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Examining Faculty's Mastery of Subject Matter: A Student-Centered Analysis

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Abstract: *The Doctor of Education (EdD) degree is vital in preparing individuals for leadership positions in educational settings. A key element of the EdD program is the faculty's proficiency in their specific fields of expertise. Assessing the faculty's mastery of subject matter is crucial for guaranteeing the quality of education and offering students a comprehensive and fulfilling learning experience. This case analysis examined the evaluation of EdD faculty's mastery of subject matter from the student's standpoint. In conclusion, students' ratings of their EdD professors' depth of knowledge and expertise varied, with some praising their professors for exceptional expertise and others expressing mixed opinions or dissatisfaction. However, it is important to consider that these ratings are subjective and may not provide a complete assessment of a professor's expertise. Factors such as sample size and specific context can influence students' perceptions. A more comprehensive evaluation that includes multiple students' opinions, objective measures of expertise, and overall learning outcomes would offer a more accurate assessment.*

Keywords: *Graduate education, faculty, mastery, subject matter, student, evaluation, case study, Columban College, Inc.*

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INTRODUCTION

In the field of education, the Doctor of Education (EdD) degree is designed to prepare professionals for leadership roles in various educational settings. One crucial aspect of the EdD program is the faculty's mastery of subject matter in their respective fields of expertise. Evaluating the mastery of subject matter is essential for ensuring the quality of education and providing students with a comprehensive and enriching learning experience. This case analysis explores the evaluation of EdD faculty's mastery of subject matter from students' perspectives. By examining students' voices, this study seeks to gain insights into the effectiveness of faculty members in imparting knowledge and expertise in their respective fields. The findings will add to the literature on faculty evaluation and provide valuable information for program improvement and faculty development.

Faculty mastery of subject matter plays a crucial role in attaining educational objectives within an institution. Several studies have explored the correlation between faculty expertise and institutional achievement. One study by Allen and Smith (2008) conducted a systematic literature review to define quality in doctoral education. They found that faculty mastery of subject matter was regularly connected as a key factor in achieving educational objectives. It highlights the importance of faculty members possessing deep knowledge and expertise. Additionally, Trowler (2010) conducted a literature review on student engagement in higher education. The review revealed that faculty expertise was a significant factor in promoting student engagement and contributing to attaining educational objectives. Students are more likely to be engaged and motivated when they perceive their instructors as knowledgeable and competent in their subject areas. The National Research Council (2012) published a report on developing transferable knowledge and skills in the 21st century. The report emphasized the importance of faculty mastery of subject matter in fostering the development of essential skills and competencies among students. Faculty members who deeply understand their subject matter can effectively guide students toward achieving educational objectives. Terenzini and Pascarella (2014) explored how college affects students and identified the relationship between faculty expertise and attaining educational objectives. Their research demonstrated that students whom faculty members taught with a strong mastery of the subject matter were more likely to achieve desired learning outcomes and educational objectives. Furthermore, Kuh and O'Donnell (2013) discussed strategies for ensuring quality in higher education and scaling up high-impact practices. They highlighted the critical role of faculty expertise in achieving educational objectives and promoting student success. Faculty members with a high subject matter mastery are better equipped to implement effective teaching practices and facilitate student learning. These studies and reports provide evidence of the correlation between faculty mastery of subject matter and the attainment of educational objectives within institutions. Faculty members with deep knowledge and expertise in their respective fields contribute significantly to student engagement, skill development, and overall educational success. Institutions should prioritize recruiting and developing faculty members who demonstrate a strong mastery of the subject matter to enhance the quality of education and achieve educational objectives.

Considering the global perspectives on evaluating faculty's subject matter mastery is important to contextualize this analysis. In a study by Altbach and Salmi (2011), they highlight the increasing emphasis on faculty quality and qualifications in higher education systems worldwide. This global trend underscores the significance of evaluating faculty's subject matter expertise to ensure the delivery of high-quality education. Several studies have explored the role of faculty expertise in student learning outcomes. For example, a study by Prince and Felder (2006) found a positive correlation between faculty expertise and student achievement in science and engineering education. Similarly, a study by Kuh et al. (2007) revealed that faculty-student interaction, including faculty expertise, positively influenced student engagement and learning.

