Journal of Business Ethics (2025) 202:439–458
https://doi.org/10.1007/s10551-025-05948-4

ORIGINAL PAPER

Can Business Ethics Courses Be Effective? A Quasi-Experimental Mixed-Methods Study of a Cooperative-Learning Approach in Higher Education

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Received: 31 October 2023 / Accepted: 23 January 2025 / Published online: 18 February 2025
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Abstract
This study assesses the effectiveness of an elective course in business ethics designed around a cooperative-learning approach and explores how this pedagogical method supports graduate students in practising ethical attitudes and behaviours. The research employs a mixed-method approach, integrating a quasi-experimental pre- and post-test study with an in-depth qualitative study based on focus groups. The quantitative study investigates the effectiveness of a business ethics course delivered within a university master's program in improving various ethical outcomes, including moral efficacy, moral sensitivity, and moral motivation. In contrast, the focus groups explore how the cooperative-learning approach adopted within the course enhances the student's learning process and the overall effectiveness of the course. The quantitative results demonstrate that the business ethics course effectively develops the students' moral efficacy and moral motivation but not their moral sensitivity. The qualitative results indicated that the cooperative-learning approach contributes to achieving positive outcomes by favouring the motivational, relational, and cognitive dimensions of the student's learning processes. The study contributes to the literature on business ethics education by providing a robust understanding of the effectiveness of business ethics programs in higher education and highlighting the role of the cooperative-learning pedagogical approach in developing graduate students' ethical knowledge, skills, and behaviours. In addition, it showed that, despite the complexity of ethics, adopting a cooperative-learning approach in the business ethics course design improves the ability of future employees and managers to take responsibility for individual and collective actions.

Keywords Business ethics education · Cooperative learning · Moral behaviour · Mixed-methods · Quasi-experiment · University

Introduction

Developing ethical competencies among managers and employees has increasingly become an accepted corporate practice to avoid scandals and address new ethical challenges affecting individuals, organisations, and society (Kreismann & Talaulicar, 2021). Accordingly, a common practice in the top global graduate business schools is the integration of business ethics courses aimed at developing the ethical competencies and attitudes of students who are likely to become managers (Haski-Leventhal et al., 2022; Kristjánsson, 2022; Okechukwu Ugwuozor & Otu, 2020; Christensen et al., 2007; May et al., 2014).

Business ethics education (BEE) is recognised as a field of study that examines the impact of ethics courses on various ethical outcomes, as well as the design and application of different methods and tools for teaching business ethics (Calabretta et al., 2011; Liu et al., 2019). In addition, BEE scholars generally agree on the trainability of business ethics and its relevance for both students (Parks-Leduc et al., 2021) and practitioners (Kreismann & Talaulicar, 2021).

However, the effectiveness of BEE remains a topic of interest for researchers to empirically evaluate the impact of

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ethics courses on ethical knowledge and practices in higher education (Okechukwu Ugwuozor & Otu, 2020; Parks-Leduc et al., 2021; Medeiros et al., 2017). Literature reviews on BEE reveal an inconsistency between effective and ineffective results (Kreismann & Talaulicar, 2021; Medeiros et al., 2017; Waples et al., 2009). In addition, the results are challenging to generalise, as each study considers different outcomes and related measurement methods. For instance, most studies have focussed on Rest's (1986) four-component model of moral behaviour (sensitivity, judgement, motivation, and character), which aids in understanding the processes for moral action. However, these studies often focus on one or a few of the four components of Rest's (1986) model, with moral judgement being better explored than the others (Kreismann & Talaulicar, 2021). Therefore, a more holistic approach is required to assess the effectiveness of business ethics courses in supporting the development of students' ethical knowledge, skills, and behaviours.

Many studies within BEE have also highlighted that different pedagogical approaches and tools can be used for teaching business ethics (Jaganjac et al., 2023). However, existing research has underestimated the potential role of pedagogical approaches, in terms of delivery and practice methods, in shaping BEE's overall effectiveness (Kreismann & Talaulicar, 2021; Medeiros et al., 2017; Reficco et al., 2019). In this regard, only a few studies have explored how BEE's various design elements (active or passive learning, individual or social learning, face-to-face or online course delivery, length of the course, standalone or diffused course, and others) contribute to business ethics learning (Kreismann & Talaulicar, 2021; Medeiros et al., 2017; Waples et al., 2009). In this vein, scholars have emphasised the importance of active and social-learning approaches to determine which learning processes to favour for complex topics (Loyens & Gijbels, 2008) and have encouraged further research in this direction (Dziubaniuk & Nyholm, 2021; Ohreen et al., 2022; Reficco et al., 2019).

