# Psychological Capital and Empowerment at Work: Empirical Evidence

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#### Abstract

This article draws on the phenomenon that psychological capital (PsyCap) and workplace empowerment work together. This study was conducted to find out the effect of PsyCap on work empowerment at tertiary educational level in Pakistan. For this purpose 200 faculty members from one public sector university were selected randomly and two instruments were administered to gain insight about the phenomenon under investigation. Instruments were piloted before administration. The measure to collect data for psychological capital was comprised of the factors involving Self-efficacy, optimism, hope and resilience. Whereas, the empowerment at work scale, measured the dimensions including meaning, competence, self-determination and impact. Regression analysis was applied to find out the effect of psychological capital on workplace empowerment, which was found significant. The relationship between four dimensions of PsyCap with all the selected dimensions of empowerment at work was also explored, and was observed as strong relationship. Some implications for practice and suggestions for future research in the field are presented in the final section.

**Keywords:** Empowerment at Work, Psychological Capital, Self-efficacy, Resilience, Optimism.

#### Introduction

A large body of theoretical and empirical literature has discussed the organizational setting, work-related outcomes, students' performance, and nature, scope and role of psychological capital (Luthans, et al., 2004). However, concepts taken in the study are discussed briefly keeping in view the scope of the paper. Psychological capital "can be defined as examining the processes by which positive attitudes, feedback, criticism contribute to the functioning and development an individual, group or corporation" (Çavus and Gökçen, 2015: p.245). Psychological capital is considered to be effectively useable to enhance the psychological capacity and potential of human element which may then improve the performance of institution (Keles, 2011). Literature discussed four dimensions of psychological capital including self-efficacy, hope, optimism and resiliency.

#### **Self-Efficacy**

It can be defined as peoples' general belief while exhibiting their performances and it makes sense ahead of peoples' actual potential which helps the employees to do their assignments (Hmieleski and Carr, 2007). The psychological effect of the core capital itself Bandura's (1997) comprehensive and effective social cognitive "organized and achievements of the theory is defined as a belief" in a position to make the necessary course of action to create was achieved. According to Bandura (1998) self-efficacy is looking to determine the people's beliefs, not just ways, and work, but also enable ways to motivate themselves and others. Positive psychological state utility capacity can be easily manufactured. However,

self-efficacy can be reliably measured in three dimensions intensity, power, and coverage (Bandura, 1997). Self-efficacy beliefs can be drawn from the experience of the strongest skills in effective approach. The other point of view to the effectiveness of alternative modeling experience. One can successfully operate acquired or similar or develop their own tasks or to observe self-efficacy beliefs of others related to the job duties. Model (the situation or task) matches to determine the success or failure of your lower self-efficacy observers witnessed other failures despite efforts to replace (Bandura, 1997). The social convincing approach can help build self-efficacy beliefs of individuals. It enables them to be confident. Psychological health, with a strong confidence that fit the situation or reduce their anxiety about work in their physical and emotional arousal is to meet the capacity and capabilities (Bandura, 2007). Several research studies have investigated the role of selfefficacy as the construction predictor of student empirically relevant results as individual international academic environment. Chemers and Garcia (2001) conducted a longitudinal study of first-year college students and found that self-efficacy of the students' performance and adjustment. The sample is composed of students of the University of California 1st year of California. The first question was directly administered to students yet. The second questionnaire was sent by mail.

Wang and Neihart (2015) Singapore secondary school student's twice exceptional students in academic self-concept and academic self-efficacy investigate the impact of international trend to Interpret logical Analysis used (IPA). He said that twice- exceptional students are students exposed to weak psychological symptoms and low self-control and self-efficacy. Due to low self-control with low self-efficacy is the cause of their academic performance. The study can be twice more unusual was that high school students can master high academic self-efficacy and self-control assistant for twice exceptional students to improve academic performance. More studies like teacher psychological support, parental support and positive influence of peers academic self-efficacy and self-control, is a strategy that can help them to better academic achievements.

