

A Study of LF and, GSE Among Mathematics Students in Math Classes in Payam e Noor University of Maragheh

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Abstract: Life effectiveness, LF and general self efficacy, GSE are both important factors in today's educational and psychological context. If in the process of mathematics learning instructors note for these important issues they will develop the process of learning much better. So this paper will review Life effectiveness and general self efficacy among the mathematic students in Maragheh Payam e Noor University.

Key words: Life Effectiveness; General Self-Efficacy; Mathematic Students; Higher Education

LIFE EFFECTIVENESS

According to Wilderodrom, 2002: Life Effectiveness is a research tool for measuring personal Change and also:

- a person's capacity to adapt, survive and thrive
- areas of personal development typically targeted by intervention programs

And the life Effectiveness Questionnaire is a test and report for

- a freely available self-report tool to assess life effectiveness
- used for measuring changes in personal development as a result of intervention programs

SELF-EFFICACY

Self-efficacy was defined by Albert Bandura as a person's belief in their capability to successfully perform a particular task. Self-efficacy theory is an important component of Bandura's (1986) more general social cognitive theory, which suggests that an individual's behavior, environment, and cognitive factors (i.e.,

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outcome expectations and self-efficacy) are all highly inter-related. Bandura, 1978, p. 240 defined self-efficacy as "a judgment of one's ability to execute a particular behavior pattern." Wood and Bandura (1989) expanded upon this definition by suggesting that self-efficacy beliefs form a central role in the regulatory process through which an individual's motivation and performance attainments are governed. Self-efficacy judgments also determine how much effort people will spend on a task and how long they will persist with it. People with strong self-efficacy beliefs exert greater efforts to master a challenge while those with weak self-efficacy beliefs are likely to reduce their efforts or even quit (Bandura & Schunk, 1981; Brown & Inouyne, 1978; Schunk, 1981; Weinberg, Gould & Jackson, 1979; Staples et al, 2005).

METHODOLOGY AND INSTRUMENTS

This project has been done by two questionnaires with reliability and validity among 216 mathematics higher education student in Payame Noor University of Maragheh in four levels (freshman, sophomore, junior, and seniors). And studied the Life effectiveness and General Self-Efficacy between basic and humanity science students and other hypothesis will be discussed as well.

General Self-Efficacy, The General Self-Efficacy Scale is a 10-item psychometric scale that is designed to assess optimistic self-beliefs to cope with a variety of difficult demands in life. The scale has been originally developed in German by *Matthias Jerusalem* and *Ralf Schwarzer* in 1981 and has been used in many studies with hundred thousands of participants. In contrast to other scales that were designed to assess optimism, this one explicitly refers to personal agency, i.e., the belief that one's actions are responsible for successful (Schwarzer, 2006).

Life Effectiveness Questionnaire, Multi-dimensional measure of areas of personal effectiveness which are, theoretically, amenable to change through personal development programs has 9 scales (24 items) by Garry Richards and James Neill and has been used in moderate amount of different research. Also The Life Effectiveness Questionnaire (LEQ) has continued to undergo development. Garry Richards has led the way again by recently designing a new version, called the Review of Personal Effectiveness with Locus of Control (ROPELOC), which includes several new scales and several reworked scales from the LEQ. Psychometric testing of the ROPELOC has been completed (Wilderodm, 2002).

WHAT DOES THE LIFE EFFECTIVENESS QUESTIONNAIRE MEASURE?

- Time Management
- Social Competence
- Achievement Motivation
- Intellectual Flexibility
- Task Leadership
- Emotional Control
- Active Initiative
- Self Confidence

RESEARCH QUESTIONS:

1). Is there significant relation between Life effectiveness and Self efficacy among mathematic students of Payame Noor university of Maragheh?

2). Is there significant relation between Life effectiveness and Self efficacy among girls and boys of mathematic students of Payame Noor university of Maragheh?

3). Is there significant relation between Life effectiveness and Self efficacy among Basic science and Humanity science of mathematic students of Payame Noor university of Maragheh?

DATA ANALYSIS

To assess normal distribution, Descriptive statistics was applied. To determine the relationship between Self-efficacy and life effectiveness of student, Pearson correlation test was used. Gender roles and the tendency to check the life effectiveness and student Self-efficacy, independent t test were used.

RESULTS

Table 3 shows the results of descriptive statistics for the two instruments – Life effectiveness and Self-efficacy questionnaires - used in the study.

Table 1: Descriptive Statistics for Self-Efficacy and Life Effectiveness

	N	Minimum	Maximum	Mean	Std. Deviation
Life Effectiveness	216	24	172	71.07	32.640
Self Efficacy	216	17	40	29.94	4.866
Valid N (listwise)	216				

In order to evaluate the correlation between Self-efficacy and Life effectiveness of students, Pearson correlation test was used. The results showed that there is significant relationship between Self-efficacy and Life effectiveness of student ($p < 0.05$, $r = 0.273$) (see Table 2).

Table 2: Pearson Correlation between Self-efficacy and Life effectiveness of student

	Self-efficacy	Life effectiveness
Self-efficacy	Pearson Correlation	1
	Sig. (2-tailed)	.273**
	N	216
Life effectiveness	Pearson Correlation	.273**
	Sig. (2-tailed)	.000
	N	216

**. Correlation is significant at the 0.01 level (2-tailed).

To evaluate the effectiveness of gender roles in student life Effectiveness and Self-efficacy, independent t test was applied. Results showed there are no significant difference between male and female students regarding the Life effectiveness ($p < 0.05$, $t = 2/689$) and Self-efficacy ($p < 0.05$, $t = 4/207$). As Table 3 shows the mean scores of female students in the life effectiveness variable scores by students is more than male, but Self-efficacy scores in male students in grades got by female students in this variable are more.

Table 3: Independent t test for the role of gender in life Effectiveness and Self-efficacy

	T	DF	Female Means	Male Means	P
Life Effectiveness	2.689	211	76.69	64.73	0.008
Self-Efficacy 4.207		210.773	28.80	31.44	0.000

Table 4: Independent t test for the role of Tendency in life Effectiveness and Self-efficacy

	T	DF	Basic Science Means	Humanity Science Means	P
Life Effectiveness	0.524	204	73.78	70.88	0.601
Self-Efficacy 0.187		204	29.76	29.91	0.852

For investigating the roles of educational tendency of students' life effectiveness and Self-efficacy, independent t test was applied. The results showed that the difference between students of Basic Sciences and Humanities trends are not significant regarding the Life effectiveness ($p < 0.05$, $t = .0524$) and Self-efficacy ($p < 0.05$, $t = 0.187$)

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