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RESEARCH ARTICLE

Investigating the Predictive Validity of Admission Criteria in Teacher Education Program: *Unpacking the Relationship Between Secondary School Academic Measures and Prospective Teachers' Competency*

Abolfazl Khodamoradi*[1], Mojtaba Maghsoudi[2]

The aim of this study was to determine the extent to which academic admission criteria predict prospective teachers' competency during teacher education program. To this end, a total of 186 prospective teachers majoring in Teaching English as a Foreign Language at Teacher Education University in Iran were selected as the convenience sample of the study. They completed two questionnaires, Prospective Teachers' Professional Attitude and Prospective Teachers' Professional Identity. The participants' high school GPA, university entrance score, and university GPA were also obtained. The results of Pearson product-moment correlations indicated a significant positive correlation among academic measures of high school GPA, university entrance score, and university GPA but no significant correlation was detected between these academic measures and non-academic measures of professional identity and professional attitude. The results of hierarchical regression analyses showed that the two admission criteria had just predictive validity for university academic achievement; however they could not predict prospective teachers' professional attitude or their professional identity. Based on the findings of this study, it would be concluded that the academic measures used for admitting candidates into the program have low predictive validity for predicting non-academic attributes of teacher competency.

Keywords: Admission criteria, Professional attitude, Professional identity, Prospective teachers, Teacher competency.

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INTRODUCTION

The call of preparation and retention of quality teachers is widespread throughout the world because having quality teachers is an essential prerequisite for improving public education. Therefore, nearly all reform movements in in-service teacher education programs, considered to be the most widespread form of professional development (Tajeddin & Rezanejad, 2018), have focused on selecting the best applicants into teaching profession. At their most basic level, admissions practices aim at attracting and admitting candidates who show potential for

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becoming well-competent teachers in the profession (Dore et al., 2009). Hence, these practices must include more appropriate admission criteria to be responsive to a variety of external and internal factors like the purpose of the programs and the school requirements (Holden & Kitchen, 2017).

Since admission procedures go beyond a simple filter for accepting candidates into a teacher education program, they demand multiple sources of evidence. Teacher education institutions used to apply candidates' academic achievement as the most important admission criterion. Such an indicator has nothing to do with the affective, moral, or ethical dispositions of the candidates. Nowadays, the admission criteria have been extended to include applicants' potential for empathy, teaching skills, and characteristics such as enthusiasm, commitment, and sensitivity to pupils' needs (OECD, 2005). Although several admission criteria or assessment tools have been proposed, there is no consensus on the most effective criteria or tools within a relevant conceptual framework (Marrin et al., 2004). In fact, teacher-educators value non-cognitive qualities for which there are no objective tools (Thomas & Kane, 2015).

Since selection procedures in teacher education cause long-term effects, investigating the effect of selection models is worthwhile. Selection models which may be error-prone in their judgment require continuous revisions to ensure that the procedures are cost-effective, reliable, valid, and unbiased for all applicants. Unfortunately, systematic research on the selection of candidates for teacher education has largely been ignored (Klassen & Kim, 2019). Considering the high stakes nature of admission into teacher education programs, the current study aims at investigating the quality of this gatekeeping structure for entry into the teaching profession in Iran.

REVIEW OF THE LITERATURE

The number of applicants applying for the teacher profession in nearly all countries exceeds the number of positions that are available for them. Therefore, based on some admission criteria, teacher education institutes must choose the best applicants from a very large pool. Although admission criteria vary across programs, they generally base their admission decisions on combination of candidates' academic performance, standardized test results, letters of recommendation, and interviews (Casey & Childs, 2011). Each of these tools provides selectors with a measure of prerequisite knowledge, dispositions, and skills that applicants should have when entering the teacher education program (Denner et al., 2001).

Making decisions about selecting the best possible candidates is making a prediction about future "teacher effectiveness" (Klassen & Kim, 2019, p. 34) or "teacher preparedness" (Mihelic et al., 2018, p. 47) which is a function of the knowledge, skills, and attitudes which inexperienced and new teachers are supposed to acquire. To increase the predictive validity of the utilized tools, teacher education institutes have incorporated a range of academic measures and nonacademic measures or have raised standards for entry into the teaching profession

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through setting higher cut-scores on entrance exams to allow only "qualified" applicants to be admitted, retained, and graduated.

