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Development and Validation of an Instrument Exploring Factors Challenging Iranian Graduate Student-Teachers

Marjan Moiinvaziri* ¹Assistant Professor of TEFL, Department of English Language, Sirjan Branch, Islamic Azad University, Sirjan, Iran

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Abstract

Improvement in the quality of teacher education programs, especially in higher education, is an important issue. Failure to have an efficient teacher education program could lead to the training of graduates who are not prepared for the realities of the classroom. Accordingly, in an attempt to help improve the present situation of teacher education programs especially at the graduate level, this study aimed to develop and validate an instrument for exploring the challenges Iranian student-teachers face and to present a model for these hurdles. To this end, a Likert-scale questionnaire was constructed based on the literature and through consultation of experts which included 32 items. The questionnaire underwent a rigorous validation process in a pilot study with 180 teaching English as a foreign language participants studying for their master's degree using Cronbach alpha, exploratory factor analysis, average variance extracted, and composite reliability. Furthermore, employing structural equation modeling procedures, a six-dimensional model was presented for the investigated challenges. The obtained results called for the authorities' further attention to teacher trainees' problems in areas such as financing, educational facilities, educational planning, peers, teachers as well as a series of personal and social problems they may experience. Considering and dealing with the problems experienced by student-teachers in each of these areas can certainly provide the authorities and different stakeholders with an abundance of new knowledge and information which can be effectively used to improve the quality of teacher training programs.

Keywords: Challenges, Questionnaire validation, Structural equation modeling, student-teachers

INTRODUCTION

Improvement in the quality of teacher education program is an issue of considerable concern to every country. It is important for all teachers to attend effective teacher training programs, which provide them with necessary knowledge, experience, and guidance for their future occupation. Student-teachers develop some ideas during their studies that will guide their future experiences as

*Corresponding Author's Email: moiinvaziri@iausirjan.ac.ir teachers in classrooms. Failure to have an efficient teacher education program could lead to a training of graduates who are not prepared for the realities of the classroom. Teacher education program is known as a period which can help future teachers to reach their aims. Since teacher effectiveness in the classroom may be the most important goal of this program, it is essential to ensure the preparation of high-quality training for teachers that can empower them to develop and



deliver instruction effectively. Previously, there was a knowledge-transmission view towards teacher education. Based on the cognitive theory approach, learning happens in the mind of the learners free from any social and physical interaction with the environment (Kumaravadivelu, 2006). In such an approach, some predetermined amount of knowledge is transmitted from teacher educators to student-teachers (Johnson & Freeman, 2001; Kumaravadivelu, 2006). For years, this view was dominant in the system of language teacher education and teachers used to receive discrete amounts of knowledge which were thought to be applicable in any context with any learner (Johnson, 2006).

However, teaching in today's world is more demanding than ever (Kumaravadivelu, 2006). It is not conceived as a craft as it was traditionally and it is more considered as a dynamic concept moving towards professional autonomy. Teachers are also considered as proactive agents of change (Kumaravadivelu, 2006). Therefore, teacher education programs should not only prepare studentteachers for the use of teaching techniques and conducting lessons based on predetermined prescriptions and theoretical principles but also educate them to make more informed teaching decisions through processes of teacher development (Richards & Nunan, 1990). Today, teachers' experience and their knowledge of themselves and the context in which they are going to teach have gained more importance. This kind of knowledge can obviously be the result of their "experiences in and with students, parents, colleagues, and administrators, we can say that the processes of learning to teach are socially negotiated" (Johnson & Freeman, 2001, p. 55). The sociocultural view towards second language (L2) teacher education focuses on learning, professional development, and mediational tools (Johnson, 2009).

The core of sociocultural theories of teacher learning is the notion of learning as situated social practice (Altalib, 2002). Therefore, situated cognition and situated learning theories, have profound implications for pre-service and inservice teacher education (Altalib, 2002). The situated cognition is not limited to concrete learning in a specific situation and useable knowledge is best gained in an authentic and collaborative environment. As Lave and Wenger (1991) assert, learning in situated cognition or situated learning is inherently social and closely related to the context of its occurrence. The learning and knowledge of learners are formed through the interaction of learners, the tools used in these interactions, activities and the social context or environment in which all these are happening. Other than Lave and Wenger (1991), some other scholars (e.g. Putnam & Borko, 2000) emphasize the role of social interaction as a major determinant in learning and what is learned. Other educational thinkers including Vygotsky (1978) and Dewey (1974) have similar ideas toward the situated learning theory and argue that acquiring knowledge is not abstract and happens in context.

Furthermore, the quality of teachers is known as one of the most important factors in the effecof the school tiveness system (Barber & Mourshed, 2007). Teacher quality plays a crucial role in students' progress and its influence on students' higher achievements and learning has been recognized to the point that it has become the single most important school variable. Nevertheless, having a broader view of this issue can certainly lead one to notice the profound impact of teacher education on both teacher effectiveness and student outcomes as the most determining factor (Darling-Hammond, 2000; Gustafsson, 2003; Wenglinsky, 2002).

Considering the insights provided by the situated cognition and situated learning theory, one of the areas which may have an essential role in providing useful and valuable information for the improvement as well as redesign of pre-service and in-service teacher education programs can be knowledge of the problems faced by pre-service teachers during their years of training. Rationales for investigating pre-service teachers' perceived problems, beliefs, concerns, andsatisfaction can include both the theoretical questions about the psychological development of teachers (Fuller, 1969; Fuller &Bown, 1975) and pragmatic questions regarding pragmatic aspects of teacher education programs (Cruickshank, 1984; Evans, 1976).

