



**Gaps between Acquired and Required Teacher Education Graduate Attributes:
Does Accreditation Influence in Pakistan?**

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ABSTRACT

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Purpose: The major purpose of the present study was to identify the gaps between acquired and required graduate attributes of pass out graduates of teacher education programs in Pakistan and investigate the influence of program accreditation on these gaps. **Research Method:** A quantitative research method was used to achieve the research objectives. 160 graduates of the accredited and non-accredited master level teacher education programs associated with 24 different universities in Punjab and Islamabad Capital Territory participated in the study. A questionnaire based on national professional standards for teachers (NPSTs) in Pakistan was developed to collect the data. **Findings:**

The study demonstrates that the participants' acquired attributes do not match the required attributes of their job. The gaps between acquired and required graduates' attributes are comparatively smaller among the graduates of accredited programs. The study supports the positive effects of accreditation on the output of teacher education programs. **Implications for Research and Practice:** The findings of this study strengthen the idea that a well framed accreditation mechanism positively influences the products of professional programs. Further research may be conducted on making teacher education accreditation programs more effective in Pakistan with respect to the graduate attributes.

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Introduction

At present, higher education institutions (HEIs) are being transformed due to the expansion of the higher education provision, internationalization, advance technology, and expansion of employability. These changes are influencing the requirements of stakeholders. The massive growth of HEIs and students has compelled the HEIs to make arrangements for meeting the requirements of all stakeholders, including employers and investors, to ensure that their graduates are equipped with necessary graduate's attributes (Oliver & Jorre de St Jorre, 2018). However, researches demonstrate that it is difficult to predict the development of graduate attributes in students (Glover & Hope, 2015). The universities are supposed to assure the proficiency of graduates by developing the necessary professional and personal attributes. Several studies been done to explore the development of graduate attributes in association with the institution and program accreditation. Accreditation agencies judge the quality of programs and institutions to the quality assurance of graduates as per pre-defined standards. However, less attention is paid to exploring graduate attributes development and assessment in the field of teacher education in Pakistan. In the present study, researchers explore the perceptions of university graduates about their acquisition and requirement of attributes for work place. The value of required graduate attributes development through accredited teacher education programs is also discussed in the study.

The term "graduate attributes" is interchangeably used to refer competencies, qualities, employability skills, generic attributes, transferability, and learning outcomes (Nassef, 2016; Shivoro, 2018). Researchers, industrialists, and practitioners are more concerned about the relevance of higher education with the job market through contemporary graduate attributes. Since that the students' education and training in tertiary institutions are emphasized more than before. The productive development of graduates for the dynamics of the working world is the first priority of universities (Oladokun & Olaleye, 2018). Knowledge, skills, and dispositions along with good citizenship behaviors are considered valuable as program outcomes (Marsh & De Luca, 2016).

The development and implementation of graduate attributes is based on several commonalities including organizational culture, resources, strategies, curriculum design, teaching, and general institutional supports available to the students (Bond et al., 2016). In the teacher preparation, the attributes of an exemplary teacher entail professional and personal attributes (including knowledge, skills, values, competencies, and devotion) that are needed to fulfil the requirements of the teaching profession. The range of graduate attributes in teacher education has been subject of research (McInerney, Korpershoek, Wang, & Morin, 2018). The main purpose of teacher education is to promote professional development, training, and the education of educators. The area of teachers' knowledge and its practice in the classroom is generally neglected (Czerniawski et al., 2018). Since the quality of education directly depends on the quality of educators, the quality of teaching can be effectively developed preparing competent and potential graduate teachers. For this purpose, the

professional standards of teachers are directly linked with the curriculum of teacher education (Révai, 2018).

The employers' expectations are not always aligned with the curriculum of higher education (Kaushal, 2016). Most of the time, the employers complain that the graduates lack attributes that are necessary for their professional development (Grant Thornton Consulting, 2016; Nassef, 2016). Employers expect that graduates to be equipped with technical competencies, and a broader range of relevant attributes. Currently, the HEIs pay much attention to producing distinctive quality attributes in graduates, such as, qualification, discipline knowledge, discipline skills, innovation, competency, and intellectuality from global point of view.

