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Assessing *Graduateness* in Higher Education Islamic Tertiary Institutions in South Africa: Towards a Pedagogical Contextual Approach

Belqes Al-Sowaidi* 

International Peace College South Africa
Cape Town, South Africa

Tawffeeq A. S. Mohammed 

University of the Western Cape
Cape Town, South Africa

Abstract. This study aims to examine the concept of *graduateness* in tertiary Islamic institutions and its essential integration into the curriculum of Islamic higher education. The study sheds light on the connections between program content, teaching methodologies, and the cultivation of *graduateness* in the context of Islamic education at the International Peace College South Africa (IPSA), emphasizing the curriculum's role in enhancing values and ethics alongside employability preparedness. The study investigates the BA program at IPSA over three years (2020-2023). Employing the frameworks of Coetzee's categorization of Graduate Attributes, Biggs' Constructive Alignment, and the Technological Pedagogical Content Knowledge (TPACK), the analysis explores attitudes toward curriculum content, teaching, and learning through the lens of *graduateness* development. Results from the questionnaire revealed a statistically significant difference in the development of graduate attributes at IPSA, influenced notably by thematic content ($p = 0.0018$). In addition, there was a strong correlation between students' and lecturers' perceptions ($r = 0.900$, $p < 0.0001$), indicating effective alignment in the understanding of educational goals.

Keywords: *graduateness*; IPSA; Islamic education; tertiary institutions; pedagogy; South Africa

* Corresponding author: *Belqes Al-Sowai*, bsalsowaidi@ipsa-edu.org

1. Introduction

Graduateness is a technical term in higher education that refers to the qualities, attributes, or skills that a university or college graduate is expected to possess as a result of their higher education. In the context of South African institutions, there is a significant focus on comprehending and studying the concept of *graduateness*, with scholars and educators actively engaging in mapping these attributes to ensure that educational programs align with societal needs and labor market demands (Barrie, 2004; Bitzer & Withering, 2020; Green et al., 2009; Hill et al., 2016; Jones, 2012; Laseinde, 2023; Mansingh & Reddy, 2021; Wong et al., 2021). This holistic approach involves integrating these attributes into both curricular and co-curricular activities, utilizing diverse teaching methodologies, and effective assessment strategies. Moreover, the impact of advanced technology is a crucial consideration in these discussions. Ongoing dialogues within Islamic institutions in South Africa revolve around the question of whether rapid changes in technology demand the addition of new attributes to accommodate evolving spheres of life (Matu & Paik, 2021; Scott & Willison, 2021). These institutions are committed to integrating elements that equip graduates to navigate and contribute meaningfully to a changing world, demonstrating a dynamic approach to staying relevant. A contextual approach in Islamic higher education facilitates such continuous improvement and alignment of graduate attributes. This will ensure that the curriculum remains responsive to the evolving needs of students, society, and the professional world. This not only strengthens academic rigor but also ensures that graduates are well-prepared for both ethical leadership and career success in diverse settings.

The International Peace College South Africa (IPSA) has embraced integrated blended learning, utilizing the CYPHER Learning platform, CYPHER for academia (formerly NEO), LMS, and Moodle LMS since 2018 (Mohammed et al., 2021). This strategic move was aimed at delivering a robust and technology-enhanced pedagogical experience (Mohammed, 2022). The use of these platforms and the dedication of IPSA has been instrumental in bolstering and enriching students' educational journeys. The IPSA faculty's commitment significantly contributes to a dynamic learning environment (Artates, 2023). In addition, IPSA has proactively reviewed several courses to ensure compliance with the National Qualifications Framework (NQF) scheme of South Africa and maintain the relevance and rigor of its programs in response to evolving educational standards and the demands of society at large. This program review not only refines the educational experience for students, but also equips graduates with contemporary skills essential for navigating the complexities and relevance of Islamic studies in today's fast-changing world.

This study aims to bridge the gap in understanding *graduateness* within Islamic higher education tertiary institutions by focusing on IPSA as a case study. It critically examines how IPSA adapts its BA in Islamic Studies (BAIS) program to meet educational standards and societal demands through blended learning and alignment with the NQF (Ensor, 2010). This study assesses the value and effectiveness of the BAIS program at IPSA by exploring the attitudes of both students and lecturers. It aims to gauge their perspectives on the teaching and

learning strategies employed. Furthermore, this study examines the correlation between the types of themes used in the current program and the development of *graduateness*. It also assesses how effectively Islamic and Arabic modules integrate with contemporary pedagogical approaches while remaining relevant and responsive to South Africa's unique socio-cultural context. Through this comprehensive analysis, this study aims to enhance the academic and ethical foundations of its graduates, thereby contributing to the broader discourse on *graduateness* within Islamic education.

2. Research Questions

This study explores a series of interconnected questions that delve into various aspects of the BAIS program at IPSA.

1. What are the attitudes of lecturers and graduates towards the program content?
2. Is there a correlation between the themes used in the current program and the development of *graduateness*?
3. Is there a correlation between the attitudes of IPSA graduates and lecturers concerning graduates' attributes?

3. Hypotheses

To answer Question 2, the study hypothesizes that there is no statistically significant difference, at an alpha level of 0.05, between the thematic content of the curriculum and the development of *graduateness* of IPSA's graduates. This first hypothesis seeks to determine whether the themes and topics covered in the program directly influence the cultivation of the attributes expected of graduates. By the same token, the study hypothesizes that there is no correlation between the attitudes of IPSA graduates and lecturers concerning graduates' attributes. This hypothesis aims to explore the relationship, if any, between the perceptions of lecturers and graduates at IPSA, particularly in terms of the qualities and competencies that define a graduate.

