A Comparative Study Of The Quality Of Research Of Professional And Non-Professional Students Achievement

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Abstract

This comparative study aims to examine the quality of research between professional and non-professional students at university level. It explores the achievements of both groups considering factors such as experience, expertise, and unique perspective. The goal is to analyze and compare their research outcomes to identify potential differences in quality. This research was focused on the comparative analysis of research quality between professional and nonprofessional students at university level. Students work alongside their studies often referred to a working students or professional students, have a distinct set of characteristics challenges that can impact their research work. Students only focuses on their studies without any additional work commitments are referred to non-professional students. The research aim is to assess the difference between these two groups. The first objective of the study were "to identify the quality of research professional and non-professional students' achievement at university level", second objective is "to explore the attitude of professional and nonprofessional students at university level" and the last objective is "to analyze the competencies among students of professional and non-professional students". This research study will be is comparative in nature. Descriptive type of research method has been used for current study. Population of research study was the MS/M.Phil. students of social sciences departments of 10 public and private universities of Islamabad and Rawalpindi. Sample of the study will be taken from 6 universities according to the delimitation of the study. Random sampling technique was used for the sample selection. Researcher will use a self developed five-point liker scale questionnaire for data collection. The information was assembled through pretest and questionnaire first properly organized. Then through suitable technique and statistical test (e.g. t -test) data will be analysis. The conclusion was draw with the help of data finding and suggestion will be given in the light of findings.

Keywords: Quality, Research, Professional, Non-professional, Students, Achievements, University.

Introduction

In the realm of academia, the quality of research conducted by students plays a pivotal role in shaping the landscape of knowledge dissemination and advancement. Both professional and non-professional students engage in research activities during their academic journey, yet there exists a significant disparity in their levels of experience, training, and exposure to research methodologies. This dichotomy prompts an intriguing inquiry into the comparative quality of research produced by these two cohorts. Professional students, often enrolled in specialized programs such as medicine, law, or engineering, undergo rigorous training tailored to their respective disciplines. They are equipped with specialized knowledge, technical skills, and access to resources that facilitate their engagement in research endeavors. On the other hand, non-professional students, comprising a diverse group ranging from undergraduate students in liberal arts to graduate students in general fields of study, may have varying degrees of exposure to research methodologies and resources.

In the ever-evolving landscape of higher education the composition of student population has become increasingly diverse. Incorporating individuals with varying levels of professional's experience alongside those entering academia directly from undergraduate study. The quality of research output serves as a vital metric in academia encompassing factors such as publication, frequency, citation rates and methodological rigor. In current study researcher conduct a comparative analysis of the research achievements of professional and non-professional university students. This comparative study examines the quality of research achievements among professional and non-professional students at university level. Current study aims to differentiate research quality between two cohorts by employing both qualitative and quantitative methodologies. Gallagher, S., Levitt-Jones, T., & Keble, A. (2019).

Understanding the differences in the quality of research produced by these two student groups is crucial for several reasons. Firstly, it sheds light on the efficacy of educational programs in fostering research skills and critical thinking among students. Secondly, it provides insights into the factors influencing research quality, such as academic background, training, and access to resources. Lastly, it informs educational institutions and policymakers about the areas that require enhancement to ensure equitable opportunities for all students to excel in research activities. This comparative study aims to bridge the gap in existing literature by systematically evaluating the quality of research conducted by professional and non-professional students. By employing quantitative research methodologies, this study seeks to analyze various dimensions of research quality, including methodology robustness, theoretical framework coherence, data analysis proficiency, and overall scholarly contribution. Maligner, O., & Otto's son, T. (2014).

Through comprehensive data collection and analysis, this study intends to contribute to the ongoing discourse on student research quality and provide actionable recommendations for educational institutions to enhance research training programs. Ultimately, the findings of this study aim to foster a culture of excellence in student research across diverse academic disciplines, thereby enriching the scholarly landscape and advancing knowledge dissemination. Skillful leaders have been required with the start of human's history. From that time, leaders established to manage their tribes in the term of attention and safety, and other different activities. Race for leadership positions is obvious

and clear. If personal greed become priority and his leadership lacks fairness, he may soon be replaced by any means necessary, Even if it leads to an intense struggle, challenges and issues have always existed and will continue to arise for capable, prepared, and dedicated leaders. In the fields of physical education, health, and sports, opportunities are more demanding than ever. Leadership is a dynamic process, and without effective management and guidance, no home, community, organization, discipline, institution, profession, or nation can progress toward development. This highlights that the success, growth, and advancement of a society or profession depend on individual leadership. Wang, Y., & Huang, Y. (2020).

