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Investigating the Relationship between Multiple Intelligences and Professional Identity of Iranian EFL Teachers

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The main purpose of the study was to investigate the relationship between Iranian EFL teachers' Professional Identity and their types of Multiple Intelligences. Moreover, it aimed to see the extent to which their multiple intelligences can predict their professional identity. The participants of the study were 137 Iranian EFL teachers teaching in language schools of Semnan province. Professional identity questionnaire and multiple intelligence survey were used to collect the data. The results of correlation analysis indicated that there is a relationship between language teachers' professional identity and their type of multiple intelligences, the highest one belonging to kinesthetic intelligence representing a large effect size. The results of linear regression showed that teachers' multiple intelligence type can predict their professional identity. After, excluding the linguistics intelligence which did not contribute to the regression model significantly, the remaining seven multiple intelligences predicted 63.7 percent of professional identity. Pedagogical implications and suggestions for further studies are presented.

Key words: identity, multiple intelligences, EFL teachers

1 Introduction

Through recent national and international comparisons, the researchers have reached an agreement that student performance is strongly influenced by teacher quality. Findings drawn from different studies have shown that the quality of teaching, including content, instruction style, time management, material, and activity, is mainly determined by science teachers (Cote & Levine 2002). This broad agreement regarding the qualifications of teachers has been supported by studies in which teachers have influential effect on students' achievement rather than other factors (Reymond, 2006). Moreover, recent studies on teacher quality have revealed that systemic components such as preparation program, professional development, and social-cultural support might be barriers to the success of language programs (Tsui, 2003).

Specifically, studies have shown teacher identity to be strongly associated with different factors such as adaptation, motivation, confidence,

satisfaction, commitment and efficacy in becoming a teacher (Danielewicz, 2001). Recent concerns about language teachers' sense of self and professional identity have increased the needs for more studies on the relationships between language teacher identity and their professional development (Gee, 2000). Several studies have reported that the role of language teacher identity might be critical for language teachers to develop and keep up their teaching profession (Eick & Reed, 2002). Better understanding of language teacher identity would be helpful in understanding and addressing issues concerned with both quality and quantity of language teachers. As a result, it causes an improvement of student language performance. However, few studies on English teacher identity have been conducted in spite of the increase of research interest in the construct of teacher identity (Beijaard, Verloop, & Vermunt, 2007).

Moreover, during the last decades of the twentieth century another significant advance in education and language learning has come from a considerable amount of research done in the area of learning styles which recognizes that the students in our classrooms have greatly different learning profiles. Reid (1999) provides a list including some of the aspects which have been investigated in the area of language learning. Among the aspects listed by Hattie (2004) we come across with multiple intelligences. The idea of multiple intelligences (MI hereafter) was suggested by Gardner (1983). He believes different people take advantage of different intelligences. According to him, certain intelligences are more powerful in different people. The idea of MI has been very influential in language teaching settings. Armstrong (1994 cited in Haley, 2001) has suggested that the idea of MI is influential for both teachers and learners. In this way, teachers' preferred intelligences can be effective in both teaching and learning trends.

It seems that teachers' different types of multiple intelligences and their professional identity are the two main features that can affect the teachers' performance. Moreover, exactly the same as learners, teachers enjoy individual differences such as styles or intelligences. Teachers are different from each other and these differences cause them to react differently in language classes. Their different types of intelligence can be crucial in their profession. However, this factor has been neglected in language teacher education (Armstrong, 1994). It means all teachers are trained in the same way without considering their type of intelligence. Although there are a few studies investigating language teachers' multiple intelligences (Bas, 2008; Greenhawk, 1997), to the modest knowledge of the researcher no study has paid enough attention to the relationship between teachers' multiple intelligence and their professional identity. So, the present study aims to find the relationships between these two features: teachers' multiple intelligence types from one side, and their professional identity from the other side. Moreover, it also tries to investigate to what extent teachers' multiple intelligence types can predict their professional identity.