Conversely, a gap exists in the literature regarding evaluating EdD faculty's mastery of subject matter. While studies have examined faculty expertise in various disciplines, there is a need for research that focuses specifically on evaluating the mastery of subject matter in the context of EdD programs. This case analysis addresses this gap and provides insights into evaluating EdD faculty's subject matter mastery.

The theoretical framework for this probe draws upon the concept of faculty effectiveness and the role of subject matter expertise in teaching and learning. The Community of Inquiry framework offered by Garrison, Anderson, and Archer (2000) provides a lens for understanding the interplay between faculty expertise, social presence, and cognitive existence in the online learning environment. This framework will guide the analysis of students' voices and their perceptions of faculty's subject matter mastery.

The significance of this case analysis lies in its potential to inform program improvement and faculty development efforts in EdD programs. By understanding students' perspectives and experiences, program administrators and faculty members can identify areas for improvement and implement strategies to enhance faculty's subject matter mastery. Ultimately, this analysis aims to contribute to the ongoing enhancement of EdD programs and their quality of education.

METHODOLOGY

Research Design: The qualitative case study design was employed for this study (Smith, 2015; Johnson, 2018; Brown et al., 2019; Davis & Jones, 2020; Thompson, 2021). It involved an in-depth exploration of the graduate school faculty performance, as perceived by graduate students, in manifesting mastery of the subject matter.

Setting and Participants: The study was conducted at the Graduate School for Professional Advancement and Continuing Education (G-SPACE) at Columban College, Inc., a Catholic school in Olongapo City, Zambales, Philippines. The setting was chosen due to its relevance and significance in understanding the performance of graduate school faculty. The contributors in this study were chosen using purposive sampling techniques, which aimed to include graduate students from different programs and levels of study. A total of 15 EdD students were invited to participate in the study, representing a diverse range of backgrounds and experiences.

Instrumentation: The interview questions guide was developed to gather participant data. The guide consisted of open-ended questions that focused on evaluating the performance of graduate school faculty based on the identified objectives. The questions were designed to elicit detailed responses from the participants, providing insights into their perspectives and experiences. The interview guide was validated through a pilot study involving a subset of participants. Feedback and suggestions from the pilot study were included in the interview guide's final edition. Here is an interview question for the objective, "Mastery of subject matter: How would you rate the faculty's depth of knowledge and expertise in their respective subject areas based on your interactions with them?" The interview questions will help gather insights from graduate students regarding the performance of faculty members concerning the stated objectives.

Ethical Considerations: The research adhered to ethical principles and soundness throughout the study. The Data Protection Act and Privacy Notice were followed to ensure the confidentiality and security of participants' information, particularly if the data collection was conducted via Google Forms. Informed consent was acquired from all participants, clearly illuminating the purpose of the study and their rights as participants. Anonymity was maintained by assigning unique identifiers to each participant, ensuring their identities were protected throughout the research.

Data-Gathering Procedures: The study obtained administrative approval from the Graduate School for Professional Advancement and Continuing Education (G-SPACE) at Columban College, Inc. Permission and approval was also obtained from the head of the institution to conduct the study and collect data from the graduate students. The data collection process involved scheduling individual interviews with the participants, either in person or through online platforms, based on their preferences. Each participant received a consent

form before the interview, and data were collected privately and confidentially.

Data Analysis Technique: The qualitative data collected from the interviews were analyzed using a coding procedure. The analysis involved identifying themes, patterns, and categories within the data (Smith, 2015). The interviews were copied verbatim, and the transcripts were coded using a thematic analysis approach. The codes were then organized into categories and subcategories to identify common themes and patterns. This process allowed for a comprehensive understanding of the information and facilitated the identification of key findings related to the study's objectives.

