

Standards of Excellence in Graduate Students' Dissertations in Education at a Saudi University

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Abstract

The purpose of the present study is to investigate the standards of excellence in graduate students' dissertations in educational programs at Imam Mohammad ibn Saud Islamic University (IMSIU). An inventory of standards of excellence has been conducted to 54 faculty in Saudi universities, then a questionnaire that aimed to analyze the provision of these standards in graduate students' dissertations has been conducted to 144 of faculty members and doctorate students at (IMSIU). The findings revealed the high importance of the standards of excellence associated with research originality, research methodology, theoretical framework, dissertation findings, dissertation applicability and specialization and interdisciplinary. The analysis also indicated that the standards of excellence existed in graduate students' dissertations as the responses were within the range of "agree" for all dimensions. No statistically significant differences have been found with respect to respondent (Faculty/PhD student), while differences were found with respect to specialization in research methodology, theoretical framework, findings and applicability.

Keywords: standards of excellence – dissertations/theses – graduate students – graduate education

1. Introduction

The demand on pursuing doctoral studies is rapidly increasing. Variety of factors push students and professionals to attend graduate education, either masters or doctorate. Firstly, to advance their professional knowledge and to develop practice in line with academic standards (Lee, 2011, p155). Secondly, to broaden one's chance to search out a prestigious, high-salary job and better working conditions (Mustafa, 2006). Thirdly, some students, not much, pursue graduate studies for pleasure, knowledge increase and social desirability. In many cases, doctoral holders are of significant value to organizations as they supply knowledge sharing and career progression (Bryan & Guccione, 2018).

The foremost common sort of research is dissertations and thesis of graduate students to be awarded masters or doctoral degrees. Masters and doctorate studies are within the forefront in the graduate education programs, because of their active role in the comprehensive development process, and in developing education of all kinds and stages. Moreover, they're practical training to prepare practitioners under the supervision of faculty members (Mustafa, 2004, p2).

The results of Bryan and Guccione (2018) revealed that graduates acquired significant skills from their doctorate. These included technical skills, laboratory techniques and report writing, though the most important were critical thinking and argument construction. The thesis is a "challenging endeavor that requires skills, aptitude, and determination for successful, timely completion" (Nouriet al.2019). study on doctoral students in Europe confirmed that training world-class researchers is important to make a robust scientific base that supports the European knowledge economy in the future, considering the emphasis on interdisciplinary studies and multiculturalism, as European universities must be independent and work to develop their strategies. They ought to consider methods, commitments, and therefore the organization of doctoral education in an environment that meets high international standards for research quality. Cooperation among institutions creates opportunities to realize excellence in doctoral programs (League of European Research Universities, 2007, p. 3).

Al-Bar (2009) observed that so as for researchers to be distinguished in scientific research, they must have a culture of research project concepts, which is acquired mainly through serious research work within his research career in graduate studies and beyond. Here we note the systemic linkage between the quality of graduate programs and the excellence of research project (p. 9). Hickset al. (2015) proposed ten principles to assess research.

Among them: Integrating quantitative and qualitative assessment, measuring research in the light of its pre-stated goals, protecting excellence in research, assuring the openness, transparency and ease of information collection and analysis, verification of data analysis, measuring variation by field in publication and citation practices, assessing researchers qualitatively with respect to their portfolios and updating these indicators regularly.

Frequently mentioned standards for assessing research quality include: posing a significant question that contributes to the human knowledge and linked to relevant theory, utilizing methods that address the research questions, structuring research on clear reasoning supported by relevant literature, ensuring that the study research methodology is suitable, providing sufficient description of the sample, using appropriate and reliable measurement of variables, evaluating alternative explanations for findings and adhering to quality standards for reporting (National Center for the Dissemination of Disability Research. 2006). Boaz and Ashby (2003) suggested quality criteria in four dimensions: quality and transparency in reporting, methodological quality, quality of the signal as addressing important policy and practice issues, and fitness for purpose. The research to this point, especially in Arab academia, has cared for targeting general topics like completion rates, mistakes in preparing research proposals, and research competencies instead of standards of excellent and high-quality research.

To promote the culture of dissertation excellence, many universities have launched awards for distinguished dissertations. Some awards are nationally sponsored by national organizations such as: the American Distinguished Dissertation Awards which are sponsored by Council of Graduate Schools (CGS) and ProQuest Dissertations Publishing, the Award for Excellent PhD Thesis in Psychology offered by the Australian Psychological Association, Ray Debus Award for Doctoral Research in Education offered by the Australian Association for Research in Higher Education and Canada's Distinguished Dissertation Awards offered by The Canadian Association for Graduate Studies and ProQuest. Within the Arab states there are some awards like Sharjah Award for the best Doctoral Dissertations in the field of Administrative Sciences in the Arab Region offered by Sharjah University, Anwar Al Nouri Prize for the best Doctoral Dissertation offered by Kuwait Foundations for Advancement of Sciences and also the Award of the best Doctoral Dissertations offered by King Abdulaziz University. Excellence in research of graduate students is a key requirement for developing the entire educational process. It assists honing the talents and diversifying the expertise of graduate students as promising researchers. In most universities, research excellence is employed to allocate funding to research activities within universities.

