 2002), attitudes may also change over time at the macro level, as, for example, individuals get to know each other, early successes lead to trust development, or changes of personnel undermine it. Attitude refers to the positive or negative feelings derived from knowledge sharing.

## RESEARCH METHODS

### Research Design and research hypotheses

The goal of this study is to understand the styles and functions of positive and negative thinking with the intra-personal and interpersonal relationship which significantly influences the collaborative attitudes in whole career. Besides, this study also examined the in-depth on thinking styles scale development and on the

complex relationship mechanism among thinking styles, life experience, and collaborative environment. The following hypotheses:

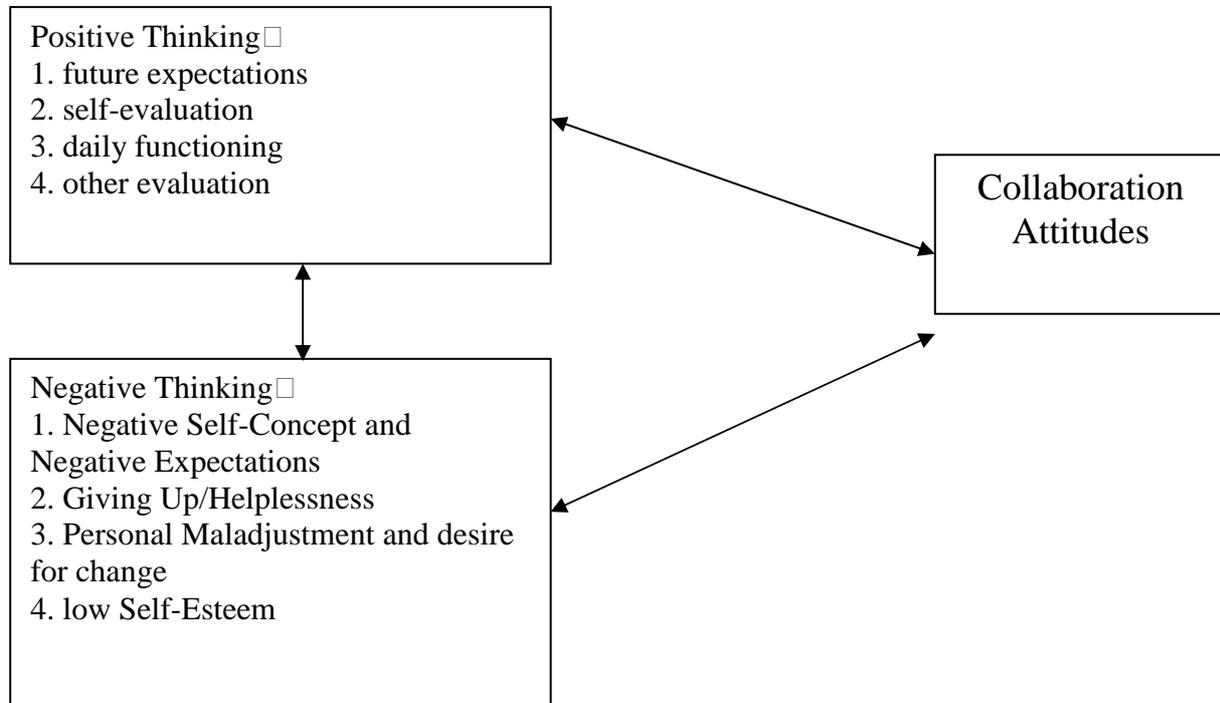


Fig. 1. Research Design

H1: college students' "positive thinking" and "negative thinking" is relevant.

H2: college students' "positive, negative thinking" and "collaboration attitudes" are relevant.

H3: college students' "positive, negative thinking" would directly affect "collaboration attitudes".