2 Literature review

2.1 Identity and its dimension

Since the term "identity" is a multiple-disciplinary concept, no clear-cut definition has been suggested for it. It has been defined in psychology, sociology, economics and education. Olsen (2008) elaborates this fact by providing some examples. According to him, in early and middle parts of 20th century, identity was mostly used by psychoanalysts such as Freud to refer to the individualized self-image that a person has. He continues that some social psychologists such as Erickson (1968) and Vygotsky, (1978) have framed identity as a dynamic process by which individuals develop conceptions of themselves. Olsen adds that in the second half of the 20th century, more sociologists and anthropologists were attracted by the term identity. However, there was a difference between concept of identity suggested by sociologists from that suggested by psychologists which is the difference between individual and cultural concept of identity. Sociologist perspective of identity focuses on factors such as race, class, nationality, language, ethnicity, religious beliefs and gender. However, it should be mentioned that both sociologists and philosophers believe terms identity and self are closely interrelated and dependent on each other. Therefore, discussion of identity and self goes hand in hand (Trejo Guzmán, 2010).

Barret (2008) considers some socially constructed features for identity. These features consist of social class, gender, nationality, race, ethnicity, language and religion. Kiernan (2008) illustrates these features by putting them in layers of an inverted triangle. As it moves up, identity becomes more contingent. Identity features which are based on physical make up do not contribute to community identity (Kiernan, 2008). Rustin (2000) considers race as an empty category that can acquire all manner of attributes. Contrary to race, ethnicity and nationality entail a community of individuals associated with a specific place. The next layer recognizes it is possible to acquire a foreign language or accept changes in economic circumstances or educational opportunities. All of these factors affect the individuals' social class. Moreover, material and cultural resources may modify the individual's class membership.

2.1.1 Teacher identity and professional identity

Contrary to identity that has an old background, the concept of teacher identity has emerged recently in teacher education (Beijaard, Korthagen, & Verloop, 2004; Brown, 2006; Day et al., 2005). The role of teacher identity has become significant in teachers' professional development. Moreover, the effect of teacher identity on students' performance in classroom and policy implementation have been investigated (Barret, 2008; Day, Flores, & Viana,

2007). Teacher identity is formed from the time of apprenticeship (Lortie, 1975, cited in Vesanto, 2011). Pre-service teachers have to form this identity during their apprenticeship by observing their own and their colleagues teaching. However, the formation of teacher identity may take a long time. The process of teacher identity formation is usually a difficult process for novice teachers and they have to form it through contact with challenging students (Baron, 2004, cited in Brown, 2006).

Rodgers and Scott (2008) suggest four basic assumptions for the formation of teacher identity including: 1) teacher identity is dependent on contexts, 2) teacher identity is formed in relationship with others and it involves emotions, 3) teacher identity is changing, unstable, and multiple, and 4) teacher identity involves the construction and reconstruction of meaning. These assumptions suggest that teacher identity is a dynamic construct depending on the situations and contexts in which the teacher is involved. Teacher identity is mostly drawn on the social identity perspective and it is based on the theory of sociolinguistic theory. However, it is worth mentioning that teacher identity should be constructed based on two aspects: personal (psychological) and collective (sociological) aspects. Therefore, it can be concluded that teacher identity formation is understood through interaction of both psychological and social aspects of teacher identity (Brown, 2006).

Researchers have suggested four main components for psychological aspects. These components include: experience, emotion, knowledge, and behavior (Brown, 2006). Among these, the most critical one is personal experience. Moreover, emotion has also been as an influential factor in formation of teacher identity (Baderstscher, 2007; Chan, 2005). Some researchers have also proposed that the control of negative emotions such as fear, frustration or stress have constituted teacher identity. Some researchers have focused on the role of knowledge in teacher identity formation (Andrezejewski, 2008; Musanti 2005). According to Beijaard, Korthagen and Verloop (2004), teacher identity formation applies a variety of knowledge sources such as professional knowledge, content knowledge, pedagogical knowledge, and pedagogical content knowledge. Finally behavior is also an influential factor in the formation of teacher identity that includes some sub factors such as motivation, passion, efficacy, commitment and confidence (Assaf, 2008; Chan, 2005).

Professional identity has mostly been conceived as different roles. It is believed that identity and particularly professional identity are constructed based on different roles (Raymond, 2006). The concept of role helps to conceive the constructs that form identity. Therefore, we can conclude that teaching is constructed of different roles that may vary based on different factors. These factors range from teachers' perception and ideas toward teaching to school level (Tsui, 2003). Teachers may perform different roles in different situations, but it is the situation that highlights the role of teacher.