1. Statement of the problem

In light of the foregoing, the present study tries to analyse the standards of excellence that ought to exist in dissertations of graduate students in educational specializations, and the availability of these standards in dissertations of graduate students in the educational programs at (IMSIU). This research seeks to address the following subsequent questions:

- What are the standards of excellence which should exist in dissertations of graduate students in educational programs from the perspectives of faculty in Saudi universities?
- To what extent do the standards of excellence exist in dissertations and theses of graduate students in educational programs at (IMSIU) from the perspective of faculty and doctoral students?
- Are there any statistically significant differences within the responses of the two study samples (faculty members and doctoral students) regarding the existence of standards of excellence in dissertations and theses of graduate students in educational programs at (IMSIU) with respect to: respondent (faculty/student) and specialization (Foundations of Education, Islamic Education, Educational Administration and Curricula and Teaching Methods)?

2. Significance of the study

As it is of great importance to spread the culture of excellence in all told components of graduate education, the present study tries to make a listing of the standards of excellence essential for high-quality dissertations. Moreover, it tries to research the extent to which such standards are available in graduate students' dissertations in educational specializations. Excellent research products are the results of all the inputs of graduate programs: faculty members, coursework, supervision, students' competences, educational environment, human relations and management procedures. The study tries to fill the educational gap within the literature associated with graduate education within the Arab academia, as less consideration has been given to the excellence of graduate education research outputs.

The results of the study are of great benefit for all graduate programs' stakeholders as they provide them with clear vision to review, develop and maintain the processes of graduate education.

3. Literature Review

The term excellence refers to the outstanding quality or performance. It is natural that every human being looks for being excellent, which means to be "very good of its kind, eminently good, or first class" (Meriam-Webster, n.d.). It is well stated that "Excellence in writing is critical for success in many academic and professional pursuits" (APA, 2020, p xvii). Although there's abundance of literature on the completion rates and challenges facing graduate students, it's obvious that less attention has been paid to the excellence of the process of dissertation preparation. A substantial amount of literature has been published on dissertations and theses planning and conducting. Precisely, there are some moderate research products in Arab academia pertaining the defects and mistakes in the process of preparing graduate dissertation. Khalil (2006) found that there have been many mistakes committed by graduate students while preparing their research proposals. These mistakes were due to the shortage of diversification within the teaching research methods, the scarcity of practical training and therefore the contentment of theoretical teaching, and the lack of involving graduate students in criticizing proposals in seminars. The findings of AlFiqi& Taha (2013) assured that several academic and non-academic obstacles hinder graduate students at the school of Education at King Khalid University, like the dearth of use of references in languages apart from Arabic, some supervisors being unavailable when urgently needed, and the weak benefit from the courses that were studied.

While graduate students of educational studies at the Islamic University assured that they highly utilized research skills associated with statement of research problem, theoretical framework and literature review, findings and research recommendations; faculty members revealed that they moderately did that (Al-Shawawreh, 2019). In keeping with Murad (2020) graduate students' performance is full of four sorts of obstacles. Academic obstacles, which include difficulty of conducting field studies, shortage of up-to-date academic journals in college libraries and students' lack of statistical analysis for quantitative studies. Supervision related problems, like supervisor's busyness, supervisors delay reviewing student's work and conflict among joint supervisors. Administrative problems like high tuition fees, delay in administrative procedures and being pressed in time because of work. Personal and social obstacles like high cost for translation services, social and family related pressure.

A variety of factors were found to be influencing the quality of graduate students' dissertations has been explored in several studies. They can be supervision related factors; Gardner (2010) assured the large influence supervisors and mentors upon their students and should often function "gate-keeping". Mustafa (2006) emphasized the supervisory role within the process of international students' dissertations. Nouri et al. (2019) pointed out that the relation between the student candidate and the supervisor, students' attitudes and motivation, students' average entry grade, supervisor's experience, research output and workload constitute factors of graduate students' success. Di Pierro (2007) stated that the standard of supervision of graduate students was one amongst the foremost important factors affecting their distinction and excellence. Furthermore, Mustafa (2017) assured the importance of utilizing peer learning in graduate education to hone students' skills of studying and researching.

Posselt (2014) also assured that distinguished professors are a decisive factor within the excellence of graduate studies programs in universities, which start from selecting outstanding student applicants based on transparent and fair criteria. The results of Rugutt & Chemosit, (2005) showed that the quality of the technology used on campus, the quality of teaching and also the general experience of the college, and the interaction between students and faculty members have a significant impact on academic achievement, which in turn affects the excellence of students and their research products.