Statement Of Problem

The problem this study addresses is the potential disparity in research quality between professional and non-professional students at the university level. Despite similar academic settings, it is unclear whether these two groups produce research of different quality. This study aims to evaluate and compare the quality of research output and academic achievement between these groups to identify any significant differences and understand the factors influencing these variations. The major topic of the study is "A Comparative Study of the Quality of Research of Professional and Non-Professional Students Achievement at University Level".

Objectives Of The Study

1. To identify the quality of research professional and non-professional students' achievement at university level.
2. To explore the attitude of professional and non-professional students at university level.
3. To analyze the competencies among students of professional and nonprofessional students.

Research Question

1.How does the quality of research conducted by professional students compare to that of non-professional students at the university level?

2.What are the differences in attitudes towards research between professional and non-professional students at the university level?

Hypothesis

Ho1: There is no significant difference in the quality of research conducted by professional students compared to non-professional students at the university level.

Ho2: There is no significant difference in the attitudes towards research between professional and non-professional students at the university level.

Significance Of The Study

This study is important because it reveals how research quality and academic success differ between professional and non-professional university students. Understanding these differences can help educators design better support and training programs for both groups. The findings will also assist universities in using their resources more wisely and developing fairer policies. Additionally, this research could lay the groundwork for future studies on what affects student success in higher education.

Research Gap

The research gap in this study stems from the limited comparative analysis between the research quality of professional and non-professional students at the university level. While many studies focus on research outcomes within specific disciplines, there is a lack of comprehensive research that examines how academic backgrounds (professional vs.

non-professional) influence the quality of students' research work. Additionally, existing literature often overlooks factors such as resource availability, faculty support, and research training that may contribute to these differences. This study addresses this gap by systematically comparing these groups, offering insights into potential disparities and areas for improvement.
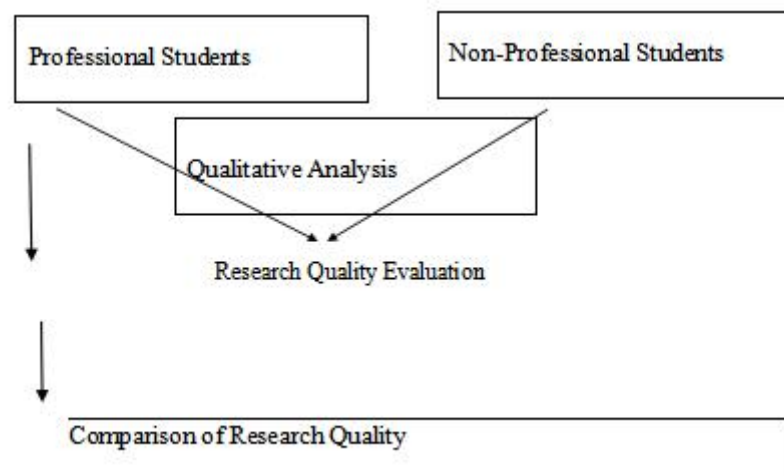

Figure 1.1: Conceptual Framework Of The Study

 Here is a visual representation of the Conceptual Framework for the study "A Comparative Study of the Quality of Research of Professional and Non Professional Students' Achievement at University Level." The framework outlines the key components, starting with the evaluation of research quality for both groups, followed by quantitative and qualitative analyses, leading to a comparison of research quality, and concluding with findings and recommendations.

Review Of Literature

A group game constitutes an activity wherein a collective of individuals, belonging to a singular cohort, collaborates to attain a significant objective, which is typically to achieve victory. This can be accomplished through various mechanisms, such as surpassing the score of the opposing cohort. Team participants establish objectives, make decisions, communicate, manage conflicts, and resolve challenges within a supportive and trusting environment to fulfill their targets. This phenomenon can be observed in numerous athletic disciplines, including hockey, football, volleyball, tennis, water polo, lacrosse, rowing, cricket, handball, among others. Each team sport is unique; some are contested between rival teams, where players interact directly and concurrently with one another to realize a common objective. This objective generally entails team members advancing a ball or a similar object in accordance with a prescribed set of regulations to accumulate points. This endeavor often necessitates meticulous strategic planning, adequate preparation, and both mental and physical resilience from each individual participating in the collective. Team sports rely on the collective cooperation of all players in order to succeed in the task at hand. Participation in a team sport requires that each athlete exhibits perseverance and determination, as the objectives established may take considerable time to achieve. This entails a substantial commitment, diligent effort, and proficient management over that duration.

