



Teaching Ethics in Teacher Education: ICT-Enhanced, Case-Based and Active Learning Approach with Continuous Formative Assessment

Ahmet Göçen¹ · Mehmet Akın Bulut²

Accepted: 3 January 2024

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Abstract

The teaching of ethics in teacher education programs is crucial for fostering the moral and ethical development of prospective teachers and shaping them into ethical role models for future students. This study, employing qualitative case study research, gathered data from undergraduates in teacher education programs to explore the best approaches for ethics education. It found that combining digital and case-based pedagogical methods, fostering an open-minded attitude among lecturers, and implementing a blend of Socratic and active learning techniques leads to the most favorable outcomes. Additionally, continuous formative assessment throughout the academic year is essential. To cultivate a teaching workforce with strong ethical and moral values, undergraduate courses in ethics and morality should be thought-provoking, integrating real-life cases with a mix of digital and tangible resources. The ethics course lecturer should not only serve as a role model and exhibit a caring disposition but also use effective teaching methodologies. The paper details key themes and categories for successful ethics instruction and offers specific recommendations.

Keywords Ethics · Morality · Education technology · ICT · Teacher education · Case-based · Active learning · Continuous formative assessment

✉ Ahmet Göçen
ahmet135@gmail.com

Mehmet Akın Bulut
akin.bulut@ihu.edu.tr

¹ Faculty of Education, Harran University, Şanlıurfa, Türkiye

² School of Education, Ibn Haldun University, İstanbul, Türkiye

Introduction

The current state of global and local order, impacted by the financial crisis, climate change, health crises, and internet technologies such as digitalization and artificial intelligence, has resulted in a shift where ethics has become a central component of societal life rather than just a concern of the business sector (Böhm et al., 2022). Ethics is a multidimensional concept and related to all walks of life as no single discipline or branch can own ethics and ethical thinking (Carniel et al., 2023).

By the middle of the 20th century, ethics teaching had primarily been confined to the disciplines of philosophy and religion (Callahan & Bok, 2012). While it is presently associated chiefly with business faculties (Fassin, 2022), courses of ethics should be more incorporated into the academic curricula of other undergraduate and professional programs in higher learning institutions. It is crucial for institutions of higher education to develop specialized curricula tailored to the needs of their undergraduate students, to prepare them for real-world ethical situations they may face in their own fields.

Despite the increased public attention to moral principles and regulatory frameworks, following widespread cases of unethical behavior across the globe (Perri & Teague, 2022), unethical conduct persists in various sectors of society. Laws were formulated to terminate these unethical deeds, albeit seemingly inadequate or with limited impact. The undesired occurrences in institutions may ensue from the perceptions of organizations and their personnel regarding the significance and operation of ethical decision-making processes or the lack of inclination toward ethical codes (Pelletier & Bligh, 2006). This should compel educators to ponder more deeply on the origins of unethical conduct and devise pedagogical interventions by which ethics are taught from an early age and beyond. Aligned with this mindset, promoting ethical principles has emerged as a fundamental objective of higher education institutions that equips undergraduates with a moral outlook in their endeavors and empowers them to make ethical judgments in their forthcoming vocational life (Safatly et al., 2017).

Teaching ethics in higher education institutions may not yield the desired outcomes as envisaged, owing to a plethora of factors ranging from lecturer readiness to instructional techniques. To illustrate, more instruction of moral principles does indeed correspond with an increase in ethical reasoning abilities (Klimek & Wenell, 2011). Conroy and Emerson (2004) along with Jewe (2008) posed that such curricula hold little or no substantial merit in influencing ethical attitudes. This could in part stem from the design of the ethics course. Nguyen et al. (2008) address two points in ethics education (a) how ethics is to be taught and (b) what outcomes are to be achieved. For myriad organizations across various industries, the principal mode of addressing ethical calls is the establishment of a structured ethics program; nevertheless, there seems to be a lack of knowledge on the components and effectiveness of these programs (Pelletier & Bligh, 2006). Here, it is contended that a course on ethics and morality that employs the Socratic and active learning approach is an essential requirement for raising pre-service teachers who can serve as virtuous role models in schools. Based on this mindset, a syllabus on ethics, which also included elements of a case-based approach and continuous formative assessment, was prepared and employed in a faculty of education.

Review of Literature

Under the review of literature, four main topics have been covered that are anticipated to wholistically enrich the teaching of an ethics course. First, ethics education framework (EEF) is dealt so that ethics researchers and readers can be informed of previously conducted systematic efforts of scholars and universities to better shape their current ethics education studies. Second, digital and active learning is touched upon with the goal of facilitating the teaching of an ethics course with hands-on, learn-by-doing, trial-error, and case-based pedagogies where learners are ideally engaged and achieve the learning outcomes of the course. Then, continuous formative feedback is put on the table as the core and prominent aspect of the present study. What is meant by continuous formative assessment is that not only formative assessment is applied, but also a cumulative and incremental manner is preferred in leveraging students' knowledge acquisition. This type of continuous formative feedback is built at the school year's start using simple, low-order questions and prompts to their high-order versions which continue to be built and further added till the end of the term by the instructor and learners. Finally, instructional design, which is a crucial element in designing effective courses, is mentioned to give the present research a strong ground in course design including needs analysis, design, development, implementation, and evaluation stages.