Hence, due to the importance of this issue as well as the scarcity of research in this area, this study aimed to shed some light on the perceived challenges faced by master's degree (MA) students in the field of Teaching English as a Foreign Language (TEFL) during their studies. To this end, the present study was an attempt to develop and validate a questionnaire measuring the Perceived Challenges of English as a Foreign Language Student-Teachers (PC-EFL-ST) and consequently presenting a model for these challenges using Structural Equation Modeling (SEM) approach through the following research questions:

- 1. Dose the PC-EFL-ST questionnaire demonstrate an appropriate level of reliability and validity?
- 2. What is the emerged model of the perceived career challenges faced by TEFL MA candidates in Iran?

METHODS

Participants

The participants of this study included 180 MA students in the field of teaching English as a foreign language. They studied in Shiraz State University (30 students), Rafsanjan State University (25 students), Sirjan Islamic Azad University (55 students) and Kerman Islamic Azad University (70 students). Undergraduate students were not included in this study because it was conceived that, at this level, students might be less engaged with issues like conducting research, writing a thesis, or having jobs (Sadeghi & JamshidiAvanaki, 2014). Therefore, they would not have been able to provide adequate information regarding the subject of the study. It was also believed that doctoral students, due to their different social and educational status, would have experienced different sort of challenges which require a thorough inclusive investigation of its own as a next step. The sample was selected through purposive sampling from State and Islamic Azad Universities (two major universities of Iran) located in four different cities from two provinces in an attempt to have a representative sample of the TEFL MA candidates. Purposive sampling was done due to the fact that the researcher intended to select the participants who had experienced diverse types of difficulties during their studies.

Instrument

The item pool of the Perceived Challenges of English as a Foreign Language Student-Teachers (PC-EFL-ST) other than reviewing the related literature was mostly provided using the challenges presented in the study conducted by Moiinvaziri and Razmjoo (2016). In this study, 30 TEFL MA candidates studying in State and Islamic Azad Universities attended in-depth interviews regarding the problems and challenges they faced and a qualitative model of these challenges was developed. After the review of the previous work, the first draft of the questionnaire was developed which consisted of two parts. The first part included items eliciting students' demographic information (i.e. gender, age, teaching experience, name of the university, marital status, and employment status) designed for later studies exploring the role of these variables on the challenges faced by TEFL MA candidates. In the second part, there were items examining the problems faced by student-teachers during their education. To review the first draft, two experts from outside and two faculty colleagues at the research site were consulted. Having reviewed and edited the items, the total 34 items remained to make the questionnaire. The items were designed in English having 5-point Likert scale format ranging from Strongly Disagree to Strongly Agree.

Data Collection Procedure

After the questionnaire was designed by the researcher based on the guidelines presented in literature, qualitative data presented in the study by Moiinvaziri and Razmjoo (2016) and consultation of experts, a pilot study was carried out and the questionnaire was distributed among the par-



ticipants. The participants were notified of the objectives of the study and given 15 minutes to fill out the questionnaire. The respondents were assured that their answers will be kept strictly confidential and be used only for research purposes. As the research sample was selected from four different cities, it took about two months for the researcher to travel to each city and collect the required data.

Data Analysis Procedure

To test the reliability of the questionnaire, Cronbach's Alpha and composite reliability were calculated. To examine its content validity, two experts from outside and two faculty colleagues at the research site were consulted. The questionnaire was also proofread before distribution. For the estimation of convergent validity, Average Variance Extracted (AVE) was performed.

To identify the underlying factors of the hurdles faced by the student-teachers during their education, both exploratory and confirmatory factor analyses (using SPSS 20, AMOS 23) were performed. The exploratory factor analysis was carried out to uncover the underlying variables, to perform data reduction and grouping the related variables inconceptuallysimilarandstatistically related groups as well as to check the validity of the questionnaire. The extraction method used was the principal component analysis and the Varimax rotation method. The factors were extracted based on an Eigenvalue larger than 1, Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. The cutoff point for loading of each factor was 0.4. The extracted factors served as the subscales (latent variables) throughout the rest of the analysis. The confirmatory factor analysis was also conducted with the purpose of checking and evaluating the structure of the obtained factors in the exploratory factor analysis. Cronbach's alphas were calculated to estimate the reliability coefficient of each subscale of challenging factors facing TEFL MA students and the internal consistency of the questionnaire.

Finally, Structural Equation Modeling (SEM)

was applied to present a comprehensive model of the challenges using the software AMOS 23. In this study, it was attempted to draw up the measurement models in accordance with the earlier factor analytical designs. Next, the various latent variables were combined into a full structural model on the basis of the correlational and regression analysis conducted at previous phases of the research. Finally, the proposed SEM model was tested to identify a structural model that fits the data using the Goodness-Of-Fit indexes (GOF).

RESULTS

Reliability of the PC-EFL-ST Questionnaire

One of the main requirements of any research process is the reliability of the instrument used (Strube, 2000). To check the reliability of the designed questionnaire, Cronbach's alpha index was utilized. This coefficient estimates the internal consistency of the questionnaire which means the degree to which the items comprising a measure covary or are interrelated (Strube, 2000). Other than examining the internal consistency of the questionnaire, Cronbach's alpha analysis determines how each item individually contributes to the reliability of the questionnaire (Field, 2009). When an item deletion increases the value of the alpha to a large extent, one should consider the deletion of that item (Pallant,2007).