Concerning the conditions in higher education, it is need that the quality assurance organizations evaluate the relevancies of higher education, and how it contributes to developing the desired graduate attributes. Similarly, the accreditation agencies should monitor the quality of programs to foster the accepted graduate attributes. Accreditation refers to a third-party peer review to validate educational institutions and programs. It is a self-regulatory mechanism of institutional accountability. It is an apparatus to evaluate the institutions and programs (Sin, Tavares, & Amaral, 2017). Different countries have enacted legislation to categorize the graduate attributes. Such legislation also empowers the quality assurance agencies to evaluate the program outcomes (Sonnenschein, Barker, & Hibbins, 2017). In the United Kingdom, the quality assurance agency (QAA) evaluates the development of graduate attributes in higher education (Quality Assurance Agency for Higher Education, 2016). In the case of Pakistan, 189 HEIs produce a large number of graduates annually (Khattak, 2016). The burgeoning growth of tertiary institutions and graduates has placed more responsibility on the Higher Education Commission (HEC) of Pakistan and the relevant accreditation agencies. In the Pakistani model, accrediting agencies, generally evaluate programs periodically to assure the production of graduates as required at national/international level. The major objective of the HEC is to modulate appropriateness and consistency of accreditation.

The National Accreditation Council for Teacher Education (NACTE) in Pakistan places less emphasize on evaluating graduate attributes development in accrediting teacher education programs. Consequently, despite all the endeavors of the NACTE and HEC, the status of teacher education graduates is not as high as it is required to be. Research shows that 76% of employers were not satisfied with the performance of Pakistani graduates (Dodhy, 2016). Some 96% of the recruiters stated that the knowledge of graduates does not match their academic subject (Shahbaz, 2016). Despite the massive growth of higher education institutions, the quality of graduates is falling (Naveed, 2017). The present study aims to identify the gaps between acquired and required attributes of education graduates and assess the influence of the accreditation status of programs on these gaps. The study intends to answer the following research questions;

1. What are the gaps between acquired and required graduate attributes of the pass outs of MA Education/M.Ed. programs included in the sample?

2. To what extent does the accreditation of MA Education/M.Ed. programs influence on the gaps between acquired and required attributes of the graduates included in the sample?

Method

Research Design

A quantitative research design was used in this study to find the answers to the two research questions. The data were collected through survey, and a closed ended questionnaire that was administered to gather the required information. Graduates of the Master of Arts in Education and Master in Education programs who passed their final examinations in 2015 and 2016 were invited to participate in the inquiry.

Research Sample

Participants in this study included 160 graduates of the MA Education and M.Ed. programs offered in 24 public and private higher education institutions in Punjab and Islamabad capital territory. The researchers categorized the participants based on the accreditation status of their programs. Half of the participants (80) were awarded their degree from accredited MA/M.Ed. programs, while the remaining 80 participants were graduates of non-accredited MA/M.Ed. programs. Of the graduates of accredited MA/M.Ed. programs, 40% were males and 60% were females. While, 45% of the participants were graduates in 2015, while the remaining 55% were graduates in the year of 2016. At the time of data collection, 23.8% of the graduates of accredited programs were still enrolled in institutes of higher education, 38.7% were employees, and 37.5% were unemployed. From the non-accredited MA/M.Ed. programs, 20% of the graduates were male and 80% were female. Whereas, 53.8% of the participants were graduates in the year of 2015, the remaining 46.2% were graduates in the year of 2016. At the time of data collection, 26.2% of the graduates of non-accredited programs were still enrolled in institutes of higher education, 28.8% were employees, and 45% were unemployed.

Research Instruments and Procedures

In 2009, the government of Pakistan implemented a program called "Strengthening Teacher Education in Pakistan" (STEP), with the technical support of the United Nations Educational Scientific and Cultural Organization (UNESCO), and the financial support of the United States Agency for International Development (USAID). Under the umbrella of STEP, the National Professional Standards for Teachers (NPSTs) were formulated to empower the beginning and secondary level teachers (Government of Pakistan, 2009). These standards include mastery in subject knowledge, human growth and development, knowledge of Islamic values/social life skills, instructional planning and strategies, assessment, learning environment, effective communication and proficient use of information communication technologies, collaboration and partnerships, continued professional development and code of conduct, and teaching of English as a second/foreign language. These

standards were developed to define competencies, skills, and attributes of educators. Quality assurance agencies critically analyze all the factors that contribute to the quality of education and evaluate its impact on students' learning (National Professional Standards for Teachers in Pakistan, 2009). The researchers in this study have accepted these standards as required graduate attributes in teacher education.

Validity and Reliability

Experts in the field of education were requested to check the construct validity of NPSTs as graduate attributes. An average congruency percentage (ACP) approach by Popham (1978) was followed to measure the face and content validity of the self-reported questionnaire developed on the basis of NPSTs in Pakistan. The ACP > 90% of the questionnaire was understood as validated (Najafi-Sharjabad, Hajivandi, & Rayani, 2014; Popham, 1978). On the recommendations of the experts, the researchers separated the code of conduct attribute from continues professional development, separated effective communication from proficient use of information communication technology (ICT), and replaced the knowledge of Islamic ethical values/social life skills with ethical values. Twelve attributes with 36 statements under three divisions headed as knowledge, skill, and disposition were finalized. The questionnaire was validated at the 100% value of ACP. The internal consistency of the questionnaire was ensured at Cronbach's $\alpha > .7$.