Ethics Education Framework (EEF)

Any historian of teacher education can confirm that preparing future teachers to be moral models for students has been a primary concern of many teacher education programs (Maxwell & Schwimmer, 2016). As Teke (2021) notes, any teacher of ethics courses hopes their teachings will have a lasting impact on students' minds, leading them to think differently about ethical issues, gain a wider perspective on right and wrong, and ultimately make better choices when faced with moral dilemmas. These concerns and hopes led researchers to come up with educational frameworks for ethics teaching, which have been used by several schools and universities. They have been shown to be effective in helping students develop their ethical reasoning skills (Sleigh & Amann, 2022). Incorporation of EEFs into the curriculum assists educators in ensuring that ethics education is conducted in a systematic, coherent, and responsive fashion to the needs and values of learners. One of these is a conceptual framework developed by the Hastings Center, which guides the design and implementation of ethics education programs (Miller & Shawver, 2018). It provides a structure and set of principles to ensure that ethics education is integrated into all aspects of education, not just in a separate ethics course. EEF emphasizes that ethics education is comprehensive, effective, and aligned with ethical principles and values. The framework includes a range of components such as curriculum (learning objectives, content areas), teaching methods (active and digital teaching strategies), assessment strategies (formative and summative), and ethical considerations (students, lecturers, community). In the context of higher education, an EEF can be tailored to specific disciplines or professions, considering the unique ethical dilemmas and responsibilities associated with each field. For example, in the field of medicine, an EEF may focus on topics such as patient autonomy, confidentiality, and informed consent. In business education, an EEF may address issues related to corporate social responsibility, ethical leadership, and fair business practices. In this regard, several

studies have highlighted the importance of incorporating an EEF into ethics education (Rest, 1986; Trevino, 1986; Jones, 1991).

Digital and Active Learning with In-Class Activities

Academic programs can yield favorable outcomes if they engage students in the learning journey in a participatory manner. Educators ought to identify suitable pedagogical approaches for students in ethics-based programs to foster their active involvement (Zhang et al., 2022). There exist in-class activities and digital instruments that augment coursework practices' interactivity, thereby potentially yielding enhanced outcomes. Typically, lecturers utilize cases, stories, dramatic enactments, and reflective techniques to ignite learners' involvement in the learning journey. After conducting a meta-analysis of 25 instructional programs on business ethics, Waples et al. (2009) contended that the most productive pedagogical methodology for teaching ethics is a case-based approach. The case-based instruction, as explicated by Yadav and Barry (2009), entails facilitating genuine learning scenarios that enable learners to effectively navigate the intricacies and ambiguities inherent in their respective vocations, stimulates critical thinking, and encourages learners to establish meaningful links between theoretical concepts and their practical applications.

One of the approaches to teaching ethics through cases is the Three-Step Model, as employed by Teke (2021, pp. 151–152). This pedagogical method, drawing on the research of Kavatazopoulos, aims to enhance moral autonomy and ethical awareness through instruction and training. In the initial phase, students learn how to recognize an ethical problem. Subsequently, in the ensuing stage, they acquire the proficiency to resolve an ethical problem by presenting arguments from the concrete situation and recognizing alternate methods of resolving it. In the third stage, students acquire the skills to correlate a selected solution with a normative theory and competently discern how a particular solution to an ethical dilemma would most likely be evaluated by a representative of the respective theory. Along with these steps, the evaluation assessment is devised with a similar mindset, where a hypothetical yet realistic scenario is presented, and students must recognize the ethical problem, address it with arguments from the concrete situation, and correlate the solution to ethical theories such as utilitarianism (Mill, 1910), Kant's duty ethics (Kant, 1788), etc.

In conjunction with a case-based approach that encompasses discussion, inquiries, and reflections, one method to augment ethics education is the utilization of digital instruments that facilitate both in-class and out-of-class learning. These digital instruments are not necessarily intricate but rather consist of videos, online papers, reflections, sources on Moodle, and online quizzes, which should be harmonized with the course syllabus and objectives. According to Walker and Jeurissen (2003), asynchronous instruments have much to offer business ethics students, supporting the exchange of ideas and cultural perspectives beyond the physical confines of the classroom.