Generally, a questionnaire with an α of 0.8 is considered reliable (Field, 2009). Based on the obtained results, the total reliability coefficient for the questionnaire was estimated as 0.835 and thus considered as reliable. However, a closer look at the outcomes showed that all the Cronbach's alpha values if item deleted were equal or lower than the obtained reliability coefficient except for two items (Some students have entered the graduate program simply because of the pressure from family, environment or rivalry and do not have the necessary motivation to study) and (Personal issues such as marriage, having children, employment, illness (the student or the family members), etc. may negatively affect students' learning quality). The exclusion of each



of these items could add the amounts of 0.079 and 0.067 to the total reliability coefficient of the instrument (alpha if deleted= 0.914 and 0.902), respectively. After a careful review of the students' answers, it was concluded that most of the students did not agree with these two items as part of the challenges they faced and these questions seemed to be inconsistent with the other items of the questionnaire. Consequently, the two items were deleted and the total reliability coefficient of the instrument increased from 0.835 to 0.917. From this point on all the statistical calculations were conducted based on a questionnaire with 32 items.

Construct Validity of the PC-EFL-ST Questionnaire

In this study, exploratory factor analysis (EFA) was used as a tool to assess the construct validity of the questionnaire. Many researchers consider construct validity as the main validity which en-

compasses both criterion and content validity (e.g. Sheperd, 1993; Anastasi, 1986). Using EFA, the factors that underlie a set of variables are identified and it is determined whether these factors are correlated or uncorrelated.

In this research, using the principal component analysis and the Varimax rotation, the coordination of the 32 items of the questionnaire to the obtained factors in 180 observations was investigated. The criterion for deletion of each item was its communality extraction, in a way that each item having a communality extraction of less than 0.5 should have been excluded. Furthermore, in order to extract the latent components or factors, Kaiser's criterionofeigenvalues greater than 1.0, the parallelanalysisperformedthroughastatistical programcalledMonte CarloP-CAforParallelAnalysis (Pallant, 2007), and item factor loadings more than 0.4 (Field, 2009) were utilized.

Table 1.

| No – | | Factors | | | | | Communalities Extraction |
|------|-------|---------|-------|-------|-------|-------|---------------------------|
| No – | 1 | 2 | 3 | 4 | 5 | 6 | - Communanties Extraction |
| Q1 | 0.702 | | | | | | 0.585 |
| Q2 | | | | 0.772 | | | 0.798 |
| Q3 | | 0.709 | | | | | 0.803 |
| Q4 | | | 0.655 | | | | 0.619 |
| Q5 | | | | | | 0.622 | 0.760 |
| Q6 | 0.697 | | | | | | 0.628 |
| Q7 | | | | 0.646 | | | 0.601 |
| Q8 | | | | 0.629 | | | 0.617 |
| Q9 | 0.676 | | | | | | 0.728 |
| Q10 | | | 0.706 | | | | 0.694 |
| Q11 | | 0.733 | | | | | 0.605 |
| Q12 | | | | 0.504 | | | 0.504 |
| Q13 | | 0.686 | | | | | 0.560 |
| Q14 | 0.506 | | | | | | 0.558 |
| Q15 | | 0.658 | | | | | 0.679 |
| Q16 | | | 0.762 | | | | 0.511 |
| Q17 | 0.547 | | | | | | 0.541 |
| Q18 | | | | | | 0.573 | 0.593 |
| Q19 | | | | 0.636 | | | 0.654 |
| Q20 | 0.489 | | | | | | 0.731 |
| Q21 | | | | | 0.638 | | 0.763 |
| Q22 | | 0.453 | | | | | 0.624 |
| Q23 | | | | 0.475 | | | 0.792 |
| Q24 | | | | 0.674 | | | 0.741 |
| Q25 | | 0.477 | | | | | 0.595 |



| 32 | | Development | and Validation of an Instrument Exp | loring Factors Challenging |
|-----|-------|-------------|-------------------------------------|----------------------------|
| Q26 | | | 0.701 | 0.613 |
| Q27 | 0.449 | | | 0.750 |
| Q28 | | 0.505 | | 0.615 |
| Q29 | | | 0.517 | 0.766 |
| Q30 | | | 0.886 | 0.781 |
| Q31 | | | 0.483 | 0.802 |
| Q32 | | 0.471 | | 0.737 |
| | | Loadings un | der 0.4 are not shown | |

Extraction Method: Principal Component Analysis.Rotation Method: Varimax with Kaiser Normalization.

Table 2. Variance Explained by each Factor

| Total Variance Explained | | | Facto | ors | | |
|--------------------------|--------|--------|--------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Initial Eigenvalues | 12.858 | 5.203 | 3.863 | 2.945 | 2.437 | 1.955 |
| %of Variance | 16.431 | 15.294 | 12.723 | 10.771 | 10.271 | 7.564 |
| Cumulative% | 18.431 | 31.725 | 44.448 | 55.219 | 65.490 | 73.054 |

As shown in Table 1 above, the principal component analysis of the questionnaire regarding the problems faced by student-teachers revealed the presence of six components. Prior to factor extraction, the correlation matrix was evaluated for the sampling adequacy by means of Kaiser-Myer-Olkin (KMO) measure and Bartlett's test. In this respect, the overall sampling adequacy was met (KMO equals to 0.752). In addition, significant (at P = 0.000) Bartlett's test of sphericity (H0: correlation matrix is an identity matrix) confirmed substantial correlation among the variables, justifying the application of factor analysis.