The quantity and quality of admission benchmarks should prevent ineffective applicants from entering teacher education programs (Miller-Levy et al., 2014). To guarantee the quality of utilized benchmarks, policymakers in the field have increased the rigor of admission criteria and accreditation standards (Cochran-Smith & Villegas, 2015) and they believe that setting more rigorous admission criteria leads to selecting better pre-service teachers (Dee & Morton, 2016; Fuller, 2014). In addition to qualitative efforts, teacher education institutions have developed more admission criteria along with a set of mechanisms for determining the degree to which applicants meet those criteria.

Most teacher education institutions use applicants' grade point average (GPA) as an admission criterion (Casey & Childs, 2007; Lawrence & Crehan, 2001). It is the most widely used tool for selecting the pest possible candidates into teacher education programs (Mikitovics & Crehan, 2002). Although it is highly objective, it is criticized in excluding other important aspects of teacher quality such as verbal, interpersonal, and leadership skills (Byrnes et al., 2003; OECD, 2005; Pantić et al., 2010). On the other hand, although there might be a relationship between applicants' academic average and their academic achievement in teacher education program (Casey & Childs, 2011), their GPA is not necessarily a strong predictor of their performance (Ackley et al., 2007). Therefore, academic averages should be used along with other assessment tools.

After academic averages, "written statements are the most commonly used tools in teacher education admissions" (Holden & Kitchen, 2017, p. 25). Such a profile may contain information about the applicant's previous academic achievement, personal characteristics, employment and training background, and special skills. Although such a profile helps institutions select best candidates, it would face some limitations. The first limitation deals with developing a standardized way of comparing applicants' abilities which have been illustrated in a variety of written profiles. The second limitation is the credibility of such statements when candidates feel that the statements may hurt their chance of admission.

Many teacher education programs throughout the world use standardized test results as an admission criterion. For example, 28 states in the US and the District of Columbia require applicants to pass a test, Praxis I: Pre-Professional Skills Assessments, to measure the applicants' basic skills in reading, writing, and mathematics knowledge (Casey & Childs, 2007). Like the high school GPA, standardized tests provide information about applicants' cognitive abilities.

Interviews provide a great opportunity to collect information about an applicant's language abilities, attitudes, and intrapersonal and interpersonal skills. Hirschkorn and Sears (2015) argue that in an interview, raising ambiguous questions makes applicants reveal their thoughts and beliefs, without revealing what the interviewers are looking for. Despite its effectiveness, there are some limitations which pose significant challenges: Implementing interviews requires

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time commitments from multiple stakeholders (Petrarca & LeSage, 2014). Moreover, the data collected via interviews are questionable when it comes to reliability, especially inter-rater reliability (Thomas et al., 2015). In a recent study, Davies et al. (2016) found that interviewers highlighted the importance of their intuition in their selection, which means relying on a "gut feeling" to identify the "X factor" (p. 298).

Although a variety of admission criteria and tools are available, most programs use the same criteria such as GPA, written profile, letters of reference, and interviews to predict the candidates' success in programs (Klassen & Dolan, 2015). As far as empirical studies are concerned, the literature on the predictive validity of admission criteria is far from unanimous. Some research findings indicate that academic measures, such as GPA and standardized tests, are better predictors of pre-service teacher effectiveness (Casey & Childs, 2011; Caskey et al., 2001; Hall & West, 2011; Lawrence & Crehan, 2001). In contrast, some other studies (e.g., Dee & Morton, 2016) report evidence of a weak relationship between GPA and pre-service teachers' effectiveness.

These conflicting findings in the literature regarding the relationship of admission criteria and pre-service teacher effectiveness can be attributed to the complex nature of this relationship (Cochran-Smith & Villegas, 2015; Miller-Levy et al., 2014). In addition to this complexity, a part of the problem may arise from ignoring non-academic measures such as professional attitudes and job motivation in the selection processes. Hirschkorn, et al. (2017) claim that virtually none of the admission criteria explicitly uncover the structure of applicants' ideas about the teaching profession. If we accept that teacher candidates, who are not tabula rasa, enter the programs with well-entrenched assumptions about the teaching profession, the selection processes should give more chance to those applicants whose perceptions are in line with the contemporary educational approaches (Hirschkorn, et al., 2017).