Data Analysis

Inferential statistics were applied on collected data to analyze the collected data. T-tests and mean difference techniques with the help of statistical Package of Social Sciences (SPSS) version 21.0 were applied in this process. Findings of the data analysis are presented in tabulation and figures. The data analysis facilitated in finding the answers of research questions.

Results

It was found that there are significant ($p < .001$) statistical mean differences between the acquisition of graduate attributes at a teacher education institution and their perceived requirement at the work place. The graduate attributes including mastery in subject knowledge, human growth and development (HGD), ethical values, instructional planning and strategies, assessment, learning environment, effective communication, information communication technology (ICT), collaboration and partnerships, life-long learning, code of conduct, and language were assessed in the study (Table 1). The requirement for the role teacher for these graduate attributes is higher than that of their acquisition to perform satisfactorily in the field of teacher education. It can be argued that the graduates acquired attributes do not meet the employers' expectations from the master level teacher education programs.

There were significant mean differences between the graduates' acquisition and requirement with respect to the accredited and non-accredited MA Education/M.Ed. programs on every attribute (Figure 1). It was found that the gaps on the graduate

attributes of subject knowledge, HGD, ethical, instructional planning, assessment, communication, ICT, and language were higher for the non-accredited MA Education/M.Ed. programs than for the accredited MA/M.Ed. programs.

The gaps on four of the graduate attributes learning environment, collaboration, lifelong learning, and code of conduct were greater for the accredited MA Education/M.Ed. programs in comparison to the non-accredited MA Education/M.Ed. programs. The cumulative gap between the acquired and required graduate attributes for the accredited MA Education/M.Ed. programs (MD = 1.70) was lower than the non-accredited MA Education/M.Ed. programs (MD = 1.78). It was discovered that the accreditation of MA Education/M.Ed. programs influenced the acquisition of graduate attributes (eight out of twelve) more positively than for the non-accredited MA Education/M.Ed. programs.

Table 1

Comparison Between Acquired and Required Attributes of MA/M.Ed. Graduates.

Graduate attributes	Acquired		Required		MD	t (df=159)
	M	SD	M	SD		
Subject knowledge	2.91	.619	4.03	.184	-1.12	-21.84*
HGD	2.98	.820	4.60	.331	-1.62	-22.62*
Ethical values	2.10	.549	4.68	.319	-2.57	-50.76*
Planning	2.43	.850	4.73	.288	-2.30	-31.56*
Assessment	2.76	.863	4.36	.255	-1.60	-25.12*
Environment	3.08	.997	4.76	.354	-1.69	-20.08*
Communication	2.61	.007	4.47	.400	-1.86	-25.17*
Use of ICT	2.90	.991	4.42	.418	-1.53	-20.47*
Collaboration	2.44	.721	4.34	.382	-1.90	-32.56*
Life-long learning	2.53	1.00	4.34	.405	-1.81	-22.23*
Code of conduct	3.16	.838	4.26	.436	-1.10	-17.06*
Language	2.66	.784	4.61	.321	-1.95	-30.32*

Note: Environment = learning environment; Planning = instructional planning and strategies; Communication = effective communication; Collaboration = collaboration & partnerships; Code of conduct = professional code of conduct; Language = teaching of English as a second/foreign language; * = The value is significant at .05 level.

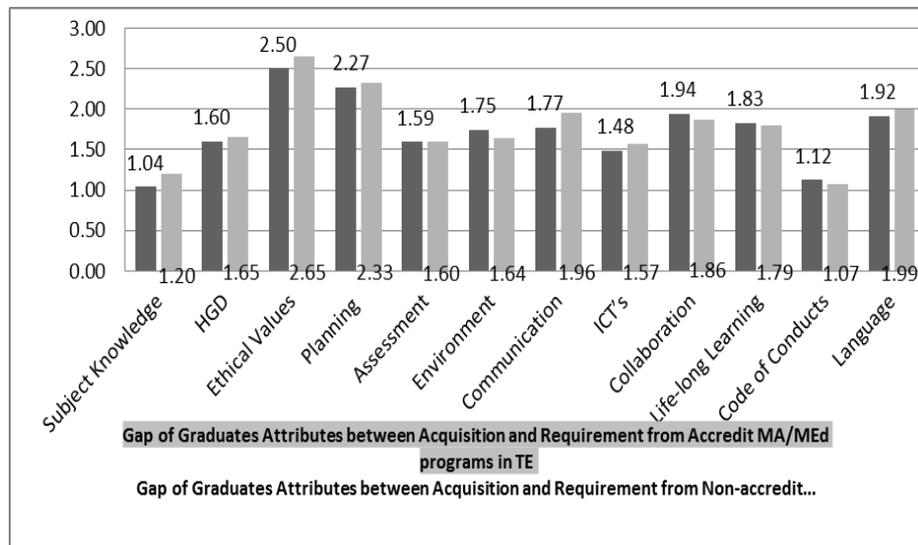


Figure 1. Comparison among the gaps of graduate attributes of the pass outs of accredited and non-accredited MA Education/M.Ed. programs