Davis, et al. (2017) stated that graduate students' success is affected by the program type, structure, and faculty expertise that might best meet their needs before applying to doctoral programs. Abdul Rauf (2016) summarized that graduate students are being faced by different challenges that affect their thesis completion rates like funding, academic previous experience, the type of research being undertaken, supervision, mentoring, progress review and academic culture. In line with Ridloet al. (2020) there are many factors affecting the delay in completion of the student thesis such as: students' lack of motivation, the power to jot down scientific papers and difficulties to find literature associated with students' work.

The literature emphasized that excellence in graduate education depends on the outstanding performance of all program inputs. Whether or not all faculty members of the program are distinguished and have exceptional scientific and research competencies, graduate students do not obtain a distinguished education except when implementing such competences into practice. This, in turn, reflects on the students as the final output of the program (Roy, 2003, p1). Othman (2014) proposed that standards of research quality should cover many research and structure areas. Firstly, standards associated with the student him/herself such as: student's keenness of knowledge, professional relationship with the supervisor, critical and analytical abilities and mastering research skills.

Secondly, standards associated with research topics such as: choosing a particular and clear topic, clarity of the research rationale, novelty and originality, mastering research methods and tools, and scientific honesty. Thirdly, standards associated with supervisor such as: supervisor academic reputation, homogeneity of the student and therefore the supervisor's major, and supervisor time and availability (pp. 15-22).

Brusoni et al. (2014) indicate that the areas of excellence in graduate programs include: A) Excellence in management: by developing leadership concepts, policies and techniques, leading others, partnerships with others internally and externally, and managing operations. B) Excellence in research: where excellence is evaluated through quantitative measures of research activity, including bibliometric indicators, external financial returns from research, graduate student participation, review assessments, as well as the quality of research locally and internationally in terms of originality, relevance and accuracy. Also, research excellence is measured by the institution's ability to get research funding from research-funding institutions and councils, which consider research excellence a significant criterion for financial backing. C) Excellence in teaching: through the main focus of teaching on students, their learning, personal support for students and their development through creative instead of traditional teaching. Distinguished teaching also focuses on the broad educational environment and therefore the development of educational programs and courses, as well as emphasizing the efforts made to develop teaching, especially through innovation. D) Excellence in student performance: by focusing on developing talented and high-achieving students, so as to realize professional performance measured by international indicators and standards (pp. 9-12).

According to RAND (2014), excellent research contains a well formulated problem, clear purposes, well-designed and executed approach, understanding of related studies, available data and information, explicit and justified assumptions, findings that advance knowledge and bear on policy issues, logical recommendations, accurate documentation, and relevance to stakeholders and decision makers (pp3-12). Balbuena (2018) indicated that the quantity of classified researches in Web of Science was one in every of the foremost important indicators of research excellence.

Mateuet al. (2012) proposed some criteria for research excellence which include: a) Research Quality, which may be measured through the scientific value of the research, its importance, consistency of results, and therefore the distinctiveness of its theoretical and methodological framework. Social and economic quality of research refers to technological indicators, capacity development, value to people, and economic indicators like marketability, competitiveness, cost-effectiveness, feasibility and originality, in addition to research sustainability. B) Research outputs through research results and possibility of employing and benefiting from them in reality. C) Research Impact that refers to the likelihood of societal benefit of the research and its results and outputs. D) Research Environment, which incorporates the mandatory infrastructure for the program, the activities that support the dissemination of research and also the application of its results.

The results of Yokus & Akdag's study (2019) proposed eight criteria as indicators for research quality. 1) Appropriateness of the abstract through pertaining to the most sections, being within word limits and including keywords reflecting the research topic. 2) Contribution to literature through affecting it and filling its gaps. 3) Originality of research questions, findings, discussion and title. 4) Identification of scope and focus through clarity of research objectives, problem and defining the research scope. 5) Being strictly scientific through utilizing the appropriate research method, avoiding bias, and appropriateness of statistical analysis, sample, tools and adequacy of citations. 6) Comprehensiveness of literature review through pertaining to relevancy to the subject, involving both supportive and contrasting studies and involving both supportive and contrasting studies. 7) Reporting through citation either in text or within the reference list and utilizing appropriate written language. 8) Finally, Strict adherence to the ethics of research project.

It is revealed from the literature that preparing doctoral dissertations and Master theses required much effort from all stakeholders of graduate education programs. It is not the sole responsibility of students to produce excellent pieces of research. Supervisors, department staff, administrative procedures, nature and range of courses offered by programs, educational environment and candidates' perquisites are all of great effect on the excellence of dissertations. With relevance to the reviewed literature, the present study tried to fill the gap through presenting a list of the essential standards of excellence required in doctoral dissertations and then check their availability within the dissertations of doctoral students of educational programs in college of education at IMSIU.