Arikoski (1999) compares the professional roles of teachers with those performed by actors. He believes that teachers live their roles or they try to internalize those roles exactly the same as what actors try to do. Arikoski also adds that roles are based on the position that a teacher takes in a community or a group. Each position specifies a set of expectations. Individuals also modify their roles based on places, people or group that have contact. As a result, we can expect teachers to perform different roles even at school because they may be in contact with different groups of people such as students, parents or other teachers.

Schneider (2008) discriminates four different professional identity interpretations. These include psychosocial interpretation, discursive interpretation, narrative interpretation and dialog based interpretation. Psychological interpretation considers professional identity as part of individual development that is developed and internalized gradually. Therefore, personality plays a significant role in identity construction. Based on this interpretation, the choice of profession is one aspect of personality. Therefore, one's profession does not match with his personality, conflict occurs. By the same token, Gee (2000) believes that one's profession correlates with his personality. Psychological interpretation considers one individual selects a profession after comparing his or her skills and capabilities with the requirements of different professions.

Beijaard, Korthagen, and Verloop (2004) presents a comprehensive list of educational research on the formation of professional identity. They consider research on teacher change as a widely studied topic in the field. They also claim that two strands of research on professional identity formation have been distinguished. These strands include teacher change and changes in teaching. First, some researchers believe that teacher's professional identity formation is affected by beliefs and ideas that are determined by biographies of individual teachers (Kagan, 1992; Beijard, Korthagen, & Verloop, 2004). However some other researchers claim that in addition to biographies other factors such as personhood and experiences play role in teacher's professional identity formation (Richardson & Placier, 2001). This fact shows the complexity process teacher change. Some individual changes are based on individual choice and autonomy which are considered naturalistic. However, changes such as learning from experience are not regarded conscious and autonomous changes (Richardson & Placier, 2001).

Another approach to professional identity development is growth and development happening during the teaching career (Kagan, 1992; Richardson & Placier, 2001). In this approach both individual's past experiences and biography accompanied with teaching experience in school context are essential (e.g., Grossman, 1990). It is believed that the processes and steps of teacher change during teaching experience are the same for all teachers. McCormack et al. (2006) also consider context and experience as influential

factors which form professional identity among novice teachers. They believe that the process of professional identity formation is an ongoing and complex process which happens during teaching experience.

2.2 Intelligence

2.2.1 What is intelligence?

There are basically two views on the theory of intelligence: first are those who believe in one single-line general intelligence, and the second - those who believe existence of many different kinds of intelligences. Binet founded the French school of intelligence, where intelligence tests were regarded as a practical method of disuniting the high-intelligence from the poor. Intelligence quotient (IQ) was regarded simply as an average of a number of different not uniform abilities, but not as a real thing with certain properties that could be studied (Yekovich, 2004).

The English school made a massive step forward with Spearman's invention of factor analysis. Using this technique, Spearman (1904) found that all tests of intelligence have positive correlations on the general factor and called this factor general intelligence. When he examined the results of these different tests, he found that there was a positive correlation between the tests for a given individual. In other words, if a certain person performed well on a test of verbal abilities, then the same person also performed well on another test of another cognitive ability, for instance, a mathematics test. Spearman named this positive correlation among tests the positive manifold. This positive manifold was also called the general intelligence factor. This is the single factor that determines the intelligence of the individual.

Another strong argument in support of general intelligence is the fact that there is a very high correlation between reaction time and IQ. According to Eysenck (1982, p.54), "IQ correlates very highly with tests which are essentially so simple, or even directly physiological that they can hardly be considered cognitive in the accepted sense." For instance, an example of the type of tests used to measure reaction time is a test in which a light is turned on. The participant is asked to press a button as soon as he or she sees the light go on. From tests such as these, the reaction time can be measured. Given that only very simple sensory and motor movements are necessary to respond, it is difficult to argue that cultural, environmental, gender, socio-economic, or educational discrepancies will affect the participant's ability to respond to the testers' questions. Jensen (1993) synthesized these facts and conjectured that "the most obvious hypothesis is that speed of information processing is the essential basis of "g", and one possible neurological basis of speed of processing is the speed of transmission through nerve pathways". The speed of information transmission can be reasonably well measured or extrapolated from reaction time scores. Therefore, if an individual has faster

neural processing speed, then he or she has a better reaction time. In turn, given that reaction time is highly correlated with IQ, then those individuals with faster neural processing speeds have higher IQ's. Consequently, neural processing speed determines level of intelligence of the individual; this intelligence is the one general intelligence.