Continuous Formative Assessment

Continuous evaluation comprises formative and summative functions, which encompass grading and documenting student accomplishments and assisting learners in their education (Hernández, 2012). Summative assessments occur at the end of the course, which could defer instruction improvements; nonetheless, the real-time, continuous feedback provides immediate opportunities to address issues with course characteristics and pedagogical methods used by instructors (Goldfarb & Morrison, 2014). Students receiving feedback at earlier intervals for each task experience increased motivation and internalization of comprehension (ten Cate et al., 2011) as students associate continuous assessment with the drive to learn on a continuous basis and perceive it as a means to get feedback on their education (Hernández, 2012).

Continuous formative assessment offers myriad opportunities for students to refine their comprehension of the topic at hand, imparting a motivational message that with sufficient practice, students can attain triumph (Johansson et al., 2022). Throughout this journey, continuous feedback may be furnished by means of technology-assisted feedback loops, which educators can employ to provide input contingent upon a multitude of factors such as students, lessons, groups, and so on (Haleem et al., 2022).

Instructional Design

Thorough planning and coordination of instruction are important for ensuring the quality of education, and instructional design facilitates this through augmented and more effective teaching configuration (Göksu et al., 2017). Instructional design encompasses scrutinizing students' requirements, formulating solutions, and enhancing performance (Rothwell & Kazanas, 2011). For these aims, there exist numerous instructional design models comprising the ADDIE Model, Bloom's Taxonomy, Merrill's Principles of Instruction (MPI), Gagne's Nine Events of Instruction, Dick and Carey Model, Kemp Design Model, Action Mapping, SAM Model, etc. (Dong, 2023; Murphy, 2019). Accordingly, this course in its development period focused on ethics education frameworks, case based approach, active learning strategies and continuous formative assessment by which lecturer tried to deliver the targeted teaching and learning experiences.

In line with the literature above-mentioned, the aim of this study is to scrutinize and unveil any feature and aspect that optimally reinforces ethics teaching, based on the opinions of undergraduate students in ethics and morality courses. Achieving this goal is planned through an eloquent blend of following an ethics education framework to benefit from previous experiences in the field, digital and active learning strategies to engage learners through multiple and innovative pedagogical models, a continuous formative assessment to build learners' knowledge acquisition from beginning to the end and an instructional design model to form an effective course with to-the-point needs analysis, design, development, implementation and evaluation stages. Thus, a syllabus based on these frameworks was prepared and employed in a faculty of education during the spring semester of 2021–2022, followed by an inquiry into participants' opinions on the design and content of the courses.

Methodology

The study is based on qualitative research, employing case study design for examining what elements have contributed to better teaching of ethics and morality in education courses at the tertiary level for preservice teachers. This study, part of a larger study on the ethical perceptions of preservice teachers (Göçen, 2023), is aimed at uncovering core themes and suggestions for the effective instructional design of ethics and morality courses.

Data Analysis

In data analysis, we followed thematic analysis (Braun & Clarke, 2006: 87) in steps as follows:

- a. Getting familiar with data. We transcribed the data, perused and reperused them by taking note of initial concepts.
- b. Generating preliminary codes wherein we systematically coded noteworthy features of the data across the entire dataset and compiled data that is pertinent to each code.
- c. Searching for themes wherein we assembled codes into potential themes and accumulated all data that is relevant to each potential theme.
- d. Scrutinizing themes wherein we assessed if the themes were efficacious in relation to the coded extracts and the entire dataset, generating a thematic representation.
- e. Defining and naming themes wherein we conducted an ongoing analysis to refine the specifics of every theme and the overall narrative that the analysis conveys, through which we fashioned lucid definitions and names for each theme.
- f. Producing the report wherein we selected vivid and compelling examples of extracts, thereby producing a report of the analysis.

This study has employed Large Language Models such as ChatGPT, only for language editing to aid the authors in academic writing style.

Participants

The course had eighty-four undergraduate students in the science and music departments in a faculty of education in Türkiye. However, the study was carried out with the participation of seventy-one of them from the third grade. The lecturer invited all students to the research on a voluntary basis. They were informed at the start of the course that they would be requested to write a detailed paper about the teaching strategy and contents faced in the course. After the final exam was over, they were sent emails with open-ended questions aimed at collecting their opinions on their learning journey. Those who participated in the course on a regular basis filled in the forms and the data analysis was conducted with the help of these data.

Course Syllabus and Background

Initially, the lecturer delivered an ‘ethics and morality in education’ course to the preservice teachers (another group) in the 2021 fall semester. Throughout this timeframe, he recorded where modifications or advancements could be implemented in teaching the ethical and moral topics outlined in the syllabus. He frequently drew upon the concepts and suggestions put forth by his students, which aided him in comprehending how they grasped ethical concepts and important theories in the field. He modified the syllabus for the 2021–2022 spring semester after analyzing this previous experience, placing greater emphasis on online exercises and a review mechanism for continuous formative assessment. The lecturer provided a 14-week ethics course to the science and music groups during the spring semester. The draft syllabus can be found in Table 1. The instructional arrangement of the course is explained in detail under the Instructional Design of the Course heading below.