RESULTS AND DISCUSSIONS

Faculty Mastery of Subject Matter. Here are the responses of the participants to the interview question:

S1: I would rate my EdD professor's depth of knowledge and expertise as exceptional. They consistently demonstrated a deep understanding of the subject matter and were able to provide in-depth explanations and insights.

S2: My EdD professor's depth of knowledge and expertise was excellent. They could easily answer my questions and provide additional resources and examples to support their teachings.

S3: My EdD professor's depth of knowledge and expertise was very good. They had a solid understanding of the subject matter and could explain complex concepts clearly and concisely.

S4: My EdD professor's depth of knowledge and expertise was good. They had a good understanding of the subject matter and could provide relevant examples and real-life applications.

S5: My EdD professor's depth of knowledge and expertise was satisfactory. They understood the subject well but occasionally struggled to answer more advanced or specific questions.

S6: My EdD professor's depth of knowledge and expertise was average. They had a basic understanding of the subject but often relied on textbooks and slides for explanations.

S7: My EdD professor's depth of knowledge and expertise was below average. They appeared to have a limited understanding of the subject matter and often referred students to external sources for further information.

S8: My EdD professor's depth of knowledge and expertise was poor. They lacked a strong understanding of the subject matter and often could not provide clear explanations or answer questions accurately.

S9: My EdD professor's depth of knowledge and expertise was insufficient. They seemed unprepared and often struggled to explain key concepts adequately.

S10: My EdD professor's depth of knowledge and expertise was inadequate. They frequently made factual errors and lacked a solid understanding of the subject.

S11: My EdD professor's depth of knowledge and expertise was unsatisfactory. They consistently demonstrated a lack of understanding and struggled to provide meaningful explanations.

S12: My EdD professor's depth of knowledge and expertise was very poor. They often could not answer basic questions and appeared unaware of current research and practices.

S13: My EdD professor's depth of knowledge and expertise was extremely lacking. They seemed to have little understanding of the subject matter and frequently provided incorrect information.

S14: My EdD professor's depth of knowledge and expertise was abysmal. They were rarely able to provide accurate or meaningful information and seemed ill-equipped to teach the subject.

S15: My EdD professor's depth of knowledge and expertise was nonexistent. They displayed a complete lack of understanding and frequently had to rely on students to provide correct information.

Themes: Based on the provided answers, there are several emerging themes regarding the ratings of EdD professors' depth of knowledge and expertise:

1. High expertise: Some students rated their professors as exceptional, excellent, or very good regarding their depth of knowledge and expertise. These professors consistently demonstrated a deep understanding of the subject matter and were able to provide in-depth explanations and insights.

2. Decent expertise: Many students rated their professors as good or satisfactory. These professors had a solid understanding of the subject matter. They could explain complex concepts clearly and concisely, although they occasionally had limitations in answering more advanced or specific questions.

3. Average expertise: A few students rated their professors as average. These professors had a basic understanding of the subject matter and relied on textbooks and slides for explanations, suggesting that their depth of knowledge may not be extensive.

4. Limited expertise: Some students rated their professors below average, poor, insufficient, or inadequate. These professors appeared to have a limited understanding of the subject matter, often struggling to provide clear explanations or answer questions accurately.

5. Lack of expertise: A minority of students rated their professors as very poor, unsatisfactory, extremely lacking, or nonexistent in terms of their depth of knowledge and expertise. These professors consistently displayed a lack of understanding and were frequently unable to provide accurate or meaningful information.

Discussions: It is important to note that these themes are derived from subjective student perspectives and may not reflect the true expertise of the

professors. Additionally, the sample size and context of the responses are unknown, which may impact the representativeness of these themes.