Research findings show that there is also a strong relationship between candidates' dispositions and their effectiveness (Duckworth & Yeager, 2015; Hochstetler, 2014). Robertson-Kraft and Duckworth (2014) proved that novice teachers' effectiveness is directly related to their dispositions. Therefore, such mental predispositions cannot be ignored while evaluating prospective teachers' effectiveness or competencies. Since teacher competency has the components of knowledge, skills, and attitudes (Khodamoradi & Maghsudi, 2019), all selection processes should incorporate nonacademic measures in their teacher selection models either as predictor variables or outcome variables.

Shifting form observable criteria to abstract ones is in fact moving from performance-based model of teacher education to Humanistic Based Teacher Education (Korthagen, 2004). The former tries to link teachers' concrete, observable behaviors to learners' academic achievements while the latter highlights the role of teachers' personal characteristics such as attitude, enthusiasm, personality, and identity in their teaching effectiveness. In order to account for such personal characteristics in the process of teacher development, a model, known as Onion Model, has been proposed (Figure 1). The model shows that there are various levels of change in teacher

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development beginning from the social element of environment to the very personal element of mission.

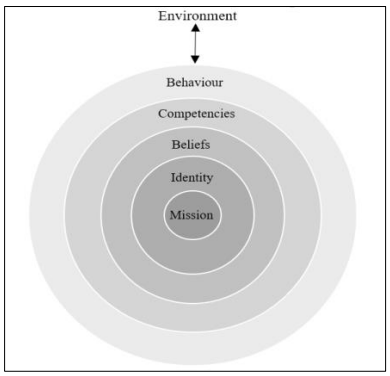

Figure 1. ***The Onion Model***

The outermost level in the model includes environmental factors such as learners and educational settings which modify teachers' behaviors. The potential for teachers' behaviors is teacher competency which is defined as an integrated body of knowledge, skills, and attitudes. Teachers' competencies, in turn, are highly affected by the beliefs they hold with regard to various elements of education. A part of these beliefs is those which teachers have about themselves, including how they see and how they define themselves, technically defined as professional identity. After interpersonal level of environment, and intrapersonal level of competency, beliefs, and identity, the ultimate level of change occurs in transpersonal level of mission. It deals with "becoming aware of the meaning of one's own existence within a larger whole, and the role we see for ourselves in relation to our fellow man" (Korthagen, 2004, p. 85).

As the model indicates, becoming a good teacher during a teacher education program entails deep levels of change. In this regard, Nezakatgoo (2018) claims that teacher professional development has both multidimensional process and a complicated nature which capture teachers' cognition. Needless to say, forming positive attitudes towards teaching profession and establishing strong professional identity are among the top priorities. Therefore, among the non-academic measures, professional attitude and professional identity can be taken as predictor variables in a teacher selection model. When entering teacher education programs, applicants already possess a set of deeply embedded attitudes toward various elements of education from their experiences as learners. These initial beliefs are so influential in their professionalism and their teaching practices (Chambers & Forlin, 2010; Villegas, 2007). In addition to professional attitudes, professional identity, in a deeper level, navigates the process of teacher development. Alsup (2005) believes that the development of professional identity is a central process in becoming a teacher. Professional identity shift over time under the influence of a variety of factors (Sardabi et al., 2019). On the other hand, it is an influential factor in career motivation, job satisfaction, professional commitment, and contributes to teacher retention (Hellman, 2007).

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Selecting qualified teacher candidates requires effective teacher selection models in which all relevant measurement components are incorporated thoroughly and truly. The models can be used for assessment while the program is running, when the prospective teachers graduate, or when they enter the teaching profession. Casey and Child (2007) believe that "most studies on teacher education program admission criteria have used success in the program itself as indicators of the probability of future success" (p. 10). Therefore, investigating the predictive validity of admission criteria before the program ends can help administrators and teacher educators have a more vivid picture of the program for making better decisions.

In the context of this study, Iran, the entry requirements for teacher education universities are somehow strict. The academic requirements for teaching profession include gaining a minimum passing score of 14 out of 20 for high school GPA, and obtaining a minimum score of 6500 out of 10000 for Iranian Universities Entrance Exam. The applicants must also get through an interview which aims at assessing their attitudes about teacher's profession. In recent years, nearly all applicants who have attained the academic requirements, have successfully gained the minimum score in the interviews. Therefore, the role of non-academic measures in accepting applicants into the programs in negligible.