4. Literature Review

The exploration of the concept of *graduateness* represents a globally recognized and extensively researched thematic concept in higher education, emphasizing the diverse qualities and skills that university graduates should possess beyond mere academic knowledge (Bitzer & Withering, 2020; Coetzee, 2012; El-Saharty et al., 2020; Mansingh & Reddy, 2021; Matu & Paik, 2021; Scott & Willison, 2021). This discourse encompasses various perspectives, theories, and practices dedicated to preparing graduates for both professional and personal challenges, with commonly acknowledged attributes including critical thinking, effective communication, problem-solving, ethical reasoning, adaptability, a global perspective, and technology-enhanced skills. Scholars worldwide have tackled the multifaceted nature of graduate attributes, highlighting their critical role in shaping future generations. Wigati et al. (2023) emphasize the critical need for universities to cultivate graduates ready for the challenges of 21st-century life, work, and civic engagement. They advocate for the development of graduate profiles as a crucial step, exemplified by their study on the Bachelor of Sharia Economics (BSE) Study Program in UIN Sunan Ampel Surabaya. Bowden et al.

(2000) provide a comprehensive definition of graduate attributes, describing them as qualities believed by the academic community to be acquired during university tenure. These attributes go beyond foundational disciplinary competence, encompassing a broader spectrum that equips graduates for an uncertain future.

The marketization of higher education has led to the prominence of graduate attributes, with universities tasked to make graduates employable (Hill et al., 2016). However, the goals of higher education extend beyond employment, demanding a more holistic approach (McArthur, 2011). The rise in aspirations for higher education has elevated the importance of graduate qualities as indicators of learning, teaching, and organizational culture. Consequently, as aspirations for higher education rise, graduate qualities serve as a means of validation and are increasingly utilized by universities as indicators of the quality of learning, teaching, and organizational culture (Bridgstock, 2009; Wald & Harland, 2019).

Graduateness plays a crucial role in enhancing employability by contributing to better employment readiness. The specific attributes offered by each university vary, driven by the competitiveness of the higher education market (Wong et al., 2021). Examples include creative and critical thinking, problem-solving, teamwork, communication, professionalism, leadership preparedness, and intercultural and ethical competence. Simultaneously, a shift towards emphasis on outcome has occurred, requiring institutions to ensure that graduates demonstrate attributes like a lifelong learning attitude, innovation, and employment skills (Jones & Pate, 2019; Mahon, 2022). This shift sparks debates on the conceptualization, teaching, and assessment of graduate attributes, emphasizing their integration into the curriculum.

In response to the importance of graduate attributes and their correlation with employment rates in South Africa, the establishment of critical cross-field outcomes (CCFOs) in 1997 mandated students to acquire skills such as problem-solving, teamwork, self-management, and environmental responsibility through nationwide educational programs (Carmichael & Stacey, 2006; South African Qualifications Authority, 2012). Graduate attributes in South Africa, as emphasized by the Council on Higher Education (CHE), should encompass diverse disciplines, focusing on practical application, values, attitudes, critical thinking, ethical behavior, and professional conduct. Despite efforts to produce high-level graduates, there exists a noticeable gap in developing these skills, not aligning with industry demands (Carrim & Wangenge-Ouma, 2012). The scarcity of research on this topic within the South African context (Kew, 2015; Mashiyi, 2015) and the implementation of institutional policies without due consideration for the underlying context (Nell & Bosman, 2017) underscore the need for further exploration. The challenges faced by higher education institutions in South Africa, including academic workload, under-resourcing, and a focus on expediting students through the system, emphasize the urgency of addressing these issues for comprehensive student attribute development.

Despite the growing global discussion on graduate attributes, it has largely overlooked the specific experiences and needs of students in South African

Islamic institutions. This study addresses this critical gap by investigating how these institutions cultivate attributes like critical thinking, ethical leadership, and intercultural competence within their unique educational frameworks. By offering in-depth analyses of institutional practices, student perspectives, and challenges faced, this study aims to provide valuable contributions to the literature on inclusive graduate attribute development in diverse educational contexts.

5. Theoretical Framework

The theoretical framework of this study integrates Coetzee's categorization of graduate attributes (Coetzee, 2012), Biggs's constructive alignment (Biggs, 1996), and the Technological Pedagogical Content Knowledge (TPACK) framework (Mishra & Koehler, 2006). These frameworks were crucial in the development and content review of the questionnaire. Coetzee's model (Coetzee, 2012) outlines cognitive, interpersonal, intrapersonal, and ethical dimensions, providing a comprehensive lens for determining the skills and qualities students should acquire. This model shaped the content design to align with desired graduate attributes, ensuring the curriculum is responsive to both academic goals and societal needs. Cognitive dimensions include intellectual capabilities such as critical thinking, problem-solving, and knowledge application. Interpersonal dimensions emphasize communication, teamwork, and collaboration skills, preparing students to work effectively with others in diverse environments. Intrapersonal dimensions focus on self-management, self-motivation, and ethical awareness, ensuring students can manage their own learning, stay motivated, and adhere to ethical standards. Ethical dimensions encompass principles and values that guide behaviour and decision-making, preparing students to act responsibly in their personal and professional lives.

Biggs' notion of constructive alignment (Biggs, 1996) plays an essential role by linking educational goals with teaching activities and assessment methods, thereby creating a learner-centered environment that actively engages students in constructing knowledge through relevant activities. This alignment is critical not only in curriculum design but was also essential in structuring the questionnaire used in this study to probe learning and assessment effectively within the South African context. Educational goals are clearly defined as learning outcomes that specify what students should know, understand, and be able to do by the end of a course. Teaching activities include lectures, discussions, practical exercises, and other methods designed to help students achieve these learning outcomes. Assessment methods are tools and techniques used to measure students' learning outcomes, ensuring that assessments are aligned with what is taught and what students are expected to learn.

