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Exploring Faculty Teaching Effectiveness and Professional Development: Insights from Demographic Variations

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Abstract:

The academic achievement and professional growth of pupils are significantly influenced by the effectiveness of their teachers. This research aims to evaluate teaching effectiveness and professional development among college faculty across various demographic profiles. The study uses a descriptive and empirical approach, utilizing both primary and secondary data. A survey was conducted with 200 sample respondents, collecting insights on teaching effectiveness and professional development. To identify statistically significant differences by gender, academic experience, and other demographic factors, data were evaluated using statistical techniques like ANOVA and t-tests. Key factors in assessing teaching effectiveness included student feedback, use of technology, and the impact on student outcomes. Additionally, professional development aspects like participation in continuing education, attending workshops, and engaging in research activities were explored. The findings reveal that male and female respondents prioritize different aspects of teaching effectiveness and professional development. Those with varying years of academic experience also demonstrated diverse perceptions of teaching methodologies and the value of professional development activities. This study emphasizes the importance of continuous professional growth for educators and highlights the significance of technology, student feedback, and mentorship in enhancing teaching effectiveness. The paper suggests strategies for improving teaching and faculty development programs to support ongoing academic excellence.

Keywords: Teaching Effectiveness, Professional Development, Academic Experience, Demographic Profiles, Educational Institutions

INTRODUCTION

For all teachers, including school teachers and college professors, their performance can always be measured by their teaching effectiveness. A good teacher always ensures that their teaching is effective. Teaching effectiveness can be measured by many parameters, such as student grades, marks, their percentage, and cumulative grade point average.

Teaching effectiveness can also be assessed by obtaining student feedback from time to time. This feedback can be provided to teachers to help them correct themselves accordingly. Additionally, student retention rate is a key parameter in measuring teaching effectiveness. This is particularly evident at the postgraduate level, where students often select their elective courses based on the professors. Even at the primary and high school levels, student retention plays a significant role in measuring the effectiveness of teachers.

Technology can be used by teachers to enhance their teaching effectiveness. There are many modern teaching aids, such as flipped classrooms, games, online courses, podcasts, and presentation software. Teachers and professors must be well-versed in these latest platforms. Although they use different technologies in teaching, it is the teachers' skill sets that are crucial in creating interest among students.

Professional development is a major area in which teachers and professors need to keep improving their skills and advance to the next level. Teachers can participate in continuing education programs and attend workshops and seminars in their field. They should also improve their research skills to master their domain. They should focus on developing themselves and help develop their students by actively engaging with them and guiding them to achieve their learning and educational goals. Teachers should also mentor and guide students toward their professional and personal development.

REVIEW OF LITERATURE

In this study [1], the perspectives of first-year undergraduate students regarding successful teaching in a contemporary English institution are investigated. Instead of stressing high academic standards, it draws attention to the kids' desire for a nurturing learning environment where teachers scaffold learning. The results contradict previous research by demonstrating that students value instructional methods and character traits that improve their educational experience and promote more positive teacher-student relationships. According to the report, teachers—especially those in teaching-intensive institutions—should reevaluate their dual roles as subject matter experts and learning facilitators.

This review [2] critically examines professional development (PD) programs, questioning standard design elements such as program length, intensity, and subject matter expertise. It implies that these characteristics are not accurate indicators of success. Instead of concentrating only on the recommended material or techniques, more successful professional development programs encourage instructors to learn and engage them intellectually. The study calls for research that examines how professional development might be more relevant and engaging for teachers, highlighting the significance of comprehending teacher learning processes and the role of motivation in PD results.

This article [3] examines three new developments in teacher professional development: mentoring, globalization, and a reconsideration of teacher evaluation. Through ongoing professional development, localizing global practices, mentoring new teachers, and reorienting evaluation to emphasize professional development, these initiatives seek to expand and improve teachers' learning. In order to promote ongoing progress in education and teaching

methods, the essay emphasizes how these trends are developing globally and the necessity of systemic adjustments, teamwork, and teacher involvement in policy-making.