To aid in the interpretation of the six components, the Varimax rotation was performed. The rotated solution revealed that the factor loadings were from 0.449 to 0.886 having a greater value of the benchmark 0.4 and all the obtained communalities were above 0.5. Hence, none of the items were required to be removed from data analysis. A review of the factor solutions of the subscales of the questionnaire demonstrated that all the individualitems (as indicators of latent factors) showed nearly acceptable loadings on the six underlying factors and that they had loaded on their relevant factors.

In addition, using Kaiser's criterionof the eigenvalueof1andabove as shown in Table 2 above, it was revealed that all the obtained factors had an eigenvalue exceeding 1 and totally 73.054 percent of the variance was explained by these six factors. The results of parallel analysis also showed that all the component eigenvalues exceeded the corresponding criterion value for a randomly generated data matrix of the same size (6 variables*180 respondents) as demonstrated in Table 3 below.

| ComparisonofEi | genvaluesfromPCAan | dCriterionValuesfrom | ParallelAnalvsis |
|----------------|--------------------|----------------------|------------------|
| | | | |

| 1 0 0 | • | · · | |
|-----------|-------------------|----------------------|----------|
| Component | Actual eigenvalue | Criterion value from | Decision |
| Number | from PCA | parallel analysis | |
| 1 | 12.858 | 1.253 | Accept |
| 2 | 5.203 | 1.128 | Accept |
| 3 | 3.863 | 1.035 | Accept |
| 4 | 2.945 | 0.951 | Accept |
| 5 | 2.437 | 0.865 | Accept |
| 6 | 1.955 | 0.767 | Accept |

The next step was to name each factor based on the variables which had loaded highly on the respective factors using EFA. The six factors are shown in Table 4 below:

Table 4.

Explanation of the Six Factors Obtained from EFA

| Factors | Explanation |
|---|--|
| Problems with teachers | This is the label of the first factor which consists of seven items. Items 1, 6, 9, 14, 17, 20 and 27 measure the challenges posed by teachers. The items include issues such as teachers' method of teaching, behavior, and amount of knowledge |
| Lack of educational facilities and amenities | This factor is concerned with the different facilities which are provided by the universities such as research, accommodation, and dining facilities. The items loaded under this factor are numbers 3, 11, 13, 15, 22 and 25 |
| Financial problems | The third factor loaded is concerned with the financial problems that the stu- dents face. The five items comprising this factor are numbers 4, 10, 16, 28 and 32, respectively. Such problems relate to the high cost of tuition, educational expenses as well as the low amount of educational loans and allowance |
| Problems with educational planning and curriculum de- velopment | The fourth factor of the questionnaire consists of seven items which refer to the challenges presented by an inefficient curriculum as well as poor educational planning. Items 2, 7, 8, 12, 19, 23, and 24 measure problems related to the issues such as the presented courses, their allocated time, and the MA entrance exam |
| Problems with peers | The fifth factor called refers to the challenges caused by the students' class- mates such as their misbehavior or low level of knowledge. The four items of this factor include items 21, 26, 29, and 31, respectively |
| Personal and social problems | The last factor refers to the challenges presented by the factors irrelevant to the educational system. Some of these difficulties include problems with the commute, future occupation and staying away from the family. Items 5, 18 and 30 measure this factor |

For the purpose of ease of use and comparison, each of the obtained factors is provided with a recommended abbreviation as shown in Table 5 below.

Table 5.

| Abbreviations | Latent Variables (factors) |
|---------------|--|
| PT | Problems with teachers |
| LEF | Lack of educational facilities and amenities |
| FP | Financial problems |
| PEC | Problems with educational planning and |
| FEC | curriculum development |
| PP | Problems with peers |
| PSP | Personal and social problems |

The Abbreviations Selected for Each Factor

Validity and Reliability of the Conceptual Latent Variables

To assess the internal consistency and validity of the obtained latent components, Cronbach's alpha coefficient, Average Variance Extracted (AVE) and Composite Reliability (CR) were calculated. The composite reliability measures the extent to which a set of latent construct indicators share in



their measurement of a construct, whilst the average variance extracted is the amount of common

variance among latent construct indicators (Hair, Black, Babin& Anderson, 2010).

| Validity and | Validity and Reliability of the Presented Factors | | | | | | |
|--------------|---|-------|-------|-----------------|--------|--|--|
| Factors | Cronbach's alpha | AVE | CR | No of questions | Sample | | |
| РТ | 0.826 | 0.523 | 0.812 | 7 | 180 | | |
| LEF | 0.854 | 0.613 | 0.829 | 6 | 180 | | |
| FP | 0.717 | 0.544 | 0.727 | 5 | 180 | | |
| PEC | 0.823 | 0.509 | 0.777 | 7 | 180 | | |
| PP | 0.799 | 0.702 | 0.781 | 4 | 180 | | |
| PSP | 0.822 | 0.762 | 0.756 | 3 | 180 | | |

Table 6.

| Validity and | l Reliability | of the | Presented | Factor |
|--------------|---------------|--------|-----------|--------|
|--------------|---------------|--------|-----------|--------|

As presented in Table 6 above, the reliability coefficient estimates for the factors range from 0.717 to 0.854 demonstrating an acceptable value of reliability for each factor. Furthermore, each construct's AVE is larger than 0.5 and each construct's CR is larger than 0.7. Subsequently, it can be confirmed that the items measure just one construct and the construct's reliability and convergent validity are fulfilled.