2.2.2 Multiple intelligence

Different proposers of general intelligence all agree that there is a single factor that determines intelligence, and the proposers of multiple intelligences agree that there is more than one single type of intelligence. However, theoreticians of multiple intelligences do not agree on how many different intelligences there are, or could be. The theories suggested by Gardner and Sternberg have the most principle ones. Both of them have their own theory on multiple intelligences; Gardner (1983) believes there are eight forms of intelligence; Sternberg (1985) believes there are three forms of intelligences. Gardner's theory of multiple intelligences suggests that there are eight different forms of intelligence including linguistic, musical, spatial, bodily-kinesthetic, interpersonal, intrapersonal, logical-mathematical and naturalist. In developing his theory, Gardner (1983) attempted to rectify some of the errors of earlier psychologists who "all ignore[d] biology; all fail[ed] to come to grips with the higher levels of creativity; and all [were] insensitive to the range of roles highlighted in human society" (Paik, 2004, p.42). So, Gardner based his own theory of intelligence on biological facts.

Gardner's theory of multiple intelligences has challenged long-held assumptions about intelligence - especially unitary concept of intelligence. In the beginning of 1980's Howard Gardner proposed a definition of intelligence that recognizes many different and discrete facets of cognition and confesses that people have different cognitive strengths and contrasting cognitive styles. The history of the Theory of Multiple Intelligences begins with the work on the Project on Human Potential proposed to the group of researchers by the Bernard Van Leer Foundation. They were expected to carry out a research on the nature of human potential and how it could best be catalyzed. Then Howard Gardner received an assignment to write a book about what had been established about human cognition through discoveries in the biological and behavioral sciences. That's the way the program that led to the theory of Multiple Intelligences appeared. (Paik, 2004).

Gardner first identified seven types of intelligence and has since added the eights one. Many people get surprised finding the categories he has chosen, because they never thought of them as intelligence before. They are as follows:

- **Linguistic intelligence:** the ability to use words effectively in both orally and writing. These are abilities to remember information, to convince the others to help you, to talk.
- **Musical intelligence:** ability to sense rhythm, pitch and melody. This includes such skills like ability to recognize simple songs and to vary speed, tempo and rhythm in simple melodies. Some of the most central principle component elements of music are melody and rhythm.
- **Logical-mathematical intelligence:** the ability to use numbers effectively and to reason well. Understanding the properties of numbers and principles of cause and effect, ability to predict using simple machines. It consists of syntactic and pragmatic capacities.
- **Spatial intelligence:** the ability to sense form, space, color, line and shape. It includes the ability to graphically represent visual or spatial ideas.
- **Bodily-kinesthetic intelligence:** the ability to use the body to express ideas and feelings and to solve problems. Include such physical skills like coordination, flexibility, speed, and balance.
- **Intrapersonal intelligence:** the ability to understand yourself – your abilities, weaknesses moods, desires and intentions. Includes such skills as understanding how you are similar or different from the others, reminding yourself to do something, knowing about yourself as a learner, knowing how to handle your own feelings. It is access to one's own feeling life. Intrapersonal intelligence is a capacity to effect differentiations between own feelings and to label them.
- **Interpersonal intelligence:** the ability to understand another person's moods, motivations, feelings and intentions. Ii includes skills such as responding effectively to some other people in some pragmatic way, such as getting colleagues to participate in a project.
- **Naturalist intelligence:** the ability to recognize and classify plants, minerals and animals, including rocks and grass and all variety of flora and fauna. Also it is the ability to recognize cultural artifacts like cars or sneakers and the capacity of identifying patterns and classifying things in nature (Gardner, 1983).

There are four key points of the theory synthesized by Armstrong (1994) including: 1) each person possesses all eight intelligences. In each person these eight intelligences function together in unique way. Some of them are high-level, 2) intelligences can be developed and everyone has the capacity to develop all eight intelligences to a reasonably high level with appropriate encouragement and instruction, 3) intelligences work together in complex ways and they don't exist by themselves and 4) There are different ways to be intelligent. For example, a person can be absolutely awkward in

dancing and excellent in building construction, while both activities are considered bodily-kinesthetic intelligence.