Furthermore, the TPACK framework enriches this integration by guiding the purposeful use of technology in teaching, ensuring that blended learning is strategically implemented across the curriculum. The TPACK framework integrates technological, pedagogical, and content knowledge to guide educators in effectively using technology to enhance teaching and learning. This includes the use of learning management systems and other technologies to support a

variety of assessment strategies, thus enhancing communication, collaboration, and critical thinking skills. Technological knowledge involves understanding how to use various technologies in educational settings. Pedagogical knowledge encompasses teaching methods and practices, while content knowledge refers to expertise in the subject matter being taught. The intersection of these areas results ensures that technology is used strategically to enhance learning outcomes. In practical terms, the integrated frameworks have informed the development of questionnaires used to collect data from students and lecturers, ensuring the tools are effective in probing learning and assessment within the South African context.

6. Methodology

6.1 Data Collection and Instruments

This study is mainly quantitative; it uses questionnaires to address graduate attributes over four years with to the aim of exploring the pedagogical efficacy of the BAIS program at IPSA. Survey questionnaires present several advantages as a data collection tool when compared to other methods. Unlike interviews, focus groups, or observational techniques, surveys are distinguished by their capacity to collect standardized data from large populations in an efficient, cost-effective manner. The questionnaires were designed based on a thorough literature review and consultation with subject matter experts, ensuring that the items within each section comprehensively address key aspects relevant to evaluating the BAIS program. Moreover, the questionnaires were pilot-tested with a small group of students and lecturers to ensure that the questions were clear, understandable, and directly relevant to the study's objectives. Feedback from this group was used to refine the questionnaires, improving clarity and relevance.

The questionnaires were given to 100 students and 20 lecturers. In fact, the sample included all available students and lecturers at the institution, given the limited population size. Individuals who participated in the pilot study were excluded from the final sample to help maintain the integrity of the data and avoid potential biases. This approach ensured that the responses in the main study were reflective of participants who had not previously been exposed to the research instruments, thereby enhancing the reliability and validity of the findings. The questionnaire includes three sections, namely, content and teaching Strategies (10 items), learning and assessment (10 items) and graduate attributes (10 items). The data was processed and analysed using the Statistical Package for the Social Sciences (SPSS). Cronbach's alpha was calculated to assess the reliability of the questionnaire and the Wilcoxon signed-rank test was used to explore differences in student perceptions.

Participants in this study engaged voluntarily, completed a Google Form for research purposes, and were allowed to withdraw at any time. All data were anonymized to protect privacy, adhering to IPSA's research ethics code in line with South Africa's Protection of Personal Information Act (POPIA) 4 of 2013 (South Africa, 2013).

6.2 Reliability of Data

Cronbach's alpha, a common statistic measure for internal consistency, estimates the reliability of the questionnaires for both students and lecturers, as shown in Table 1.

Table 1: Cronbach's alpha for students' and lecturers' questionnaires

SECTION	Students' questionnaire		Lecturers' questionnaire	
	Items	Cronbach's alpha	Items	Cronbach's alpha
Content & teaching strategies	10	0.935	10	0.953
Learning & assessment	10	0.927	10	0.950
Graduate attributes	10	0.958	10	0.965

As Table 1 shows, the reliability analysis of the questionnaires for both students and lecturers, as measured by Cronbach's alpha, indicates high internal consistency across all sections. For the "Content & Teaching Strategies" section, students' responses yielded a Cronbach's alpha of 0.935, while lecturers' responses showed a slightly higher value of 0.953. The "Learning & Assessment" section demonstrated similar reliability, with Cronbach's alpha values of 0.927 for students and 0.950 for lecturers. The "Graduate Attributes" section exhibited the highest reliability, with alpha values of 0.958 for students and 0.965 for lecturers. These high values, all above the acceptable threshold of 0.7, confirm the strong internal consistency of the questionnaires, ensuring that the data collected is reliable and reflective of the participants' perceptions.

7. Data Analysis

To explore students' attitudes towards the current IPSA BAIS, its content, learning, and assessment strategies as well as graduate attributes, the responses of the participants (i.e., students and lecturers) to the questionnaire items were analysed.

7.1 Students' Questionnaire Results

7.1.1 Students' perceptions towards content and teaching strategies

Table 2 summarizes the statistics of students' perceptions towards content and teaching strategies. As Table 2 indicates, the students' feedback on content and teaching strategies in the BAIS program reveal several key insights. Most students (70%) agree that the program is designed to develop core knowledge of Islamic disciplines, with a mean rating of 4.1 and a high reliability index (RI) of 82%. However, opinions are more varied for other statements. For instance, while 80% agree that the program is based on content rather than themes ($M = 3.8$) there is significant disagreement regarding the dynamism and contextual sensitivity of the BAIS modules, where 20% disagree and 30% are neutral ($M = 3.3$). Furthermore, 40% disagree that the modules are job-oriented and influential for the Muslim community, reflecting a lower M of 3.33. The use of blended learning and LMS received moderate approval, with M of 3.7 and 3.15, respectively.

Notably, the statement about varied instructional strategies had a low M of 2.6. This indicates a need for improvement in accommodating different learning abilities.

