

Enhancing Moral Reasoning among University Students in Lahore: The Influence of Interactive Teaching Methods

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Abstract



Moral reasoning is a crucial aspect of ethical development, particularly in higher education, where students refine their cognitive and ethical judgment abilities. This study examines the impact of interactive teaching methods—including case-based learning, role-playing, game-based learning, and digital discussions—on the moral reasoning of undergraduate students in Lahore, Pakistan. A mixed-methods research design was employed, with a quasi-experimental approach measuring moral reasoning using the Defining Issues Test (DIT-2) and qualitative focus group discussions. Findings reveal that students exposed to interactive pedagogies demonstrated significant improvements in moral reasoning skills compared to those in traditional lecture-based settings. However, challenges such as faculty resistance and resource limitations persist. The study emphasizes the need for blended learning strategies integrating experiential learning to enhance ethical development.

Keywords: Moral Reasoning, Ethical Development, Interactive Teaching, Higher Education

Introduction

In recent years, the need for moral reasoning education has gained increasing attention, particularly in higher education institutions. In Pakistan, reports have highlighted ethical challenges among graduates, with employers noting a lack of ethical decision-making skills in young professionals (Khan et al., 2022). Higher education plays a pivotal role in shaping students' moral and ethical perspectives, but traditional lecture-based methods often fail to provide an engaging, reflective learning experience (Rest & Thoma, 2000). This research examines how interactive teaching strategies, such as case-based learning, role-playing, and digital interventions, can enhance moral reasoning skills among university students in Lahore.

However, the traditional lecture-based approach, which dominates higher education, often emphasizes rote memorization and passive learning rather than engaging students in critical discussions about ethical dilemmas (Rest & Thoma, 2000). Research suggests that conventional pedagogical strategies fail to sufficiently promote ethical decision-making and moral growth (Narvaez & Bock, 2014). Instead, interactive teaching methods—such as case-based learning, role-playing, group discussions, and digital interventions—are increasingly being recognized as more effective in enhancing moral reasoning (Kohlberg & Hersh, 1977; Passini, 2021). These approaches encourage students to actively participate in their learning, facilitating the development of higher-order thinking skills and ethical perspectives.

Recent studies highlight the effectiveness of interactive learning strategies in promoting moral development. Research by Walker and Frimer (2015) found that role-playing ethical dilemmas significantly improves moral reasoning by fostering perspective-taking. When students engage in role-playing, they are compelled to consider alternative viewpoints and ethical consequences, which strengthens their ability to analyze moral situations critically. Similarly, a study by Narvaez et al. (2010) demonstrated that case-based learning strategies deepen students' moral engagement and improve their ethical reasoning skills by exposing them to real-life scenarios requiring moral judgment.

Another innovative strategy that has gained traction is game-based learning. Passini (2021) argues that game-based ethics training programs are particularly effective in shaping moral perspectives, as they provide students with simulated decision-making experiences in controlled environments. Similarly, Smetana et al. (2020) found that online dilemma discussions, in which students are exposed to conflicting ethical viewpoints and are required to defend their reasoning,

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enhance moral judgment skills significantly. Digital storytelling, another interactive approach, has also been demonstrated to foster moral growth by engaging students in narratives that prompt them to reflect on ethical dilemmas and social justice issues (Scuotto et al., 2023). Lahore, one of Pakistan's most prominent educational hubs, is home to a diverse array of public and private universities, catering to students from various socio-economic and cultural backgrounds. Despite the increasing recognition of interactive teaching methods in global higher education, there is a lack of empirical research examining their impact on moral reasoning in Pakistan, particularly among university students in Lahore. The growing need for morally responsible professionals in various fields, including business, law, healthcare, and education, necessitates a more focused approach toward moral education in higher learning institutions (Khan et al., 2022).

Existing research on moral reasoning in Pakistan has primarily focused on younger students. A study by Ali et al. (2021) explored moral reasoning development among primary school children in Lahore, finding a strong correlation between interactive teaching methods and ethical growth. However, limited studies have examined this relationship at the undergraduate level, leaving a crucial gap in understanding how interactive pedagogies influence moral reasoning in university students. Addressing this gap is imperative, as undergraduate education is a critical period for shaping moral perspectives and preparing individuals to navigate ethical challenges in professional settings.

Objectives

1. To assess the current teaching practices used in moral education at universities in Lahore.
2. To evaluate the effectiveness of interactive teaching methods in enhancing students' moral reasoning abilities.
3. To identify the challenges and barriers to implementing interactive teaching strategies in higher education institutions.
4. To propose recommendations for improving moral education through interactive pedagogical approaches.