4. Methodology and design

The study has been conducted in two phases due to the nature of the research questions. Firstly, a pilot study was done through an inventory containing the standards necessary for the excellence of dissertations and theses from the perspective of faculty members in Saudi universities. The pilot inventory contained six dimensions:

Originality, Research Methodology, Theoretical Framework, Specialization, Findings and Applicability. The second phase of the study investigated the availability of the standers of excellence within the graduate students' dissertations and theses from the perspective of faculty members and doctorate students at the educational programs at (IMSIU). An electronic questionnaire has been built depending on the results of the pilot study. It contained six dimensions: Originality (9 items), Research Methodology (10 items), Theoretical Framework (7 items), Specialization (4 items), Findings (6 items) and Applicability (4 items). The participants of the study were volunteered from among faculty members and doctoral students. Completed forms of the electronic questionnaire were received from (54) faculty members for the pilot phase and (144) respondents of faculty and doctoral students at (IMSIU). Data were analyzed using SPSS version 23. ANOVA, t-test, and frequencies are used in data analysis.

4.1 Validity and reliability

Validity of the questionnaire has been checked. Twelve faculty members in educational fields reviewed the questionnaire to construct its face validity. internal consistency has been assured through conducting the questionnaire to a pilot sample of 10 faculty members and 18 doctoral students. Pearson correlation has been checked and was found significant. Also, reliability has been checked through Cronbach's Alpha and was found significant. Table 1 shows Pearson Correlation for validity and Cronbach's Alpha for reliability.

Table 1

Pearson Correlation and Cronbach's Alpha

dimension	Items	Pearson Correlation	Cronbach's Alpha
Originality	9	0.860**	0.861
Research Methodology	10	0.941**	0.863
Theoretical Framework	7	0.792**	0.703
Specialization	4	0.735**	0.821
Findings	6	0.792**	0.882
Applicability	4	0.885**	0.774
total	40	--	0.852

** significant at 0.01

4.2 Profile of Respondents

The sample of the primary phase which investigated the required standards of excellence within the dissertations and thesis dragged its respondents from faculty members in Saudi universities. They were (n=13/ 24.1%) professors, (n=20/ 37%) associate professors and (n=21/ 38.9%) assistant professor. Their fields of specialization were (n=21/ 38.9%) foundations of education, (n=16/ 29.6%) Islamic Education, (n=8/ 14.8%) educational administration and (n=9/ 16.7%) Curricula and teaching Methods. According to the authoring variable (n=11/ 20.4%) have more than 15 publications, (n=12/ 22.2%) have from 10 to less than 15 publications, (n=15/ 27.8%) have from 5 to less than 10 publications, (n=13/ 24.1%) have less than 5 publications, and (n=3/ 5.6%) have no publications.

The sample of the second phase which investigated the availability of standards of excellence within the dissertations and thesis dragged its respondents from faculty members and doctoral students at IMSIU. They were (n=26/ 18.1%) faculty members and (n=118/ 81.9) doctoral students. Their fields of specialization were (n=47/ 32.6%) foundations of education, (n=26/ 18.1%) Islamic Education, (n=40/27.8%) educational administration and (n=31/ 21.5%) Curricula and teaching Methods.

5. Findings

5.1. Addressing its first question

The analysis of the inventory which explored the foremost important standards of excellence from the perspective of faculty members in Saudi universities, indicated that respondents strongly agreed upon the importance of the items associated with originality and novelty (m=4.38), research methodology (m=4.69), theoretical framework (m=4.43), dissertation findings (m=4.64) and dissertation applicability and impact (m=4.2). Moreover, the results indicated that the respondents agreed upon the importance of the items associated with specialization and interdisciplinary research (m=4.14). The items in each dimension are sorted according to arithmetic mean. Table 2 shows the means of responses on the pilot inventory.

