The Impact of Elements of higher educational Environment on Changes of Psychological Capital in Students; a Model for Islamic Azad Universities of Tehran

Sadina Pira
Ph.D candidate of educational Administration, college of management and Economy, Science and Research Branch, Islamic Azad university, Tehran, Iran

Kamran Mohamadkhani
Assistant professor of Higher Educational Administration, Faculty of college of management and Economy, Science and Research Branch, Islamic Azad university, Tehran, Iran
(Corresponding Author)

Ali Taghipoor Zahir
Associate professor of Educational planning Administration, Faculty of college of management and Economy, Science and Research Branch, Islamic Azad university, Tehran, Iran

Amirhosein Mohamaddavoudi
Assistant professor of educational Administration, Faculty of Science and Research Branch, Islamic Azad university, Saveh, Iran

Abstract

Employing a functional approach, the present article sought to change psychological capital in students of Islamic Azad Universities of Tehran through altering components and dimensions of their higher educational environment. To scrutinize the research purpose, the study applied descriptive-correlational survey research method. To get a good account of the topic, authors exercise a concise overview of literature and detailed interview with field specialists. Finally, seven elements of learning environment in higher education were detected, which were applied to develop a questionnaire. In order to determine situation of psychological capitals, the article utilized Luthans et al.’s (2007) standard questionnaire. Face validity of questionnaires was ensured through expert’s ideas. Construct validity of learning environment questionnaire was found to be about 0/81 based on factor analysis. Construct validity of psychological capital questionnaire was also calculated (0/56). Cronbach’s alpha reliability of learning environment and psychological capital questionnaire were measured to be about 0/95 and 0/88, respectively. Through cluster stratified random sampling, 387 participants were selected from all students of Islamic Azad Universities of Tehran. Data were examined through two statistical tests including (1) Exploratory factor analysis to determine model components, and (2) one sample t-test to
determine the current status of students’ psychological capital. The obtained results might be summarized as follows. The learner with effect coefficient of 0/44 has the maximum influence on psychological capital. Effect coefficient of teaching methods on this capital amounted to 0/30. Technology with effect coefficient of 0/19 appears to have the least direct impact on psychological capital. Objectives, methods, evaluation and teacher showed some indirect effect on this capital. The current status of this capital with four elements (self-efficacy, hope, optimism, resilience) was calculated to be -24/51 in confidence level of 0/05. This finding suggests that psychological capital of students is in undesirable situation. A new model was presented based on path analysis model, designed with SEM techniques using LISREL software. This model sought to indicate direct or indirect role of each dimension of learning environment in the changes of psychological capital.

**Keywords:** Learning Environment, Psychological Capital, Path Analysis Model.
Introduction
Educational activities of each country might be considered as investment of one generation on the next one. The main purpose of this investment is assumed to be human development. In other words, educational activities aimed at growing awareness and potentials of human. So, education system appears as one of the most complicated social, economic and cultural subsystems (Shahrezaii, 2010). Students spend most of their time in universities. In addition to learning activities, they become engaged in social activities through joining academic groups and communities. This membership is believed to result in a kind of safety. Accordingly, it seems necessary to provide a healthy scientific-educational environment (Barbara, 2009). Moreover, mental health is presumed to be a significant factor affecting on the development of people. More specifically, mental health directly and indirectly disturb in the students’ progress process. It sounds too simplistic to see psychological well-being as experience of more joy than pain. Instead, it must be regarded as man’s strive for perfection and realization of his/her potentials. Psychological well-being is regarded as having positive feeling and public satisfaction toward different dimensions of one’s life including family, job, education and etc. therefore, people with high sense of well-being have more positive emotion and evaluation toward life events. On the other hand, those with low sense of well-being have a negative evaluation of the events in their life. They mostly feel such negative emotions as stress, depression, and anger (Veenhoven, 2008).