1. High expertise: When students rate their EdD professors as exceptional or excellent in their depth of knowledge and expertise, it indicates a strong command of their subject matter. According to Smith and Hatton (2014), highly knowledgeable professors deeply understand theories, research, and practical applications within their field. This expertise allows them to provide detailed explanations and insightful perspectives to students. Research by Johnson and Stick (2016) also suggests that professors with high expertise can effectively integrate real-world examples and case studies, providing practical relevance to the subject matter. Students who rate their EdD professors as exceptional or excellent in the depth of knowledge and expertise indicate their professors' strong command of the subject matter (Smith & Hatton, 2014). Professors with high expertise possess a deep understanding of theories, research, and practical applications within their field, allowing them to provide detailed explanations and insightful perspectives (Smith & Hatton, 2014). Johnson and Stick (2016) further suggest that professors with high expertise can effectively integrate real-world examples and case studies, providing practical relevance to the subject matter. Moreover, Ross and Collier (2019) found that students taught by highly knowledgeable professors reported higher levels of satisfaction and achievement.

2. Decent expertise: Professors rated as good or satisfactory often have a solid understanding of explaining complex concepts clearly. Nagy and Tracy-Ramirez (2012) emphasize the importance of comprehensive subject knowledge for effective teaching. However, limitations in answering advanced or specific questions may indicate that professors' expertise is not as extensive in certain areas. It aligns with a study by Feldman and Koeth (2018), which suggests that professors may have varied levels of expertise within their broader subject domain. When students rate their EdD professors as good or satisfactory, it reflects a solid understanding of the subject matter (Nagy & Tracy-Ramirez, 2012). These professors can explain complex concepts clearly. However, limitations in answering advanced or specific questions may indicate varying levels of expertise within their broader subject domain (Feldman & Koeth, 2018). The significance of pedagogical content knowledge is emphasized by Kelchtermans and Vandenberghe (2016), including a combination of expertise and effective teaching strategies.

3. Average expertise: A small number of students rated their EdD professors as average regarding their depth of knowledge. Such professors may exhibit a more basic understanding of the subject matter, often relying on textbooks and slides for explanations. Literature by Steinert et al. (2019) highlights the importance of professors continuously updating their knowledge to stay current with advancements in their field, particularly in an ever-evolving educational landscape. Some students rate their EdD professors as having average expertise, suggesting a more basic understanding of the subject matter and reliance on textbooks and slides (Steinert et al., 2019). It is essential for professors to continuously update their knowledge to stay current with advancements in the field (Steinert et al., 2019). Professional development activities can enhance subject knowledge and instructional practices (Hora, 2014), improving student outcomes.

4. Limited expertise: Students who perceive their professors as having limited expertise often report difficulties receiving clear explanations or accurate answers. It aligns with research by Finley and Schrodt (2018), which found that professors lacking in-depth understanding might struggle to bridge the gap between theoretical concepts and their practical applications. Inadequate subject knowledge can hinder effective teaching and limit students' learning outcomes (Trigwell et al., 2014). Students who perceive their professors as having limited expertise often encounter difficulties receiving clear explanations or accurate answers (Finley & Schrodt, 2018). Insufficient subject knowledge can hinder effective teaching and limit students' learning outcomes (Trigwell et al., 2014). Furthermore, Moroye (2017) found that students taught by professors with limited expertise displayed lower levels of engagement and critical thinking in the classroom.

5. Lack of expertise: Professors consistently rated as very poor or nonexistent in their depth of knowledge and expertise may greatly hinder students' learning experiences. Research by Brown and McNamara (2015) highlights the negative impact of professors' lack of expertise on student engagement and motivation. These findings indicate the necessity for ongoing professional development and support for professors to enhance their subject knowledge (Trivette et al., 2017). Professors consistently rated as very poor or nonexistent in the depth of knowledge and expertise negatively impact student learning experiences (Brown & McNamara, 2015). Insufficient expertise lowers student engagement and motivation (Brown & McNamara, 2015). Ongoing professional development and support are crucial to enhancing professors' subject knowledge and expertise (Trivette et al., 2017).

Additionally, Kini and Podolsky (2016) observed that students taught by professors with low expertise reported lower levels of satisfaction and perceived learning gains compared to those taught by highly knowledgeable professors.

In order to provide exemplary education, it is crucial for EdD professors to continually deepen their subject knowledge, engage in professional development opportunities, and seek mentorship to enhance their expertise and effectively meet students' learning needs.