The demographic differences are also important for educators. Swan et.al (2012) the relationship between teachers psychological support, self-efficacy, life satisfaction, and secondary school students into academic success. The sample consists of 240 secondary school students of 8th and 10th grade. Results Teacher psychological support, self-efficacy and positive and statistically significant relationship between performance targets revealed there. Path analyses that support the teacher's self-efficacy and life satisfaction performance goals and academic achievement predict which showed that although significant.

Rogg (2001) pointed out the links between the sense of college teacher before utilities and their behaviors. It aims to provide the author and fund the learning that teachers with high levels of utility and interest for the use of new techniques and slow learners help students build confidence in their own abilities students if it persists encouraged to use management techniques, as well. Heppner (1994) consists of three credit hour course for two semesters GTAs conducted studies in psychology. The study results found improvements in self-efficacy. GTAs results were that 75% of the oral form of feedback effects from the utility disclosed. Prieto and a national survey of Meyers (1999) and that way himself GTAs previous teaching experience of formal training in education of respondents found the utility scores were higher than those who received no training later. Scientific theory and evidence on the basis of academic research performed by the utility itself can be improved. Bouffard et al. (1991) more effectively than students with high levels of self-efficacy found the solution to their math problems with low levels of efficacy.

Mahyuddin et al. (2006) used a descriptive co-relational study to find out about self-efficacy with English language achievement. The study sample consisted of 1,146 students

(646 men, 499 women, 491 ethnic groups, 374-Malays, 248 Chinese, 248 Indians, 25 other). Bandura's (1995) self-efficacy scale evaluation was used to study the results of the effects of self-efficacy revealed that students learning the English language level. It also has high levels of self-efficacy as compared to guys that show greater achievements than those with lower levels of self-efficacy and girls students with high levels of efficacy be concluded is. Car pay the path analysis method, the perceived utility of mathematics self-concept and gender. The author explains that self-perception is influenced by gender and prior experience. Selfefficacy and the highest level of human performance and lower sugar levels. The author revealed that he has been directly affected by gender and self-efficacy experienced before. Teacher effectiveness planning organization with high level attention by displaying the most enthusiasm and teach himself more efficacious in these areas as compared to other subjects or topics and areas of self-efficacy level is to try to bypass the low. Unmotivated sense of self -efficacy of teachers is to inspire confidence in students learning. They are more creative show openness to new experiences and new ideas of ways to teach them according to their needs. They are more consistent and show resistance in the face of problems and setbacks. They work with students struggling students and students who are more likely error is less critical attitude to time (Coladarch, 1992; Gibson & I Dembo, 1984).

## Hope

Hope is based on three fundamental components in the construction of the Common Core Capital psychological expectation which is described in the context of positive psychology as a motivational state: (a) targets (b) meet the (goals the planned rate) (c) Agency (optimized power). Hopes to strengthen the agency and the way to achieve those goals. (Snyder, 1994; Snyder, Harris et al., (1991) expects the positive features of other similar form of psychological capital is also a theoretical background and measured change and progress can be open to possibilities the students and athletes such as the performance is about to consider (Snyder, 2002 Curry et al 1997). Snyder et al. (2003) who leads produce strong beliefs on ways to achieve these ambitious goals and objectives of the methods used required report. The purpose of the concept of hope in the human nature is assumed to be. I think the agency takes the view that the first and third ability to maintain the struggle toward achieving the goals of encouraging an individual. Different types of supports to achieve positive self-talk and objectives can be added. The agency found it difficult to achieve the goals of low-level high while the agency is easily overcome by events. People expect to easily change their ways and move in a way to achieve the goals. I think they both potential and the agency hopes to feed each other (Snyder, 1994).

#### **Optimism**

High optimism can easily control which causes them to drop out of school and their environment as well as students who are academically successful (Chang, 1998; Snyder et al., 2002). Snyder (1999) support that they do not feel as optimistic on the general obstacle to test the Chinese people to take the test as a challenge. A literature review to avoid less optimistic student-centered approach as opposed to the students and put to use spy disengagement (Chang, 1998; connections Gillman et al., 2006; Snyder et al., 2002).