Table 2
Means of responses on the pilot inventory

Standards	Mean
<i>Originality and novelty</i>	
1- Dissertation should address an important problem.	4.764
9- Dissertation indicates that the researcher is accurate in relation to the research process.	4.709
6- Dissertation should reflect a deep understanding of the literature related to the field.	4.673
5- Dissertation indicates that the researcher has a mature mentality and independent thinking.	4.655
2- Dissertation should answer new questions.	4.436
8. Dissertation does not assume traditional opinions common in specialization.	4.327
7- Dissertation can challenge the common literature in the field on acceptable scientific grounds.	4.091
3- Dissertation should new research tools or research designs.	3.909
4- Dissertation should use new types of analysis.	3.836
<i>Dimension mean</i>	
	4.38
<i>Research Methodology</i>	
4- The research problem should be clear, specific and verified	4.855
10- Dissertation should strictly adhere to the ethics of research.	4.855
1- Dissertation title implement its content.	4.836
7- The research methodology should be clear and appropriate to the nature of the topic.	4.818
2- Dissertation should be written in a distinct scientific way.	4.8
8- The study tools should be prepared in a scientifically sober way.	4.745
The research sample should be appropriate to the nature of the subject and the required research data.	4.709
3- Dissertation should be a distinctly organized	4.655
6- Dissertation should provide a distinct experience (if experimental/field).	4.382
5- The research design should be unique and distinct.	4.2
<i>Dimension mean</i>	
	4.69
<i>Theoretical Framework</i>	
2. Research data should be rich and multi-source.	4.691
7- Theoretical literature should cover all aspects of the research topic in depth.	4.582
Dissertation references should be from reliable sources (reliable publishing houses- classified journals....)	4.545
5- The references should be relevant to the research topic.	4.527
4- References should be associated with specialization.	4.382
Dissertation should be based on a sober theory and demonstrate a deep and authentic understanding of that theory.	4.255
3- The research references should be up-to-date.	4.036
<i>Dimension mean</i>	
	4.43
<i>Specialization</i>	
2- Dissertation should open new areas and horizons for new research.	4.491
4- Dissertation should propose new topics for study and research.	4.273
1- Dissertation should expand the bounds of specialization.	4.127
3- Dissertation should combine more than one discipline (interdisciplinary).	3.673
<i>Dimension mean</i>	
	4.14
<i>Findings</i>	
1- The findings of the research should be scientifically reliable.	4.8
2- The findings of the search should be related to it.	4.8
6- The discussion of the results should be in-depth and novelty.	4.764
5- The pre-set objectives for research should be achieved efficiently.	4.655
3- The findings of the search should be logically accepted.	4.618
4- The findings of the research should be in step with the literature.	4.218
<i>Dimension mean</i>	
	4.64
<i>Applicability and impact</i>	
4- Research recommendations should be procedural and applicable.	4.691
1- Research should have practical implications.	4.382
2- Research should concern a larger community than people.	3.909
3- Research should affect the way people think.	3.836
<i>Dimension mean</i>	
	4.2

5.2 Addressing the second question

The results of data analysis indicated that the respondents generally agree on the items of the questionnaire in total ($M=3.69$) and ($S.D.=0.56$). Percentage of responses, indicated the agreement of the majority of respondents (61.5%), while disagreement percentage was (9.3%) and (29.3%) were neutral. Table 3 shows the frequencies, Means and Standard Deviations of responses on the whole questionnaire.

Table 3

Frequencies, Means and Standard Deviations of responses on the questionnaire

No. of Items		Frequencies					Mean	S. D.
		SD	D	N	A	SA		
40	frequency	68	467	1686	2522	1017	3.69	0.56
	%	1.2	8.1	29.3	43.8	17.7		

This section of the questionnaire required respondents to allow information on the extent to which the standards of excellence do exist within the dissertations of graduate students. The analysis of the responses on the six sub-dimensions of the questionnaire is as follows:

6. Dimension1: Originality and novelty

The analysis of the items in the first dimension which are associated with the originality and novelty of graduate students 'dissertations revealed that respondents agreed upon the existence of the items associated with originality ($m=3.4/ s.d.=0.7$). The results shown in Table 4, indicated that respondents specified five items which came in the range of the response "agree". These items assured that dissertations of graduate students *reflected a deep understanding of the literature related to the field, showed accuracy within the research process, addressed important problems, showed mature mindset and independent thinking and answered new questions*. The other four items came within the range of the response "neutral". These items revealed that dissertations of graduate students criticized *traditional opinions common in specialization, challenges common literature within the field on accepted scientific foundations, utilized new research tools or research designs, and used new varieties of analysis and coverage*.

Table 4

Means and Standard Deviations of responses on Dimension1: Originality

Items	Mean	S. D.
3-Dissertation reflects a deep understanding of the literature related to the field	3.729	0.838
2- Dissertation shows accuracy in the research process.	3.681	0.726
1- Dissertation addresses important problems.	3.674	0.843
4- Dissertation shows mature mindset and independent thinking	3.653	0.895
5- Dissertation answers new questions.	3.576	0.905
6- Dissertation doesn't assume traditional opinions common in specialization.	3.257	0.995
7- Dissertation challenges common literature in the field on accepted scientific foundations.	3.250	1.061
8- Dissertation uses new research tools or research designs	2.917	1.061
9- Dissertation uses new types of analysis and treatments	2.868	1.019
Total	3.40	0.70

Furthermore, the analysis revealed no statistically significant differences within the responses on this dimension with respect to the variables of respondent (faculty / doctoral student) and specialization as proven by t-test one-way ANOVA. This indicates a high level of consistency in their responses according to the two variables.

6.1 Dimension 2: Research Methodology

The analysis of the items within the second dimension which are associated with research methodology which had been used in dissertations of graduate students revealed that respondents agreed upon the existence of the items related to research methodology ($m=3.8/ s.d.=0.57$). The results, shown in Table 5, indicated that respondents agreed upon nine items which came in the range of the response "agree".

