The Relationship Between Gardner’s Multiple Intelligences and the Field of Study with Self-Efficacy and Job Satisfaction of Secondary School Teachers in Mashhad
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ABSTRACT: In today’s societies, all nations with advanced and developing social and political system, are considering the issue of Education and even they give more attention to it than other social activities. Because today, they believing in the upbringing of the children as the needs of social life. The aim of the present study was to find out the relationship between Gardner’s multiple intelligences and the field of study with self-efficacy and job satisfaction of secondary high school teachers in Mashhad city. This study was kind of a descriptive and correlational study. The population in this study included all secondary high school teachers in Mashhad city include all seven educational areas, who were 3500 teachers and taught in the academic year 2013-2014. The sample used Morgan table to select 346 People which were multi step clustered. The study used questionnaires and interviews. The findings through the SPSS 22 analysis showed that there was no significant relationship between Gardner’s multiple intelligence with self-efficacy and job satisfaction, educational field with self-efficacy and job satisfaction of teachers of secondary high school in the city of Mashhad.

Keywords: Gardner’s multiple intelligences, self-efficacy, field of study, job satisfaction, and teachers of secondary school

1 INTRODUCTION

In today’s society, all nations with advanced and progressive social and political system, pay attention to the issue of education and consider it more important than other social activities. Because today, the upbringing of children is known as the most important needs of social life [1]. The importance of education is an undeniable fact, is our present and future capital, a capital that cannot put a price on it. It is what has led human being from the era of darkness and ignorance to the era of light [2].

Intelligence as a cognitive ability was introduced in the early twentieth century by Alfred Binet. Today, intelligence is not considered as one overall ability but it is considered as a set of different capacities. Multiple intelligences theory emerged by Gardner; professor of education and training Harvard University. In his opinion, the traditional notion of intelligence, which is based on IQ measurement, is very limited and imperfect. According to Gardner, intelligence is used to solve problems and creates products that are considered valuable in a society and culture [3].

Howard Gardner, a Contemporary psychologist, offered the first definition of intelligence to the effect that intelligence is the ability to create effective product or a valuable service in a culture, he classified eight different species intelligence by challenging the traditional conception of intelligence. These categories include: verbal-linguistic intelligence, logical-mathematical intelligence, Location- visual intelligence, motional-physical intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence [4].

According to Gardner, multiple intelligences can have an important role in learning and teaching students. Awareness of the theory of multiple intelligences motivates teachers on to find different ways to assist all of their classroom students. According to Gardner, the basis for theory of multiple intelligences is to respect individual differences, the variety of learning methods, methods of assessment methods and different effects left by these differences [5].
Job satisfaction refers to the individual’s perception of its work and to the positive attitude that person has towards the profession, too [6]. In another definition, job satisfaction is a positive emotional state and at the same time, enjoyable that one feels from his job [7]. It could be said that job satisfaction is an essential element of mental health and general well-being of their staff [8] or job satisfaction is a measure that shows the staff is satisfied and happy with their jobs [9].

Job satisfaction is an important factor in increasing the effectiveness and career success as well. Development is created by interested efficient human resources who have a deep emotional bond with jobs. The tremendous force of teachers and educators training students must be interested in their jobs to be able to flourish students’ potential abilities [10].

According to David Card and collaborators, as psychological factors deals with a person’s psyche, therefore, they can be considered an important predictor of job satisfaction criteria. In his opinion, one of the most important factors of psychology is to pay attention to people’s self-assessment. Basically, the individual’s perception of self, his ability to control emotions and sense of personal responsibility makes the individual understands the job status and responds to it [11].

Teachers’ self-efficacy, indirectly affects the job satisfaction to the extent that they deal with inherent needs of the efficiency and indirectly, leads to the performance of teachers [12]. The teachers’ efficacy beliefs are considered as motivational and psychological aspects of occupational health. Since people both perform individually and as a collectively, self-efficacy beliefs can be conceptualized on a personal level and on the collective level [13].

Teaching the next generation will live in a world that will need is precise and more complex way of thinking to adapt itself with always changing with conditions of time in order to utilize their mental idea and basic skills. Recent studies have shown that not only intelligence and cognitive abilities, but also emotional characteristics play a major role in organizing the learning process (especially emotional intelligence) and social skills.

Bandura suggested that self-efficacy is a constructive ability by which organizes constructive, cognitive, emotional and behavioural skills to achieve different objectives [14]. In his view, knowledge, skills and previous achievements of individuals is a good predictor for future performance, but human beliefs about their own abilities affect on their performance.