### Instrument development

Data were collected as part of a larger investigation (see Ingram & Wisnicki, 1988, Hollon & Kendall, 1983, and Jian Zhong Wang, 2001). The questionnaire consisted of three main domains: the positive thinking, negative thinking, and collaboration attitude. In order to understand the relationship of the thinking and collaboration attitude, this study explored the life experiences and personality characters. The Positive Thinking Questionnaire adopted from Ingram & Wisnicki's research (1988). The 22-item positive thinking measures a range of psychological symptoms, such as daily functioning, future expectations, self-evaluation, and other evaluation, using a five-point response format, ranging from 1 (highly disagree) to 5 (highly agree). The Negative Thinking questionnaire (Hollon & Kendall, 1983) with 25 items consisted of four constructive domains, such as Negative Self-Concept and Negative Expectations, Giving Up/Helplessness, Personal Maladjustment and desire for change, and low Self-Esteem, using the 5-point Likert's scale (1=highly disagree to 5=highly agree). The collaboration Attitudes (Jian Zhong Wang, 2001) with 11 items measures of collaborative cognition and partners' attitudes.

### Data collection and analysis

901 colleges and institutes students (549 female and 352 male) participated in this questionnaire survey at a large, public and private university in the central Taiwan in this study. The goal of this questionnaire survey was for colleges and institutes students to understand their life experiences that would lead to their thinking in their collaboration attitudes. In accordance with the questionnaire survey, this study was random sampling and the way of survey was indicated by class. The correlational analyses method and multiple regression analyses method were used as well as SPSS18.0 to analyze the data.

## RESULT

### Sample's demographic data

The demographic data collected in this study of college students are shown in table 1. One can find a detailed description of the data in the work.

Table 1: Statistics of samples\*

Variable	Level	N	Percent (%)
School	Public	408	45.3
	Private	493	54.7
Grade	First	280	31.1
	Second	206	22.9
	Third	251	27.9
	Fourth	164	18.1
Gender	Male	352	39.1
	Female	549	60.9
Department	1	140	15.5
	2	27	3.0
	3	510	56.6
	4	98	10.9
	5	86	9.5
	6	40	4.4

\*N=901

### Measurement model

The reliabilities of the questionnaire are over the acceptable value of 0.7 (the positive thinking : 0.905, the negative thinking : 0.968, and the collaboration attitudes : 0.937) using Cronbach's alpha. Therefore, the reliability of each scale has commonly accepted range (Hair, Black, Babin, and Anderson, 2009). The results of this analysis are presented in Table 2, 3. By using the factor analysis, a total of 30 items reduced 22 items that are divided into four factors. The positive thinking consisted of 22 items for the four factors : daily functioning, self-evaluation, other evaluation, and future expectation. The negative thinking was developed through the factor analysis from 30 items to 25 items. A total of 25 items for the four factors : Negative Self-Concept and Negative Expectations, Giving Up/Helplessness, Personal Maladjustment and desire for change, and low Self-Esteem.

The collaboration attitudes consisted of 11 items. In this study, all the reliabilities reached the standard.

Table 2: Results of Positive Thinking

Constructs	Factors	Cronbach's $\alpha$
Positive thinking	Daily functioning	.850
	Self-evaluation	.719
	Other evaluation	.627
	Future expectation	.819
		.905

Table 3: Results of Negative Thinking

Constructs	Factors	Cronbach's $\alpha$
Negative thinking	Negative Self-Concept and Negative Expectations	.922
	Giving Up/Helplessness	.920
	Personal Maladjustment and desire for change	.883
		.879
		.968

Table 4: Results of Collaboration Attitudes

Construct	Cronbach's $\alpha$
Collaboration Attitudes	.937

### Correlational analyses

This study adopted Pearson correlation analysis to verify the relationships between dimensions, and used standardized coefficients to estimate correlation values between various dimensions. The positive thinking and the collaboration attitudes showed the positive correlation ( $\gamma = .548$ ,  $**p < .001$ ). The result of the relationship showed college students have higher positive thinking that they showed their highly behaviors on the collaboration work. Between the negative thinking and the collaboration attitudes, this study showed the negative correlation ( $\gamma = -.385$ ,  $**p < .001$ ). This result of the relationship showed the college students have more negative thinkings whose behaviors expressed lower collaboration attitudes. However, the positive thinking and negative thinking have the negative correlation ( $\gamma = -.549$ ,  $**p < .001$ ).