Among the active and social-learning approaches, cooperative learning (CL) is one that 'combines active learning and social learning via peer interaction in small groups on academic tasks' (Davidson & Howell, 2014, pp. 14–15). The educational philosophy of CL is grounded in the idea that 'Social control resides in the very nature of the work conducted as a social enterprise in which all individuals have an opportunity to contribute and to which all feel a responsibility' (Dewey, 1938, p. 56). CL is specifically recommended as a potentially effective approach to teaching business ethics (Blatt & Kohlberg, 1975; Ballantine et al., 2018; McDonald, 2015; Mintz, 1996; Peek et al., 1994; Weber, 2007). As CL engages students in active participation in problem- and case-based ethical discussions in group settings (Davidson & Howell, 2014; Medeiros et al., 2017; Reficco et al., 2019; Waples et al., 2009), it can contribute to their moral development in a context of collaboration and responsibility for others. In the case of complex or even controversial problems such as ethical problems or dilemmas, CL provides opportunities to discuss, argue, and present and hear one another's viewpoints (Johnson & Johnson, 1999, 2009; Slavin, 1996). In CL situations, students can enhance their cognitive and moral reasoning and engage in a more frequent and accurate perspective than in competitive or individual learning (Johnson & Johnson, 2014). In addition, in CL groups, each participant is encouraged to treat other group members fairly (Mintz, 1996) and respond to others' needs with empathy, compassion, and support to achieve common goals (Johnson & Johnson, 2014).

In the BEE literature, few studies assess CL effectiveness, and the existing studies focus on group discussion. Ohreen et al. (2022) indicated that group/peer discussion improves students' moral reasoning, whereas Salvador (2019) discovered that group discussions on ethical dilemmas positively influence prosocial intentions. However, to the best of our knowledge, no BEE studies to date have thoroughly explored CL mechanisms and their benefits for learning and developing ethical knowledge, skills, and behaviours in higher education.

The aim of the present study is to assess the effectiveness of a business ethics course designed around a CL approach in improving graduate students' ethical outcomes. For this purpose, a mixed-methods convergent design was employed (Fetters et al., 2013), which integrates a quasi-experimental pretest/post-test quantitative study (Hoyle et al., 2002) with an in-depth qualitative study based on four focus groups. More specifically, the quantitative study examines the effectiveness of a business ethics course delivered within a university master's programme in improving students' moral efficacy, moral sensitivity, and moral motivation, while the focus groups explore how the CL approach contributes to achieving these goals.

This study contributes in various ways to the extant literature on BEE. First, the quantitative study provides additional evidence on the effectiveness of BEE for students enrolled in a management master's programme by considering different dimensions of moral behaviour as potential outcomes, moral efficacy, moral sensitivity, and moral motivation, thus enabling a distinction to be made regarding the impact of a business ethics course on students' ethical knowledge, skills, and behaviours. It also attempts to overcome some methodological limitations inherent in previous works on BEE effectiveness by providing robust evidence to the existing literature and employing a rigorous quasi-experimental pretest/post-test control group research design. In addition, by combining quantitative and qualitative approaches, the study opens the 'black box' of training design, which is largely ignored in the extant literature, shedding light on

the mechanisms through which adopting a CL pedagogical approach contributes to graduate students' moral behaviour.

Literature Review

BEE and Training Outcomes

BEE aims to develop and strengthen ethical competencies that positively influence the ethical and responsible behaviour of university students, organisational members, and managers (Hannah et al., 2011; Laasch et al., 2022). Interest in ethics education and the ethical attitudes of business students likely to become managers is increasing (Cullen, 2020; Jaganjac et al., 2023; Parks-Leduc et al., 2021). Nevertheless, a clear conceptualisation of ethical competence, attitudes and behaviours remains scarce (Pohling et al., 2016). Ethical competencies are 'the set of knowledge, skills and abilities that facilitate ethical behaviour' (Morales-Sánchez & Cabello-Medina, 2013). Moral philosophy, behavioural ethics, and ethical management interpret ethical competencies differently. Within the studies of ethical management, engaging in ethical behaviour is recognised as a core managerial ethics competency (Laasch et al., 2022).

Empirical research on ethical decision-making and action (Craft, 2013; O'Fallon & Butterfield, 2005; Lehnert et al., 2015; Treviño et al., 2006) often builds on the general framework of moral development proposed by Rest (1986) to guide the understanding and prediction of ethical behaviour (Klinker & Hackmann, 2004). Rest's model includes four components (or processes): (1) sensitivity (being aware of the existence of a moral problem), (2) judgement (judging which action is ethical or unethical), (3) motivation (prioritising moral values over other values and intending to fulfil them), and (4) character (persisting in a moral task) (Rest, 1986; Rest & Narvaez, 1994; Rest et al., 1999). This model is a valuable framework for designing and assessing ethical education programmes (Gulseren et al., 2021; Kreismann & Talaulicar, 2021; Parks-Leduc et al., 2021; Rest & Narvaez, 1994).