From the educators' point of view, the theory of multiple intelligences "seem to harbor a number of educational implications that are worthy of consideration" (Christinson, 1998, p.123). Educators took the theory, put it together in different ways, and applied to their program and curriculum planning and development. According to educational view on the theory each person according to his/her multiple intelligences condition needs different way and approach for learning and being taught. The present study tried to investigate the relationship between language teachers' professional identity and their type of multiple intelligences. It also aimed to see if teachers multiple intelligence type can predict their professional identity.

3 Method

3.1 Participants

The research sample was a total of 137 Iranian EFL teachers teaching in language schools in cities of Semnan, Damghan, Shahrood, Gharmsar, and Mahdishahr. They were 51 males and 86 females, within the age range of 19 to 51. They were graduates of different majors such as TEFL, English Translation, and English Language and Literature. Moreover, holding different education degrees such as bachelor, master and Ph.D, they had different years of experiences in teaching English.

3.2 Instruments

Two questionnaires were used to collect the research data in this study, including a Teacher Professional Identity Questionnaire and a Multiple Intelligences Questionnaire.

The first instrument applied in the present study was Teacher Professional Identity Questionnaire developed by Chi (2009). The original questionnaire was developed to determine the professional identity of teachers. The researcher adapted and modified the questionnaire to fit the purpose of the present study. The questionnaire included 48 items. The instrument was scored on a 5-point Likert scale from "strongly disagree" to "strongly agree". The first part of the questionnaire extracted some information concerned with the participants' specifications such as age, gender, years of experience in teaching English, their field of study and their education degree. In the second part, the participants were asked to indicate their opinion about each statement by circling the appropriate responses. Instructions were included in the questionnaire. Moreover, participants were advised that there were no correct or incorrect answers; their frank opinions

were desired. The Cronbach alpha reliability of the questionnaire was estimated 0.89.

The second instrument used in the study was Multiple Intelligences Survey, adopted from Armstrong (1993, cited in Haley, 2001) and used to determine the type of teachers' intelligence. This questionnaire had 8 subparts. Each section consisted of 6 items, totally there were 48 items. These subparts included verbal/linguistic intelligence, logical/mathematical intelligence, visual/spatial intelligence, bodily/kinesthetic intelligence, musical/rhythmic intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence. The participants were supposed to check the items that matched with their own characteristics and put a cross for those which did not match. To calculate the score of the questionnaire, the researcher needed to count the number of ticks for each subsection. The higher number for each section indicated the dominance of that certain intelligence in the participants. Cronbach alpha reliability of the survey estimated 0.79.

3.3 Procedure

Data collection was done directly by asking the participants to fill out the questionnaires. This process lasted two months. All of the participants of the study were given two questionnaires to fill. They did not have any time restrictions for filling out the questionnaires. Both questionnaires were duplicated in one pamphlet. First, the participants were asked to complete the bio-data section in which they had to provide some information about their age, gender, field of study, and their years of teaching English experience. After that they were exposed to Teacher Identity Questionnaire. As it was mentioned, this questionnaire included 48 Likert-scale items. Finishing the first questionnaire, they were asked to fill out the second questionnaire including eight subsections. Completing both questionnaires was done in one session. The participants were asked to raise their questions during the administration session. It means if they came across with any questions concerned with the contents of the questionnaires, they could ask. In this way, the researcher tried to solve misunderstandings.

4 Results

A Pearson correlation was run to investigate the relationship between personality identity and multiple intelligences of EFL teacher. Since professional identity was measured on an interval scale, the assumption of normality of data was checked before running Pearson correlation. As displayed in Table1, the ratios of skewness and kurtosis over their respective standard errors were within the ranges of +/- 1.96; hence normality of the data is verified.

Table 1. Testing Normality Assumption

	N	Skewness			Kurtosis		
	Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Professional identity	137	-.352	.207	-1.70	-.534	.411	-1.29
N	137						

Research question 1: Is there any relationship between language teachers' professional identity and their type of multiple intelligences?