This study [4] explores the effectiveness of various teaching methods at the graduate level, with undergraduate students at the University of Karachi providing insights into their preferred methods. The lecture method was rated highest, valued for its structured delivery and efficiency, while group discussions were appreciated for fostering participation and creativity. The study emphasizes the importance of using diverse methods like role play, case studies, and brainstorming to enhance learning. Recommendations include using student feedback to improve teaching practices and ensure continuous engagement in the learning process.

In this paper [5], the changing notion of good teaching in higher education is examined, especially in light of the Australian Learning and Teaching Council's (ALTC) standards for effective teaching. In response to the ever-changing educational landscape, it highlights the significance of mutual understanding and ongoing modifications to instructional strategies. In order to keep the ALTC criteria current and evidence-based, the article argues for their renewal to take into account the continuous changes in higher education. To address new trends and satisfy the demands of many stakeholders, it urges a continuous effort to improve these standards.

OBJECTIVES OF THE STUDY

(i) To know the teaching effectiveness among different demographic profiles of sample respondents.

(ii) To study the professional development among different demographic profiles of sample respondents.

METHODOLOGY

The current study is both empirical and descriptive. The current study has made use of both primary and secondary data. To learn more about college faculty performance management, a survey was created. To gather information from 200 sample responders, a questionnaire was created. The study's objectives were clearly explained to the sample respondents when they were contacted in person, guaranteeing their participation. The study also collected information from the website. Furthermore, secondary data relevant to the research was collected from a variety of published works, including novels and magazines. The judgment sampling method has been used by the researcher.

Performance Management

Teaching effectiveness among different gender groups of sample respondents

Data were gathered, and the t-test was used to see if there were any significant differences in the effectiveness of instruction across the sample respondents' gender groups. For the various gender categories of sample respondents, the average score for each statement about teaching efficacy was calculated independently. The resulting mean score on teaching

efficiency for each gender group of sample respondents is displayed in the table along with the associated "t" statistics.

Table

't' test for significant variations in teaching effectiveness between sample respondents' gender groups

Teaching effectiveness	Gender group (Mean Score)		t Statistics	p Value
	Male	Female		
I believe my teaching methodologies are effective in promoting student learning	3.7411	3.2381	3.396	0.001
My teaching directly influences student outcomes such as grades and retention rates	3.6064	3.9683	2.470	0.014
Student feedback and peer evaluations are valuable in assessing my teaching effectiveness	3.8227	3.7143	0.798	0.425
Technology enhances my teaching effectiveness	3.8511	4.0635	1.555	0.121

Source: Primary data

*- Significant at the 5% level.

As the respective high mean scores were 3.8511 and 3.8227, the table clearly demonstrates that among the male sample respondents, the most important teaching effectiveness was that technology enhances my teaching effectiveness, and that peer evaluations and student feedback are valuable in assessing my teaching effectiveness. Since the mean scores for the "Female respondents" were 4.0635 and 3.9683, respectively, it was clear that technology improves teaching efficacy and that my instruction has a direct impact on student outcomes like grades and retention rates. Regarding the effectiveness of teaching in all its facets, a significant difference between the gender groups of sample respondents was found. In particular, I think my teaching methods are successful in fostering student learning and have a direct impact on student outcomes like grades and retention rates because the corresponding "t" statistics were significant at the five percent level. However, it was shown that factors such as "Technology enhances my teaching effectiveness and student feedback and peer evaluations are valuable in assessing my teaching effectiveness" were not significant.

Teaching effectiveness among different academic experiences of sample respondents

Data were gathered, and the "ANOVA" test was used to show the substantial differences in teaching efficacy among the sample respondents' various academic experiences. Each statement's mean score was determined independently. The table displays the sample respondents' mean score on teaching effectiveness across their various academic backgrounds, along with the corresponding "F" statistics.