Confirmatory Factor Analysis and Testing the Model Fitness

Prior to conducting CFA, in order to check the sampling adequacy and factorability of the correlation matrix, KMO (Kaiser-Meyer-Oklin) and Bartlett's Test of Sphericity were conducted. The KMO value was .786 exceeding the recommended value of .6, and Bartlett's Test of Sphericity reached statistical significance supporting the factorability

of the correlation matrix.

With respect to examining the nature, relations, and structure of the obtained factors and confirming the conceptual model presented by EFA, a confirmatory factor analysis was performed and *t*-values, and squared multiple correlation coefficient (\mathbb{R}^2) for all the six factors were presented. The results of the CFA for all the factors showed that the items were meaningful in their own latent factor having a significant pvalue. In addition, the standardized estimate of each of the questions showed their relative importance as an index in measuring each factor.

After checking the items loaded under each latent variable, a second order factor analysis was performed to examine the presented latent variables for the conceptual model of factors challenging student-teachers. The results of this analysis are shown in the following table.

Table 7.

| The Amount of Standardized Estimate, | , Squared Correlation, and | <i>T-value of the Conceptual Model</i> |
|---------------------------------------|----------------------------|--|
| · · · · · · · · · · · · · · · · · · · | , 1 | ······································ |

| The conceptual model | Factors | Standardized Estimates | \mathbb{R}^2 | <i>t</i> -value | <i>p</i> -value |
|-------------------------|---------|------------------------|----------------|-----------------|-----------------|
| | PT | 0.79 | 0.62 | 6.709 | < 0.0001* |
| | LEF | 0.87 | 0.76 | 6.789 | < 0.0001* |
| Factors Challenging EFL | FP | 0.64 | 0.41 | 7.919 | < 0.0001* |
| MA Students | PEC | 0.93 | 0.86 | 7.450 | < 0.0001* |
| | PP | 0.78 | 0.61 | 6.816 | < 0.0001* |
| | PSP | 0.71 | 0.50 | - | |

Significant at the 0.05 level

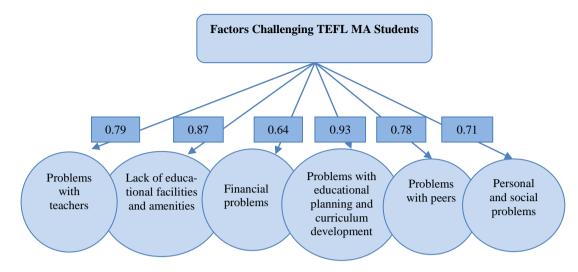


Figure 1: The path diagram of the conceptual model, standardized estimates

The results of the second-order factor analysis for the conceptual model show that all the extracted latent structures are meaningful in the main factor, having a significant *p*-value. Furthermore, the squared multiple correlation coefficient (\mathbb{R}^2) for the PT, LEF, FP, PEC, PP, and PSP are 0.62, 0.76, 0.41, 0.86, 0.61, and 0.50 demon strating that 62%, 76%, 41%, 86%, 61% and 50% of the variance in the main structure are explained by these latent factors, respectively. The standardized estimate of each of the latent factors PT, LEF, FP, PEC, PP, and PSP shows their relative importance as an index in measuring the main factor.

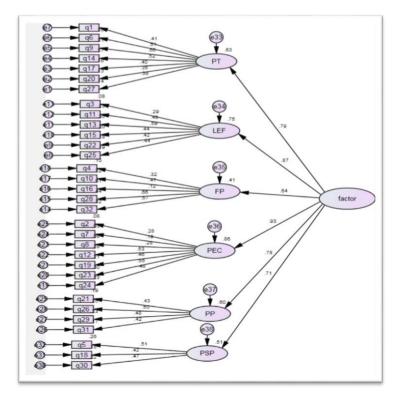


Figure 2: Hypothesized second-order model of factorial structure for the 'factors challenging TEFL MA students' model.

Using SEM, the study conducted an assessment of the overall fit model for the presented structural model of 'factors challenging TEFL MA students'. Several fit indices were selected: the ratio of CMIN to degree of freedom, the Root Mean Square Error of Approximation (RMSEA), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Comparative Fit Index (CFI), the Normed Fit Index (NFI), the

Model Fit Indexes for the Presented Model

Incremental Fit Index (IFI), and the Tucker-Lewis Index. As shown in Table 7, all the fit indexes exceeded the acceptable fit thresholds except the Incremental Fit Index (IFI), which is very close to the given threshold. Hence, the presented model fitted the data and demonstrated an acceptable goodness-of-fit having a six-dimensional structure.

| RMSEA | GFI | AGFI | CFI | NFI | IFI | TLI |
|----------|----------|--------------------------------------|--|--|--|--|
| 0.059 | 0.974 | 0.855 | 0.982 | 0.911 | 0.865 | 0.955 |
| < 0.080 | >0.900 | >0.800 | >0.900 | >0.900 | >0.900 | >0.900 |
| Suitable | Suitable | Suitable | Suitable | Suitable | Unsuitable | Suitable |
| | 0.059 | 0.059 0.974 <0.080 | 0.059 0.974 0.855 <0.080 | 0.059 0.974 0.855 0.982 <0.080 | 0.059 0.974 0.855 0.982 0.911 <0.080 | 0.059 0.974 0.855 0.982 0.911 0.865 <0.080 |

After extracting and confirming the latent structures of the model, a series of one-sample t-tests were used to determine the effectiveness of each structure comparing the means with a normal distribution. The results of the one-sample t-tests with a 95% confidence level revealed that there is a significant difference

between the mean of each factor and the assumed mean of 3 (μ_i = 3). Hence, as all the variables are higher than 3, the null hypothesis (H0) is rejected and all the variables have an appropriate status (Table 9).