These items assured that dissertations' titles implement their contents, research methodologies are clear and appropriate to the nature of the topics, research problems are clear, specific and verified, samples are appropriate to the nature of the topic and the required research data, dissertations are distinctly organized, adhere to the ethics of research strictly, are written in a distinguished scientific way, tools are prepared in a sober scientific way, and provide distinguished experiences. Only the item "Research designs are unique and distinctive" came in the range of the response "neutral".

Table 5

Means and Standard Deviations of responses on Dimension 2: Research Methodology

Items	Mean	S. D.
3- Dissertation title implements its content.	4.174	0.651
· Research methodologies are clear and appropriate to the nature of their topics	4.076	0.700
1- The research problem is clear, specific and verified	4.049	0.703
· Research samples are appropriate to the nature of the topic and the required research data	3.861	0.763
8- Dissertation is distinctly organized	3.840	0.745
2- Dissertation adheres to the ethics of scientific research strictly	3.826	0.787
5- Dissertations are written in a distinguished scientific way	3.771	0.764
6- Research tools are prepared in a sober scientific way	3.764	0.775
· Dissertation provides distinguished experiences (if they're experimental / field).	3.472	0.844
10- Research design is unique and distinctive	3.208	0.892
Total	3.80	0.57

The analysis revealed no statistically significant differences within the responses on this dimension according to the variable of respondent (faculty / doctoral student). However, statistically significant differences were found according to the variable of specialization as proved by one-way ANOVA. Post hoc analysis revealed that differences were in favor of respondents whose specialization was Curricula and Methods ($F=4.53$; d. f. = 140; $p = .005$).

6.2 Dimension 3: Theoretical Framework

The analysis of the items of the third dimension which are associated with the theoretical framework in dissertations of graduate students revealed that respondents agreed upon the existence of the items related to research methodology ($m=3.95$ / $s.d.=0.54$). The results shown in Table 6, indicated that respondents strongly agreed upon only one item which came in the range of the response "strongly agree". This item assured that *references graduate refer to are closely related to research topics*. The other six items came in the range of the response "agree". These items revealed that dissertations *'references are from reliable sources, are related to specialization, theoretical frameworks cover all aspects of the research topic deeply, research data are rich and multi-source, references are up-to-date, and the researches are based on solid theories and show deep and original understanding of these theories*.

Table 6

Means and Standard Deviations of responses on Dimension 3: Theoretical Framework

Items	Mean	S. D.
4- References are closely associated with research topics.	4.208	0.613
· Dissertation references are from reliable sources (reliable publishing houses - classified journals).	4.194	0.692
5- References are associated with specialization.	4.139	0.696
2- Theoretical framework covers all aspects of the research topic thorough.	3.931	0.726
1- Research data is rich and multi-source	3.896	0.736
7- Research references are up-to-date.	3.715	0.825
· Research is based on solid theories and shows a deep and original understanding of these theories	3.597	0.903
Total	3.95	0.54

The analysis revealed no statistically significant differences within the responses on this dimension according to the variable of respondent (faculty / PhD student). However, statistically significant differences were found with respect to the variable of specialization as proved by one-way ANOVA. Post hoc analysis revealed that differences were in favor of respondents whose specialization was Curricula and Methods ($F=4.44$; d. f. = 140; $p = .005$).

6.3 Dimension 4: Specialization

The analysis of the items in the fourth dimension which are related to the specialization revealed that respondents agreed upon the existence of the items associated with research methodology ($m=3.59$ / $s.d.=0.78$). The results, as shown in Table 7, indicated that respondents agreed upon three items which came within the range of the response “agree”. these items assured that dissertation *open new fields and horizons for new research, propose new topics for further study and research, and expand the boundaries of specialization*. Only the item “Research combines more than one discipline (interdisciplinary)” came in the range of the response “neutral”.

Table 7

Means and Standard Deviations of responses on Dimension 4: specialization

Items	Mean	S. D.
1- Dissertation opens new fields and horizons for new research	3.743	0.867
2- Research proposes new topics for further study and research	3.701	0.870
3- Research expands the limits of specialization	3.604	0.933
4- Research combines more than one discipline (interdisciplinary).	3.326	1.043
Total	3.59	0.78

The analysis revealed no statistically significant differences in the responses on this dimension according to the variables of respondent (faculty / PhD student) and specialization as proven by t-test one-way ANOVA. This indicates a high level of consistency in their responses according to the study two variables.

6.4 Dimension 5: Dissertation Findings

The analysis of the items within the fifth dimension which are associated with the dissertation findings revealed that respondents agreed upon the existence of the items related to research methodology ($m=3.85$ / $s.d.=0.6$). The results, as shown in Table 8, indicated that respondents agreed upon all the items included in the dimension, as they came in the range of the response “agree”. these items assured that dissertation findings are *related to their topics, logically accepted, consistent with the literature, scientifically reliable, achieve the pre-set objectives of research efficiently, and their discussion of findings is deep and comprehensive*.