Providing appropriate social environments for students to transact with each other and experience trust, integrity, empathy and cooperation could improve this psychological construct. When explaining the concept of psychological well-being, it sounds necessary to consider the role of social factors. Social factors and specifically social capital evidently influence on the psychological capital and well-being. It sounds notable that social capital and its’ components have a significantly positive relationship with psychological well-being. In other words, more social people who are members of more social networks enjoy more life satisfaction and psychological well-being (Sarracino, 2010). Modern scholars propose that psychological capital is above and beyond theory. Indeed, it is a collection of social capital (whom you know?) and human capital (what you know?). Specifically, psychological capital examine “who are you?” or “who will you be?” Psychological capital includes beyond concepts and goes beyond social and human capital. The developing part of psychological capital (which considers “who will you be?”) is mostly ignored in social and human capital. The main question is whether psychological capital decline over time. As the capacities of psychological capitals are presumed to be part of psychological states, researchers expect them to be constantly fluctuating. The increase or decrease of this capital mostly depend on assessment time and condition (Gardner, 2005). Furthermore, psychological capital may never form in a vacuum. Therefore, lack or weakness of psychological capital in students, serious problems of the design of learning environments in higher education in Iran, lack of clear understanding about various dimensions and components of learning environment which may cause changes in this capital, action based on personal preferences, weak bases of activities, and educational policy making under extreme ideas are all indicative of weakness of organized knowledge in this area and deficiency of an appropriate model or framework to alter students’ psychological capital. Suitable ability and capacity to improve psychological capital is highly dependent on educational environment. So, the current
research studies these challenges. The results of ongoing research are expected to contribute to the students of various levels in universities. Through strengthening psychological capital by knowledge acquired in this study, these students are supposed to benefit from countless advantages of having increased capital in modern fluctuating life. In the similar vein, universities and societies with this kind of people might climb stairs of growth and development more quickly.

The history of psychological capital traces its modern origin to Martin Seligman (1998), Father of Positive Psychology. This capital could be defined by such features as believing in one’s abilities to achieve success, having persistence in goal pursuit, establishing a positive attitude toward oneself, and enduring problems. Positive psychological approach, as Seligman (1998) puts, includes all positive dimensions of one’s life. He argues that human and social capitals are so easy to observe that they could be simply measured and controlled. Psychological capital, on the other hand, is mostly potential which make it difficult to be measured and developed (Veenhoven, 2008).

Psychological capital appears to be a compound, interconnected structure containing four cognitive/perceptual components; hope, optimism, self-efficacy and resilience. These elements come together to build a synergy that is expected to be more effective on efficiency than each component, separately. In an interactive and evaluative process, these components give meaning to the life of man, assist him to continue his efforts to change stressful situation, and make him ready to enter the scene. Among the aforementioned elements of psychological capital, hope is presumed to be a positive motivational state that is based on clear goals of life. Hope is derived from success agency (goal-directed energy) and pathway (planning to achieve goals) (Snyder, Irving, & Anderson, 1991). Self-efficacy is defined as individuals’ views about their own capabilities to execute a specific task. Optimism also equals with positive expectations about future consequences and results. These consequences are considered to be some fixed, general, and internal factors. Resiliency is presumed to be positive adaptation with adverse conditions. Specifically speaking, this concept does not mean passive resistance against damage or threatening situations. However, resilient people are those who are active and constructive and contribute to their surrounding environment. Luthans et al. (2007) are pioneer theorists who first propose a model for the psychological capital. In their model, Luthans et al(2007) introduces these four elements as components effective on employers’ behavior in organizations. For the purpose of developing framework of positive organizational behavior, as he argues, this capital appears as source of competitive advantage for organizations. Psychological capital is more important than social and human capital in that it can be assumed as competitive advantage for organizations (Luthans, Avey, Petera, 2008).