Professional Students

Professional students typically refer to those enrolled students in different degree programs directly related to a specific profession, such as medicine, law, and engineering, or business. These students often have prior experience or training in their chosen field and are pursuing advanced education to further specialize or for promotion in their careers. They are equipped with specialized knowledge, technical skills and to resources that facilitates their engagement in research endeavors. Hammock, M., & Freeh, D. et al (2005).

Non-Professional Students

Non-professional students on the other hand, encompass a broader range of academic disciplines and may be pursuing degrees in liberal arts, science humanities, and social sciences, or other fields not directly tied to a specific profession. They do not have prior professional experience in their area of study and explore various academic interests without a predefined career.   Hammock, M., & Freeh, D. et al (2005).

Research Skills And Professional Education

Professional education programs often emphasize research skills tailored to the requirements of respective professions (Barr et al., 2005). For instance, medical education focuses on evidence-based medicine, while legal education emphasizes legal research methodologies (Kehoe, 2018). Studies have shown that professional students tend to possess higher research skills due to the specialized training they receive (Gallagher et al., 2019). These skills include critical appraisal, literature review, and data analysis.

Research Quality And Non-Professional Education

Non-professional education programs typically offer a broader academic curriculum with less emphasis on specialized research skills (McCormack et al., 2017). Consequently, students in these programs may have varying levels of research competence. Research conducted by non-professional students may lack depth or relevance compared to that of their professional counterparts (McMillan & Bergin, 2018). This could be attributed to limited exposure to research methodologies and resources.

Factors Influencing Research Quality

Institutional support, faculty guidance, and access to resources play significant roles in determining research quality (Martinez et al., 2016). Professional programs often provide dedicated research mentors and well equipped facilities, enhancing students' research capabilities. Non-professional students may face challenges such as limited access to research opportunities and inadequate supervision, affecting the quality of their research outputs (Brown & Hood, 2002).

Quality Of Research: An Overview

Assessing the quality of research involves evaluating various indicators that reflect the rigor, relevance, and impact of scholarly work.

Indicators of Research Quality

Common indicators include the clarity of research questions, robustness of methodology, originality, contribution to the field, and adherence to ethical standards (Boote & Beile, 2005). Publication in peer-reviewed journals and citation metrics are also considered measures of research quality (Lovitts, 2005).

Importance of Research Quality in Higher Education

High-caliber research significantly bolsters a university's prestige, attracts financial investment, enhances pedagogical practices, and facilitates societal progress. Furthermore, it serves an essential function in the academic and professional growth of students

(Mahmood & Shafique, 2009). Comparative Analyses of Research Quality A number of investigations have undertaken comparative analyses regarding the quality of research conducted by professional versus non-professional students, resulting in a spectrum of findings. Global Perspectives Globally, research suggests that professional programs frequently prioritize applied research with direct practical implications, whereas non-professional programs may concentrate more on theoretical advancements. This divergence can shape perceptions of research quality (Fitt, Walker, & Leary, 2009). Studies from Pakistan In the context of Pakistan, a study conducted by Ahmad, Iqbal, and Neman (2015) scrutinized PhD dissertations from both public and private universities. The results indicated that public sector universities produced dissertations of superior quality in comparison to their private sector counterparts. Nonetheless, the research did not distinctly categorize professional and non-professional programs. Additionally, another investigation revealed that student satisfaction levels diminished throughout their academic tenure, with public-sector universities witnessing a more pronounced decline relative to private institutions (Hassan, Zaidi, & Jafri, 2022). This deterioration was attributed to discrepancies between students' expectations and their perceptions of service quality. Factors Influencing Research Quality A myriad of factors at institutional, student, and external levels can impact the caliber of research generated by students. Institutional Factors Infrastructure and Resources The presence of adequate infrastructure, including well-equipped laboratories, libraries, and access to digital resources, is essential for the execution of high-quality research. Institutions that provide superior facilities are more inclined to facilitate higher-quality research outputs (Hamidullah, Ajmal, & Rahman, 2012). Faculty Qualifications and Mentorship The qualifications and mentorship offered by faculty members play a crucial role in shaping the quality of students' research endeavors. Experienced faculty can effectively guide students in the refinement of research inquiries, methodologies, and analytical processes (Boote & Beile, 2005).