Therefore, BEE frequently examines the effectiveness of ethical training programmes in promoting moral decisions and actions by considering one or more of these components as potential training outcomes, focussing to varying degrees on knowledge (first and second components), skills (second and third components), or behaviours (fourth component) (Parks-Leduc et al., 2021). Recent work has also integrated and further developed Rest's model by adding a set of moral capacities that help explain why individuals can be more or less inclined and able to execute the four moral behaviour processes. In their conceptual study, Hannah et al. (2011) highlighted the importance of moral maturation and moral conation capacities as potential predictors of moral behaviour. Moral maturation capacities include moral complexity, meta-cognitive abilities, and moral identity. These capacities refer to the ability to elaborate on and effectively attend to, store, retrieve, process, and make meaning of morally relevant information. In contrast, moral conation includes moral ownership, moral efficacy, and moral courage and underlies the capacity to generate responsibility and motivation to take moral action in the face of adversity and persevere through challenges. Therefore, BEE should improve moral maturation capacities by supporting moral knowledge and related cognitive skills (awareness, critical, and reasoning skills) and efficacy or motivation for moral action (Brokerhof et al., 2023; Ohreen et al., 2022).

Starting from this literature, the BEE assessment framework employed in the present study builds on Rest's model and its development by Hannah et al. (2011). In addition, training outcomes were selected to capture various levels of the training evaluation model proposed by Kirkpatrick and Kirkpatrick (2006), which include knowledge, skills, and behaviours. Therefore, the learning outcomes considered are moral efficacy and moral sensitivity, which broadly refer to the second level of Kirkpatrick's model: changes in attitude, knowledge, and skills. In addition, the study considers moral motivation, which broadly refers to the third level of Kirkpatrick's model and concerns the applied contents and changes in behaviour. The following section briefly elaborates on the training outcomes used in the present study, which aimed to assess the effectiveness of a course in business ethics in developing the ethical competencies of master's university students.

Moral efficacy. Moral efficacy is the belief in an individual's ability to actively and positively address ethical issues that can arise in the workplace and overcome obstacles to developing and implementing ethical solutions to ethical dilemmas (Hannah et al., 2011). Based on the psychological literature on self-efficacy (Bandura, 1997), the belief that an individual can act plays a powerful positive role in one's life (Maddux, 2002). Previous studies have also suggested that moral efficacy, as an individual competence, can be developed through training programmes. May et al. (2014) reported that participants in a business ethics course experienced significant increases in moral efficacy compared to those who did not participate. The authors also revealed that moral efficacy influenced individuals' moral behaviours in the workplace, such as raising ethical issues with management and suggesting solutions to ethical problems (May et al., 2010).

Moral sensitivity. Moral sensitivity refers to the awareness of an ethical issue, conflict, and/or responsibility in a specific situation that affects other actors (Felton & Sims, 2005; Rest & Narvaez, 1994). It represents the necessary initial steps towards moral behaviour, including interpreting the situation, considering how various actions will

affect the parties concerned, envisaging cause-effect chains of events, and recognising a moral problem (Rest et al., 1999). Moral sensitivity has been identified as a training outcome for BEE assessment, particularly appropriate for the target group of university students (Callahan, 1980; Conroy & Emerson, 2004; Felton & Sims, 2005; Ritter, 2006). However, empirical results regarding the impact of BEE are inconsistent. For example, Gautschi and Jones (1998) revealed that students enrolled in a business ethics course experienced substantial improvement in moral awareness compared to those who did not attend. More recently, Ritter (2006) showed that ethics education positively affected moral awareness for female undergraduate students but not male students. In contrast, Jewe (2008) found no significant effect of completing a business ethics course on university students' moral sensitivity. Previous results did not permit definitive conclusions about the capacity of business ethics courses to change individuals' attitudes towards ethical issues (Kreismann & Talaulicar, 2021).

Moral motivation. Moral motivation occurs when individuals establish moral intent by prioritising moral values relative to other values and intending to act consistently with them (Rest, 1986; Jones, 1991). Moral motivation pertains to the intent to act ethically in a specific context (in the workplace, at university or in everyday life) by prioritising the most ethical choice over lesser options (Conway & Kotera, 2020) and being responsible for the related moral outcomes (Rest et al., 1999). Thus, moral motivation bridges the level of moral judgements and the level of actual behaviour (Elango et al., 2010) and has proven to be a valid predictor of future conduct (Valentine & Rittenburg, 2004). For this reason, ethical intent is considered the expected outcome of ethics training programmes (Borkowski & Ugras, 1992; Parks-Leduc et al., 2021). However, empirical evidence on the impact of BEE on moral motivation is discordant. Although recent studies, such as those by Parks-Leduc et al. (2021), have identified improvements in moral motivation among graduating students following exposure to a distributed method of ethical training, earlier studies found no significant relationships (Gautschi & Jones, 1998; Wang & Calvano, 2015).