Table 8

Means and Standard Deviations of responses on Dimension 5: Findings

Items	Mean	S. D.
2- Research findings are related to their topics	4.083	0.631
5- The research findings are logically accepted.	3.910	0.689
6- Research findings are in line with the literature	3.861	0.654
1- Research findings are scientifically reliable	3.806	0.796
4- The pre-set objectives of research are efficiently achieved.	3.799	0.695
3- Discussion of research findings is deep and comprehensive.	3.667	0.853
Total	3.85	0.60

The analysis revealed no statistically significant differences within the responses on this dimension according to the variable of respondent (faculty / PhD student). However, statistically significant differences were found according to the variable of specialization as proved by one-way ANOVA. Post hoc analysis revealed that differences were in favor of respondents whose specialization was Curricula and Methods ($F=2.93$; d. f. = 140; $p = .036$).

6.5 Dimension 6: Applicability

The analysis of the items within the sixth dimension which are associated with the dissertation recommendations applicability revealed that respondents agreed upon their existence ($m=3.4$ / $s.d.=0.8$).

The results, as shown in Table 9, indicated that respondents agreed upon two items which came within the range of the response "agree". these items assured that dissertation *recommendations are practical and procedural and have practical and applicable*. The other two items came in the range of the response "neutral". These items revealed that researches matter more in society and they affect the way people think.

Table 9

Means and Standard Deviations of responses on Dimension 6: Applicability

Items	Mean	S. D.
1- Action recommendations are practical and procedural.	3.722	0.779
2- Research has practical and applicable effects.	3.549	0.937
3- Research matters more in society	3.354	0.957
4- Research affects the way people think	2.993	1.125
Total	3.40	0.80

The analysis revealed no statistically significant differences in the responses on this dimension according to the variable of respondent (faculty / PhD student). However, statistically significant differences were found according to the variable of specialization as proved by one-way ANOVA. Post hoc analysis revealed that differences were in favor of respondents whose specialization was Curricula and Methods ($F=4.33$; d. f. = 140; $p = .006$).

7. Discussion

The findings of the present study echo literature within the field. The importance of research excellence is extremely assured in previous studies. On the extent of legislation and regulations in Saudi universities, graduate students must commit to the aspects of distinguished dissertations. According to article forty-three of the unified regulations for graduate studies in Saudi universities: the subjects of master's theses must be characterized by novelty and originality, and the topics of doctoral dissertations must be distinguished by originality, innovation and active contribution to the development of knowledge in the student's specialty (Ministry of Higher Education, 1996). IMSIU certified eight assessment indicators for qualifying PhD dissertation. They are: applying the research method, the depth and abundance of scientific materials, originality and diversity of resources, language integrity, topic originality and innovation, active contribution to the specialty and student ability during discussion (IMSIU, n.d.).

According to Vertesy & Tarantola (2012) research project needs to engage in three contexts. Firstly, to interact with actors within the academic context to ensure scientific quality and relevance. Secondly, the context of innovation where research can be converted into socio-economic value. Thirdly, society context where research engages with the citizens, politicians, and stakeholders to take care of quality of life and sustainability (p.8).

Among the foremost comprehensive justifications of the process of conducting dissertation/thesis what has been mentioned by R ger (2011):

"The thesis is a monograph, i.e., a self-contained piece of work, written solely by the PhD candidate and no-one else. It sets out a certain problem that the candidate has worked on, possibly within a larger team, under guidance of one or more academic advisors. It motivates and defines the problem, reviews existing approaches to the problem, identifies through critical analysis a clear gap for a possible novel academic contribution, and spells out a so-called hypothesis, which is a proposed explanation for the problem or a proposed solution to a problem. The thesis also explains in sufficient detail, and justifies, the work undertaken to decide on the hypothesis (or hypotheses as the case may be). This work typically involves a combination of further literature studies, theoretical analysis, experimental design, data collection, carrying out the experiments, data analysis, and drawing conclusions. A good thesis also delineates the limitation of the work done or the conclusions drawn and outlines possible future research directions" (pp1-2).

Based on the literature reviewed and systematic analysis, some major themes of excellence have been emerged. They cover the process of conducting dissertations from the very beginning when research topics are chosen and end with the research impact academically, socially and economically.

Originality and Novelty: the majority of universities all over the world require the doctorate thesis to be original and novel. University of London (2009) required the thesis to "consist of the candidate's own account of his/her investigations, form a distinct contribution to the knowledge of the subject and afford evidence of originality by the discovery of new facts and/or by the exercise of independent critical power" (p 3).