Table 2: Students' perceptions towards content and teaching strategies

No.	Item	M	RI	CV	Chi-square	p-value
1.	The BAIS program is designed to develop students' core knowledge of Islamic disciplines.	4.1	82.0%	13%	170.00	0.001
2.	The BAIS program is based on content rather than themes.	3.8	76.0%	11%	240.00	0.001
3.	The BAIS modules are dynamic and sensitive to the South African context.	3.3	66.0%	24%	90.00	0.001
4.	The BAIS modules are job-oriented and influential for the Muslim community.	3.33	66.6%	28%	44.90	0.001
5.	Blended learning is successfully integrated into IPSA curricula across the board.	3.7	74.0%	21%	110.00	0.001
6.	The use of the learning management system (LMS) in teaching simplifies the role of teachers.	3.15	63.0%	35%	57.50	0.001
7.	The use of the learning management system (LMS) in teaching and learning facilitates the objectives of curricula.	3.11	62.2%	33%	76.70	0.001
8.	Different instructional strategies are used in the classroom to accommodate students with varied learning abilities.	2.6	52.0%	41%	47.50	0.001
9.	The instructional scaffolding approach is embedded in the BAIS program to enhance the learning process.	3.2	64.0%	19%	130.00	0.001
10.	IPSA uses a flipped classroom model to prioritize active learning in the classroom.	2.98	59.6%	37%	32.55	0.001

7.1.2 Students' perceptions of learning and assessment methods

Table 3 provides the statistics of students' perceptions towards learning and assessment strategies in the current BAIS programme at IPSA. As Table 3 states, students' perceptions of learning and assessment methods in the BAIS program highlight the importance of student-centered and flexible learning, with 60% agreement and a mean rating of 3.7. Strategies like computer-based activities and role play are perceived with mixed feelings, with a mean rating of 3.1 and 20% disagreement. Interactive methods and LMS usage in teaching received favorable feedback, with (M = 3.7 and 3.55), respectively. However, 25% of students disagree that LMS facilitates learning assessment, resulting in a lower (M = 3.17). Reflective and innovative learning, as well as the integration of technology for project-based learning, received moderate approval, with (M = 3.4 and 3.2), respectively. The highest agreement was on lecturers' support for struggling students and the use of formative assessment methods, with (M = 4.28 and 4.3), respectively.

Table 3: Students' attitudes towards learning & assessment

No.	Item	M	RI	CV	Chi-square	p-value
1.	The content of the BAIS program promotes student-centered and flexible learning that is relevant to the South African context.	3.7	74.0%	24%	50.00	0.001
2.	Some of the strategies used in IPSA's classroom settings include computer-based activities and role play.	3.1	62.0%	37%	20.00	0.001
3.	IPSA lecturers put more emphasis on the interactive method between the learner and the environment.	3.7	74.0%	24%	50.00	0.001
4.	The use of the learning management system (LMS) in teaching simplifies the role of learners.	3.55	71.0%	24%	57.50	0.001
5.	The use of the learning management system (LMS) in learning facilitates the assessment process.	3.17	63.4%	36%	40.90	0.001
6.	IPSA students are reflective, innovative, and equipped for future challenges.	3.48	69.6%	30%	39.80	0.001
7.	Seamless integration of technology effectively fosters dynamic project-based learning.	3.2	64.0%	16%	177.50	0.001
8.	Evaluation procedures used in the current program include self-assessment, peer assessment, and group assessment.	3.4	68.0%	29%	37.50	0.001
9.	IPSA lecturers motivate and support struggling students to achieve their goals.	4.28	85.6%	19%	88.40	0.001
10.	Group projects, class discussions, and short, regular quizzes are all used as part of formative assessment in the current program.	4.3	86.0%	11%	190.00	0.001

7.1.3 Students' perceptions of *graduateness*

Table 4 provides the statistics of students' perceptions towards *graduateness* in the current BAIS program at IPSA. As Table 4 shows, students generally agree that the BAIS program effectively develops graduate attributes. The synergy between thematic content and graduate attributes has a (M = 3.4), with 20% strongly agreeing. Outcomes-based education (OBE) is also seen positively, with 50% neutrality and a (M = 3.37). High (M = 3.8) and above are observed for statements about graduates demonstrating scholarly attitudes, leadership roles, and lifelong learning capabilities. The ability to generate new knowledge through research and effective communication skills is also highly rated, with (M = 3.93 and 4.12), respectively. Emotional intelligence and creativity are rated lower, with a (M = 3.45) and 20% disagreement. Moreover, students perceive the promotion of graduate attributes by lecturers positively, with a (M = 4.09) and high reliability (RI 81.8%).

Table 4: Students' attitudes towards graduate attributes

No.	Item	M	RI	CV	Chi-square	p-value
1.	At IPSA, there is a synergy between the thematic content implemented and the development of graduate attributes.	3.4	68.0%	30%	40.00	0.001
2.	The BAIS modules promote the graduate attributes through using outcomes-based education (OBE).	3.37	67.4%	31%	70.90	0.001
3.	IPSA graduates are able to demonstrate a scholarly attitude to knowledge and understanding within the South African context.	3.8	76.0%	20%	80.00	0.001
4.	IPSA graduates are able to play the roles of leaders, professionals, and members of local and global communication.	3.89	77.8%	32%	49.90	0.001
5.	IPSA graduates are confident lifelong learners who are capable of both ongoing group and individual learning.	3.98	79.6%	26%	72.40	0.001
6.	IPSA graduates can generate new knowledge through research and inquiry.	3.93	78.6%	21%	111.90	0.001
7.	IPSA graduates are able to communicate with people from a wide range of backgrounds.	4.12	82.4%	23%	71.00	0.001
8.	IPSA graduates have the emotional intelligence and creativity to understand their perspectives.	3.45	69.0%	33%	77.50	0.001
9.	IPSA graduates are able to take the initiative, work effectively in teams and contribute their skills as needed.	3.5	70.0%	28%	67.50	0.001
10.	All IPSA lecturers promote the learning of the graduate attributes and its relevance to IPSA's framework for curriculum development.	4.09	81.8%	17%	149.10	0.001

7.2 Lecturers' Questionnaire Results

7.2.1 Lecturers' perceptions of content and teaching strategies

Table 5 presents the statistics of the IPSA lecturers' attitudes towards content and teaching strategies. As the results in Table 5 indicate, lecturers' responses show a high level of agreement on the effectiveness of the BAIS program in developing students' core knowledge of Islamic disciplines, with a ($M = 4.05$) and 95% agreement. The program's content-based approach is also favored, with 75% agreement and a ($M = 3.75$). Sensitivity to the South African context and job-oriented nature of the modules received moderate ratings, with ($M = 3.3$ and 3.25), respectively. Blended learning integration is highly rated, with 90% agreement and a ($M = 3.9$). The use of LMS to simplify teaching roles and facilitate curriculum objectives also received positive feedback, with ($M = 3.55$ and 3.35), respectively. However, there is some disagreement on the effectiveness of varied instructional strategies, with a ($M = 3.25$) and 40% neutrality.