As in the syllabus in Table 1, active and blended learning activities were presented to the students. Every week, there was a presentation, if needed, that encompassed the primary themes, significant statistics, concepts, details, and narratives from establishments or societies. The lecturer resorted to virtual activities using the instruments accessible on Moodle and online forms when required. Giving tasks and homework each week facilitated smooth and timely discussions in the class as most students came equipped. 40% of the midterm and final exam is comprised of online tasks or homework. Consequently, there was a continuous formative assessment. The lecturer assessed each of their responses and progress over the weekends, sharing his general impressions on each lesson, such as the section he found most appealing in the papers/comments from this week. The Socratic method was the most preferred active teaching method by the lecturer throughout the semester.

As an instance of the Socratic method, the lecturer used questions to examine the values, principles, dispositions, and beliefs of the students. The questioning proceeded with yes and no questions at first. Through questioning in a Q-A model, the students strived to identify and then defend their moral intuitions about the world and their experiences. The lecturer led by posing thought-provoking questions while the students were actively engaged by asking questions of their own. The discussion went back and forth. The aim of the questioning was to probe the underlying beliefs upon which each student’s statements, arguments, and assumptions were built. The lecturer built upon the students’ responses each time they were involved in the Socratic method and used irony (also known as Socratic irony) in some stages to get more of the students’ attention. Continuing every week till the end of the term, the Socratic method involved a mutual dialogue between the lecturer and the students which enabled learners to better understand how to demonstrate complexity, difficulty, and uncertainty about the world. The learning environment could be characterized by productive discomfort. The lecturer was not merely testing the students, but encouraging students to think more on the directions posed by the questions.

Instructional Design of the Course

While designing the ethics course as the subject matter in the present study, core principles of instructional design were followed based on the ADDIE model, virtually synonymous with instructional systems development (ISD) (Molenda, 2003). The course preparations

Table 1 Ethics and morality in education course syllabus

Topics	Main in-class activities	Out-of-class tasks after the lesson
1. Introduction Expectations and responsibilities	Ethical cases were presented online, discussions were made: - The Teacher in Dilemma - The Heinz Dilemma (from Kohlberg's work) Students' ideas about ethics and morality were noted down	Students were requested to write in detail what they consider ethical or what ethics is (on Moodle system) Students were requested to watch the listed videos and read papers for the next week on Utilitarianism (on Moodle system)
2. Utilitarianism and key ideas Happiness, pleasure, and pain concepts	The selected cases were presented online, discussions were made: - Trolley/Bridge Dilemmas - Autonomous Cars (from Moral Machine by MIT)	Students were requested to give an evaluation of the course in written format (on Moodle system)
3. Ideas of Karl Popper and John Rawls Paradox of tolerance, theory of justice, etc.	The selected cases were presented online, discussions were made: - University Protests - Schools in Financial Hardships Related papers and videos were discussed very shortly	Students were requested to give an evaluation of the topics covered this week (on Moodle system) Students were requested to write a critical paper on rights and justice (on Moodle system)
4. Kantian Ethics Maxims	The selected case was presented online, discussions were made: - Lying or telling the truth! Short videos were watched	Students were requested to write a paper on Kant and Utilitarianism (on Moodle system) Students were requested to watch videos on Socrates, Plato, and Aristo on Ethics for the next week (on Moodle system)
5. The ideas of Socrates Plato and Aristo on ethics	The ethical quotes of S-P-A and stories were presented The selected videos were discussed with students	Students were requested to read papers on Ghazali for next week (on Moodle system)
6. The ideas of Ghazali and Ibn Haldun on ethics	The ideas of Ghazali and Ibn Haldun on ethics were discussed The ethical quotes and stories were discussed	Students were requested to write what good means for them before the next class (on Moodle system)
7. What is good? Choosing ethical or good?	The students' ideas were discussed in relation to good The selected case was presented online and discussed: Divided Loyalties (from the Good Project at PZ Harvard)	Students were requested watch videos on equality and equity for next week (on Moodle system)
8. Equality, equity and justice Paulo Freire's ideas	A video on equality was watched and ideas were discussed. <i>Es</i> were compared within an online activity	Students were requested to write unfair practices in educational organizations and possible solutions Students were tasked with reading Kohlberg's experiments for next week (on Moodle system)
9. Moral development. Piaget and Kohlberg	The ideas of both thinkers were discussed. Experiment results were analyzed	An online quiz covering previous weeks were done. The winners were presented gifts
10. Unethical acts in education and schools	The selected studies on unethical acts were presented. Ethical codes were discussed	Students were requested to write a comprehensive, but mini paragraph on possible unethical and ethical acts in schools till next week
11. Teachers and principals as ethical leader	The selected studies were presented. Discussions were made	Students were requested to review the contents (on Moodle system)