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• H_0: \mu_i = 3
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 $\boxdot H_1: \mu_i \neq 3$

Table 9.

| Results of One-sample | T-test for Latent | Factors Effectiveness |
|------------------------------|-------------------|-----------------------|
|------------------------------|-------------------|-----------------------|

| | Test Value = 3 | | | | | | |
|-----------|----------------|----------------|-----------------|-----|-----------------|--|--|
| Factors - | Mean | Std. Deviation | <i>t</i> -value | Df | <i>p</i> -value | | |
| РТ | 3.47 | 0.60 | 21.347 | 754 | < 0.0001* | | |
| LEF | 3.58 | 0.59 | 27.222 | 754 | < 0.0001* | | |
| FP | 3.97 | 0.54 | 49.361 | 754 | < 0.0001* | | |
| PEC | 3.45 | 0.56 | 21.931 | 754 | < 0.0001* | | |
| PP | 3.71 | 0.68 | 28.708 | 754 | < 0.0001* | | |
| PSP | 3.91 | 0.68 | 36.602 | 754 | < 0.0001* | | |

* Significant at the 0.05 level

DISCUSSION AND LIMITATIONS

With the growth of students' interest towards attending graduate and postgraduate programs, there seems to be a need for a comprehensive investigation and evaluation of these programs, to verify their quality of training as well as the efficacy of their graduates. The present study designed a 32-item scale investigating the challenges TEFL MA students face during their studies and presented amodel for these challenges. The questionnaire was piloted on 180 participants and its reliability, construct validity, and convergent validity were explored using Cronbach's Alpha, exploratory factor analysis and Average

Table 8.

Variance Extracted (AVE), respectively. The first draft of the questionnaire was designed to have 34 items. However, Cronbach's alpha analysis made it clear that deletion of two items would increase the reliability of the questionnaire to a large extent. The last version of the questionnaire having 32 items was shown to have acceptable levels of reliability and validity.

In addition, six underlying factors called 'problems with teachers', 'lack of educational facilities and amenities', 'financial problems', 'problems with educational planning and curriculum development', 'problems with peers', and 'personal and social problems' consisted the underlying structure of the questionnaire which were shown to be the extracted latent variables of the model of factors challenging student-teachers. Problems that student-teachers experienced with their teachers included issues such as teachers' poor quality of teaching, misbehavior, inadequate knowledge, discipline, and strictness. Having an awareness of as well as addressing such problems can certainly influence the students' educational achievement. Therefore, considering courses such as "classroom management and/or strategies enhancing interpersonal teacher-student relationship" to the EFL teacher education curriculum can have great value and importance (Wei, Zhou, Barber & den Brok, 2015, p.141). On the other hand, the previous positive or negative experiences of student-teachers as learners can have a significant influence on their future experiences as a teacher as well as their professional development (Davin, Chavoshan, & Donato, 2018). Consequently, teacher education programs should consider the importance of such experiences by having their teacher candidates to critically reflect on these past experiences (Moodie, 2016). This fact makes the role of teacher educators even more transparent. The second challenge that is 'lack of educational facilities and amenities' encompassed issues like availability of resources, equipment, as well as dormitory and dining facilities. Availability of the required educational facilities is of utmost importance in any level of education, especially in higher education. While

the quality of higher education depends on the provided facilities, lack of such infrastructures can certainly threaten the attainment of the desired quality (Asiyai, 2013). Inadequate funding and financial constraints with regard to both student-teachers and higher education is a challenge prohibiting academic excellence. On the one hand, student-teachers have to deal with educational expenses such as tuition, buying books, copying, printing, and dormitory rent. On the other hand, universities are under a lot of cost pressure being short of funds for the payment of research grants and allowances or decreasing the amount of tuition (Johnstone&Marcucci, 2007). Another challenge that the participants encountered was problems with the planning of courses and curriculum of teacher education program. They believed that the program suffered from several deficiencies including lack of attention to the practical aspect of teaching, and unsuitable entrance exam, courses, and course contents. The curriculum used in teacher education programs in Iran is mostly centralized and developed by the experts in the Ministry of Science, Research and Technology. However, based on the obtained results of this study the student-teachers did not believe that the presented curriculum for the teacher education program was suitable and in accordance with their needs. This situation might be best expressed as the gap between theory and practice. The curriculum developers and course designers in the Ministry of Science, Research and Technology in Iran seem to have an intention of providing generalized information for a broad audience which is sometimes too vague to implement. What seems to be missing in this type of planning and designing courses is having an indepth knowledge of student-teachers' situation and requirements for their future profession rather than just presenting them with a series of theoretical expertise. There are a series of activities that could enhance the current situation. For example, education authorities could "explore compatible teacher curriculum approaches with their reform agendas in order to enhance curriculum implementation" and educational policy-