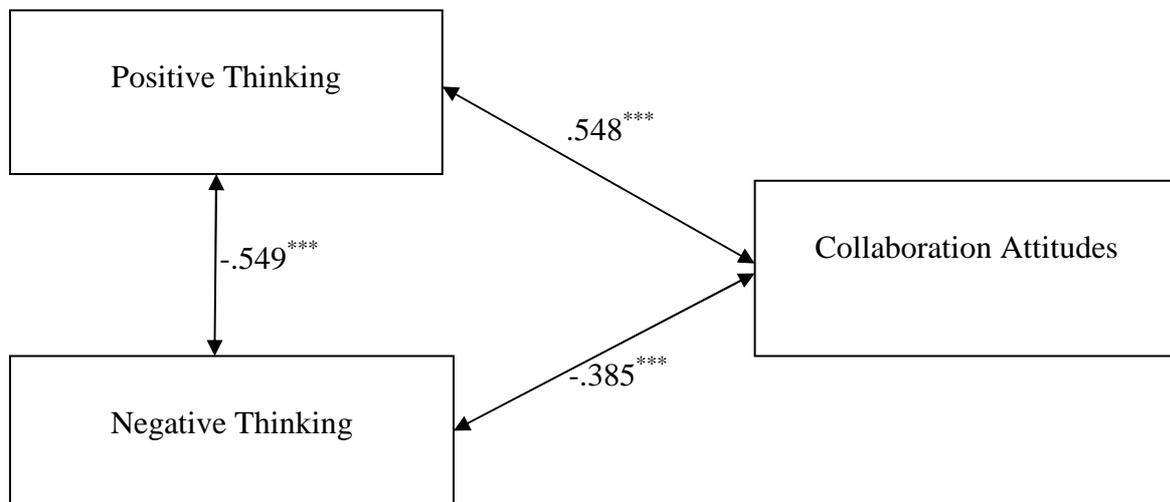


Fig. 2 correlational analyses

### Multiple Regression Analyses

Due to the thinkings differences discussed above, multiple regression analyses using the general linear model were conducted to determine the impact of the positive thinking variables and negative thinking on the collaboration attitudes. In this study, using the partial linearity explained the each independent variable across

all dependent variables, there was significant effect for each Beta factor of the dimension , Positive daily functioning .218<sup>\*\*\*</sup>(t=5.538、 p=.000), Positive self-evaluation .102<sup>\*\*</sup>(t=2.675、 p=.008), Others evaluation of self .168<sup>\*\*\*</sup>(t=4.362、 p=.000), Positive future expectations .087<sup>\*</sup>(t=2.272、 p=.023). Negative Self-Concept and Negative Expectations .148(t=2.869、 p=.004), Giving Up/Helplessness .068(t=1.071、 p=.284), Personal Maladjustment and desire for change -.307<sup>\*\*\*</sup>(t=-5.190、 p=.000), Low Self-Esteem -.046(t=-.921、 p=.358).

Fig. 3 Multiple Regression

## DISCUSSION AND CONCLUSION

### Discussion

A positive significant relationship was found between psychological well-being and emphatic tendency. People with emphatic tendencies have higher levels of psychological well-being(Acun-Kapikiran, 2011). Positive and negative cognitive change may be examined as a function of varying psychotherapeutic interventions, as a function of specific methods within an overall therapeutic intervention, in relation to other indices of therapeutic improvement, or at varying times in the treatment sequence(Ingram & Wisnicki, 1988). In addition, other research examined the relationship between optimism (Chang & Sanna, 2001; Daukantaite & Bergman, 2005) and positive emotion (Vera et al., 2008) that are closely related with the focus on positive information and psychological well-being.

Therefore, this study reveals that positive thinking affect college students' cognition and emotions. People that have positive thinking when they face the difficult things in a optimistic way. This study suggests that college students have more positive thinking , they showed more positive behaviors such as close relationship and actively attitudes on collaboration work.