Table 5: Lecturers' attitudes towards content and teaching strategies

No.	Item	M	RI	CV	Chi-square	p-value
1.	The BAIS program is designed to develop students' core knowledge of Islamic disciplines.	4.05	81.0%	6%	70.50	0.001
2.	The BAIS program is based on content rather than themes.	3.75	75.0%	12%	42.50	0.001
3.	The BAIS modules are dynamic and sensitive to the South African context.	3.3	66.0%	24%	18.00	0.001
4.	The BAIS modules are job-oriented and influential for the Muslim community.	3.25	65.0%	31%	18.50	0.001
5.	Blended learning is successfully integrated into IPSA curricula across the board.	3.9	78.0%	8%	62.00	0.001
6.	The use of the learning management system (LMS) in teaching simplifies the role of teachers.	3.55	71.0%	19%	29.50	0.001
7.	The use of the learning management system (LMS) in teaching and learning facilitates the objectives of the curricula.	3.35	67.0%	28%	9.50	0.050
8.	Different instructional strategies are used in the classroom to accommodate students with varied learning abilities.	3.25	65.0%	26%	17.50	0.002
9.	The instructional scaffolding approach is embedded in the BAIS program to enhance the learning process.	3.2	64.0%	13%	48.00	0.001
10.	IPSA uses a flipped classroom model to prioritize active learning in the classroom.	2.9	58.0%	11%	62.00	0.001

7.2.2 Lecturers' perceptions on learning and assessment strategies

Table 6 presents the descriptive statistics of lecturers' perceptions towards learning and assessment strategies. Lecturers' feedback on learning and assessment methods is generally positive, with high mean ratings for student-centered learning ($M = 3.3$) and the use of computer-based activities ($M = 3.4$). The interactive method between students and the environment is well-received, with a ($M = 3.4$) and 40% neutrality. The use of LMS in simplifying student roles and facilitating assessment received moderate ratings, with ($M = 3.2$ and 3.6), respectively. Lecturers also believe that students are reflective and innovative, with a high ($M = 3.8$). Technology integration for project-based learning and varied assessment procedures received positive feedback, with ($M = 3.2$ and 4.2), respectively. The support for struggling students and use of formative assessments received the highest ratings, with ($M = 4.0$ and 4.2), respectively.

Table 6: Lecturers' perceptions towards learning and assessment strategies

No.	Item	M	RI	CV	Chi-square	p-value
1.	The content of the BAIS program promotes student-centered and flexible learning that is relevant to the South African context.	3.3	66.0%	22%	18.50	0.001
2.	Some of the strategies used in IPISA's classroom setting include computer-based activities and role play.	3.4	68.0%	15%	32.00	0.001
3.	IPSA lecturers put more emphasis on the interactive method between the learner and the environment.	3.4	68.0%	24%	16.00	0.003
4.	The use of the learning management system (LMS) in teaching simplifies the role of learners.	3.2	64.0%	35%	8.00	0.092
5.	The use of the learning management system (LMS) in learning facilitates the assessment process.	3.6	72.0%	28%	12.00	0.017
6.	IPSA students are reflective, innovative, and equipped for future challenges.	3.8	76.0%	22%	39.50	0.001
7.	Seamless integration of technology effectively fosters dynamic project-based learning.	3.2	64.0%	24%	19.00	0.001
8.	Evaluation procedures used in the current program include self-assessment, peer assessment, and group assessment.	4.2	84.0%	12%	35.50	0.001
9.	IPSA lecturers motivate and support struggling students to achieve their goals.	4	80.0%	0%	80.00	0.001
10.	Group projects, class discussions, and short, regular quizzes are all used as part of formative assessment in the current program.	4.2	84.0%	10%	48.00	0.001

7.2.3 Lecturers' perceptions towards graduate attributes

Table 7 provides the descriptive statistics of lecturers' perceptions towards *graduateness*. As the findings in Table 7 indicate, lecturers have a high opinion of the BAIS program's effectiveness in developing graduate attributes. The synergy between thematic content and graduate attributes received a high ($M = 4.25$), with 50% strongly agreeing. The promotion of graduate attributes through outcomes-based education (OBE) and the ability of graduates to demonstrate scholarly attitudes received moderate ratings, with ($M = 3.2$ and 4.05), respectively. Leadership roles, lifelong learning, and knowledge generation through research are highly rated, with ($M = 4.0$). Communication skills and emotional intelligence are also seen positively, with ($M = 4.05$ and 3.9), respectively. The highest rating is for lecturers promoting graduate attributes, with a ($M = 4.4$) and 50% strong agreement.