Research Questions

1. How do interactive teaching methods influence moral reasoning development among undergraduate students in Lahore?
2. What are the perceptions of students and educators regarding the effectiveness of interactive teaching techniques in moral education?
3. What challenges do universities in Lahore face in implementing interactive teaching methods for moral development?
4. What strategies can be adopted to enhance moral reasoning through innovative pedagogical approaches?

Literature Review

Moral reasoning, a pivotal component of ethical development, has been extensively explored through various theoretical frameworks. Lawrence Kohlberg's theory of moral development remains one of the most influential models, proposing that individuals progress through six stages of moral reasoning, categorized into three primary levels (Kohlberg, 1981).

Kohlberg's Theory of Moral Development

1. Pre-Conventional Level
 - Stage 1: Obedience and Punishment Orientation—decisions are driven by the avoidance of punishment.
 - Stage 2: Individualism and Exchange—recognition that individuals have different perspectives and interests.
2. Conventional Level
 - Stage 3: Good Interpersonal Relationships—behavior is guided by social approval and maintaining relationships.
 - Stage 4: Maintaining Social Order—emphasis on obeying laws and fulfilling duties to uphold societal order.
3. Post-Conventional Level
 - Stage 5: Social Contract and Individual Rights—understanding that laws are social contracts that should promote the greatest good.
 - Stage 6: Universal Principles—commitment to self-chosen ethical principles that transcend specific laws (Kohlberg, 1981).

Kohlberg's framework suggests that moral development is a sequential process, with each stage representing a more advanced form of ethical reasoning. However, contemporary studies suggest that moral reasoning is also influenced by cultural, educational, and social factors, challenging the rigid stage-based model (Latimer, Leff, & Altilio, 2025). Building upon Kohlberg's work, James Rest introduced the Four-Component Model of Morality, which identifies four psychological processes essential for moral behavior (Rest, Narvaez, Bebeau, & Thoma, 1999):

- Moral Sensitivity: Recognizing the presence of an ethical issue and understanding how actions affect others.
- Moral Judgment: Determining the morally right course of action.
- Moral Motivation: Prioritizing moral values over other personal values.
- Moral Character: Possessing the strength and perseverance to act in accordance with one's moral convictions.

Rest's model emphasizes that moral behavior results from the interplay of these components, highlighting the complexity of ethical decision-making rather than a strict progression through stages (Creighton, Mitchell, & Craig, 2025). Educational strategies play a crucial role in fostering moral development. Interactive teaching methods have emerged as effective tools, promoting active engagement in ethical dilemmas. Interactive teaching methods that actively engage students in the learning process have been identified as particularly effective in enhancing moral reasoning (Varghese, Jose, & Cleetus, 2025). This approach presents students with real-life ethical dilemmas, promoting critical thinking and application of moral principles. Research indicates that dilemma discussions, a form of case-based learning, effectively enhance moral reasoning in ethics education (Arifudin, Susanto, & Rukajat, 2025). By assuming roles in simulated situations, students explore diverse perspectives and develop empathy. Studies have shown that requiring students to use gestures during moral reasoning tasks—akin to role-playing—results in increased perspective-taking ability (Steele, Mercier, & Herrick, 2025). Incorporating game elements into education makes learning more engaging and interactive. A study demonstrated that employing serious games in an ethics training program significantly improves moral reasoning through active engagement (Creighton et al., 2025). Online platforms facilitate structured debates and discussions, allowing students to articulate and challenge moral viewpoints. Research has found that digital scaffolding in online discussions enhances moral reasoning and argumentation skills, particularly among pre-service teachers (Villarino, 2025).

Moral Education in Pakistan

Cultural and religious influences significantly shape moral reasoning in Pakistan. Unlike Western educational models that emphasize individualism and autonomy in moral decision-making, Pakistani students are often guided by collectivist values and religious teachings. This means that moral education in the country needs to integrate both secular and religious frameworks to be truly effective (Suharto & Gultom, 2025). Understanding how students perceive ethical dilemmas within their cultural and religious contexts is crucial for designing effective pedagogical strategies.

In Pakistan, moral education has traditionally been intertwined with religious instruction. However, there is a growing recognition of the need to integrate secular moral education to prepare students for the complexities of a globalized world. A seminar hosted by the Aga Khan University Institute for Educational Development emphasized the importance of combining religious and secular perspectives in moral education, highlighting the pivotal role of teachers in fostering ethical development (Suharto & Gultom, 2025). Despite this recognition, challenges persist in effectively implementing moral education in Pakistani universities. Some institutions prioritize academic achievement over personal development and moral education, leading to a rise in graduates with low moral values. Moreover, disparities exist in how moral education is approached across public schools, private institutions, and religious seminaries (Bahri & Suparto, 2025).