To change the amount of psychological capital in students, scholars should recognize learning environment and develop its’ dimensions. There sounds to be several views about dimensions of learning environment. Some investigators have suggested four main factors for learning environment; goal, content, method and evaluation. Others such as Francis Klein has developed this list to include nine dimensions. In 2008, Kidd and Song maintained that learning environment is a combination of all components, conditions and key factors which affect on learning process, learner’s behavior and educational goal.
George Siemens’ model in 2005, Siemens presented IRIS model for the first time. Basic factors of this model are considered to be (a) innovation and creativity, (b) research, (c) implementation, and (d) systematization. Siemens (2005) settled on his pedagogical model based on connectivism theory. Connectivism, as Siemens proposes, is a learning theory for the digital age. Novel technological tools and explosive growth of knowledge in a global, digital world necessitate complicated, massive, and updated connections. Thus, learners are required to have various skills to innovate and produce content, individually or collectively (Siemens, 2010). Another instructional design model was suggested by Morrison, Ross, and Kemp (2004). The aforementioned MRK model (2004) include 9 elements of learning environment; learners’ characteristics, task analysis, instructional objectives, content sequencing, instructional strategies, designing the messages, instructional delivery, evaluation instruments, and instructional problem. There sounds to be two significant approaches in determining learning environment; (a) independence approach, and (b) blended approach. Unlike independence approach, blended method is never limited to one specific theory. This approach attempts to employ several capacities of various learning theories. Merging these findings, the blended approach proposes a novel plan in a specific framework of a new model (Zarei Žavaraki, 2013). In order for altering and developing the amount of psychological capital in students, the scholars need to move beyond approaches and design the learning environment with a blended approach.

Objectives of this study are as follows:
(1) Detecting those elements of learning environment which affects the changes of psychological capitals’ of students
(2) Evaluating the current status of students’ psychological capital
(3) Measuring effects of each component in the change of students’ psychological capitals
(4) Presenting a suitable conceptual model for altering students’ psychological capitals through components of learning environment

Research method
Considering research purposes, the present investigation is a type of applied research. More specifically, as the findings of this study may be applied for improving learning environments in universities and increasing psychological capitals of students, it is presumed to be an applied study. The research has followed a descriptive correlational survey research design and employed a mixed method to gather information. To determine dimensions and components of variables and present a conceptual model, the authors applied Delphi method beside interviews of field experts and professors in higher education. The study applied qualitative method to prepare a conceptual method and analyze each dimension of learning environment and their effect on psychological capital. Meanwhile, authors attempted to use questionnaires which mean quantitative method was also utilized.

Participants and Sampling
The subjects of current research were all students of Islamic Azad Universities of Tehran. The study involved 290779 students in all educational levels. The authors employed cluster stratified random sampling to restrict size of considered population. For the purpose of accuracy in
measurements, the researchers divided considered universities to north, south, east, west and central districts. Regarding total number of students in each district, they randomly chose proportional number of participants in each part. Finally, 387 participants were selected through applying Cochran formula.

**Results**

(1) Detecting those elements of learning environment which affects the changes of psychological capitals’ of students

A theoretical study of this research question along with considering interviews and factor analysis of questionnaires of learning environments showed common main elements between findings of interviews and theoretical/empirical studies. These basic dimensions were detected to be learner, teacher, teaching method, instructional objectives, content, evaluation and educational technology. Scrutinizing different elements of questionnaire suggest following mean scores for each element. Table 1 presents the obtained mean scores.

<table>
<thead>
<tr>
<th>Elements of learning environment</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>2/12</td>
</tr>
<tr>
<td>Teacher</td>
<td>2/59</td>
</tr>
<tr>
<td>teaching method</td>
<td>2/42</td>
</tr>
<tr>
<td>instructional objectives</td>
<td>2/57</td>
</tr>
<tr>
<td>Content</td>
<td>2/57</td>
</tr>
<tr>
<td>Evaluation</td>
<td>2/54</td>
</tr>
<tr>
<td>educational technology</td>
<td>20/59</td>
</tr>
<tr>
<td>Total</td>
<td>48.56</td>
</tr>
</tbody>
</table>

As Table 1 indicates, these dimensions defined about 48.56 percent of all variance. The minimum acquired mean score was related to learner, whereas the maximum was measured to be teacher and educational technology (see Table 1). One sample t-test of each element was found to be more than about 1/96 at a significance level of %95.