makers could "adopt a broad curriculum approach which provides core skills and concepts that teachers address in their own ways" (Shawer, 2010, p.182). Moreover, school administrators could permit teachers to use various resources other than the one presented by the curriculum so that they can "assess, develop, and report curriculum constraints and identify their contribution to curriculum development" (Shawer, 2010, p.182). Another source of challenge for the participants of the study was being compelled to cope with their classmates' misbehavior as well as their lack of adequate proficiency and knowledge. "Peer effect can have both negative and positive social effects on students' educational production" (Moiinvaziri&Razmjoo, 2016). Peer interaction can provide student-teachers with the resources that could enhance their professional agency through expansion of emotional processing such as reflection on one's development and failure (Toom, Pietarinen, Soini, & Pyhältö, 2017). However, it is one of the issues that its measurement is pretty difficult due to the limitations of data and methodology (Burke & Sass, 2013) and requires further attempts to uncover its effects on students' academic progress. The last challenge student-teachers faced was related to their personal and social problems. Pre-service teachers might experience some challenges due to the demands of an unfamiliar situation, stress of work, or some other personal reasons irrelevant to their academic life. Nevertheless, these problems could interfere with individual students' motivation to exert sufficient effort in the fulfillment of the objectives of their courses and sometimes in an extremely difficult situation these complications might result in their withdrawal from the university. One of the most dominant issues in this regard could be demotivation caused by students' concerns for their future job opportunities and income. Salary and job security can act as a stressor that could result in the poor educational performance of student-teachers (Sadeghi&Sa'adatpourvahid, 2016). Consequently, teacher education programs should not just be limited to the educational aspects of training and

it is necessary to enhance their quality by finding remedies for student-teachers' personal and social problems. Some of these remedies might include training student-teachers in stress management mechanisms to help them cope with their social and environmental stress, helping them develop their own life skills, as well as cooperating with the authorities to provide them with the necessary incentives like future career opportunities with promising income.

Although this study was an attempt to present a complete and thorough image of the diverse difficulties and obstacles student-teachers majoring in Teaching English as a Foreign Language (TEFL) experience during studying for their Master's degree, there are some limitations that need to be considered. First, because of time limit, the participants were selected only based on being MA students of TEFL. Consideration of other demographic factors such as their gender, marital status and job status might have revealed interesting findings. Furthermore, this study was conducted only on the students majoring in TEFL Master's program. It is believed that this study can be of use to the student-teachers majoring in other fields as well as other programs. Finally, as there was lack of prior and relevant knowledge on the topic of the study, the research design was mostly exploratory rather than explanatory and there were no comparison of findings to those from previous studies.

CONCLUSION

The aim of this study was to design and validate a questionnaire exploring the hurdles faced by Iranian TEFL MA candidates and present a model for these difficulties. "Developing a model followed by constructing a reliable and valid questionnaire canbe very helpful for doing large-scale surveys" (Khatib&Rezaei, 2013). In addition, presenting a model further extends and verifies the factors obtained from the developed questionnaire and shows if the parameters fit the data gathered from it.

Based on the findings, the designed questionnaire was shown to have acceptable levels of reliability and validity and as the next step, the outcomes were analyzed using SEM to confirm the factor structure of the latent variables in the presented model and to verify the adequacy of model fit to data. The obtained model was also shown to enjoy a reasonable degree of reliability and validity as confirmed by the statistical indices from SEM. In other words, it was proved that the model exceeded minimum cut-off values for the indices and was considered as a valid tool.

As the designed questionnaire was the first one to be developed for exploration of the mentioned topic in Iran, it can be used as a significant tool for future research in the area of improving the effectiveness of higher education. This instrument can be adopted by teacher educators and educational stakeholders and trainers to enhance the educational, environmental, and individual aspects of teacher education. Having a thorough understanding of different challenges faced by students can assist the institutions of higher education in offering services that meet the personal, psychological, social, and educational needs of their students as well as in taking comprehensive initiatives to incorporate different domains of academics, learning, career, treatment, finance and psychology of the local context into their training of student-teachers.

In addition, this study not only has provided a great source of valuable information for those involved in teacher education as well as the Ministry of Science, Research and Technology, but also a foundation for conducting further research on various ideas discussed. Each of the mentioned challenges alone requires comprehensive research to investigate its sources and find its appropriate solutions.

One of the areas which can certainly require further inquiry is the interrelationships among the different latent variables of the study. It is always important to reach the root of a problem. Although exploring the challenges facing Iranian TEFL MA candidates resulted in six independent categories, further research on these factors might reveal some underlying relationships among them. The direct and/or indirect effects of some variables over others might be the underlying origin of a specific challenge. Therefore, research in this regard cannot be confined to this point. There should certainly be further investigation into these interrelationships to meet the presented challenges with the best possible solution.

Finally, it is hoped that the findings could have the potential to provide a drive for further exploration in the areas of language teacher education, proper preparation of student-teachers for their induction years, bridging the present gap between pre-service teacher education and inservice teacher development, and diminishing the problems that graduate students are confronted with.

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Biodata

Dr Marjan Moiinvaziri is an assistant professor of Teaching English as a Foreign Language (TEFL). She received her bachelor's and master's degree in TEFL from Bahonar University. She received a PhD degree in the same field from Shiraz University. She is currently a faculty member of Islamic Azad University of Sirjan. She has worked on several research projects in relation to the strategy use, motivation, assessment, and teacher training, which were published in national and international journals. She has more than seventeen years of teaching experience. Her areas of interest include psychological and sociocultural factors in language teaching and learning.