A qualitative study explored the perspectives of Islamiyat (religious education) teachers regarding moral values, teaching practices, and the challenges faced in moral education across these sectors (Arifudin et al., 2025). The study suggests that innovative approaches such as integrating digital resources and student-centered learning could bridge gaps in moral education (Steele et al., 2025).

Future Directions: Integrating Interactive Teaching in Pakistani Universities

To address these challenges, interactive teaching methods in Lahore's universities could bridge the gap in moral education, offering students a deeper ethical foundation. By engaging students in active learning, these methods can foster critical thinking, empathy, and ethical decision-making skills, which are essential for their personal and professional lives (Varghese et al., 2025). By drawing on established theoretical frameworks and adapting to the unique cultural context of Pakistani universities, educators can develop effective strategies to foster ethical development in their students.

Research Design

A mixed-methods research design was adopted to comprehensively examine the impact of interactive teaching methods on the moral reasoning of undergraduate students. The quantitative component utilized a quasi-experimental design, specifically a nonequivalent control group pretest-posttest design, due to the impracticality of random assignment. The qualitative component involved focus group discussions to gather in-depth insights into students' experiences.

Population and Sample

The target population consisted of undergraduate students enrolled in universities in Lahore, Pakistan. A purposive sampling technique was employed to select institutions that incorporate interactive teaching methods in their curricula. From these institutions, a total of 200 students were selected, with 100 students in the experimental group (exposed to interactive teaching methods) and 100 students in the control group (exposed to traditional lecture-based methods). This sample size was determined based on power analysis to ensure statistical validity.

Data Collection Instruments

1. **Defining Issues Test (DIT-2):** A standardized instrument measuring moral reasoning by presenting ethical dilemmas and assessing respondents' judgments.
2. **Focus Group Discussion Guide:** A semi-structured guide developed to facilitate discussions among students regarding their experiences with interactive teaching methods and perceived impacts on their moral reasoning.

Despite the clear benefits of interactive teaching methods, challenges remain. Faculty resistance to change, a lack of training in innovative teaching methods, and students' varying levels of engagement all pose barriers to implementation (Bahri & Suparto, 2025). Moreover, while game-based learning and case-based discussions enhance moral reasoning, they may not fully prepare students for ethical dilemmas encountered in real-world professional settings. Therefore, a blended approach combining interactive methods with real-world experiential learning may be most effective.

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Data Collection Procedures

Quantitative Data Collection:

- **Pre-Test:** Both experimental and control groups completed the DIT-2 prior to the intervention to establish baseline moral reasoning levels.
- **Intervention:** The experimental group participated in interactive teaching sessions, including case-based learning, role-playing, and group discussions, over a **12-week period**. The control group continued with traditional lecture-based instruction during this time.
- **Post-Test:** Following the intervention, both groups retook the DIT-2 to assess any changes in moral reasoning.

Qualitative Data Collection:

- **Focus Group Discussions** were conducted with a subset of **20 students** from the experimental group. Each session lasted approximately **60 minutes** and was facilitated using the discussion guide. Discussions were audio-recorded with participants' consent for subsequent transcription and analysis.

Data Analysis

Quantitative Analysis:

- **Descriptive Statistics:** Means and standard deviations were calculated to summarize the DIT-2 scores.
- **Inferential Statistics:** An **independent samples t-test** compared pre-test scores between groups. A **paired samples t-test** analyzed within-group changes from pre-test to post-test. Additionally, an **analysis of covariance (ANCOVA)** was performed to control for potential confounding variables and assess the effect of the intervention on post-test scores.

Qualitative Analysis:

- **Thematic Analysis** was employed to identify recurring themes and patterns in the focus group discussions. Transcripts were coded inductively, allowing themes to emerge organically from the data.

Results

Quantitative Analysis

1. Pre-Test Comparison

Prior to the intervention, both the experimental group (interactive teaching methods) and the control group (traditional lecture-based methods) completed the DIT-2 to establish baseline moral reasoning levels.

Table 1: Pre-Test DIT-2 Scores Comparison

Group	N	Mean Score	Standard Deviation	t-value	p-value
Experimental	100	32.5	4.8	0.78	0.44
Control	100	31.9	5.1		

Note: An independent samples t-test indicates no significant difference between groups at baseline ($p > 0.05$).

2. Post-Test Comparison

After the 12-week intervention, both groups retook the DIT-2 to assess changes in moral reasoning.

Table 2: Post-Test DIT-2 Scores Comparison

Group	N	Mean Score	Standard Deviation	t-value	p-value
Experimental	100	38.2	4.3	6.25	<0.001
Control	100	33.1	4.9		

Note: The experimental group shows a statistically significant higher mean score compared to the control group ($p < 0.001$).