Students should have clear objectives why they do research. Ibn Khaldun (2013), the founding father of Islamic Sociology, stated that authorship is proscribed in seven issues: a) devising knowledge on its subject, dividing its chapters, and tracing its issues, b) clarification and understanding of previous knowledge, c) correcting the mistakes of predecessors, d) completion and addition to previous knowledge, e) rearrangement and organization of the scientific material, f) combining or inventing a new branch of knowledge, and g) summarizing long and huge scientific materials (PP529-530). Ibn Hazm (1987) expressed same issues summarizing why should one author: either something had never invented, something imperfect to complete, something difficult to explain, something long to shorten without disturbing any of its meanings, something scattered to gather, something mixed up to organize, or something wrongly made to correct (p 186).

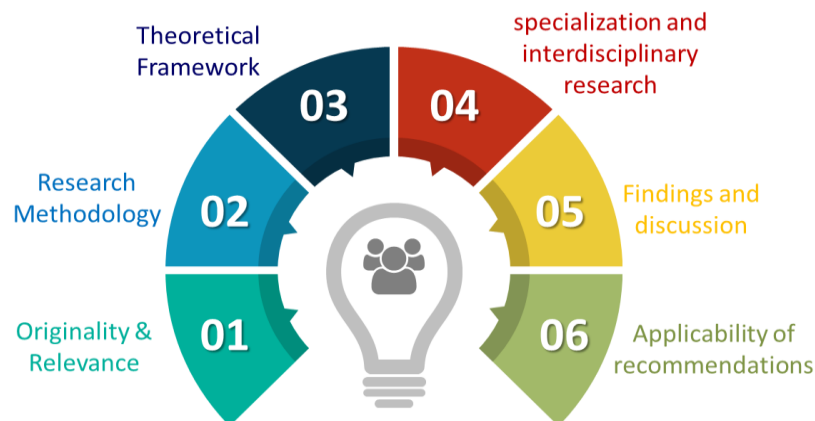
Research methodology: it is well-established that any branch of science has two components; subject material which incorporates the topics included in, and methodology of the way to research in this branch of knowledge. The findings of this study assured the importance of identifying the foremost appropriate research method and design that effectively achieve the objectives of any piece of research. Research is a systematic, organized and logical process of investigation for brand spanking new and beneficial information on a particular topic. It is, in line with Rajasekar et al. (2006), an investigation of finding solutions to scientific and social problems through objective and systematic analysis (p3). Excellent research reflects the researcher ability to master the methodology and design which effectively fulfil the research objectives.

Theoretical framework: it is built through reviewing related literature within the field of the candidate. The research should be an integrated whole that presents a coherent argument and provides a critical assessment of the relevant literature (University of London, 2009, p3). Reviewing literature sharpens the research problem, reformulates it or perhaps results in defining other closely related problems. Moreover, it helps researchers to accumulate proper theoretical and practical knowledge to research the problem. Moreover, it shows how the problem under study relates to the previous research studies and whether the proposed problem had already been solved (Rajasekar et al.2006, p17).

Applicability or research impact; while research impact is widely assessed by high-citation, it's more realistic to be assessed by the impact research has on people's everyday life, especially educational research as it is directly connected with people in general. In step with Greenhalgh et al. (2016) research impact occurs "when research generates benefits (health, economic, cultural) in addition to assembling the tutorial knowledge base". Figure 1 shows the emerging themes of excellence of research as revealed within the study.

Figure 1

Themes of excellence in graduate students' dissertations



As it is shown in figure 1, the major themes of excellence in graduate students' dissertation should cover the research process from its start when the research topic selected to the assessment of its application and impact. As excellence refers the outstanding performance, excellent piece of research should be original, novel, built on a solid base of theory and literature. Moreover, it should deepen specialization and broaden its borders, reach significant findings which are critically discussed, and impact academically and socially.

8. Conclusion and recommendations

The present study was designed to determine the standards of excellent dissertation. Moreover, it tried to check the availability of such standards within the dissertations of graduate students in educational programs at IMSIU. One among the more significant findings to emerge from this study is that research excellence should be assessed systematically through commitment to strict standards. The standards of excellences cover all phases of research process from the very beginning when the topic is chosen to the tip when graduate students defend their dissertations. The evidence from this study suggests that the inventory of excellence standards generated from the study should be structured and utilized to be used as indicators of research excellence. The study has gone a way towards enhancing our understanding of graduate students' dissertations, which represent the foremost emerging and important product of graduate education.

This study has thrown up many questions in need of further investigation such as: are there any differences between excellent dissertation in social sciences and natural sciences? What are the factors that produce excellent dissertations? What are the foremost demanding skills needed for graduate students to produce excellent dissertations? What is the effect of supervisory style on the level of excellence of a dissertation? How can we make benefit from the expertise of the winners of excellent dissertation awards? To what extent graduate students' dissertations in different branches of science are of high level of excellence?

The findings of this study have a variety of important implications for future practice. They imply the essential needs to promote the structure of graduate education schemes to be ready to compete within the higher education markets. Furthermore, they stress on the investigation of the training needs of graduate students to hone their research skills. Furthermore, the findings assured that dissertation excellence should be an institutional culture instead of a short-lived issue in graduate education.

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