Table 1 (continued)

Topics	Main in-class activities	Out-of-class tasks after the lesson
12. Ethical responsibilities of school stakeholders	The selected book chapters were analyzed. Official papers/institutional codes were examined	Students were requested to review the contents (on Moodle system)
13. Global data on ethics	The global data were examined (from google searches to reports). The concept of meritocracy was discussed	Students were requested to review the data and principles in the literature (on Moodle system)
14. Final Exam	After the evaluation of the weeks, the final exam was done in written format along with a set of test questions. The lecturer sent the research-based tasks (i.e., open ended surveys) after final exam so that the participants feel freer in their responses without time limit	

started in the fall semester of 2021 when the lecturer gave ethics and morality in education course to another preservice teacher group. He made modifications and improvements to the syllabus throughout this term.

The analysis stage included the needs analysis and learner analysis phases. In the needs analysis phase, the relevant literature on ethics education, its advantages, and challenges were reviewed in a thorough manner including recent research articles, books, and papers from academic gatherings. Expert opinion was reported as well with the goal of getting feedback on the collected data and studies. Previous courses and teacher evaluations completed by students were considered within the boundaries of a document analysis study so that learners and their opinions could be taken into consideration in the needs and learner analysis phase. The learner analysis phase was also supported by the lecturer's previous contact with students having similar backgrounds and learning experiences.

Following the needs analysis stage consisting of the needs and learner analysis phase, the researchers continued with the design stage that included the incorporation of findings from the first stage into the allocation of time, weeks, topics, teaching methods, assessment strategies, and so forth. As the university courses are designed around 14-week periods per term, this course was planned to last for 14 weeks. Active and digital learning strategies were used, and Moodle LMS was employed for information and announcements, mind-maps, discussion boards, timelines, and interactive videos. Further, this course aimed at assessing students' progress on ethics learning through a continuous formative feedback model which accounts for the use of formative assessment methods enriched with a cumulative approach every successive week. Students build upon their learning from the previous weeks as part of the core principle of continuous formative assessment.

The development stage was completed with the researchers' efforts to design and develop materials, active and digital learning instruments, and finally continuous formative assessment activities to be utilized in the planned 14 weeks.

The implementation stage started with the launch of the education year and ended with the end of the term. Regarding the last stage, which is the evaluation stage in the instructional design cycle, the lecturer pursued formative and summative approaches which means that the course was evaluated not only at the end of the term but also throughout the term by means of lecturer notes, observations, student products (discussions, e-materials, assignments and so forth).

Findings

There are four emerging themes from the participants' opinions, which can be listed as a well-prepared blended content, an open, interested, and fair attitude towards the students, use of the Socratic method and active teaching strategies, and continuous formative assessment. Main and supporting characteristics of "ethics and morality in education course" are explained below:

A Blended and Case-Based Content

The 14-week long course with a case-based approach that includes stories, dilemmas, examples, discussions, quotes of famous people, daily topics, animation, videos, and online activities captivated the attention of the students. The lecturer employed myriad information sources, spanning from newspaper headlines to authentic anecdotes sourced from the internet, and encompassing cultures germane to moral judgment. Among these sources, Michael Sandel's Justice, a Harvard Course (n.d.) proved immensely beneficial, as did narratives and instances derived from Turkish culture. Participants highlighted the importance of storytelling, real-life cases along with dilemmas that they could face in their own lives in regard to ethical decision-making. The blended online and in-class contents helped them to better understand the topics in the course as highlighted by several participants.

Ali: "I wanted to say that the lessons were very informative, with the storytelling, examples, and discussions, the lessons were very productive."

Ela: "The dilemmas in the course impressed me a lot. I was very indecisive when answering the given questions and thinking for a while that they could be real."

Under the theme of blended and case-based content, the supporting categories such as *presenting a captivating question, scenarios, and dilemmas, arranging topics, and using quotations of famous people* were listed, which are explained in detail as follows:

Present a Captivating Question or Story by Abstaining from Disclosing the Finale, and Encourage Students to Assess the Plausible Outcomes

Participants have pointed out that asking the right questions instead of giving final answers before the theoretical part helps students explore different solutions and ideas pertaining to the content. A case-based content with captivating questions and stories including online activities keeps students' interest in the course and provides a connection with the theoretical part of the course as Olivia mentioned.

Olivia: "The questions and stories, by attracting the attention of students at the beginning of the lesson and enabling them to brainstorm, keep the interest and focus of students in the lesson; and then the theoretical part of the lesson provides the students to understand the subject better by connecting with the stories given at the beginning."

Present Scenarios and Dilemmas to Assist Students in Recognizing Their Ethical and Unethical Decision-Making Processes

Participants have drawn attention to the fact that course contents built on scenarios and dilemmas enabled students to have different perspectives on the topics, which could help them change their ideas on the same topic after a deep thought process.