Table 7: Lecturers' perceptions towards graduate attributes

No.	Item	M	RI	CV	Chi-square	p-value
1.	At IPSA, there is a synergy between the thematic content implemented and the development of graduate attributes.	4.25	85%	20%	17.50	0.002
2.	The BAIS modules promote graduate attributes through using outcomes-based education (OBE).	3.2	64%	19%	26.00	0.001
3.	IPSA graduates are able to demonstrate a scholarly attitude to knowledge and understanding within the South African context.	4.05	81%	17%	20.50	0.001
4.	IPSA graduates are able to play the roles of leaders, professionals, and members of local and global communication.	4.15	83%	9%	54.50	0.001
5.	IPSA graduates are confident lifelong learners who are capable of both ongoing group and individual learning.	4.3	86%	15%	22.00	0.001
6.	IPSA graduates can generate new knowledge through research and inquiry.	4.05	81%	15%	28.50	0.001
7.	IPSA graduates are able to communicate with people from a wide range of backgrounds.	4.05	81%	19%	23.50	0.001
8.	IPSA graduates have the emotional intelligence and creativity to understand their perspectives.	3.9	78%	8%	62.00	0.001
9.	IPSA graduates are able to take the initiative, work effectively in teams, and contribute their skills as needed.	4.3	86%	15%	22.00	0.001
10.	All IPSA lecturers promote the learning of the graduate attributes and their relevance to IPSA's framework for curriculum development.	4.4	88%	15%	22.00	0.001

Figures 1a and 1b identify areas of agreement and discrepancy between the two groups on graduate attributes' assessment.

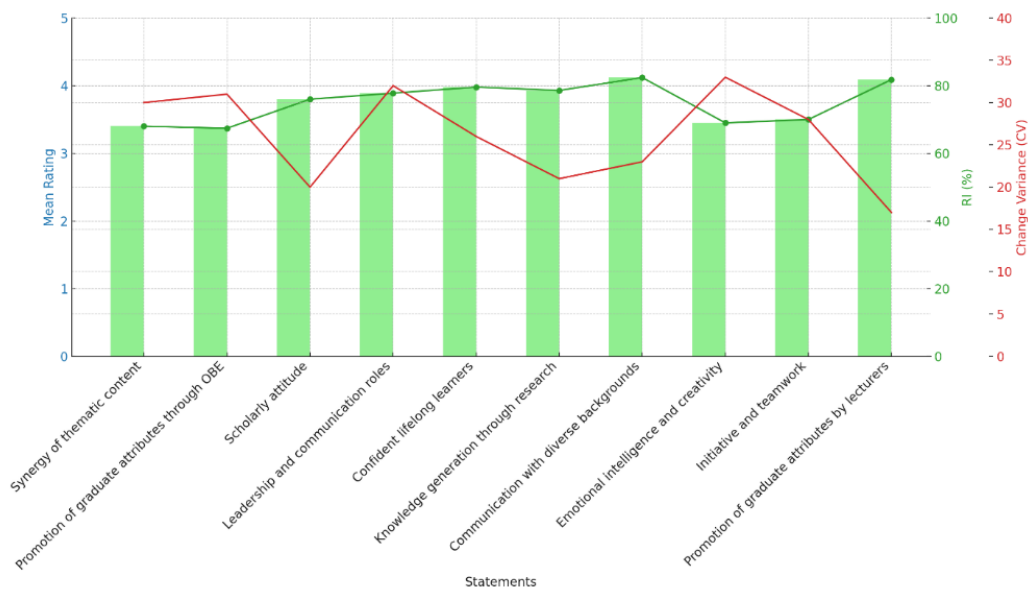


Figure 1a: Students' perceptions on graduateness

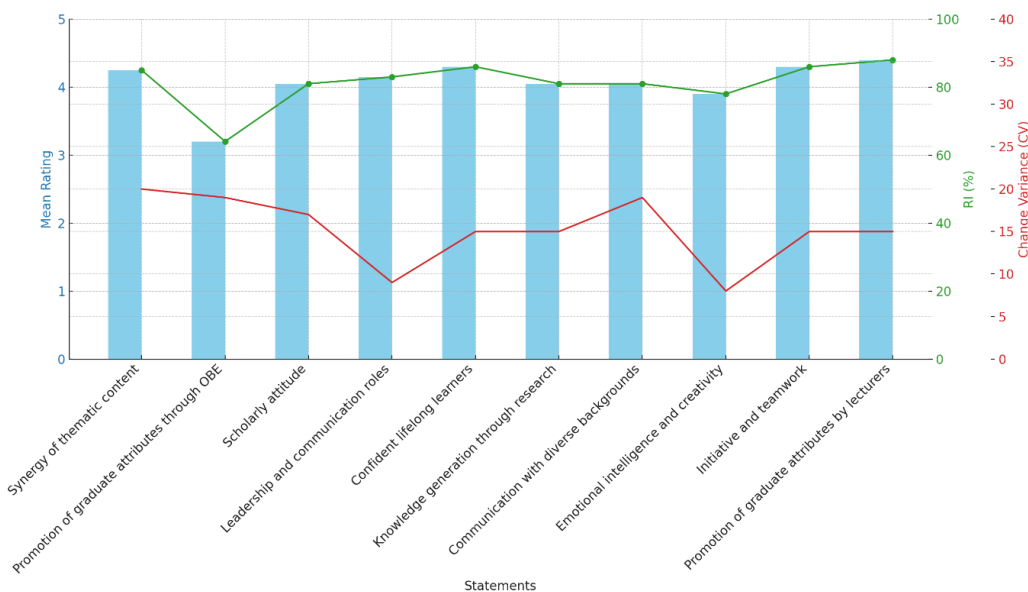


Figure 1b: Lecturers' perceptions on graduateness

Figures 1a and 1b reveal high mean ratings for most statements by both students and lecturers, which suggests overall satisfaction with the graduate attributes at IPSA. "Synergy of thematic content" and "Promotion of graduate attributes by lecturers", in particular, are highly rated. The reliability index (RI) percentages are consistently high for both groups, indicating stable responses across statements, with lecturers showing slightly higher consistency in their opinions. The change variance (CV) values are moderate, suggesting a reasonable consensus among respondents. However, there is some variability noted in specific areas like "Emotional intelligence and creativity" for students and "Promotion of graduate attributes through OBE" for lecturers. These insights highlight areas of strong agreement and suggest potential areas for enhancement in the curriculum.