Chang (1998) conducted a study to find out the relationship between the high level of expectation that causes an increase in their willingness to participate in the satisfaction of students and school academic achievements. The study population consisted of all undergraduate college athletes and non-athletes. The study sample consist of students were athletes (370) and non-athletes gathered by graduate students under stratified random sample. The study results revealed that not only were more optimistic than non-athletes and athletes

hope semester grades, but builds self-worth better. The author conducted 2 studies to find out whether the actual performance of the possibility of hope. 2 Study sample consist of nine women from the University of Montana. The results showed that predicted by hope featuring athletic performance. Study of 3 dispositional optimism, natural ability, affectivity and the game held to find out the relationship between the successes. Hope is considered the most important factor in the academic performance of students over the past decade. This not only affects academic performance, but also optimistic about their mental and physical health. Cheavens et al. (2005) investigated possess high optimism that students seek less optimistic when compared with students who show outstanding academic achievement.

Buric and Soric (2012) as well as the relationship between hopelessness and math domain study the relationship between the student's level of academic achievements further investigate the feelings of hope with hope as well as depression and cognitive control, the evaluation analyzed and optimized strategies during learning. Croatia Model 365 high school students (age) between 16 included. During regular classes convenient sampling techniques were used to collect samples from self-reporting questionnaire. Rijavec & Brdar (2002) was used to measure student perception scale learning. *Resilience* is seemed as "a tendency to recover from adversity or depressing process, allows people to optimistically look at the overwhelming situations" (Çavus and Gökçen, 2015: p.247).

### **Empowerment at Work**

The current 'economic and political power structures 'empowerment need to participate in changes to the structure, but he emphasizes is not included on the basis of the power as a point of view. Described as the most "power on, it's overwhelming, and can be given by a person on each other those who wielded by that is seen as something. It also is for the limited supply from more powerful is the only way to get that ('zero 'Sim') and that is seen to be. For example, a zero amount for political empowerment approach that voting rates are inclusive with the interests of the poor and those who are elected representatives reflect the relative increase in political representation of rich and poor so you can focus on. One way to do this, the political process and the secret ballot campaigns to stop poor through public financing. A 'positive sum 'view, on the other hand, political participation and the administration of the public interests and policies voters (skills, 2005).

Spreitzer (explaining the move by 1995), which takes care employees to the extent that they are doing their jobs. Empowerment of internal motivation in her work reflects an individual's orientation in the sense described as driven. Four cognitive meaning, competence, self-determination, and impact (Spreitzer, 1995). This requires a fit between the needs of a working person's beliefs, values, and practices. Qualification skills, working in a capacity to perform work activities according to personal skills, a belief utility refers to the dedication. To make decisions about self-determination and continuity of the work processes and working methods, speed, and reflects more autonomy. Impact can affect the degree to which the strategic, administrative, or operating results on a person.

## **Study Focus**

The study is aimed to find out the role of Psychological Capital in Empowerment at work among the university teachers. Moreover, the aim of study is also to explore the perceptions of university teachers about psychological capital and empowerment at work. This study also explores the relationship/effect of both of the variables. Furthermore, comparison of psychological capital and empowerment at work on the basis of gender, qualification, marital status and experience has been made. A relationship of all four dimensions including self-efficacy, hope, optimism and resilience has been found with four dimensions of

empowerment at work involving meaning, competence, self-determinacy and impact. As for as significance of the study is concerned this will be useful for practitioners in the field of education towards their work /employment empowerment status relevant to the nature of job and requirements.

## **Research Questions**

- Q 1. What are the perceptions of teachers about psychological capital and work empowerment at university level?
- Q 2. Is there any significant relationship between psychological capital and work empowerment?
- Q 3. Is there any relationship between self-efficacy, hope, optimism and resilience with four dimensions of empowerment at work (meaning, competence, self-determinacy and impact)?
- Q 4. Is there any difference between psychological capital and empowerment at work on the basis of gender, qualification, marital status and experience?

## Methodology

Population of the study comprise on all the faculty members (382) of a public sector university from Punjab, Pakistan. Convenient sampling technique was used to collect the perceptions of 200 faculty members (110 female and 90 male). Two separate research instruments were administered, one to measure the psychological capital and second to measure empowerment at work. Both were at five point likert scale, first having 24 items and the other constituted of 12 items. Both of the measures were pilot tested and reliability found as a whole and dimension wise is given bellow in table 1.