Considering the above-mentioned facts, this study aims at investigating the predictive validity of admission criteria in admitting the best candidates into Iranian teacher education programs. More specifically, the study seeks to find to what extent the applicants' high school GPA and their entrance exam score can predict their academic achievement, professional attitude, and professional identity in Iranian teacher education universities.

METHODOLOGY

Participants: The participants in this study were an initial convenient sample of 202 junior and senior prospective teachers majoring in Teaching English as a Foreign Language at the Teacher Education University in Iran. The age of participants ranged from 20 to 26 years. Since five datasets were supposed to be collected, some participants failed to provide enough datasets and were excluded. Eventually, 186 participants, 71 females (38%) and 115 males (62%), who had provided the researchers with all data sets were kept as the final sample of the study.

Procedures: First, the participants were informed about the purpose of the study and their voluntary participation was clearly established by signing a consent form giving the researchers permission to use their private academic measures. Then two questionnaires (Prospective Teachers' Professional Attitude Questionnaire and Prospective Teachers' Professional Identity Questionnaire) were developed and validated conducting exploratory and confirmatory factor analyses. The two scales were completed electronically in a two-week interval by the participants. After obtaining their high school GPA, entrance exam score, and university GPA, all data sets including the questionnaires data were submitted to SPSS software for further analyses.

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Instruments: Since attitude and identity were considered highly context-bound variables, a questionnaire was developed and validated for assessing each one.

Prospective Teachers' Professional Identity Questionnaire: After reviewing the related literature in the field of professional identity, 68 statements pertaining to the given construct were collected from the validated scales and from the experts. After a scrutiny of the statements by experts, 45 statements related to professional identity of prospective teachers were retained. Based on the experts' comments on the items' content and face validity, the remaining items were categorized in seven components. Two hundred six prospective EFL teachers completed the questionnaire. The reliability of the questionnaire was calculated by using Cronbach α and it was found highly reliable (*Alpha*= 0.758). The results of confirmatory factor analyses indicated that the seven-factor solution possessed good data-model fit across all indices, χ^2 (710, N = 186) = 784.53, $p < 0.000$, χ^2/df = 1.10, *GFI* = 0.83, *NNFI* = 0.96, *CFI* = 0.96 *SRMR* = 0.05, *RMSEA* = 0.05. The results indicated that the professional identity of the target group consisted of seven components, namely: task orientation (6 items), professional commitment (4 items), self-concept (7 items), self-efficacy (5 items), career motivation (9 items), job attachment (5 items), and collective identity (4 items).

Prospective Teachers' Professional Attitude Questionnaire: The same procedure was adopted for constructing and validating a questionnaire to assess prospective teachers' attitudes toward teaching profession. Based on the literature review, 31 items related to professional attitude were written. Based on the experts' comments on the content and relevance of the items, 28 items were kept. Then, the participants went through the questionnaire two weeks after completing Professional Identity Questionnaire. Showing good internal consistency (*Cronbach's alpha* = 0.784), the confirmatory factor analyses were performed. The results of confirmatory factor analyses indicated that the four-factor solution possessed good data-model fit across all indices, χ^2 (203, N = 186) = 356.38, $p < 0.000$, χ^2/df = 1.76, *GFI* = 0.95, *NNFI* = 0.92, *CFI* = 0.93 *SRMR* = 0.05, *RMSEA* = 0.064. The four factors around which the items clustered were economic factor (4 items), social factor (7 items), professional factor (7 items), and teacher competency factor (4 items).

RESULTS

Data analyses were conducted using correlational analysis and hierarchical regression analysis in SPSS version 24. Pearson product-moment correlation was run to determine the relationship between the variables. The results indicated that there was a significant strong positive correlation between high school GPA and university GPA (r = .494, n = 186, p = .001), and a significant medium positive correlation between university entrance score and university GPA (r = .357, n = 186, p = .001). No significant relationship was observed between high school GPA and professional attitude (r = -.051, n = 186, p = .001), between high school GPA and professional identity (r = -.083, n = 186, p = .001), between university entrance score and

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professional attitude (r = -.138, n = 186, p = .001), and between university entrance score and professional identity (r = -.087, n = 186, p = .001).