Fatima: “The most interesting thing for me in this course was the stories/dilemmas related to the subject in the course, both providing a better understanding of the topic and doing brain gymnastics. We have learned that everything is not as it seems. If we think more deeply about the things, what we know to be true may not really be true.”

Arrange Topics and Contents as Building Blocks

Participants from the course meant that the topics were broad and included many theories, but arranging the content matters as building blocks helped them have a clearer picture of themselves on topics such as tolerance of intolerance, putting limits, local morality, and universal ethics. Valeria highlighted the necessity to arrange topics in a specific order to help students internalize the theories and course materials better.

Valeria: “It is a challenging and difficult course to learn. There are a lot of concepts and topics, but it is necessary (that build upon each other).”

Use Quotations from Renowned Persons in the Domain that Stimulate Students’ Analytical Reasoning

Quotations, poems, and idioms as content matters in the course provided participants with a clearer understanding of the topics. Noah has pointed out that Kant and Ghazali’s quotations and their texts from the books made them think more analytically.

Noah: “The ethical understandings of the thinkers who influenced me the most in the course... especially Kant’s ethics of duty and Ghazali’s thoughts. Kant’s ethics taught how important the intention is, how important it is to see what is good and to use this good not in its own interest, but in the virtue of being a human being. Ghazali showed that human beings grow up as conscientious virtuous individuals with the reflection and soul’s consciousness of God in religious beliefs.”

An open, interested, and fair Attitude Toward Students

An open, interested, and fair attitude toward students makes them authentic owners of the learning process and creates a safe space for controversial discussions. Students feeling safe in their answers to the questions in the course help them gain confidence. This attitude was a recounted characteristic of the course by several participants.

Sarah: “What really interested me the most was your teaching strategy. In a conversational atmosphere, you made us all feel comfortable expressing our opinions, even if they were right or wrong. You guided us to the truth comfortably with jokes that did not belittle our answers... Your presentations in the course, the assignments given and the grading of the assignments every week, and using them in the midterm and finals helped us to do those assignments willingly. Thank you for loving your course so much and for your care for this course.”.

Under the theme of an open, interested, and fair attitude toward students, the supporting categories such as *dedication to fostering students' individual growth, facilitating the education for their future career and being role models for students* were listed.

Demonstrate to Students that you are Dedicated to Fostering Students' Individual Growth with Affection and Admiration

Lecturer's display of dedication for students' individual growth is critical in teaching as students appreciate the lecturers' efforts when they consider this is merely for the benefit of them. Paya has pointed out that sincerity and natural conversation embedded in the teaching strategy creates appreciation and acceptance.

Paya: “I liked the humor, the sincerity, and the natural lecture atmosphere. We realized that you were working for our benefit, and we liked that.”

Do not Convey Solely Course Information, but also Facilitate the Education of Forthcoming Educators on Pedagogical Approaches

Observation of teaching practices that includes creation of emotional bond in the class empowers future teachers. Participants reported that they do not solely expect transfer of knowledge in the class, but also observation of effective strategies in teaching that they can replicate for their own future career. These teaching strategies, as Emily mentioned, are to be combined by emotional path that can be built between teacher and students.

Emily: “I learned most of the effective methods I will use in teaching thanks to this course; this is what we, students, really want. It is not good to focus only on the topics. We want to learn (through teaching strategies) how to touch a child's heart, and how to teach the right behavior in the classroom.”

Be the Role Model

As general belief holds, teachers are not much different than parents, all of whom could be accepted as the first role models of students from the early ages on. A lecturer in tertiary education for teaching department could show prospective teachers about how to be a good role model with effective teaching. Participants highlighted the importance of being role model with a fair and interested attitude that the lecturer displayed.

Isabelle: You became a role model for me in the teaching profession. I will be like this in my future teaching life, both with your attitudes toward students and the way you explain the lesson. I learned from you that we should never give up, read a lot and constantly improve ourselves.

Use of the Socratic Method Along with Active Teaching Strategies

The Socratic method in teaching is intriguing for students (Adib-Hajbaghery & Aghajani, 2011). This method includes consecutive questions, sometimes followed by irony. In doing so, the lecturer helps students to understand their mistakes and go for further exploration of the topic. The participants have drawn attention to the teaching strategy of the lecturer who asked questions or joked in a manner (Socratic irony) that provoked students for more rational thinking. Instead of presenting the correct answers verbally or on slides, the lecturer was asking questions, behaving ignorant, or making jokes at the right time to help students get puzzled, think, and give clearer answers. This method of teaching was openly highlighted by Maria.

Maria: "What impressed me in the lesson was that our lecturer connected us to the course contents with irony. In fact, I was surprised when it first happened, but then I realized how useful it was. For example, if someone gives an answer, the lecturer opposes it with a joke or states that the idea is (somehow) not correct...It creates an environment for discussion."