Email: moiinvaziri@iausirjan.ac.ir

Appendix: PC-EFL-ST Questionnaire

Dearstudents,

The followingquestionnaireaskssome questionsregarding "thechallengesfacing EFL MAcandidates". Yourcarefulanswerswill provide a greathelp inreachingthe research goals. Notethatyou maynothave experienced some of the casesyourself, butyour classmatesand otherstudentsmighthave such problems. Therefore, while answeringthe questions, tryto consider the general condition of the students and not justyour own situation. Be assured that your responses will remain confidential to the researcher. Thank you so much foryour cooperation.

| | Questions | Stron gly disa- gree | Disa- gree | To som e ex- tent | Agr ee | Stron gly agree |
|----|---|-------------------------------|---------------|-------------------------------|-----------|-----------------------|
| 1 | Teachersmostlyemphasizethetheoreticalaspectsofthe cours- es,butthepracticalaspectsare notconsidered. | | | | | |
| 2 | Theallocatedtimeandcreditto theconstructivecourses is verylim- ited. | | | | | |
| 3 | Studentdormitorydoesnotprovidetherequired facilities. | | | | | |
| 4 | Therateofstudentloansisnotenoughto solvestudents' finan- cialproblems. | | | | | |
| 5 | Commutingto anothercityis problematicfor non-local students. | | | | | |
| 6 | Someteachersdo notbehaveappropriatelytowardsthe students. | | | | | |
| 7 | Classesareusuallyheldontwo successivedaysandthese consecu- tiveclasseshavea negativeeffectonstudents' performance. | | | | | |
| 8 | Alargenumberofcoursesare offered in the first two semesters and students are not able to fully learn them. | | | | | |
| 9 | Someteachersdo nothavethenecessaryknowledgein their- domainofteaching. | | | | | |
| 10 | Thecostsofaccommodation, meals, tuition, books, travel, etc. are too high. | | | | | |
| 11 | Thenecessaryfacilitiesfordoingresearchsuchasaccess to high- speedInternet,sitesofacademicjournalsandup-to- datelibraryresourcesarenotavailable. | | | | | |
| 12 | The curriculum designed for the Master's degree is mostly fo- cused on the ore tical aspects and the practical aspects are ignored. | | | | | |
| 13 | The university'scopycenterandcomputersitesare not equippedwithhigh-techandmodernequipment. | | | | | |
| 14 | Someteachersdo nottakesufficientadvantageofclass time.(e.g.arriving late and leaving early, wastingtimeon non- academicissues,etc.) | | | | | |
| 15 | Universitycafeteriadoesnot offersatisfactory services. (e.g.foodquality,foodvariety,staffperformance,ambience) | | | | | |
| 16 | Earningmoneyalongsidestudyinghasa negativeeffectonstu- dents'learningoutcome. | | | | | |
| 17 | Teachersare notreadilyavailableto studentsinorderto guidethem.(e.g.theyare notintheirofficesanddo not respondto | | | | | |



| | students'questionsregardingtheirtheses) |
|----|---|
| 18 | Lackofjobsand sufficientincomereducesstudents' motivation- |
| 10 | instudyingandlearning. |
| 19 | Absenceofpredeterminedresourcesinthe MAentrance examre- |
| 1) | sultsin an inappropriateselection of students. |
| 20 | Someteachersdemanda lotofresourcesandassigntoo much work- |
| 20 | fora givencourse. |
| | Somestudentshavebadmannersandtheirlackof cooperationcre- |
| 21 | atesproblemsfortheothers.(e.g.,lackof cooperationindetermin- |
| 21 | ingassignmentsortestdates, behavingarrogantlyand not |
| | sharingtheirknowledge withtheirpeers) |
| | Studentsdo notreceiveanycollaborationfromthe universityau- |
| 22 | thoritiesto conductresearchprojectsor workontheirdisserta- |
| | tion.(e.g.thepossibilityto teach classesatuniversitiesor schools) |
| | Someofthecoursesofferedatthe graduatelevelare not suitableo- |
| 23 | ruseful.(Forexample, no courses in relation to personal psychol- |
| | ogyand knowledgeofhowto deal withstudentsareprovided.) |
| 24 | The MAentranceexamforTEFLis notappropriateinterms of con- |
| 24 | tentand formofquestions. |
| | The studentautomationsystem(students'personalpageon theUni- |
| 25 | versityweb- |
| 25 | site)isnotefficient,informativeorveryeffectiveinreducingreferrals |
| | for administrative affairs. |
| | Somestudents'lowlevelsofknowledge especiallyin GeneralEng- |
| 26 | lishand skillsofreading, writing, listening and speaking have an |
| | undesirableeffectontheir classmates'qualityoflearning. |
| | Offeringa course withtwoteachersofdifferentlevelsof strict- |
| 27 | nesscausesthestudentsofthemorerigorous teacherto experiencea |
| | senseofinjusticeand discrimination. |
| 20 | No allowanceisavailablefordoingresearchand preparing the the- |
| 28 | sis, or the allocated amount is very small. |
| | Thehighrateofadmissionin the Master's degree results in the ac- |
| 29 | ceptanceof studentswhodo nothavethe necessary knowledge- |
| | andability. |
| 30 | Beingawayfromthefamilyis problematicfor non-local students. |
| | Thepossibilityofpeoplewithnon-Englishdegreesto partici- |
| 31 | pateinthe TEFLMAexam results in the admission of students with- |
| | lowlevelsof knowledgeandability. |
| 32 | Verylowor no extraallowanceisprovidedbythe universityfortyp- |
| | ing, printing and copying expenses. |
| | |

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