Table 1. ***Pearson Correlations Among the Variables***

		High School GPA	University Entrance Score	University GPA	Professional Attitude	Professional Identity
High school GPA	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	186				
University entrance score	Pearson Correlation	.276**	1			
	Sig. (2-tailed)	.000				
	N	186	186			
University GPA	Pearson Correlation	.494**	.357**	1		
	Sig. (2-tailed)	.000	.000			
	N	186	186	186		
Professional Attitude	Pearson Correlation	-.051	-.138	.037	1	
	Sig. (2-tailed)	.489	.060	.621		
	N	186	186	186	186	
Professional Identity	Pearson Correlation	-.083	-.087	-.023	.463**	1
	Sig. (2-tailed)	.259	.236	.756	.000	
	N	186	186	186	186	186

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

To find the amount of variance contributed by independent variables of high school GPA and university entrance score, hierarchical regression analysis was conducted. Before running the analyses, the main assumptions of hierarchical regression including normality, homoscedasticity, linearity, multicollinearity, and independence of errors were checked. Normality assumption was checked using Kolmogorov-Smirnov test. As the results of Table 2 show, all datasets followed a normal distribution. The assumptions of homoscedasticity and linearity were assured by checking the plots of standardized residuals. Moreover, Durbin–Watson tests indicated that for all data sets the assumption of independent errors was met since the Durbin-Watson values were between 1.5 and 2.5 (See, Table 3). Finally, the tests to see if the data met collinearity indicated that multicollinearity were not a concern because all VIF values were less than 10, and the Tolerance values were more than 0.1(See, Table 5).

Table 2. ***Kolmogorov-Smirnova Test for Normality***

	Kolmogorov-Smirnov[a]		
	Statistic	*df*	*Sig.*
Professional Identity	.045	186	.200*
University GPA	.056	186	.200*
Professional Attitude	.060	186	.200*

After assuring regression assumptions, a series of hierarchical regression analyses were conducted. In each hierarchical regression analysis, prospective teachers' university GPA,

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professional attitude, and professional identity were the dependent variables and, in the first step, their high school GPA was entered as the first important predictor for teacher competency. In the second step, their university entrance score was added as the second predictor. A hierarchical regression with university GPA as dependent variable and high school GPA and university entrance score entered as independent variables in that order in separate blocks revealed that each one made a unique contribution to the prospective teachers' university GPA. High school GPA alone explained 24% of the variance in university GPA. After adding university entrance score to the equation model, the model explained 28.9% (adjusted) of the variance. The contribution of each step was significant, (*F change* = 13.73, *sig* = 0.0001<0.05) for the second step. With a tolerance over 0.01 and VIF below 10, multicollinearity was not an issue. See Table 6 for the regression coefficients and collinearity statistics.

Table 3. ***Hierarchical Regression Analysis Summary of Variables Predicting Prospective Teacher Competency***

						CHANGE STATISTICS					
Dependent Variable	*Model*	*R*	R^2	*Adjusted* R^2	*Std. Error of Estimate*	R^2 *Change*	*F Change*	*df1*	*df2*	*Sig. F Change*	*Durbin-Watson*
University GPA	1	.494[a]	.244	.240	1.0419	.244	59.4	1	184	.000	
	2	.545[b]	.297	.289	1.0076	.053	13.73	1	183	.000	2.11
Professional Attitude	1	.051[a]	.003	-.003	.39101	.003	.48	1	184	.489	
	2	.139[b]	.019	.008	.38880	.017	3.09	1	183	.080	1.83
Professional Identity	1	.083[a]	.007	.002	.44917	.007	1.28	1	184	.259	
	2	.107[b]	.011	.001	.44938	.004	.827	1	183	.364	1.89

a. Predictors: (Constant), High school GPA

b. Predictors: (Constant), High school GPA, University entrance score

c. Dependent Variable: University GPA, Professional Attitude, Professional Identity

The results of Pearson correlation indicated that neither high school GPA nor university entrance score were significantly correlated with prospective teachers' professional attitude and professional identity. The results of hierarchical regression analysis also showed that these two admission criteria could not predict professional attitude (*F change* = 3.09, *sig* = 0.080>0.05) and professional identity (*F change* = 0.827, *sig* = 0.364>0.0) in prospective teachers. The results of ANOVA (Table 4) indicated that the regression model for the predicted variable of university GPA is appropriate (*F* (2,183) =13.74, *p* = 0.001<0.05) while the model is not suitable for professional attitude (*F* (2,183) = 1.79, *p* = 0.170>0.05) and professional identity (*F* (2,183) = 1.05, *p* = 0.35>0.05).