If college students have been brought up in a happy and positive atmosphere, where people value success and self-improvement, then it will be easier for them to think positively and expect success. If they have been brought up under poor or difficult situations, they will probably go on expecting difficulties and failure(Sasson, 2011). If thinkings are negative, our lives and circumstances will probably mirror these thoughts. College students have negative thinking who are afraid of meeting new people or having close relationships, they will do everything to avoid people and relationships, and then complain that they are lonely and nobody loves them. This study reveals that negative thinking not only affect on behaviors but also reveal their thoughts. In this study, college students have negative thinking showed the least willings on the collaboration work.



The present findings indicated that positive and negative perfectionism correlated differentially with different components of subjective well-being. Specifically, positive perfectionism primarily affected life satisfaction and positive affect whereas negative perfectionism primarily affected negative affect (Chan, 2007). In this study, Positive and negative perfectionism were then explored in their relationships with students' subjective well-being defined by students' report on life satisfaction and their experience of positive and negative affect.

### Conclusion

Through exploring college students' positive and negative thinking, this study examined eight factors affecting collaboration attitudes, including "positive thinking for daily life", "positive self-assessment", "other self-assessment" and "positive expectation for future" in positive thinking, as well as "Negative Self-Concept and Negative Expectations", "giving up /helplessness", "Personal Maladjustment and desire for change" and "low self-esteem" in negative thinking. With regard to the affecting effectiveness of these content dimensions, this study finally obtained the following three conclusions:

- (1) All these relationships prove that focus on positive thinking supports the impact of the college students on between innate thinking and life experiences. These elements affect their thinking styles and collaboration attitudes. With the positive thinking, the college students have actively behaviors and attitudes on the collaboration work. They try to problem solving and get close to their partners with their collaboration work.
- (2) With the college students of negative thinking, they express the less life satisfied and hopelessness on their daily life. In opposition, the college students have negative expectation on their collaboration attitudes. They have negative emotions such as unhappy, low self-esteem and other negative characters. This situation leads to the worse attitudes on their collaboration work.
- (3) There exist significant relationships among positive thinking, collaboration attitudes and negative thinking, reveal that the more the college students' positive thinking, the better collaboration attitudes; the more the college students' negative thinking, the less collaboration attitudes.

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### REFERENCES

- Ahrens, A. H., & Haaga, D. A. F. (1993). The specificity of attributional style and expectations to positive and negative affectivity, depression, and anxiety. *Cognitive Therapy and Research*, 17, 83-98.
- Anderson, W 1998, '*The Confidence Course: Sevens Steps to Self-Fulfillment*', Harper Collins Publications, New York.
- Ashcraft, M. H. (2005). *Cognition* (4th ed.). New Jersey: Pearson Prentice Hall.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.
- Berkowitz, L. (1989). Frustration-aggression hypothesis: Examination and reformulation. *Psychological Bulletin*, 106, 59-73.
- Bolte, A., Goschkey, T., & Kuhl, J. (2003). Emotion and intuition: Effects of positive and negative mood on implicit judgments of semantic coherence. *Psychological Science*, 14, 416-421.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.



Chang, E. C., & Sanna, L. J. (2001). Optimism, pessimism, and positive and negative affectivity in middle – aged adults: A test of a cognitive and affective model of psychological adjustment. *Psychology and Aging*, 6 (3), 524-531.

Craig A. Smith, & Leslie D. Kirby. (2001). Handbook of Affect and Social Cognition. pp75-83.

De Bono, E 1991, '*Teaching Thinking*, Penguin Books, Harmondsworth', Middlesex, England.

Fredrickson BL. Cultivating positive emotions to optimize health and well-being. *Prevention and Treatment*, 3. 2000a Retrieved January 20, 2001, from the World Wide Web:

<http://www.journals.apa.org/prevention/volume3/pre0030001a.html>.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.

Fredrickson, B.L., & Branigan, C.A. (2005). Positive emotions broaden the scope of attention and thought–action repertoires. *Cognition and Emotion*, 19(3),313–332.

Friend & Cook. (1992). Collaboration: Staying on the Bandwagon. Journal article by Marshall Welch; Journal of Teacher Education, Vol. 49, 1998.