Table

'ANOVA' test for significant differences between sample respondents' various academic backgrounds concerning the efficacy of instruction

Teaching effectiveness challenges	Academic Experience (Mean Score)				F Statistics	p Value
	Less than 5 years	6-10 years	11-15 years	Above 15 years		
I believe my teaching methodologies are effective in promoting student learning	3.5000	3.5294	3.8897	3.6493	3.524	0.015
My teaching directly influences student outcomes such as grades and retention rates	3.5921	3.6712	3.6947	3.9879	0.241	0.868
Student feedback and peer evaluations are valuable in assessing my teaching effectiveness	3.7105	3.7868	3.8702	4.2209	0.474	0.701
Technology enhances my teaching effectiveness	3.9868	3.8015	3.9237	3.8899	0.672	0.569

Source: Primary data

*-Significant at a 5% level

Since the respective high mean scores were 3.9868 and 3.7105, the table indicates that among the sample respondents with less than five years of experience, the most important teaching effectiveness was that technology enhances my teaching effectiveness, and that peer evaluations and student feedback are valuable in assessing my teaching effectiveness. Since their respective mean scores were 3.8015 and 3.7868, the key teaching effectiveness among the "Sample respondents who have experience of 6-10 years" was that technology improves my effectiveness as a teacher, and that peer and student evaluations are useful in gauging my effectiveness. As the respective mean scores were 3.9237 and 3.8897, the key teaching effectiveness among the "Sample respondents who have experience of 11-15 years" was, "Technology enhances my teaching effectiveness and I believe my teaching methodologies are effective in promoting student learning." Peer and student evaluations are useful in evaluating my effectiveness as a teacher, and my instruction has a direct impact on student outcomes like grades and retention rates, as evidenced by the respective mean scores of 4.2209 and 3.9879 among the "Sample respondents who have experience of above 15 years."

Since the corresponding "F" statistics were significant at a 5 percent level, a significant difference in the teaching effectiveness across the sample respondents with varied academic experiences was found in several areas, particularly "I believe my teaching methodologies are effective in promoting student learning." Aspects like "My teaching directly influences student outcomes like grades and retention rates, and peer evaluations and student feedback are valuable in assessing my teaching effectiveness, and technology enhances my teaching effectiveness" were non-significant, nevertheless.

Professional development among different gender groups of sample respondents

To find out the significant difference in professional development among different gender groups of sample respondents, data were collected, and the t-test was administered. The mean score on each statement regarding professional development among different gender groups of sample respondents was calculated separately. The table displays the mean professional development score for each gender group of sample respondents, together with the corresponding "t" statistics.

Table

't' test for significant variations in professional progress between sample respondents' gender groups

Professional development	Gender group (Mean Score)		t Statistics	p Value
	Male	Female		
Actively seek out opportunities for professional development.	3.8178	3.7786	0.183	0.855
Participating in continuing education programs is valuable for updating my knowledge and skills	3.8645	3.8855	0.209	0.835
Attending workshops or seminars helps me stay current with new trends and practices in my field	3.6308	3.9466	3.011	0.003*
Engaging in professional development activities is essential for enhancing my teaching, research, and service skills	3.8972	3.9847	0.853	0.394

Source: Primary data

*-Significant at a 5% level

Given the respective high mean scores were 3.8972 and 3.8645, the table makes it evident that the male respondents' top priorities for professional development were taking part in continuing education programs to keep up with the latest developments in their field and

engaging in professional development activities to improve their teaching, research, and service skills. The mean scores for the "Female respondents" were 3.9847 and 3.9466, respectively, indicating that professional development activities are crucial for improving teaching, research, and service skills, and that attending workshops or seminars keeps me up to date on new trends and practices in my field. Since the corresponding "t" statistics were significant at the 5 percent level, a significant difference between the gender group of sample respondents was found with regard to professional development in its various aspects, particularly attending workshops or seminars helps me stay current with new trends and practices in my field. Aspects like "engage in professional development activities is essential for enhancing my teaching, research, and service skills, actively seek out opportunities for professional development, and participating in continuing education programs is valuable for updating my knowledge and skills" were determined to be non-significant.