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Table 4. ***ANOVA Results for Hierarchical Regression Analysis Predicting Prospective Teacher Competency***

DEPENDENT VARIABLE		MODEL	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
University GPA	1	Regression	64.49	1	64.49	59.40	.000[a]
		Residual	199.75	184	1.08		
		Total	264.25	185			
	2	Regression	78.43	2	39.21	38.62	.000[b]
		Residual	185.81	183	1.01		
		Total	264.25	185			
Professional Attitude	1	Regression	.073	1	.073	.48	.489[a]
		Residual	28.13	184	.153		
		Total	28.20	185			
	2	Regression	.542	2	.271	1.79	.170[b]
		Residual	27.66	183	.151		
		Total	28.20	185			
Professional Identity	1	Regression	.259	1	.259	1.28	.259[a]
		Residual	37.12	184	.202		
		Total	37.38	185			
	2	Regression	.425	2	.213	1.05	.351[b]
		Residual	36.95	183	.202		
		Total	37.38	185			

a. Predictors: (Constant), High school GPA

b. Predictors: (Constant), High school GPA, University entrance score

c. Dependent Variable: University GPA, Professional Attitude, Professional Identity

In order to determine the possible unique predictive contribution of admission criteria to teacher competency, at first high school GPA ($\beta = 0.494$, $p < 0.01$) and then, university entrance score ($\beta = 0.239$, $p < 0.01$) had the most significant predictive validity while the given criteria had no predictive contribution to the two other components of teacher competency, professional attitude and professional identity (see Table 5).

Table 5. ***Results of Unstandardized / Standardized Coefficients for Hierarchical Regression Analysis***

DEPENDENT VARIABLE	MODEL	UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T	SIG.	COLLINEARITY STATISTICS	
		B	*Std. Error*	*Beta*			*Tolerance*	*VIF*
University average	(Constant)	12.67	.579		21.894	.000		
	High school GPA	.268	.035	.494	7.708	.000	1.000	1.000
	(Constant)	10.21	.870		11.737	.000		
	High school GPA	.232	.035	.428	6.635	.000	.924	1.083

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	University entrance score	.000	.000	.239	3.706	.000	.924	1.083
Professional Attitude	(Constant)	2.94	.217		13.533	.000		
	High school GPA	-.009	.013	-.051	-.693	.489	1.000	1.000
	(Constant)	3.39	.336		10.107	.000		
	High school GPA	-.002	.014	-.014	-.183	.855	.924	1.083
	University entrance score	-7.18	.000	-.134	-1.760	.080	.924	1.083
Professional Identity	(Constant)	3.90	.250		15.643	.000		
	High school GPA	-.017	.015	-.083	-1.132	.259	1.000	1.000
	(Constant)	4.17	.388		10.761	.000		
	High school GPA	-.013	.016	-.064	-.836	.404	.924	1.083
	University entrance score	-4.28	.000	-.070	-.909	.364	.924	1.083

DISCUSSION AND CONCLUSION

The present study investigated whether two academic measures of high school GPA and university entrance score as admission criteria could predict prospective teachers' competencies including both academic and non-academic components. The results indicated a significant relationship among academic measures of high school GPA, university entrance score, and university GPA but no significant relationship was observed between these academic measures and non-academic measures of professional identity and professional attitude in prospective teachers. The results of hierarchical regression analyses showed that the two admission criteria obtained in high school had just predictive validity for university academic achievement but they could not predict candidates' professional attitude or their professional identity which are important indicators of teacher competency or teaching effectiveness.

The findings of this study are partially consistent with those of Klassen & Kim's (2019) meta-analysis which indicated that selection methods assessing academic and non-academic measures were statistically related to teacher effectiveness, although the effect sizes were not significant. The effect size for non-academic predictors was significantly smaller than academic predictors. These findings indicate low predictive validity of academic and non-academic measures in the field of teaching which can be attributed to the complex nature of teaching profession.

In the current study, academic measures of high school GPA and university entrance exam score were respectively strong and moderate predictors of academic achievement (university GPA). Strong positive correlation between high school GPA and university GPA can be attributed to similar test formats in both testing procedures, namely overall average scores from many exams with various items including open-ended questions, multiple choice questions etc.

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University entrance exam, on the contrary, is a of multiple-choice type which is administered in a single exam session for all university candidates throughout the country. Therefore, it is reasonable to find moderate rather than strong positive correlation between these two quite different measures.