The overall objective of this study was to investigate the relationship between Gardner’s multiple intelligences and education with the second grade high school teachers’ self-efficacy and job satisfaction, in city of Mashhad, respectively.

2 LITERATURE REVIEW

The importance of education an undeniable fact because it is our present and future capital, the capital that cannot put a price on it, and is what has led human being from the era of darkness and ignorance to the era of light [15]. So teaching is one of the most important jobs of any society. The responsibility of leading and nurturing a generation is on the teachers of a society [16].

Howard Gardner, a psychologist at the Contemporary, has classified eight different types of intelligence with definition of intelligence for the first time; to the effect that intelligence is the ability to create effective product or service, is valuable in a culture, by challenging the traditional conception of intelligence. These categories include: verbal-linguistic intelligence, logical-mathematical intelligence, visual-locational intelligence, motional-physical intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, naturalistic intelligence [17]:

1. Verbal-linguistic intelligence

This type of intelligence is the ability to use words and tongue. These learners have evolved listening skills and are usually great talkers. Instead of pictures, they think in words.

2. The logical-mathematical intelligence

Logical/ mathematical intelligence is ability to use reason, logic and numbers. These learners think conceptually numerical and logical patterns and thus creates a relationship between pieces of information. They are always curious about the world around them, ask lots of questions and like to do experiments.

3. visual-locational intelligence
This kind of intelligence is the ability to understand visual phenomena. These learners of this type tend to think in pictures and to get the information, they need a clear image in their minds. They enjoy looking at maps, charts, pictures, videos and movies.

4. The motional - physical intelligence

This intelligence means the ability to control body movements and subtle use of things. These learners express themselves through movement. They have a good sense of balance and hand-eye coordination (e.g. ball play, balancing beams). Through interaction with the space around, they are able to process and remember information.

5. Musical- rhythmic intelligence

This type of intelligence is the ability to produce and understand music. These inclined learners to music think by using the sounds, rhythms and patterns of music. They immediately react to the music Whether with definition or criticism. A lot of these learners are sensitive to environmental sounds (such as bells, crickets and dripping taps).

6. interpersonal intelligence

This Intelligence is their ability to understand and be aware of their self- inner state. These learners try to understand inner feelings, dreams, relationships with others and their strengths and weaknesses.

7. intrapersonal intelligence

The ability to interact and understand others. These learners try to see things from other people’s point of view in order to understand how they think and feel. They usually have extraordinary ability to sense feelings, intentions and motivation. They are very good organizers, although they sometimes resort to manipulation.

8. Naturalist intelligence

The last type of intelligence is naturalist intelligence that Gardner added to their previous seven theories and has been faced with more resistance than others. According to Gardner, people who has a high naturalist intelligence are more compatible with nature and usually to grow, exploring the environment and learning about the creatures. These people quickly become aware of the detailed changes in their environment.

2.1 Self- Efficacy:

The concept of self-efficacy, formed by Alfred Bandura, is one of the aspects social cognitive theory. The social-cognitive title is appropriate, which focuses on both for the social roots of behaviour and cognitive behaviour. Bandura has offered self-efficacy as a central concept that refers to the perception of skills to perform in accordance with desire. In this view, the behaviour is influenced by social forces, but how to affect on the social forces is on the individual.

So, as much as the environment forms human beings, the human elect positions, therefore, affects others and affected by others [18]. Self-efficacy affects on the endurance, commitment, and effort to achieve the goal, and that we how right we’ve measure our behaviour, determines our sense of self-efficacy.

2.2 Assessment of self-efficacy:

To assess the efficacy, analyzing the strategies is used in the study. In this strategy, measurement details are determined before dealing with individual’s behaviour in certain situations. Therefore, participants will be asked after selecting a specific location, determine What to do and how certain they can do that work successfully and his confidence in the success [19].

2.3 Job Satisfaction:

Job satisfaction is the extent of positive emotions and attitudes that people have towards their jobs [20]. Job satisfaction is an important factor in increasing the effectiveness and career success as well. Development, developing efficient human resources who are interested in their job and have a deep emotional bond with the job will appear. the job satisfaction has an important psychological and economic importance. Adaptive interaction of (man- job) reinforces the growth and development of human potential. Having a good job by everyone fosters talents, and abilities, makes the job more complete, completes the potential abilities that nature is deposited in us [21]. The organization employees have specific attitudes for five factors of salary, promotion opportunities, nature work, corporate policies and working conditions and the degree of satisfaction of each of these factors is different. in this regard, one of the most important management tasks in organizational is providing the basis for their job satisfaction, as job satisfaction associated with
health mental effectiveness and efficiency personnel [22]. According to Albert Bandura’s Social Cognitive learning Theory, personal factors (such beliefs, expectations, attitudes, knowledge, strategies, etc.), environmental events (physical and social) and behaviour (practical and theological) person interact with each other [3].