The Pearson correlations were run to probe any significant relationships between language teachers' professional identity and their type of multiple intelligences. As displayed in Table 2, teacher professional identity had a significant and almost large relationship with linguistic intelligence ($R(135) = .419$, $P < .05$, representing an almost large effect size), teacher professional identity had a significant and almost large relationship with logical mathematical intelligence ($R(135) = .436$, $P < .05$, representing an almost large effect size), teacher professional identity had a significant and large relationship with visual-spatial intelligence ($R(135) = .523$, $P < .05$, representing a large effect size), teacher professional identity had a significant and large relationship with kinesthetic intelligence ($R(135) = .539$, $P < .05$, representing a large effect size), teacher professional identity had a significant and moderate relationship with musical intelligence ($R(135) = .383$, $P < .05$, representing a moderate effect size), teacher professional identity had a significant and almost large relationship with interpersonal intelligence ($R(135) = .493$, $P < .05$, representing an almost large effect size), teacher professional identity had a significant and large relationship with intrapersonal intelligence ($R(135) = .502$, $P < .05$, representing a large effect size), and teacher professional identity had a significant and moderate relationship with naturalistic intelligence ($R(135) = .381$, $P < .05$, representing a moderate effect size).

Table 2. Pearson Correlation: Professional Identity and Multiple Intelligences

		Professional identity
Linguistic	Pearson Correlation	.419**
	Sig. (2-tailed)	.000
	N	137
Logical	Pearson Correlation	.436**
	Sig. (2-tailed)	.000
	N	137
Visual SP	Pearson Correlation	.523**
	Sig. (2-tailed)	.000
	N	137
Kinesthetic	Pearson Correlation	.539**
	Sig. (2-tailed)	.000
	N	137
Musical	Pearson Correlation	.383**
	Sig. (2-tailed)	.000
	N	137
Interpersonal	Pearson Correlation	.493**
	Sig. (2-tailed)	.000
	N	137
Intrapersonal	Pearson Correlation	.502**
	Sig. (2-tailed)	.000
	N	137
Naturalistic	Pearson Correlation	.381**
	Sig. (2-tailed)	.000
	N	137

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

Since all the Pearson correlation coefficients were significant at .05 levels, it can be concluded that the first null-hypothesis was rejected, meaning that teachers' professional identity has an effect on their type of multiple intelligences.

Research question 2: Can teachers' multiple intelligence type predict their professional identity?

A linear regression was run to predict personal identity by using the eight components of the multiple intelligences. All of the eight multiple intelligences can predict 64.1 percent of teacher professional identity (R = .801, R2 = .641). After excluding the linguistic intelligence which did not

contribute to the regression model significantly, the remaining seven multiple intelligences predicted 63.7 percent of personal identity (R = .798, R2 = .637) (Table 3).

Table 3. Model Summary

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.801[a]	.641	.619	27.471	
2	.798[b]	.637	.617	27.546	1.967

a. Predictors: (Constant), Naturalistic, Logical, Musical, Interpersonal, Intrapersonal, Kinesthetic, Linguistic, Visual SP

b. Predictors: (Constant), Naturalistic, Logical, Musical, Interpersonal, Intrapersonal, Kinesthetic, Visual SP

c. Dependent Variable: PIDENT

The negligible difference between the R-square and adjusted R-square values (.637-.617 = .02) – which was about two percent – indicate that the results of the regression model enjoyed generalizability power, i.e. can be generalized to the population. The residuals should be uncorrelated in an appropriate regression model. The Durbin-Watson index of 1.96 indicated that the assumption of uncorrelated residuals was met. The results of the ANOVA ($F(7, 129) = 32.27$, $P < .07$, $\omega 2 = .61$ representing a large effect size) indicated that the regression model (Table 4) enjoyed statistical significance.

Table 4 displays the regression coefficients and the significance tests for the predictors. Based on these results, it can be seen that the linguistic intelligence was excluded due to non-significant contribution to the model ($P > .05$).

Table 4: ANOVA Test of Significance of Regression Model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	172719.744	8	21589.968	28.610	.000[b]
	Residual	96592.908	128	754.632		
	Total	269312.652	136			
2	Regression	171427.574	7	24489.653	32.274	.000[c]
	Residual	97885.078	129	758.799		
	Total	269312.652	136			

a. Dependent Variable: PIDENT

b. Predictors: (Constant), Naturalistic, Logical, Musical, Interpersonal, Intrapersonal, Kinesthetic, Linguistic, Visual SP

c. Predictors: (Constant), Naturalistic, Logical, Musical, Interpersonal, Intrapersonal, Kinesthetic, Visual SP

The values of tolerance (< .10) and variance inflation rate (VIF) (< 10) indicated that the correlation matrix used to build the regression model did not suffer from multi-collinearity, i.e. too high correlations among all variables. It should be mentioned that in order to have an appropriate regression model the correlation matrix should not show too high relationships (+> .90) among all variables (Table 5).