When it came to non-academic predicted measures, these two indicators showed weak validity evidence of non-academic attributes, that is, professional attitude and professional identity. This result may be, in part, due to the fact that these tests are not exclusively designed to predict applicants' success in teacher education programs; they just measure the required knowledge for entering university. In this regard, Gitomer et al. (1999) believe that passing such standard tests "does not guarantee that an individual will become a satisfactory teacher" (p. 13) and "raising admission standards will significantly increase the academic caliber of the pool of teacher candidates" (p. 36).

The weak predictive validity of admission criteria could also attribute the high-stakes nature of admission process which paves the way for socially desirable responding and faking (Sackett et al., 2017). In the context of the study, the applicants are required to get through an interview which aims at assessing their non-academic attributes but the problem is that the mortality rate is negligible (about 0.01) and nearly all applicants pass the cut-off point (%75 of the maximum score) in the interview. Therefore, giving the lowest possible proportion of discriminatory power to the interview means focusing on academic measures as the only admission criteria.

The rationale of assigning a sizeable proportion of discrimination to academic measures is that teacher education programs have the capacity to form the desirable non-cognitive attributes in prospective teachers believing that the curriculum includes courses for developing knowledge, skills, and non-cognitive personal attributes. Such an idea ignores the fact that prospective teachers arrive for their training courses having spent thousands of hours observing the profession, known as "the apprenticeship of observation" (Lortie, 1975). The result of this highly influential period of observation is that programs are not so successful in modifying the personal attitudes and professional identity (Borg, 2004).

When establishing connections between the quality of entering applicants and the competency of graduated beginning teachers, the intermediate stage of teacher education program seems to be the most influential element. In this regard, Casey and Childs (2007) proposed a framework with three components: the qualities of the applicants, the vision of the qualities of the graduates, and the impact of the program on the applicants' development. In such a framework, the quality of the outcome is a function of both initial qualities of entering applicants and qualities of the program. Therefore, for having quality beginning teachers, admission processes should employ the best possible screening devices for admission and teacher education universities should be flexible enough to cater to all applicants with different entrance qualities. Casey and Childs (2007) believe that "teacher education programs need to critically examine their admission criteria to make sure that those criteria, along with the

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preparation they provide, will lead to their graduates being successful beginning teachers" (. 14).

The impact of teacher education programs on prospective teachers' cognitive and non-cognitive attributes appears different. Flores (2001) believes that the impact of pre-service programs on shaping non-cognitive attributes is low. To account for such a deficiency, Falkenberg (2010) suggested an extended version of the Casey-Childs' framework with two other components of "the working conditions in schools" and "the hiring criteria of school divisions" (p. 9), believing that those two components are not generally considered in the design and enactment of the programs, implying that in addition to recruiting the brightest applicants, programs with flexible and responsive structure should be designed to help candidates achieve the desired qualities required for the workplace.

Undoubtedly, the relationship between program design and attributes of applicants is bi-directional. That is, not just the program influences applicant's attributes; but the applicant's attributes would shape the context (Bronfenbrenner, 2005). Taking the systemic view, educationists in teacher education believe that there are dynamic interrelationships among various elements that make new properties of the system emerge. Such an integrated system is capable of compensating for some missing elements. The compensatory nature of adaptable teacher education programs allows the programs to admit applicants who lack desired initial attributes (Falkenberg, 2010). It does not mean underestimating the importance of recruiting the best candidates. If programs are adjusted and tailored to applicants' needs and the workplace conditions, applicants with low incoming qualities can be educated as graduates with high outcome qualities.

Strong positive correlation between professional attitude and professional identity is also revealing. Beauchamp and Thomas (2009) believe that teacher education programs are the first important intervention point for developing teachers' professional identity. If they do not form strong professional identity, applicants would have difficulty entering the profession (Ewing & Smith, 2003). The findings of the current study provide supports for other studies indicating that professional identity is linked to their attitudes about the profession (Beijaard et al., 2004; Walkington, 2005). Such a strong correlation is promising for teacher educators since working on each of these two non-cognitive attributes can guarantee quality beginning teachers after graduation.

In conclusion, the findings of the study indicated that admission process in the teacher education program needs urgent revision. The academic measures which are used for admitting candidates into the program are just correlated with cognitive, academic attributes that the program except the candidates to obtain. Interestingly, the courses offered to equip them with the required knowledge, skills, and attitudes are not effective enough to develop professional attitude and identity. It seems logical to conclude that academic measures of admission processes have low predictive validity for predicting non-academic attributes of teacher competency.