2.4 Research background:
In research of Soltan-ahmadi et al. which was in respect of the relationship between self-efficacy beliefs of collective efficacy and job satisfaction of secondary school male teachers in the city of Qom, the relationship between collective efficacy and self-efficacy beliefs with no high school teachers’ job satisfaction in the city of Qom was studied [23]. For this purpose, 285 teachers were selected by multistage cluster sampling. To collect data in this study used collective efficacy scale [24] and the teachers’ scale for measuring beliefs made by Chann Moran and Volfok Hoy[25] and for assessment, Minnesota job satisfaction and job satisfaction questionnaire was modified. To examine the relationship between variables, Pearson correlation coefficient and multiple regression analysis, stepwise were used. The results showed that collective efficacy beliefs job satisfaction and its components at the level of P <0.01 significant positive relationship. Stepwise regression analysis showed that the results of beliefs of the teachers’ collective efficacy beliefs about 19.5 percent predict significantly job satisfaction change [26]. Busso in a research titled as the relationship between emotional intelligence and performance influenced by contextual factors as job satisfaction and control centre, has reported That emotional intelligence has a positive relationship with underlying performance and with job satisfaction while it has negative relationship with external control and job satisfaction and external control does not explain a significant relationship between emotional intelligence and underlying performance.

3 RESEARCH METHOD
The study is a descriptive and correlational research. The population in this study, including all second degree high school teachers of seven education districts of the city of Mashhad taught in the school year 1393-1392, which reaches to 3500. The sample was 346 people were selected by multistage cluster sampling using Morgan’s Table. Data collection method was Library-research as well as questionnaire including: Gardner intelligence questionnaire; Shrrer’s general self-efficacy questionnaire, questionnaire of job satisfaction and questionnaire of academic disciplines. All of them had the validity and reliability. For analysing of the data, SPSS version 22 was used in this study. The correlation, multiple regression analysis and pattern Pearson was used.

4 FINDINGS
Inferential findings showed that there is no significant relationship between Gardner’s multiple intelligences and self-efficacy at high school teachers secondary at city of Mashhad. In addition, there is a significant relationship between Gardner’s multiple intelligence and job satisfaction in Mashhad second high school teachers. And there is a significant relationship between the field of study and the second city of Mashhad high school teachers’ self-efficacy and there is significant relationship between self-efficacy and job satisfaction among secondary school teachers in the city of Mashhad with confidence of 95% according to Table 1.

Table 1: Correlation between self-efficacy and job satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>significance level(Sig)</th>
<th>Pearson’s correlation coefficient</th>
<th>Standard Deviation</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy And Satisfaction</td>
<td>0.071</td>
<td>0.002</td>
<td>0.31</td>
<td>3.42</td>
</tr>
</tbody>
</table>

Table 2: Summary regression model: Prediction of job satisfaction based on aspects of Gardner’s multiple intelligence-variable regression tests

As you can see, the overall correlation between variables is equal to 0.54 which represents the correlation between the variables is relatively modest. Also according to the coefficient of determination, it can be concluded that Gardner’s multiple intelligence component changes in job satisfaction accounted for only 29% and the rest is related to other components. Or it can be said that 0.29 of Gardner’s multiple intelligence can predict job satisfaction.
Because of measurement error at 95% confidence level and $\alpha=5\%$ and significance level of 0.00 = Sig calculated, assuming linear models (linear relationship between variables) approved the screw.

Table 4: Regression coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Non-standardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.13</td>
<td>0.32</td>
<td>-6.34</td>
<td>0.00</td>
</tr>
<tr>
<td>Verbal intelligence</td>
<td>0.24</td>
<td>0.04</td>
<td>-0.35</td>
<td>0.75</td>
</tr>
<tr>
<td>Musical Intelligence</td>
<td>0.07</td>
<td>0.05</td>
<td>-0.09</td>
<td>0.92</td>
</tr>
<tr>
<td>Spatial intelligence</td>
<td>0.35</td>
<td>0.05</td>
<td>-0.32</td>
<td>0.30</td>
</tr>
<tr>
<td>Naturalist Intelligence</td>
<td>0.05</td>
<td>0.04</td>
<td>-0.09</td>
<td>0.91</td>
</tr>
<tr>
<td>Intergroup intelligence</td>
<td>0.04</td>
<td>0.02</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Social intelligence</td>
<td>0.12</td>
<td>0.02</td>
<td>0.09</td>
<td>0.05</td>
</tr>
<tr>
<td>Intelligence physical movement</td>
<td>0.04</td>
<td>0.02</td>
<td>0.09</td>
<td>0.05</td>
</tr>
<tr>
<td>Naturalist Intelligence</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.10</td>
<td>0.10</td>
</tr>
</tbody>
</table>