 Table 1

 Reliability of the instrument as a whole and its dimensions separately

Description of variab	bles	Cronbach's Alpha
Instrument 1	Dimensions of Psychological Capital	
	Self-efficacy	.94
	Норе	.92
	Optimism	.51
	Resilience	.62
	Psychological capital (total)	.93
Instrument 2	Dimensions of Empowerment at Work	
	Meaning	.91
	Competence	.89
	Self-determinacy	.90
	Impact	.90
	Empowerment at work (total)	.96

## **Data Analysis and Interpretation**

To find out correlation between psychological capital and empowerment at work, Pearson correlation coefficient was applied and the results obtained are presented bellow in table 2.

 Table 2

 Pearson's' Correlations Coefficient between Psychological Capital and Empowerment at Work

Variables	Psychological Capital	Empowerment
Psychological Capital	1	.960**
Empowerment	.960**	1

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows that Psychological capital and empowerment at work are strongly correlated with each other at r=.960 and p<0.01.

 Table 3

 Pearson's Correlation Coefficient

Variables	Self-efficacy	Норе	Optimism	Resilience	Mean	Competence	Self-determination	Impact
Self-efficacy	1							
Норе	.482**	1						
Optimism	.493**	.549**	1					
Resilience	.517**	.501**	.545**	1				
Mean	.418**	.569**	.355**	.634**	1			
Competence	.514**	.774**	.572**	.593**	.520**	1		
Self-determination	.503**	.627**	.510**	.682**	.493**	.702**	1	.810**
Impact	.699**	.867**	.700**	.763**	.709**	.897**	.810**	1

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

All four dimensions of self-efficacy, hope, optimism and resilience are significantly correlated with the four dimensions of empowerment at work i.e. mean, competence, self-determinacy, and impact. Therefore, it has been concluded that all these components plays a vital role in empowering the teachers at their work place.

Table 4 ANOVA<sup>b</sup>

Mode	el	Sum of Squares	Df	Mean Square	$\mathbf{F}$	Sig.
1	Regression	116.432	1	116.432	2.308E3	.000 <sup>a</sup>
	Residual	9.990	198	.050		
	Total	126.422	199			

a. Predictors: (Constant), Psychological Capital

Results from table 4 depicts that there is significant effect of psychological capital on empowerment at work as F=2.30 and p=.000. Therefore, a significant role of psychological capital in empowering the teachers has been detected.

b. Dependent Variable: Empowerment

The same has been presented in the Figure 1, shown below.

## Normal p-P Plot of Regression Standardized Residual

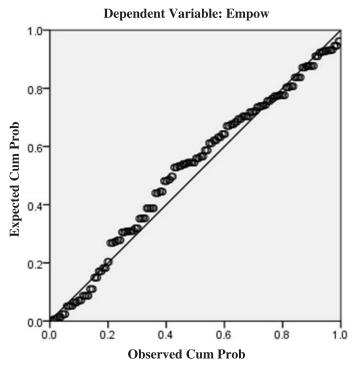


Figure 1; showing effect of psychological capital on teachers' empowerment at work

Table 5
Independent Samples Test

Variable	Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Self-efficacy	Male	90	2.9556	.54445		
	Female	110	2.8291	.69696	1.406	.151
Hope	Male	90	3.0889	.76241		
	Female	110	2.7136	.79021	3.406	.001
Optimism	Male	90	2.8222	.68732		
	Female	110	2.6455	.73402	1.755	.081
Resilience	Male	90	3.0889	.88234		
	Female	110	2.6773	1.09542	2.943	.004

Results of table 5 show that, there is no significant difference between male and female self-efficacy as well as in optimism. Whereas, hope and resilience of male and female teachers are significantly different.

Table 6

Variables	Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Psychological Capital	Male	90	2.9102	.58085		
	Female	110	2.6523	.64765	2.934	.004
Empowerment	Male	90	3.1074	.75485		
	Female	110	2.7826	.80416	2.921	.003

Results from table6 show that there is significant difference between male and female teachers' psychological capital and empowerment at work in the universities of Punjab, Pakistan.