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The findings of the study have some pedagogical implications: The strong relationship between academic admission criteria and overall academic achievement in teacher education program which had been proven in several studies (e.g., Caskey et al., 2001; Lawrence & Crehan, 2001) implies that these admission criteria should be used in admission process. However, raising such admission standards is not recommended since it does not necessarily increase discriminatory power of the measures. Moreover, since high school GPA has more predictive validity than university entrance score, giving more weight to the former leads to better recruitments.

Since academic measures cannot predict prospective teachers' competency (Fuller, 2014), policy makers should attend more to applicants' non-cognitive attributes during the admission process. In addition to devising robust screening tools for assessing these constructs, admitting applicants with positive professional attitude and strong professional identity should be done more meticulously. Furthermore, teacher education programs should also be adjustable to the needs of incoming applicants, future visions of outcome graduates, and upcoming working conditions.

Our work clearly had some limitations: First, like any other admission program, the program in the context of the study excluded some potential applicants due to their level of selection criterion, so it is impossible to know how those who did not meet the academic requirements, perform in the program. Second, since no reliable information is available about the applicants' non-cognitive attributes when they entered the program, interpretation of relationship between the participants' academic measures and their professional attitude and identity should done with caution. Finally, since five data sets were supposed to be obtained, the researchers selected a convince sample from one college and did not extend the sample to other colleges due to some legal considerations.

This study was an attempt to investigate the predictive validity of academic measures in predicting professional attitude and identity. The findings suggest the following directions for future research: Further studies taking other non-cognitive attributes into account, need to be undertaken. On a wider level, longitudinal research is also needed to follow teacher candidates from the time they enter a program into initial years of teaching occupation. Since gender is a very influential variable, future studies on the current topic are required to elucidate whether male and female applicants' show different behaviors.

The Authors state that there is no conflict of interest.

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بررسی میزان اعتبار پیش‌بینی‌کنندهٔ معیارهای پذیرش دانشجو در تربیت‌معلم: تعیین رابطه بین عملکرد تحصیلی دورهٔ متوسطه و صلاحیت حرفه‌ای معلمان رشته دبیری زبان انگلیسی

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چکیده:

هدف از انجام این پژوهش این بود تا تعیین کند به چه میزان عملکرد تحصیلی داوطلبان ورود به دانشگاه تربیت‌معلم در دوره متوسطه تحصیلی می‌تواند صلاحیت‌های حرفه‌ای آنان را در دوره تربیت‌معلم پیش‌بینی کنند. بدین منظور، ۱۸۶ دانشجو معلم رشته دبیری زبان انگلیسی به‌عنوان نمونه در دسترس انتخاب شدند. این دانشجو معلمان دو پرسشنامه نگرش حرفه‌ای دانشجو معلمان دبیری زبان انگلیسی و هویت شغلی دانشجو معلمان دبیری زبان انگلیسی را تکمیل نمودند. همچنین معدل دیپلم، تراز کنکور و معدل کل دانشگاه آن‌ها استخراج گردید. نتایج آزمون پیرسون نشان داد که بین معدل دبیرستان، نمره تراز کنکور و معدل دانشگاه آزمودنی‌ها همبستگی مثبت و معناداری وجود دارد اما بین معدل دبیرستان و نمره تراز کنکور از یک‌سو و هویت شغلی و نگرش حرفه‌ای آنان رابطه معنی‌داری وجود ندارد. همچنین نتایج تجزیه‌وتحلیل رگرسیون سلسله مراتبی نشان داد که معیارهای معدل دبیرستان و تراز کنکور فقط قابلیت پیش‌بینی موفقیت تحصیلی دانشجو معلمان را دارند اما آن‌ها نمی‌توانند نگرش حرفه‌ای و هویت شغلی آن‌ها را پیش‌بینی کنند. بر اساس یافته‌های این پژوهش، می‌توان نتیجه گرفت برای گزینش داوطلبان ورود به دوره‌های تربیت دبیر معیارهای دیگری نیز باید مورداستفاده قرار گیرد.

کلیدواژگان: معیارهای پذیرش، نگرش حرفه‌ای، هویت شغلی، دانشجو معلم، صلاحیت حرفه‌ای معلم.

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