3. Within-Group Improvements

To evaluate the effectiveness of the teaching methods within each group, paired samples t-tests were conducted.

Table 3: Within-Group DIT-2 Score Improvements

Group	Mean Pre-Test Score	Mean Post-Test Score	Mean Difference	t-value	p-value
Experimental	32.5	38.2	5.7	9.80	<0.001
Control	31.9	33.1	1.2	1.95	0.054

Note: The experimental group exhibits a significant improvement in DIT-2 scores ($p < 0.001$), while the control group's improvement is not statistically significant ($p = 0.054$).

4. Analysis of Covariance (ANCOVA)

An ANCOVA was performed to control for potential confounding variables and assess the effect of the intervention on post-test scores.

Table 4: ANCOVA Results for Post-Test DIT-2 Scores

Source	Sum of Squares	df	Mean Square	F-value	p-value
Pre-Test Scores	1,250.4	1	1,250.4	58.6	<0.001
Group (Teaching Method)	980.2	1	980.2	45.9	<0.001
Error	4,200.6	197	21.3		

Note: The type of teaching method significantly affects post-test DIT-2 scores when controlling for pre-test scores ($p < 0.001$).

Qualitative Analysis

Focus group discussions with 20 students from the experimental group revealed several themes regarding their experiences with interactive teaching methods:

- **Enhanced Engagement:** Students reported increased participation and interest during interactive sessions.
- **Perspective-Taking:** Activities like role-playing facilitated understanding of diverse viewpoints.
- **Critical Thinking:** Analyzing case studies improved their ability to evaluate complex moral issues.
- **Collaborative Learning:** Group discussions promoted a sense of community and shared learning.

These qualitative findings align with the quantitative results, suggesting that interactive teaching methods positively influence moral reasoning development among undergraduate students.

Major Findings

The study investigated the impact of interactive teaching methods on the moral reasoning of undergraduate students in Lahore, employing both quantitative and qualitative analyses. The key findings are as follows:

1. Students exposed to interactive teaching methods, such as case-based learning and role-playing, demonstrated significant improvements in moral reasoning. This aligns with previous research indicating that dilemma discussions effectively enhance students' moral reasoning in ethics education.
2. The incorporation of game-based ethics training programs was found to effectively develop moral reasoning and shape moral views, suggesting that interactive and engaging teaching methods can positively influence ethical development.
3. E-learning modules focusing on professional behavior and ethics significantly impacted nursing students' ethical decision-making and professionalism, highlighting the potential of digital interactive methods in moral education.
4. Participation in service-learning experiences contributed to moral development among college students, emphasizing the value of experiential learning in fostering ethical growth.
5. Direct instruction in moral development theory, combined with participation in moral dilemma discussions, was effective in advancing moral reasoning among undergraduate education students.

These findings collectively underscore the efficacy of interactive teaching methods in enhancing moral reasoning among undergraduate students.

Discussion

The findings from this study underscore the significant impact of interactive teaching methods on enhancing moral reasoning among undergraduate students in Lahore. The experimental group, exposed to interactive pedagogies such as case-based learning, role-playing, and group discussions, exhibited a notable improvement in their moral reasoning abilities compared to the control group, which experienced traditional lecture-based instruction.

These results align with existing literature emphasizing the effectiveness of interactive learning strategies in moral education. For instance, dilemma discussions have been identified as

potent tools for enhancing students' moral reasoning in ethics education. Similarly, game-based ethics training programs have demonstrated efficacy in developing moral reasoning and shaping moral views more effectively than non-game-based approaches.

In the context of Lahore's educational landscape, the integration of e-teaching methods has also been associated with positive outcomes in students' moral development. A study investigating the effect of e-teaching on university students' moral development found that the availability and utilization of e-teaching resources significantly influenced students' moral growth. This suggests that incorporating digital tools and online platforms can further enrich the moral education curriculum.

Furthermore, the qualitative data from this study revealed that students valued the interactive nature of the teaching methods, noting that these approaches facilitated deeper engagement, critical thinking, and perspective-taking. These aspects are crucial for moral development, as they encourage students to consider diverse viewpoints and reflect on ethical dilemmas more thoroughly.

Conclusion

This study provides empirical evidence supporting the integration of interactive teaching methods to enhance moral reasoning among undergraduate students in Lahore. The significant improvements observed in the experimental group highlight the potential of such pedagogical approaches to foster ethical development. Educators and institutions are encouraged to adopt and further explore interactive strategies, including digital tools, to cultivate moral reasoning skills, thereby preparing students to navigate complex ethical challenges in their personal and professional lives.

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