Table 7

Variables	Qualification	N	Mean	Std. Deviation t	Sig. (2-tailed)
Psychological Capital	PhD	124	2.9550	.51624	_
	Non-PhD	76	2.4638	.68209 5.40	1 .000
Empowerment	PhD	124	3.1734	.61243	
	Non-PhD	76	2.5296	.90007 6.01	4 .000

Results from table 7 show that there is significant difference between psychological capital and empowerment at work in the universities of Punjab, Pakistan on the basis of qualification. As PhD teachers have different psychological capital as compared to the non-PhD faculty members. Similarly PhD faculty members have different empowerment at work as compared to non-PhD faculty.

Table 8

Variable	Teaching Experience	N	Mean	Std. Deviation	t	Sig.(2-tailed)
Psychological Capital	No experience	142	2.7609	.62554		_
	Having some experience	58	2.7866	.64673	262	.794
Empowerment	No experience	142	2.9237	.79072		
	Having some experience	58	2.9411	.81918	138	.891

Results from table 8 it has been depicted that there is no difference in psychological capital of the teachers on the basis of their experience. Similarly, no significant difference has been found in empowerment at work on the basis of their some experience and in-experience.

Table 9

Variables	Marital Status	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Psychological Capital	Single	142	2.8418	.65245		
	Married	58	2.5884	.53593	2.61	.010
Empowerment	Single	142	3.0082	.83406		
	Married	58	2.7342	.66547	2.22	.072

Results of table 9 present that there is significant difference in psychological capital of teachers at university level on the basis of their marital status. Whereas, no significant difference has been found in empowerment at work of the teachers on the basis of their marital status.

#### **Conclusion, Discussion and Recommendation**

On the basis of analysis it has been concluded that psychological capital has strong influence on the empowerment of teachers at their work because both of the variables are strongly correlated. Moreover, there is a significant effect of Psy Cap on empowerment at work place. Teachers' self-efficacy, hope, optimism and resilience are also strongly correlated with the dimensions of empowerment at work including mean, competence, self-determination and impact. The male and female teachers do not have any significant difference in self-efficacy

and optimism. However, male and female teachers at work have significant differences in hope and resilience. There is significant difference in both, psychological capital and empowerment at work, variables for male and female faculty members. On the basis of qualification i.e. PhD and Non-PhD faculty both variables have significantly difference. Whereas, on the basis of experience of the faculty, there is no significant difference in Psy Cap and empowerment at work. Single and married faculty members observe a significant difference for Psy Cap, but have similar score for empowerment at work.

It is, therefore, suggested that psychological capital of the faculty members might be considered while hiring because it plays an important role to empower them at work. Similar studies may be carried out in school and college settings and in other areas of work.

#### References

- Bandura, A. (2007). Much ado over a faulty conception of perceived self-efficacy grounded in faulty experimentation. *Journal of Social and Clinical Psychology*, 26(6), 641.
- Bandura, A. (1977). Social learning theory.
- Bandura, A. (1998). Social cognitive theory of personality. *Handbook of personality: Theory and research*, 154-196.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY:Freemanatisfaction, employee engagement, and business outcomes: a meta analysis. *Journal of applied psychology*, 87(2), 268.
- Bouffard-Bouchard, T., Parent, S., & Larivee, S. (1991). Influence of self-efficacy on self-regulation and performance among junior and senior high-school age students. *International Journal of Behavioral Development*, 14(2), 153-164.
- Bożek, A. (2015). Positive Psychological Capital Concept: A Critical Analysis in the Context of Participatory Management. *Management and Business Administration*, 23(3), 19-31.
- Burić, I., & Sorić, I. (2012). The role of test hope and hopelessness in self-regulated learning: Relations between volitional strategies, cognitive appraisals and academic achievement. *Learning and Individual Differences*, 22(4), 523-529.
- Cameron, K. S., & Caza, A. (2003). Contributions to the discipline of positive organizational scholarship. *To appear in the American Behavioral Scientist*.
- Çavus, M.F. and Gökçen, A. (2015)Psychological Capital: Definition, Components and
- Effects. British Journal of Education, Society & Behavioural Science. 5(3), 244-255.
- Chang, E. C. (1998). Hope, problem-solving ability, and coping in a college student population: Some implications for theory and practice. *Journal of clinical psychology*, *54*(7), 953-962.
- Chemers, M. M., Hu, L. T., & Garcia, B. F. (2001). Academic self-efficacy and first year college student performance and adjustment. *Journal of Educational psychology*, *93*(1), 55.
- Coladarch, T. (1992). Teachers' sense of efficacy and commitment to teaching. *The Journal of experimental education*, 60(4), 323-337.
- Curry, L. A., Snyder, C. R., Cook, D. L., Ruby, B. C., & Rehm, M. (1997). Role of hope in academic and sport achievement. *Journal of personality and social psychology*, 73(6), 1257.
- Cheavens, J. S., Michael, S. T., & Snyder, C. R. (2005). The Correlates of Hope: Psychological and Physiological Benefits.
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of educational psychology*, 76(4), 569.
- Harris, M., & Raviv, A. (1991). The theory of capital structure. *the Journal of Finance*, 46(1), 297 -355.