Discussion, Conclusion and Recommendations

The success in developing competent and expert teachers lies in the practices of their knowledge and skills on the job. Over the last twenty years, improving teacher education and the teaching profession have remained on the main agenda of market forces and overall development of the country (Czerniawski et al., 2018; McInerney et al., 2018). A wide range of graduates across the country enter the teaching profession. The employers need graduates who can perform well in the classroom, implementing their acquired knowledge, skills, and disposition appropriately. The current study focused on investigating the gaps between acquired and required graduate attributes through MA Education/M.Ed. programs, and the extent to which accreditation of MA Education/M.Ed. programs influence the gaps between acquired and required graduate attributes. The findings disclose varying patterns of gaps between acquired and required graduate attributes. The graduates' perceptions about their acquisition of relevant attributes reveal that their acquired attributes do not meet their perceived requirements on the working place. The findings of Hegji (2017) show that quality assurance organizations should concern themselves about students' acquired skills and learning outcomes because it enables the students to perform professionally with confidence. Li (2015), in her study, suggests that the requirements of graduates should be monitored through accreditation and that the substandard graduation of students should not be encouraged. Many employers both in and outside of Pakistan are reported to be less satisfied with the communication skills, leadership skills, self-motivation, work styles, quality, and analytical skills of graduates (Grant Thornton

Consulting, 2016; Shahbaz, 2016). This research demonstrates that the graduates themselves are less satisfied with their attributes acquired while enrolled in educational programs. Subject knowledge, professional skills, social responsibilities, ethical values, collaboration, and leadership skills are considered prime attributes for the overall development of teachers (Futerman, 2017; Oladokun & Olaleye, 2018; Osmani, Weerakkody, & Hindi, 2017; Shivoro, 2018). Communication skills and effective use of ICT enable the graduates to apply their knowledge effectively for solving teaching and learning problems more professionally (Czerniawski et al., 2018; Rowe, 2017). The current study also reveals differences between graduates' perception about their acquired and required attributes with reference to accredited and non-accredited teacher education programs. The reported gaps between acquired and required attributes of subject knowledge, human growth and development, ethical values, planning, communication, ICT, and English language, are lower among the graduates of accredited programs than the gaps of those who attended non-accredited programs. The findings of this study are consistent with the findings of Williams, Morton, Braun, Longo, and Baker (2017) who establish that accredited programs are better than non-accredited programs in terms of quality and outcomes. The gaps between acquisition and requirement of graduate attributes are higher on accredited programs in environment collaboration, lifelong learning and code of conduct in comparison to the non-accredited program. The minor differences are found between the accredited and non-accredited programs in terms of self-reported acquired and required graduate attribute in assessment.

It is explored in this study through the perceptions of participants that there are admittedly wide gaps between the acquired and required graduate attributes. While, these graduate attributes are identified as essential for the graduates to succeed in the teaching profession. Graduates' acquisition of the attributes of subject knowledge, human growth and development, ethical values, instructional planning and strategies, assessment, learning environment, effective communication, proficient use of information communication technology, collaboration and partnerships, life-long learning, professional code of conduct, and teaching of English as a second/foreign language do not meet employers' requirements to practice in the educational environment. The gaps between the all acquired and required graduate's attributes in both accredited and non-accredited master level teacher education programs were found. Furthermore, the gaps between the acquired and required graduate attributes in environment, collaboration, lifelong learning, and code of conduct are higher in accredited MA/M.Ed. programs.

The accreditation councils and higher education should assure that the graduates of accredited teacher education programs receive the desired attributes to perform well in their professional job place after graduation. It is important that the development of relevant and necessary graduate attributes should be considered a top priority by the accreditors, administrators, and policy makers. A vigorous policy for teaching faculty on continuous professional development, updated and improved teaching skills, stimuli for innovations in curriculum presentations, excellence in research, and appropriate professionalism is required to transform expected graduate

attributes in teacher education. The generalizability of the present study was limited to the sampled participants. It is suggested that a broader scale study in a new research setting should be conducted for a wider generalization of findings. Further research might also be conducted to reduce the gaps between acquired and required graduate attributes by strengthening the accreditation mechanism in the country.

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