Under the theme of use of the Socratic method along with active teaching strategies, the supporting categories such as *the Socratic method*, *active teaching techniques such as brainstorming*, *unstructured group dialogues*, *supplementary online tools*, and *letting students explore the topics in relation to daily life* were listed.

Use the Socratic Method

Employing Socratic questioning in the courses helped participants to better position their ideas in relation to the topics explored. While striving to answer questions, they came to understand the reason and the way they were getting questioned, which gave them the freedom to change their decisions or ideas without any disappointment.

Mia: “I understood many things in this lesson, one of them is to see that the thoughts I had or the answers I gave to your questions completely changed at the end of the lesson... by making us question the things.”

Attempt to Incorporate Active Teaching Techniques such as Brainstorming, Unstructured Group Dialogues, and Supplementary Online Tools

Brainstorming, group dialogues, and activities on online platforms are some of the active teaching techniques that any educator can use based on the course contents. The participants emphasized how the application of these techniques impacted their learning experience by actively involving them.

Sophia: “In general, the debates, brainstorming, strategies, and stories in the lesson (online and in-class) were very interesting and kept me engaged.”

Aid Students in Uncovering the Extent to which the Questions and Topics are Pertinent to Their Daily Lives

One of the methods to maintain student engagement in classes is by establishing a connection between educational goals and everyday life. The participants told ethical dilemmas and stories in the course made them question what they would do now if the same happened in their own life, or what other options they could have chosen in the past as they experienced similar ones.

Ahmed: “What interests and impresses me the most in the course is that the topics we discuss and the topics we learn remind me of my past and previous events.”

Continuous Formative Assessment

Participants mostly focused on the positive effect of grading throughout the term. Noor has pointed out that weekly homework and grades kept students on the learning journey; otherwise, students may have just focused on the midterm and final weeks to get the grades that would enable them to pass the course.

Noor: “Assigning homework every week is very good because it keeps students engaged in the lesson.”

Under the theme of continuous formative assessment, the supporting categories such as *constructive criticism on a weekly basis and helping students in exploring the muddiest points by giving feedback* were highlighted.

Attempt to Provide Constructive Criticism on a Weekly Basis Following the Students' Answers

One of the most mentioned features of the course among the participants is the lecturer's provision of constructive criticism on a weekly basis for homework which could be in the form of reflective papers, case studies, or research reports. Participants recounted of positive effect of continuous assessment on their learning process.

Leo: "What interests me in the lesson is the discussion of the answers and questions of the homework (when we come to class after we complete the homework)".

Help Students Reflect on Muddiest Points and Inadequately Comprehended Sections of the Course Thereby Giving them the Opportunity to Excel in the Course Content

Muddiest points is a classroom assessment technique, where a lecturer asks students to reflect on what has been taught allowing students the opportunity to share what has been muddy or unclear part in the course (Carberry et al., 2013). The lecturer occasionally tried to understand what parts of the course were muddy for the participants by asking questions at the end of the lesson or placing them on board at the start as he learned what problems they had with specific topics. Mostly, the lecturer asked several questions to uncover muddy points; in some cases, the participants were given homework to make sure they would master the contents at home.

Camila: "There were some parts that I had difficulty in understanding...In the whole lesson, we focused on the questions given beforehand and talked about them in the classes, so it reinforced my knowledge even more."

Drawing from the four primary dimensions, the teaching style utilized throughout each week remained largely consistent. An examination of participants' feedback for the course has uncovered twelve key factors that effectively contribute to the effectiveness of ethics and morality in education course. These factors, along with the four main attributes of the course, were established based on students' responses, supported by the lecturer's observations. The [results and discussion](#) section incorporates a combination of the main and supporting characteristics of the course in Table 2.

Results and Discussion

When the reasons for teaching with certain methods in social education are sought, one of the answers is undoubtedly raising students with critical thinking, inquisitiveness, positive and active citizenship, and with qualities such as tolerance, honesty, character, integrity, and generosity (Misco & Hamot, 2001). To successfully achieve these objectives in any ethics course, it is imperative that a specific methodology is employed, alongside active participation from learners throughout the entire learning process. This study has revealed several

crucial features that are instrumental in facilitating the delivery of a social science course-ethics and morality in education course- which yields positive outcomes.

The research findings in this study suggest that a pedagogical approach that incorporates cases and blended contents with online and face-to-face tasks, a sincere approach towards students, Socratic and active teaching methods, and continuous formative assessment throughout the term support the better instruction of ethics as a social science course. Moreover, there are twelve critical factors under these four main themes that can help lecturers of ethics or social science courses to best deliver program outcomes at the tertiary level. All these main themes and supporting categories, based on the participants' answers, are shown in Table 2.