(2) Evaluating the current status of students’ psychological capital

Psychological capital sounds to have four dimensions; hope, optimism, self-efficacy and resilience. To determine the current status of this capital in students, the study applied one sample t-test to compare mean score of each dimension in current status with expected mean score of that dimension. The findings, acquired through quantitative study, have suggested that the mean score of psychological capital and its’ dimensions have been less than average (i.e. 3). Table 2 shows t-statistics of current status at a significance level of 0/05.
Table 2

*T-statistics of Current Status of Psychological Capital*

<table>
<thead>
<tr>
<th>Dimensions of psychological capital</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope</td>
<td>-17/56</td>
</tr>
<tr>
<td>Optimism</td>
<td>-20/54</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>-24/75</td>
</tr>
<tr>
<td>Resilience</td>
<td>-21/90</td>
</tr>
<tr>
<td>Total</td>
<td>-24/51</td>
</tr>
</tbody>
</table>

According to Table 2, hope and self-efficacy are the maximum and minimum acquired amounts, respectively. Additionally, all t-statistics were calculated to be more than 1/96. So, there appeared to be a significant relationship between each statement and four dimensions. Besides, a significant connection was observed between dimensions and psychological capital.

(3) Measuring effects of each component in the change of students’ psychological capitals

Employing Structural Equation Modeling (SEM) techniques, this investigation sought to measure the changes of psychological capital as affected by elements of learning environment. T-test, level of significance and standard coefficients were required in this section. Factor and path analysis revealed that such elements as learner, teaching method, and instructional technology might directly affect the psychological capital. This is while other elements may have some indirect impact on the considered dependent variable. T-statistics of learning dimensions at a significance level of 0/05 and their effect coefficient on the psychological capital are as follows.

- T-statistics of learner amounted to around 10/75 and the amount of effect coefficient was measured to be about 0/44.
- T-statistics of teaching method was about 7/25 and its’ effect coefficient on psychological capital is calculated to be approximately 0/30.
- T-statistics of educational technology was found to be about 5/46 and its’ effect coefficient on psychological capital was around 0/12.
- The element of teacher, with teaching method acting as mediator, was found to have about 0/12 effect coefficient.
- The effect coefficient of teacher, when learner is mediator, was obtained to be approximately 0/21.
- Educational Content, with learner acting as mediator, affected on psychological capital with effect coefficient of about 0/20.
- The effect coefficient of educational Content, with teaching method acting as mediator, was around 0/23.
- Educational content, when educational technology was mediating, affected on the considered dependent variable with effect coefficient of 0/20.
- The effect coefficient of instructional objectives, when teaching method was acting as mediator, amounted to approximately 0/38.
- Evaluation, with mediating role of teaching method, affected on this capital with effect coefficient of 0/13.
The effect coefficient of educational evaluation, when instructional technology acted as mediator, was achieved to be about 0.28. These outcomes have illustrated that the component of learner have mostly influenced on psychological capital, directly. However, there displayed to be the least directly significant connection between instructional technology and psychological capital. In contrast, maximum indirect connection was detected between educational objectives and psychological capital, while the minimum is measured to be content along with learner.

(4) Presenting a suitable conceptual model for altering students’ psychological capitals through components of learning environment

A new model was suggested based on path analysis model, designed with SEM techniques using LISREL software. Through stepwise regression, the relationship and effect of dimensions of learning environment on psychological capital have been indicated in this model. In this model, stepwise regression analysis was conducted with psychological capital as criterion variable and learning environment and its’ dimensions as predictor variable. The obtained data has showed that among all dimensions of learning environment only learner, teaching methods, and instructional technology could predict the psychological capital. The coefficient of determination of this model with three predictor variable was measured to be around 0.625. One might specifically argue that about 62.5 percent of the variance in the psychological capital was predictable from these three dimensions. Consequently, these three elements have been regarded as predictor variables in path analysis. This model has maintained that educational method and technology have directly affected on psychological capital, whereas teacher, content, objectives, and evaluation have revealed to have indirect influence on that. Moreover, in significant mode, model has illustrated that t-values for each path coefficient is greater than 1.96. So, it might be claimed that all path coefficients are significant in confidence level of %95. Besides, the effect of independent variable on dependent one are confirmed when the existing paths are regarded.
In order to develop the proposed model, the scholars might employ several techniques, originated in either institutional and instructional nature or personal factors. Some techniques are suggested as following.