Grigorenko, E. L., & Sternberg, R. J. (1993). *Thinking Styles in Teaching Inventory*. Unpublished test, Yale University, New Haven, CT.

Grigorenko, E. L., & Sternberg, R. J. (1997). Styles of thinking, abilities, and academic performance. *Exceptional Children*, 63(3), 295–312.

Hair, F.J., Black, W.C., Babin, B.J., Anderson, R. E., 2009. Multivariate Data Analysis: A global perspective. 7<sup>th</sup> ed. New York: Macmillan.

Martin, L. M., & Tesser, A. (1996). Clarifying our thoughts. In R. S. Dyer (Ed.), *Ruminative thoughts: Advances in social cognition* (pp. 189-209). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

M.S.Mohanty 2009, Effects of positive attitude on earnings : evidence from the US longitudinal data. *Journal of Socio-Economics*, 38(March)(2009), pp357-371.

Nooteboom, B. (2004). *Inter-firm Collaboration, Learning and Networks: An Integrated Approach*. London: Routledge.

Inkpen, A. C. (2000). 'Learning through joint ventures: a framework of knowledge acquisition'. *Journal of Management Studies*, 37, 1020–43.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52, 1122–1131.

Kelly, J. R., & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior & Human Decision Processes*, 86, 99-130.

Knutson B, Greer SM (2008) Anticipatory affect: neural correlates and consequences for choice. *Philos Trans R Soc Lond B Biol Sci* 363:3771–3786.



- Pogrow, S. "Teaching Thinking to At-Risk Elementary Students." EDUCATIONAL LEADERSHIP 45/7 (1988): 79-85.
- Remez Sasson(2011). Positive thinking <http://www.positivethinking.co.in/tag/positive-thinking>  
Remez Sasson(2011). The Power of Negative Thinking.
- Rich Gilman & E. Scott Huebner (2000). Characteristics of Adolescents Who Report Very High Life Satisfaction. *Journal of Youth and Adolescence* Volume 35, Number 3, 293-301.
- Rick E. Ingram & Kathleen S. Wisnicki.(1988) Assessment of Positive Automatic Cognition. *Journal of Consulting and Clinical Psychology*, 56, 898-902.
- Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.). (2000). Positive psychology [Special issue] *American Psychologist*, 55(1).
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior*, 68, 446-460.
- Sternberg, R. J. (1995). Styles of thinking and learning. *Language Testing*, 12(3), 265-291.
- Sternberg, R. J. (1997). *Thinking styles*. Cambridge, UK: Cambridge University Press.
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. In S. T. Fiske, D. L. Schacter, & C. Zahn-Waxler (Eds.), *Annual review of psychology* (Vol. 52; pp. 83 - 110). Palo Alto, CA: Annual Reviews.
- Stiggins, R., & Bridgeford, N. (1985). The ecology of classroom assessment. *Journal of Educational Measurement*, 22, 271-286.
- Sue Wilkinson, Celia Kitzinger 2000, Thinking differently about thinking positive: a discursive approach to cancer patients' talk, *Social Science & Medicine*, Volume 50, Issue 6, March 2000, pp797-811.
- Vicki A. Anderson, Peter Anderson, Elisabeth Northam, Rani Jacobs, & Ola Mikiewicz(2002). Relationships Between Cognitive and Behavioral Measures of Executive Function in Children With Brain Disease, *Child Neuropsychology* Volume 8, Issue 4, 2002.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, 96, 465-490.
- Wilkinson, S. & Kitzinger, C. (2000). Thinking differently about thinking positive a discursive approach to cancer patients' talk. *Social Science and Medicine*, 50, 797-811.
- Zhang, L. F. (2002a). Measuring thinking styles in addition to measuring personality traits? *Personality and Individual Differences*, 33, 445-458.
- Zhang, L. F. (2002b). Thinking styles and Big Five personality traits. *Educational Psychology*, 22, 17-31.
- Zhang, L. F. (2002c). Thinking styles: Their relationships with modes of thinking and academic performance. *Educational Psychology*, 22, 331-347.