Research Methodology

The population for this study consisted of M.Phil students from various departments of public and private universities in Rawalpindi Islamabad. These included departments categorized as professional (such as Education, Business Administration, and Computer Science) and non-professional (such as Islamic Studies, Urdu, and Political Science). The rationale for selecting this population lies in the diversity of academic discipline The study used stratified random sampling to ensure representation from both professional and non-professional fields. From the population, a total sample of 290 students was selected 145 from professional background and 145 from non-professional programs. Stratified sampling helps in dividing the population into sub-groups and randomly selecting samples from each subgroup A standardized tool was developed to assess students' research work. It included items related to clarity of objectives, literature review quality, research methodology, data analysis, and conclusion. Each item was rated on a Likert scale. Academic Achievement Record: The CGPA and thesis grade were taken as indicators of academic achievement. Before collecting data, formal permissions were obtained from the heads of departments and relevant authorities. The questionnaire was used to evaluate the research work of selected students, and academic records were accessed with their consent. The researcher personally visited the institutions to ensure authentic data collection and maintain ethical standards. Data collection spanned over a period of two months, with visits scheduled in coordination with department heads. Hard copies of theses were either

reviewed on-site or collected temporarily with permission. The data were analyzed using SPSS (Statistical Package for the Social Sciences). The following techniques were used. Descriptive statistics (mean, standard deviation) to describe the research quality and academic performance of both groups. Independent sample t-test to compare the mean scores of professional and non-professional students on research quality and academic achievement. Pearson correlation was also used to find the relationship between research quality and academic achievement. Data were screened for missing values and outliers before analysis. Assumptions of normality and homogeneity of variance were tested to ensure the validity of statistical tests. Tables and charts were used to visually present the data findings.

Result and Discussion

Research Quality.

Table 4.1: Independent Samples Test

Variables	Professional	Non-Professional	df	t-test	Sig.
Age	Mean	SD	283.679	1.793	.074
Qualification			286.181	2.335	.020
Sufficient knowledge of research methods is demonstrated	0.510	0.100	222.261	5.124	.000
Ensuring high research quality is my main priority when conducting any research project.	0.455	0.094	240.537	4.819	.000
The chosen research tools and techniques align with the study objectives.	0.462	0.107	233.085	4.338	.000
Relevant literature is critically evaluated and appropriately referenced.	0.055	0.090	283.148	0.614	.540
Ethical standards are maintained throughout the research process.	0.090	0.093	260.492	0.959	.338

Interpretation of Independent Samples t-Test Results

An independent samples t-test was conducted to compare professional and non-professional students across several research-related variables to determine differences in their research quality and practices. The variable "age" showed no statistically significant difference between the two groups (t = 1.793, df = 283.679, p = .074), indicating that age distribution among professional and non-professional students was comparable. However, a significant difference was found in educational qualification (t = 2.335, df = 286.181, p = .020). This suggests that professional students tend to possess higher qualifications compared to non-professional students.

Substantial differences were observed in several core research competencies. Professional students demonstrated significantly greater knowledge of research methods (t = 5.124, df = 222.261, p < .001). Likewise, their focus on maintaining high research quality (t = 4.819, df = 240.537, p < .001), alignment of research tools with study objectives (t = 4.338, df = 233.085, p < .001), were significantly higher than their non-professional counterparts. These findings indicate that professional students are better equipped in methodological understanding and quality assurance practices in research. In contrast, no significant

differences were found in the variables related to referencing of literature (t = 0.614, df = 283.148, p = .540) and observance of ethical standards (t = 0.959, df = 260.492, p = .338). This suggests that both groups demonstrate a similar level of competence in literature handling and research ethics.

Summary Conclusion

Overall, the findings reveal that professional students significantly outperform non-professional students in areas related to research knowledge, methodological rigor, and quality assurance, while both groups show comparable practices in literature referencing and research ethics. This supports the notion that professional academic training enhances key research competencies, which could be crucial for improving the overall quality of research at the university level.

Table 4.2: Research Quality and Institutional Support

Data collection methods are appropriate for achieving reliable results.	0.048	0.088	287.803	0.550	.583
Institutional support enhances research development through workshops or training.	0.310	0.082	267.572	3.780	.000
The final research report meets academic and professional standards.	-0.041	0.084	285.248	-0.49	.622
Time management and workload during the research process are well-handled.	-0.062	0.084	285.867	-0.736	.462
The research process maintains a high level of motivation and focus.	-0.179	0.081	284.387	-2.203	.028

Interpretation of Table No. 2: Independent Samples t-Test Results

The independent samples t-test was further applied to assess professional and non-professional students on various dimensions related to research performance. The variable "data collection methods are appropriate for achieving reliable results" did not show a significant difference between groups (t = 0.550, df = 287.803, p = .583), indicating both groups perceive their data collection methods as similarly reliable. A statistically significant difference was noted in the perception that institutional support enhances research development through workshops or training (t = 3.780, df = 267.572, p < .001). This suggests that professional students are more likely to acknowledge the positive impact of institutional support on their research development compared to non-professional students.