Table 5. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.517	10.279		.634	.527		
	Linguistic	2.943	2.249	.083	1.309	.193	.699	1.431
	Logical	4.975	1.839	.161	2.706	.008	.790	1.266
	Visual SP	4.630	2.378	.129	1.947	.054	.641	1.560
	Kinesthetic	7.212	1.876	.243	3.845	.000	.699	1.430
	Musical	5.508	1.847	.171	2.982	.003	.853	1.173
	Interpersonal	6.244	1.852	.206	3.372	.001	.748	1.336
	Intrapersonal	7.829	2.162	.236	3.620	.000	.659	1.518
	Naturalistic	4.415	1.862	.137	2.371	.019	.841	1.189
2	(Constant)	9.389	10.069		.932	.353		
	Logical	5.245	1.832	.170	2.863	.005	.800	1.250
	Visual SP	5.038	2.364	.140	2.131	.035	.652	1.533
	Kinesthetic	7.212	1.881	.243	3.835	.000	.699	1.430
	Musical	6.029	1.808	.187	3.334	.001	.894	1.118
	Interpersonal	6.248	1.857	.206	3.364	.001	.748	1.336
	Intrapersonal	8.787	2.040	.265	4.307	.000	.744	1.343
	Naturalistic	4.365	1.867	.135	2.338	.021	.841	1.189

a. Dependent Variable: professional identity

5 Discussion and Conclusion

According to Krzywacki (2009), developmental process of practical teaching happens through the imagination of students not through practical classroom experience. This shortage of school experience during the educational studies becomes a somewhat problematic issue when we are involved with teacher professional identity (Walkington, 2005). It seems interesting that taking the role of a teacher gives the person the opportunity to consider oneself in

teaching profession and to experience practical teaching in the classroom (Gee, 2000). Moreover, Beijaard et al (2007) consider understanding how teachers learn as an essential factor for promoting teacher development. They also bring findings on how teachers' learning may improve by both initial teacher education and further professional development of teachers. The point that is very crucial factor for every kind of learning is personal differences. One of these differences is the idea of multiple intelligences. Therefore, the type of intelligences may play a significant role in teachers' learning. In this research, the focus was to find a relationship between teacher professional identity and their types of multiple intelligences.

The results of the study indicated that all types of intelligences have relationship with teacher professional identity. These findings are in line with Gardner (1999) theory that all intelligent activities done by human indicate the fact that all the intelligences are activated in their execution. Although the intelligences are independent of each other, they act in conjunction. For instance, a teacher working with children needs to develop interpersonal intelligence to understand how to capture students' attention with her teaching, to develop musical intelligence to apply songs and rhythms in her teaching , and to develop bodily kinesthetic intelligence to involve in all physical activities necessary for teaching children. Altan (2012) believes that all types of intelligences play various roles in both our teaching and learning. He also adds, teacher educators have to make both novice teachers and in-service teachers familiar with the elements of multiple intelligences during their training. It causes teachers to develop a type of professional identity in which teachers can promote the quality of their teaching from one hand, and facilitate their students' learning from the other hand.

According to Berman (1998), language teachers armed with the knowledge and application of multiple intelligences can be successful teachers. It is because of the fact that they develop a full professional identity by which they can accomplish their profession perfectly. Berman (1998), adds that such a kind of potentiality can help teachers to provide variety of activities to facilitate learning. As Armstrong (2000) argues, the theory of Multiple Intelligence has vast implications for special education since this theory focuses on a wide spectrum of skills and abilities and helps placing “special needs” in a broader context. Armstrong also adds that application of multiple intelligences by teachers would equip them with certain potentiality to help learners who have special needs. The reason of this kind of ability is forming teacher identity through knowing and practicing multiple intelligences. As the results of the present study also revealed, teacher professional identity have correlation with all elements of multiple intelligences.

The findings of the present study are also in agreement with those of Dobrow and Higgings’ (2005) who found that the professional identity of 136 teachers correlated with social and psychological differences of the

participants. These components included interpersonal, intrapersonal, social, and interactional variables.