Student Engagement and Mentorship among different educational qualifications of sample respondents

Data were gathered and the "ANOVA" test was used to show the substantial differences in mentorship and student engagement between the various age groups of sample respondents. Each statement's mean score was determined independently. The table displays the mean score on mentorship and student participation for each age group of survey respondents, along with the corresponding "F" statistics.

Table

'ANOVA' test for significant variations in student engagement and mentoring across sample respondents' age groups

Student Engagement and Mentorship	Age group (Mean Score)				F Statistics	p Value
	Below 25 years	26-35 years	36-45 years	Above 45 years		
I actively engage with students and provide mentorship opportunities	3.8898	3.7525	3.5833	3.9500	0.454	0.715
Engaging with students and providing mentorship is essential for their academic and personal development	3.9861	3.9604	3.5167	3.7750	4.440	0.004
Advising students helps them make informed decisions about their academic and career goals	3.8333	3.8218	3.4258	3.7857	3.337	0.020
Mentoring graduate students contributes to their professional development and success	3.9722	3.9010	3.8304	4.0500	0.751	0.522

Source: Primary data

*-Significant at a 5% level

Given that the corresponding high mean scores were 3.9861 and 3.9722, respectively, the table demonstrates that among the sample respondents under 25, mentoring graduate students contributes to their professional development and success, and engaging with students and offering mentorship is crucial for their academic and personal development. Given that the respective mean scores for the "Sample respondents who are 26-35 years" were 3.9604 and 3.9010, respectively, it is clear that mentoring graduate students helps them succeed professionally and that interacting with students and offering mentorship is crucial for their academic and personal growth. Given that the respective mean scores for the "Sample respondents who are 36-45 years old" were 3.8304 and 3.5833, it was evident that actively engaging with students and offering mentorship opportunities were crucial to the success and professional development of graduate students. Given that the respective mean scores for the "Sample respondents who are over 45 years" were 4.0500 and 3.9500, respectively, student engagement and mentorship were crucial in helping graduate students succeed professionally by actively interacting with them and offering mentorship opportunities.

Since the corresponding "F" statistics were significant at the 5 percent level, a significant difference between the age groups of sample respondents was found about student engagement and mentorship in its various aspects, particularly "Engaging with students and providing mentorship is essential for their academic and personal development and advising students helps them make informed decisions about their academic and career goals." However, it was determined that elements such as "Mentoring graduate students and actively engaging with students and offering mentorship opportunities contribute to their professional development and success" were not important.

FINDINGS & SUGGESTIONS

Male respondents identified technology and student feedback as key to teaching effectiveness, while female respondents emphasized the impact on student outcomes, revealing significant differences in teaching methodologies and outcomes between genders. Teachers with less than five years of experience valued technology and feedback, while those with over 15 years focused on the influence of teaching on student outcomes. In terms of professional development, females highlighted the importance of workshops for staying updated, while males focused on engaging in various development activities, showing a difference in the value placed on workshops and seminars. Younger teachers (below 35) stressed mentorship for student development, whereas older teachers valued it for graduate student success. To enhance teaching effectiveness, teachers should prioritize using technology and feedback, especially early in their careers. Workshops and continuing education should be encouraged to keep faculty informed about modern trends. Mentorship programs should be promoted across all age groups to support students' academic and professional growth.

CONCLUSION

The study reveals significant insights into teaching effectiveness, professional development, and student engagement across various demographic groups. Gender differences highlighted that male and female respondents value teaching effectiveness in different aspects, with females placing more emphasis on the influence of teaching on student outcomes. Experience level further differentiated perceptions of teaching methodologies, with those having 11-15 years of experience expressing higher confidence in their effectiveness. Regarding professional development, female respondents prioritized attending workshops and seminars, while males focused more on continuous education and skill enhancement. In terms of student engagement, younger respondents under 35 years emphasized the importance of mentorship for academic and personal growth. The findings underscore the dynamic relationship between teaching practices, professional growth, and student development. Teachers' effectiveness can be enhanced through personalized professional development strategies tailored to gender, experience, and age, ultimately leading to better learning outcomes and student engagement.

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