7.3 Test of Hypothesis 1

To further validate the findings, hypotheses tests were conducted. To test the first hypothesis that proposes that there is no statistically significant difference at $\alpha = 0.05$ between thematic content used and the development of *graduateness* of IPISA's graduates, the general means of the agreement scale for SECTION 1 (Content & Teaching Strategies) and SECTION 3 (Graduate Attributes) were calculated based on students' questionnaire results using the Wilcoxon signed-rank test at a 0.05 significance level. The summary statistics of this method are given in Table 8.

Table 8: Summary statistics of Wilcoxon signed-rank test

	Content & teaching strategies	Graduate attributes
N	100	100
Mean	3.34	3.75
St Dev	0.93	1.01
Coeff of Var	0.28	0.27
Median	4	4

To ensure adequate sample sizes and draw statistically valid conclusions, this study employed GPower, a statistical power software which facilitates calculations for diverse tests like t-tests, f-tests, chi-squared tests, and z-tests. The test of hypothesis is shown in the computation of the Wilcoxon signed-rank test below:

Null hypothesis: mean (SECTION 1) = mean (SECTION 3)

Alternative: not equal

Using GPower 3.1 software

t-tests - Means: Wilcoxon signed-rank test (matched pairs)

Options: A.R.E. method

Analysis: Criterion: Compute required α

Input: Tail(s) =two

Parent distribution = normal

Effect size $d_z = 0.5$

Power ($1-\beta$ err prob) = 0.95

Total sample size =100

Output: Noncentrality parameter $\delta = 4.88$

Critical t =3.206

Df=94.49

p-values=0.0018

Decision: Reject

As the data shows, the p-value for this test is less than or equal to 0.05. Hence, the null hypothesis is rejected at the 95.0% confidence level.

Figure 2 shows the critical test value of the t-distribution curve and boundary of rejecting area.

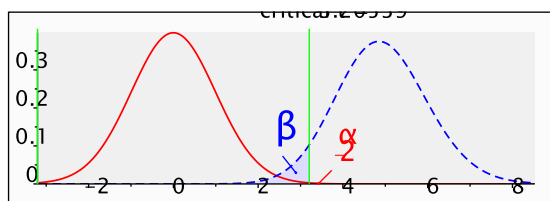


Figure 2: Critical test value & boundary of rejecting area

Figure 2 illustrates two probability distributions. The red curve represents the null hypothesis, and the dotted blue curve represents the alternative hypothesis. The green line marks the critical t-value of 3.20539, indicating the boundary for rejecting the null hypothesis, where the shaded area represents the significance level ($\alpha/2$) and the probability of a type II error (β). The null hypothesis is **rejected** because the test statistic exceeds the critical value of $t=3.206t = 3.206t=3.206$ (in both the figure and the calculation), and the p-value is 0.0018, which is smaller than the significance level ($\alpha = 0.05$). This leads to the conclusion that there is a statistically significant difference between the means of Section 1 and Section 3.

7.4 Test of Hypothesis 2

To test the second null hypothesis of no correlation between student and lecturer attitudes toward graduate attributes, the total agreement scores for each response and estimated Spearman's rank correlation coefficient were calculated. In addition, the independency between the two variables using a chi-square test to determine whether two categorical variables are related were tested.

Table 9: Test of Hypothesis 2

Graduate attributes			
	Lecturers' questionnaire	Students' questionnaire	Total
Strongly disagree	0	43	43
Disagree	3	58	61
Neutral	34	232	266
Agree	110	437	547
Strongly agree	53	230	283
Total	200	1000	1200
chi-square		23.09	
p-value		0.0001	
Spearman correlation		0.900	
p-value		0.000	
Decision		Reject	

Table 9 shows Spearman rank correlations between each pair of variables. These correlation coefficients range between -1 and +1 and measure the strength of the association between the variables. The Spearman coefficients are computed from the ranks of the data values rather than from the values themselves. p-values below 0.05 indicate statistically significant non-zero correlations at a 95.0% confidence level.

Hypothesis testing highlights significant differences between thematic content and the development of graduate attributes, thereby validating the effectiveness of the BAIS program. Moreover, the correlation analysis reveals a robust positive correlation between the perceptions of students and lecturers regarding graduate attributes, indicating a harmonious alignment in their views.

8. Discussion

The findings of the study show that IPSA's program effectively incorporates graduate attributes into the curriculum. This is supported by the significant positive correlation between student and lecturer perceptions of graduate attributes. The development of graduate attributes in the BAIS program at IPSA aligns with existing research in the field of higher education, particularly within the context of Islamic tertiary institutions. In particular, this finding is in agreement with global research which highlights the significance of enhancing students' academic knowledge as well as the skills that are likely to enhance employability (Bitzer & Withering, 2020; Scott & Willison, 2021).

In addition, the findings of this study have also highlighted the significance of technology integration into the curriculum and the role it plays in enhancing the *graduateness* of learners. The use of blended learning and LMS platforms such as NEO and Moodle at IPSA is in line with the findings of studies such as Matu and Paik (2021) and Mohammed et al. (2021), which both emphasize the necessity of technological proficiency in modern education. This study's results show moderate approval of the integration of these technologies in teaching and assessment.

Moreover, this study's findings highlight the need for continuous refinement to ensure that the BAIS program at IPSA remains relevant to local needs, which is crucial for the holistic development of graduates. The alignment of the program with the South African socio-cultural context is in line with the findings of existing studies in literature such as Ensor (2010) and Mansingh and Reddy (2021), which stress the importance of contextual relevance in curriculum development. Another key finding of this study is that while OBE is a beneficial approach to help enhance graduate attributes, further alignment and clarity in its implementation might be needed. The enhancement of graduate attributes through OBE is supported by the findings of previous studies that have emphasized the role of outcome-based frameworks in enhancing educational outcomes (Barrie, 2004; Jones & Pate, 2019).