- Keles NH.,(2011) Positive psychological capital: Definition, components and their effects on organizational management. *Journal of Organization and Management Sciences*.3(2):343-350.
- Khan, A., Siraj, S., & Li, L. P. (2011). Role of positive psychological strengths and "big five" personality traits in coping mechanism of university students. In *International Conference on Humanities, Society and Culture* (Vol. 20, pp. 210-215).
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education*, 7(2), 209-221.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate—employee performance relationship. *Journal of organizational behavior*, 29(2), 219-238.
- Luthans, F., & Youssef, C. M. (2004). Human, Social, and Now Positive Psychological Capital Management:: Investing in People for Competitive Advantage. *Organizational dynamics*, *33*(2), 143-160.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business horizons*, 47(1), 45-50.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541-572.
- Luthans, B. C., Luthans, K. W., & Jensen, S. M. (2012). The impact of business school students' psychological capital on academic performance. *Journal of Education for Business*, 87(5), 253-259.
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: toward a micro-intervention. *Journal of Organizational Behavior*, 27(3), 387-393.
- Mahyuddin, R., Elias, H., Cheong, L. S., Muhamad, M. F., Noordin, N., & Abdullah, M. C. (2006). The relationship between students' self-efficacy and their English language achievement. *Jurnal Pendidikdan Pendidikan*, 21, 61.
- Prieto, L. R., & Meyers, S. A. (1999). Effects of training and supervision on the self-efficacy of psychology graduate teaching assistants. *Teaching of Psychology*, 26(4), 264-266.
- Rijavec, M., &Brdar, I. (2002). Coping with school failure and self-regulated learning. *European Journal of Psychology of Education*, 17(2), 177-194.
- Rogg, K. L., Schmidt, D. B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of management*, 27(4), 431-449.
- oss, J. A. (1994). Beliefs That Make a Difference: The Origins and Impacts of Teacher Efficacy.
- Shen, X., Yang, Y. L., Wang, Y., Liu, L., Wang, S., & Wang, L. (2014). The association between occupational stress and depressive symptoms and the mediating role of psychological capital among Chinese university teachers: a cross-sectional study. *BMC psychiatry*, 14(1), 329.
- Snyder, C. R. (1994). The psychology of hope: You can get there from here. Simon and Schuster.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological inquiry*, 13(4), 249-275.
- Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School psychology quarterly*, 18(2), 122.
- Spreitzer (1995).
- Swann Jr, W. B., Rentfrow, P. J., & Gosling, S. D. (2012). The precarious couple effect: verbally inhibited men+ critical, disinhibited women= bad chemistry. *Journal of Personality and Social Psychology*, 85(6), 1095.
- Vanno, V., Kaemkate, W., & Wongwanich, S. (2014). Relationships between academic performance, perceived group psychological capital, and positive psychological capital of Thai undergraduate students. *Procedia-Social and Behavioral Sciences*, 116, 3226-3230.
- Wang, C. W., & Neihart, M. (2015). Academic Self-Concept and Academic Self-Efficacy: Self-Beliefs Enable Academic Achievement of Twice-Exceptional Students. *Roeper Review*, 37(2), 63-73.