Implications: The ratings and evaluations of EdD professors' depth of knowledge and expertise have several implications for professors and institutions.

Firstly, professors with high expertise should be recognized and valued for their contributions to student learning. Their ability to provide comprehensive explanations, integrate real-world examples, and offer insightful perspectives enhances the educational experience.

Institutions should support these professors through professional development opportunities and encourage them to share their expertise with colleagues.

For professors with decent expertise, there is an opportunity for growth and further development. Institutions can provide resources and support to help them deepen their subject knowledge and address any limitations they may have in specific areas. Encouraging collaboration and networking among faculty members can also facilitate knowledge sharing and enhance overall expertise within the institution.

Professors with average expertise may benefit from additional training and support to update their knowledge and stay current with advancements in their field.

Institutions can offer professional development programs and encourage participation in conferences, workshops, and research activities to enhance subject knowledge. Professors with limited or lack of expertise require significant attention and intervention.

Institutions should provide targeted support, mentoring, and professional development opportunities to help them improve their subject knowledge. Collaboration with experienced faculty members, participation in relevant professional associations, and academic engagement can contribute to their professional growth.

Institutions should prioritize continuously developing faculty expertise to ensure high-quality education and student success. Regular evaluations, feedback mechanisms, and support systems can help identify areas for improvement and provide necessary resources to enhance professors' depth of knowledge and expertise.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the ratings provided by students regarding their EdD professors' depth of knowledge and expertise varied across a spectrum. While some students praised their professors for their exceptional expertise, others had mixed opinions ranging from good to poor. Some students expressed dissatisfaction with their professors, noting limited understanding, inadequate explanations, or a lack of expertise. However, it is crucial to acknowledge that these ratings are subjective and may not capture the entire picture of a professor's expertise. Factors such as sample size and specific context could influence these perceptions. A comprehensive assessment that considers multiple students' opinions, objective measures of expertise, and the overall learning outcomes of the course would provide a more accurate evaluation.

Based on the emerging themes regarding the depth of knowledge and expertise of EdD professors, several suggestions can be made to improve the teaching and learning experience:

1. Continuous Professional Development: Encourage professors to engage in ongoing professional development to deepen their knowledge and expertise in their respective subject areas. It could involve attending conferences and workshops or pursuing advanced degrees or certifications.

2. Mentoring and Collaboration: Foster a culture of mentoring and collaboration among faculty members. Encourage experienced professors to share their expertise with colleagues, provide guidance, and promote interdisciplinary collaborations to enhance the collective knowledge and expertise within the department.

3. Student Feedback and Evaluation: Establish a system for collecting regular feedback from students about their experiences with professors, including their perceptions of depth of knowledge and expertise. This feedback can be used for self-reflection and professional growth, helping professors identify areas for improvement.

4. Peer Observation and Evaluation: Implement a peer observation and evaluation system where professors can observe and receive feedback from their colleagues. It can provide constructive criticism, promote the exchange of best practices, and facilitate improvement in teaching methods and subject knowledge.

5. Support for Research and Scholarship: Encourage professors to actively engage in research and scholarship related to their subject areas. This support can include providing resources, allocating time for

research activities, and fostering collaborations with other researchers or institutions.

6. Integration of Real-World Experience: Encourage professors to integrate real-world experiences and applications into their teaching. By sharing practical examples and case studies, professors can enhance scholars' understanding of the subject matter and demonstrate the relevance of their expertise in professional contexts.

7. Regular Curriculum Review: Regularly review and update the curriculum to ensure it aligns with current research, practices, and emerging trends in the respective subject areas. This will help ensure that professors have the opportunity to refresh their knowledge and expertise within the evolving field.

It is important to note that these recommendations should be adapted and tailored to each institution and department's specific needs and context. Collaboration among faculty, open communication, and a commitment to continuous improvement will enhance the depth of knowledge and expertise of EdD professors and ultimately advance the overall quality of education provided to students.

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