In a similar vein, this study underscores the significance of critical thinking and ethical leadership attributes. This finding aligns with those of studies such as El-

Saharty et al. (2020) and Hill et al. (2016), which assert that these skills are vital for graduates to navigate complex professional and social landscapes. This study reinforces the need for Islamic higher education institutions to continue fostering these attributes to prepare students for leadership roles both locally and globally.

The findings also suggest that while IPSA has taken necessary steps to prepare learners for the Fourth Industrial Revolution, more integration of advanced technology skills, ongoing updates and adaptations of the curriculum seem necessary to keep abreast with ongoing technological advancements. The integration of advanced technology skills and readiness for the 4IR as part of graduate attributes, as discussed in this study, is in line with other studies that addressed the evolving demands of the job market including (Laseinde, 2023; Wigati et al., 2023). The results of this study have also shown that some disagreement exists among students with regard to the job-oriented nature of the BAIS modules. These results indicate a potential gap between curricular design and student expectations or market needs. This finding is in line with Bridgstock (2009), who pointed out that graduate attributes must be continuously aligned with industry requirements. In short, the findings of this study highlight the need for a balanced approach that integrates traditional Islamic values with modern pedagogical strategies with aimed at ensuring that graduates are well-prepared for both local and global challenges. This approach to graduate attributes in Islamic tertiary institutions is summarized in Table 10.

Table 10: Future graduates in Islamic studies: Attributes integration model

Attribute category	Skills & qualities	South African context & localization	Islamic values & integration	Employability focus	Advanced tech & 4IR skills
Academic competence	Self-motivated researchers & learners, critical & creative thinkers, interdisciplinary understanding, subject-specific expertise	Analyze and address critical issues like racism, poverty, inequality, through specific local needs and challenges	Inquiry grounded in Quranic principles, apply critical thinking to Islamic ethics & jurisprudence	Develop industry-relevant skills, focus on STEM* competencies, and ensure readiness for digital workplaces	Integrate data analytics, cybersecurity, and AI; incorporate Quranic corpus analytics for deep Islamic studies
Moral & ethical compass	Wise & ethical practitioners, socially engaged & collaborative, courageous & principled leaders	Address corruption, xenophobia, violence through ethical decision-making and promote local ethical frameworks rooted in Islamic principles	Uphold Islamic values of compassion, empathy, & human dignity	Foster leadership and teamwork skills, ethical problem-solving, and crisis management	Employ ethical AI, IoT* security, and blockchain transparency; utilize Quranic ethical parsing for decision-making frameworks

Global citizenship	Critical thinking & problem-solving, community & collaboration, technology skills, adaptability, cross-cultural awareness	Apply critical thinking to global challenges and collaborate on local projects addressing poverty, inequality, & environmental issues	Promote Islamic values of tolerance, dialogue, & global citizenship	Enhance global marketability through multicultural competence and international collaboration skills	Leverage cloud computing, big data, and virtual reality for global engagement; implement mobile learning technologies for accessible education
Future agility: context & content	Meta-learning & self-adaptability; ethical tech stewardship; global intercultural navigators; sustainable visionaries	Navigate and adapt to rapid technological and societal shifts, develop local solutions using emerging technologies	Embrace Islamic scholarship's tradition of lifelong learning and adaptability to new contexts	Prepare for dynamic and evolving career paths with an emphasis on agility, resilience, and technological proficiency	Adapt to 5G, AI-driven automation, and renewable technologies; integrate mobile learning platforms and Quranic digital archives for continuous Islamic learning

9. Conclusion

This study has explored *graduateness* in Islamic higher education and its operationalization at IPSA. It has shown how program content and teaching methodologies significantly contribute to the development of graduate attributes. The investigation dealt with the attitudes of students and lecturers towards curriculum content, teaching, and learning. The study has revealed that both lecturers and graduates perceive the BAIS program at IPSA positively. Both students and lecturers affirmed the importance of integrating thematic content to foster *graduateness*, highlighting the role of Islamic higher education in enhancing values, ethics, and employability preparedness.

This study tested two central hypotheses to evaluate the pedagogical strategies at IPSA. The first hypothesis, which proposes that there is no significant difference between the thematic content used and the development of *graduateness* in IPSA's graduates, was rejected. That is, thematic content crucially influences the cultivation of graduate attributes. Similarly, the second hypothesis, which suggests no correlation between the attitudes of IPSA's graduates and lecturers concerning graduates' attributes, was also rejected. A strong positive correlation was found between the two variables. Moreover, the strong alignment between the attitudes of lecturers and graduates indicates that the program is effectively fostering the desired graduate attributes.

This study highlights the critical need for systematic mapping of graduate attributes, as delineated in the proposed "Future Graduates in Islamic Studies: Attributes Integration Model." Such systematic mapping may ensure that educational programs not only adhere to current academic and ethical standards but also respond proactively to the dynamic demands of the job market, especially relevant in the context of the Fourth Industrial Revolution. The systematic

integration and continuous assessment of graduate attributes should guide future educational strategies and initiatives and enhance the quality and relevance of Islamic higher education in South Africa and beyond.

10. Limitations

This study explored the concept of *graduateness* in the context of IPSA and thus it is limited to the graduates and lecturers of this particular institution. Such limitations might impact the generalizability of findings to a broader context. In addition, it focuses on the BAIS program during the periods of 2020-2023, and thus the findings may not be fully applicable to other programs at IPSA such as the Bachelor of Arts (Honours) and the Master of Arts in Applied Islamic Thought. Further research is required to investigate the graduate attributes of these programs at IPSA as well as at other Islamic institutions in South Africa.

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