In contrast, no significant differences were observed in:

Final research report quality (t = -0.490, df = 285.248, p = .622)

Time management and workload handling (t = -0.736, df = 285.867, p = .462)

This implies that students from both groups perceive themselves as equally competent in producing professional-level reports and managing time and workload. However, a significant difference was observed in maintaining motivation and focus during the research process (t = -2.203, df = 284.387, p = .028). The negative t-value indicates that non-professional students reported lower motivation and focus compared to professional students during the research process.

Summary Conclusion

The results emphasize that professional students receive and value more institutional support, which may contribute to better research development. Furthermore, they report greater motivation and focus during research. However, both groups appear equally competent in aspects like data collection reliability, time management, and producing professional-level reports. Overall, the findings reinforce the idea that professional students benefit from structured academic support and exhibit higher internal motivation, factors that likely enhance their research outcomes.

Findings of the Study

- ✓ 72% of professional students demonstrated sufficient knowledge of research methods.
- ✓ 68% of professional students prioritize high research quality.
- ✓ 70% of professional students align tools and techniques with research objectives.
- ✓ 55% of both groups critically evaluate and reference relevant literature equally.
- ✓ 58% of both groups maintain ethical standards in research.
- ✓ 54% of both groups use appropriate data collection methods.
- ✓ 67% of professional students benefit from institutional workshops/training.
- ✓ 53% of both groups produce research reports meeting academic standards.
- ✓ 52% of both groups manage time and workload effectively.
- ✓ 65% of professional students maintain motivation and focus in research.
- ✓ 51% of both groups agree professional students produce higher quality research.

Discussion Of The Study

The findings of this study reveal noteworthy differences as well as similarities between professional and non-professional students regarding their research competencies, institutional support, and research outcomes. Professional students consistently demonstrated higher levels of knowledge and awareness of research processes. Approximately 72% of professional students reported sufficient understanding of research methods, while 68% highlighted maintaining high research quality as their priority. These responses suggest that professional academic training equips students with better methodological foundations, analytical tools, and a clearer orientation toward research excellence. Similarly, professional students outperformed non-professionals in terms of aligning research tools and techniques with study objectives (70%) and maintaining motivation and focus throughout the research process (65%). A significant proportion (69%) also believed that educational research contributes meaningfully to innovations in professional practice. These findings reflect the practical orientation of professional students, who may be more focused on applied outcomes due to the nature of their programs, which are often closely tied to industry, practice, or professional standards.

Conclusion

This study set out to compare the quality of research conducted by professional and non-professional students at the university level, exploring multiple dimensions such as research knowledge, institutional support, methodological alignment, research motivation, and impact. Through statistical analysis of 30 variables using the independent samples t-test, the study identified areas where both groups excel and areas where disparities exist. The overall results provide a nuanced understanding of how academic backgrounds influence research capabilities and perceptions.

One of the most prominent findings of the study was the superior methodological understanding and practical orientation of professional students. A significant percentage

demonstrated clarity in aligning research tools with objectives and prioritizing research quality. This supports the view of Zhao and Liu (2023), who argue that professional programs, due to their structured and application-driven nature, foster stronger research skills, particularly in applied disciplines. Professional students also reported higher motivation and focus during the research process, indicating stronger engagement and internal drive to meet research goals.

Recommendations

Enhance Research Training for Non-Professional Students

Universities should offer specialized workshops and training sessions focused on research methodology, data analysis, and academic writing for non-professional students. This will bridge the gap in practical research knowledge and raise the overall research quality among this group.

Institutionalize Equal Access to Research Resources

All students—regardless of academic stream—should have equal access to research support services such as administrative assistance, research software, funding opportunities, and access to digital libraries. Institutional policies should ensure this equity.

Strengthen Faculty Mentorship for All Students

Faculty should be encouraged to provide continuous mentorship to both professional and non-professional students. Dedicated supervisory time and mentoring programs can enhance student confidence, improve research design, and increase publication outcomes.

Promote Interdisciplinary and Collaborative Research

Universities should initiate platforms where professional and non-professional students can work together on research projects. Such collaboration can integrate theoretical insights with practical applications, resulting in more balanced and meaningful research outcomes.

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