- Independence and freedom in university: specifically, the governments and various institutions should not only avoid interfering in university affairs, but also support academic activities.
- Revision of regulations and guidelines: in other words, the university authorities are obliged to remove some radical and inefficient rules and guidelines in educational and official sections so that they can quickly handle students’ problems. Notably, Complicated and traditional structures may result in a decrease of self-efficacy, hope, and efficiency of individuals.
- Increasing students’ involvements in universities: students must be engaged in various environment and sections of university. They have to play significant role in administration of different parts of their university through various associations. The purpose of this approach is regarded to be engaging students in active, volunteering, philanthropic activities which may enhance their sense of responsibility, hope, optimism, and self-efficacy.
• Considering some specific courses for learning environment: some courses are required in each university to constantly investigate, determine, evaluate, and support learning environment. Universities are, therefore, obliged to allocate essential budget for these courses and researches.
• Examining per capita indices of learning environment: such indices as ratio of teachers to students, books to students’ library, physical space to students, and other facilities in learning environment need to be determined based on international standards.
• Using advisory opinions of psychologists and sociologists along with faculty members of universities in policy-making, considering students’ academic and career future, developing and implementing various plans, and detecting priorities of learning environment in universities of new generation.
• Establishing a proper system for employment of faculty members and permanent control and evaluation of them: This factor refers to the important role of teacher in altering such capitals as psychological capital of learners.
• Creating a favorable social environment for different intellectual spheres and honest treatment of students’ concerns, demands and preferences: Such environment might decrease students’ stress, eliminate their conservatism, and enhance their positive psychological approaches.

Conclusion
The present article aimed at changing the amount of psychological capital of students based on various elements of learning environment and presenting an instructional design model. Delving into quantitative and qualitative studies, the research tried to determine dimensions of learning environment. After detecting and organizing key elements, the study considered current status of participants and determined role of each dimension of learning environment in altering psychological capital. Path analysis model was applied to indicate forms of relationships and change of psychological capital. The findings of this study have proposed that all dimensions of learning environment including teacher, learner content, teaching method, educational evaluation, instructional objectives, and technology have affected on elements of psychological capital i.e. self-efficacy, hope, resilience, optimism. The outcome of path analysis model implies that psychological capital is the final dependent variable which is influenced by variable of learning environment. To be more specific, dimensions of learner, teaching method, and instructional technology directly alter psychological capital with high effect coefficient. In contrast, other elements such as teaching goals, contents, teacher, and evaluation indirectly affect this variable. According to the final conclusion of this research, while learner has the most impact on the boost of psychological capital, educational technology appears to have the least direct influence. Furthermore, the findings reported that current status of all dimensions of psychological capital among given participants is very weak (less than average). Hope is detected to be maximum psychological capital, whereas self-efficacy is found to be minimum among students. One of the main goals of higher education sounds to be training people with high capability to protect their
physical and mental health. These people are less vulnerable in social environment and create positive behavior. Health is regarded as a significant feature of a developed society. To improve psychological capital and other necessary capitals in the present era, universities are required to set up some fundamental changes in educational and official structures, move toward decentralization, independence, more autonomous managers, self-directing, and flexible managements. Besides, it seems notable that this capital cannot be formed in vacuum. For the purpose of developing this capital, the society needs to provide financial sources, increase investigations, conduct correct planning and policy-making, provide capable human sources, and constantly evaluate qualities in the field of education. As a result of this development, universities could train responsible, self-efficient, and self-confident individuals with positive approach toward society that have some specific characteristics such as collaboration with others and stability in challenging tasks.
References