As can be seen in Gardner’s Multiple Intelligence, Intelligence only mathematical and spatial intelligence due to more significant levels of 0.05 regression model will be deleted. The rest of the components remain in the regression model and are actually able to explain that the share of job satisfaction between these components, physical movement, according to the intelligence components of its beta coefficient is bigger, has more share in explaining satisfaction is a job.

Table 5: Determination Coefficient

<table>
<thead>
<tr>
<th>R2</th>
<th>R</th>
<th>Determination Coefficient</th>
<th>Variables Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.31</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

So it concluded that:

job satisfaction = 1.39 - 0.018 (verbal intelligence) + 0.15 (musical intelligence) + 0.35 (Intelligence physical movement) + 0.16 (Social Intelligence) + 0.12 (intrapersonal intelligence) - 0.11 (Naturalist intelligence)

According to the coefficient of determination, it can be concluded that Gardner’s multiple intelligence components accounted for only 31 percent of the efficacy and the rest is related to other components.

Table 6: Table variance analysis

<table>
<thead>
<tr>
<th>sig</th>
<th>freedom degree</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>8-237</td>
<td>13.80</td>
</tr>
</tbody>
</table>

Because in confidence level of 95% and measurement error of $\alpha=5\%$, calculated significance level of Sig=0.00, assumed linear models (linear relationship between variables) would be approved.

Table 7: Regression coefficients

As can see among the components of multiple intelligences of Gardner, only the components of verbal intelligence, spatial intelligence, physical mobility intelligence and naturalist intelligence can remain in the regression model. In fact are able to explain the share of self-efficacy and other components due to more significant levels of 0.05 are deleted from regression model. Among these components, physical movement, according to the intelligence components of its beta coefficient is larger has a larger share of self-explanatory of teachers. So it was:

self-efficacy = 2.13 - 0.24 (verbal intelligence) + 0.18 (spatial intelligence) + 0.27 (Intelligence physical movement) - 0.12 (Naturalist intelligence)

5 Conclusion

Howard Gardner, a contemporary psychologist by using the first definition of intelligence to the effect that intelligence is the ability to create effective product or service is valuable in a culture, and by challenging the traditional conception of intelligence, classified eight different species of intelligence. These categories include: verbal-linguistic intelligence, logical-mathematical intelligence, visual intelligence - Location, motor-physical intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence. According to Gardner’s multiple intelligences can have an important role in learning and teaching students. Knowledge of the theory of multiple intelligences, stimulates teachers to find different ways to assist all students classroom. According to Gardner the basis of multiple
The theory of multiple intelligences learning has proposed an effective model to understand how all people regardless of gender, ethnicity, cultural or socio-economic status is provided. This theory provides new ways to different people so that they provided opportunities for learning through proper ways in which to achieve them. Gardner has established practices during the training that are more important to people, so that they are able to offer alternatives to achieve their educational needs. Multiple intelligences can have an important role in learning and teaching students. Knowledge of the theory of multiple intelligences, stimulates teachers to find different ways to assist all students classroom. Job satisfaction, probably originates from the belief of their effectiveness. The teachers’ beliefs about efficiency is considered of motivational and psychological aspects related to occupational health. Since people act both individually and as a collective, self-efficacy beliefs on a personal level and the collective level can be conceptualized. Later in the chapter, results, the research proposal, research and resource constraints will be used in this thesis.

Also, comparing results of this study with the results of Abedini [29] showed that self-efficacy and academic disciplines have significant role in predicting student achievement, are compatible. In addition, comparing the results of this study with the results of Busso [26] which showed a positive relationship with the performance of the underlying emotional intelligence and job satisfaction, is almost identical.

The following practical suggestions based on the results of this research included:

- familiarizing the teachers with the theoretical foundations and applications of multiple intelligences in training courses, retraining and educational workshop
- measuring each of the multiple types of intelligence for students of different age groups from preschool to high school courses, tests coordinated with social and cultural conditions of their development and standardization
- special offers for a total of teachers in seven areas of Mashhad
- education departments in the areas of Seven compilation of Mashhad forming models of teaching multiple intelligences in each of their textbooks in different subjects
- holding periods of training in order to become familiar with the teaching model based on the theory of multiple methods for teachers in the seven education areas of Mashhad.
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