A blended and case-based content approach in the course proved beneficial for the participants' learning journey. Based on online ethics education, collaborative, case-based, and contextual learning are found to be essential for fostering ethical knowledge, awareness, and practice (Barak & Green, 2020). Correspondingly, Antes et al. (2009) discovered in their meta-analysis of 26 evaluations of ethics programs that the more successful programs were case-oriented, interactive, and allowed participants to acquire and put into practice the utilization of practical ethical decision-making skills in real-life situations.

An open, interested and fair attitude by the lecturer seemed to foster positive climate and safe space for the participants. This may lead students to develop a strong connection with lecturers with long-lasting impacts on their personal and academic enrichment. A positive climate for learning allows for self-regulated learning behaviors as well where learners recognize their own strengths and weaknesses, set and pursue their own goals, manage their own learning, learn to work with others effectively, do self-evaluation to check if they have achieved their goals (Zimmermann & Schunk, 2001).

Table 2 Main themes and supporting categories

A blended and case-based content

1. Present a captivating question or story by abstaining from disclosing the finale, and encourage students to assess the plausible outcomes
2. Present scenarios and dilemmas to assist students in recognizing their ethical and unethical decision-making processes
3. Arrange topics and contents as building blocks
4. Use quotations from renowned persons in the domain that stimulate students' analytical reasoning

An open, interested, and fair attitude toward students

5. Demonstrate to students that you are dedicated to fostering students' individual growth with affection and admiration
6. Do not convey solely course information, but also facilitate the education of forthcoming educators on pedagogical approaches
7. Be the role model

Use of the Socratic method and active teaching strategies

8. Use the Socratic method
9. Attempt to incorporate active teaching techniques such as brainstorming, unstructured group dialogues, and supplementary online tools
10. Aid students in uncovering the extent to which the questions and topics are pertinent to their daily lives

Continuous formative assessment

11. Attempt to provide constructive criticism on a weekly basis following the students' answers
 12. Help students reflect on muddiest points and inadequately comprehended sections of the course thereby giving them the opportunity to excel in the course content
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Active teaching strategies, such as the Socratic method, enabled participants to effectively grasp the course materials. Incorporating active learning strategies into the lesson gauges critical thinking development, student-centered learning, improved learning and retention, enhanced communication skills and ethical reflection, real-world application scenarios, supportive learning environment, problem-solving skills and finally cultivates life-long learning (Fink, 2003; Antes et al., 2009; Zhang et al., 2022).

The participants had benefits derived from continuous formative assessment which allowed them to have multiple evaluations of knowledge and incremental learning through comparative and progressive analysis of their knowledge (Johansson et al., 2022). Such continuous formative assessment creates room for opportunities for students to receive timely feedback, achieve enhanced learning outcomes, get exposed to less academic pressure, and experience fair evaluation and transparency while adopting ethical principles (Molina Soria et al., 2023).

The unique aspect this study puts forth is the teaching framework it sets out for ethics and any social science course. Teaching ethics can be perceived as tedious, with the constant lecturing on ethical standards, moral codes, and laws that pertain to the teaching profession. However, to truly engage students and promote deep learning, a captivating class can be achieved by structuring the lesson in a thought-provoking manner, incorporating case studies and blended content of online and concrete sources. The lecturer serving as a role model, exhibiting an open-minded attitude, and utilizing a Socratic and active teaching style is of utmost importance to the course. Additionally, continuous formative assessment should be implemented course-wide to ensure that students are grasping the core messages and have the prospect of applying them to their own lives. Another notable point worth mentioning is that the course included participants from the music and science departments, the data of whom co-produced main themes and categories. This may mean that the framework and suggestions offered here could be applicable to general ethics education in teacher training.

Limitations and Future Directions

This study is grounded on the viewpoints of preservice teachers in the third-grade science and music departments within a faculty of education. It does not encompass the comparison of the opinions on the instructional design of the course from both groups, instead generally shared opinions from them. Subsequent studies can explore whether the course design and blended content yield similar outcomes for diverse major groups. Furthermore, there is no control group or alternative teaching approach employed for additional comparison. The sample size is ($n=71$) viable for qualitative research. Also, a quantitative methodology could be utilized for scrutinizing diverse methodological aspects of the study with a larger sample size. In accordance with the learning outcomes of the course and the research inquiries, validated rubrics or scales could be administered as pre-test & post-tests to determine if any changes have occurred in the participants' knowledge of ethical content in line with the syllabus used in this study. Like a longitudinal study design, long-term implications could be tracked by follow-up interviews with graduates of this course who will be in-service teachers.

Funding This is not applicable as we have not received any financial support or funding from anywhere for this study.

Data Availability Data associated with this study is not available publicly as it can breach the promised confidentiality of the study participants, but will be available at the request wherever applicable.

Declarations

Conflicts of Interest We do not have any conflicts of interest to disclose.

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