Moreover, a linear regression was run to predict the professional identity by using the eight components of the multiple intelligences. The findings revealed that the eight multiple intelligences can predict teacher professional identity. After excluding the linguistic intelligence which did not contribute to the regression model significantly, the remaining seven multiple intelligences predicted professional identity to a great extent.

Professional identity is considered as an ambiguous term that appears to have entered academic discussions based largely on assumed understanding (Beijaard et al., 2004). The present study was not supposed to address the issue of this ambiguity, but to explore the nature of professional identity in the context of English teachers in Iran. It seems that the development of professional identity is hand in hand with the individual features. On the other hand, professional identity development is influenced by teachers' individual differences.

6 Pedagogical Implications and Suggestions for Further Studies

This study may prove to be useful in contributing to the body of knowledge on professional identity of English teachers in Iran. Moreover, this research builds on the existing knowledge of professional identities of teachers and explores the implications of such knowledge for English teachers. An emphasis on the notion of professional identity can contribute to a more comprehensive understanding of English teachers' professional needs. It also obliges educators to pay more attention to the identity development of teachers. The findings of this study may contribute to the efforts and discussions on exploring the effective processes for English teachers to develop professionally.

Traditionally, professional development has been considered as a product offering a range of activities that help teaching practice for the benefit of both teachers and learners. The findings showed that certain types of intelligences have greater relationship with the professional identity. On the other hand, some types of intelligences take more advantage of the professional development. The findings of the study can be used by the language teachers and educators to develop teacher identity among prospective teachers. To this end, it seems necessary to consider individual differences among the factors contributing to the professional identity. Student teachers have variety of individual differences among which their types of intelligences are very significant.

To develop teachers professionally, all these intelligences should be taken into consideration. Teacher educators can help construct professional identity among language teachers in different ways. It can be done by both pre-service education and in-service education. First, prospective teachers

need to construct their professional identity by the help of the educators. This can be done by both teacher educators and syllabus designers of these programs. First, designers should pay attention to different types of intelligences in developing their materials; in this way, all student teachers' types of intelligence can be included in teacher education programs. Moreover, teacher educators have to be sensitive to the intelligence differences among their student teachers. On the other hand, different activities and practices can be included in classes to construct and develop professional identity among all student teachers enjoying different intelligences. Moreover, in-service programs can help developing and maintaining professional identity among teachers. These programs also have to take different types of intelligences into account.

From the perspective of teacher training, the interaction between external and internal factors for teacher identity formation is of great interest in considering implications for aspiring for more intelligent practices among teachers (Biesta & Burbules, 2003). Therefore, the main question we are to answer is not only what we have to suggest within teacher training program, but also how we have to implement practices to involve all types of intelligences. On the other hand, teacher education should provide an occasion for a student to take a role as a teacher, even if it is very partial (Danielewicz, 2001). Naturally, greater opportunity for teaching practice would make it possible for prospective teachers to apply different intelligences in their practices and to be engaged with variety of intelligent activities. Alsup (2006) believes that often, "the teaching of teachers has focused on developing the intellect, the cognitive aspects of learning to teach, without recognizing that to separate the intellectual from the affective" (p.26). The findings of this study support Alsup's ideas that both novice and prospective teachers should be taught about their intelligences. Knowing their intelligences can help teachers to recognize themselves better and to involve their capabilities in their teaching and practice.

This study proposes some issues for future research due to the additional questions that the researcher came across during the study. First, future research should consider the influence of different teachers' individual differences on the identity of beginning teachers. Teachers are different from each other based different affective and cognitive and biological factors. These factors can be motivation type, attribution kind, locus of control, gender, age, etc. All of these factors can be studied to find out their relationships with the identity formation. Based on Humanism, two main aspects of an individual are affective and cognitive, and these factors can be influential in the process of teacher identity formation.

A significant limitation of the present study is in its focused group. The participants of the study were limited to ELT teachers teaching in Semnan Province. Further research should be undertaken to investigate the professional identity of EFL teachers nationwide. More studies are needed to

identify the factors that influence the process of professional identity formation. Considering the limited number of study on professional identity specific to ELT, further studies could be undertaken to study the influence of both social and cultural factors on identity formation.

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