Based on the above discussion, business ethics courses in the higher education domain are expected to positively influence graduate students' moral efficacy, moral sensitivity, and moral motivation. Accordingly, the following hypothesis is formed and explored by adopting a non-equivalent control group design based on a quasi-experimental pretest-post-test.

HP1 Graduate students who participate in business ethics courses experience a greater increase in (a) moral efficacy, (b) moral sensitivity, and (c) moral motivation than those who do not participate in such ethics education (i.e. the control group).

Cooperative-Learning Approach in BEE

Different learning approaches, including the pedagogical principles and methods employed in teaching and training practice, influence the effectiveness of BEE (Jaganjac et al., 2023; Kreismann & Talaulicar, 2021). In general, discussions on learning approaches and tools in BEE have focussed more on the relevance of active learning than on traditional passive approaches (Jaganjac et al., 2023). Learners are often considered passive recipients of ethical knowledge when it is imparted to them (informing them about moral and legal frameworks), typically through traditional lectures (Cornelius et al., 2007). Alternatively, learners can be actively engaged in various learning activities (discussing case studies, role-play, games, simulations, and team projects) that foster the interpretation and creation of knowledge (Dziubaniuk & Nyholm, 2021; Kreismann & Talaulicar, 2021). In addition, active learning can be categorised into individual or social-learning approaches depending on the presence or absence of social interaction. More specifically, based on social interdependence theory (Deutsch, 1949), the social-learning approach includes CL, based on positive interdependence (where learners raise the achievement of joint goals), and competitive learning, based on negative interdependence (where learners oppose each other's success) (Davidson & Howell, 2014; pp. 14–15; Johnson & Johnson, 1999). CL has been widely recognised within this educational framework as a successful active and social-learning strategy based on positive interdependence (Johnson & Johnson, 1999). It occurs when students work and learn together actively in small groups to achieve a common goal in a mutually supportive manner (Davidson & Howell, 2014).

The effectiveness of CL is founded on social interdependence theory (Deutsch, 1949), cognitive developmental theory (Piaget, 1976; Vygotsky, 1987), and behavioural theory (Skinner, 1968), which, respectively, highlight the roles of cooperative efforts, knowledge co-creation through social interactions, and incentives to learn collaboratively. However, for CL to be successful, certain conditions must be met, including positive interdependence, individual accountability, promotive interaction, and group processing (Johnson & Johnson, 1999, 2014). Positive interdependence arises when group members realise they must collaborate to achieve a common learning objective (group goals or rewards). Individual accountability is established when teaching methods (individual tests and task structures) hold each group member responsible for contributing to the group's success. Group goals and individual accountability foster promotive interaction among group members, who aid, assist, support,

encourage, and commend one another's efforts in learning through socio-cognitive activities (knowledge sharing, explaining concepts, discussing problem-solving strategies, and reaching consensus).

Finally, group processing occurs when participants reflect on their collaborative experience and determine ways to enhance effectiveness. The instructor also plays an essential role in CL, establishing group goals, structuring tasks and rewards, enabling students to collaborate in small groups, and acting as a coach or facilitator of the group-learning processes (Johnson & Johnson, 2009; Slavin, 2014).

CL has been extensively implemented in the field of management education (Duff, 2004) and is recommended as an active and social-learning approach, which is more effective than individualistic or competitive learning approaches for enhancing the quality of ethical learning for future managers and executive employees (Blatt & Kohlberg, 1975; Ballantine et al. 2016; Gozalvez Perez et al., 2011; Peek et al., 1994; McDonalds, 2015; Mintz, 1996; Weber, 2007). Business ethical dilemmas are often tackled by groups rather than individuals: managers and employees discuss different perspectives, the advantages and disadvantages of each potential solution, and then reach a consensus on the optimal solution (Peek et al., 1994; Weber, 2007). Thus, the CL approach aids in developing social interaction within a safe learning environment (small groups) that engages students to participate in ethical discussions, which is increasingly recognised as a vital component of ethical education for students and practitioners (Kreismann & Talaulicar, 2021; Mintz, 1996; Reficco et al., 2019; Ritter, 2006; Sims & Felton, 2006).

More specifically, three main theoretical perspectives, motivational, cognitive, and social cohesion, collectively clarify the potential positive impacts of CL on ethical learning (Slavin, 1996, 2014).

From a motivational perspective, CL enhances students' motivation to learn and encourages them to help groupmates learn (Slavin, 2014). Specifically, group goals or rewards based on the learning of all group members motivate students to engage in socio-cognitive activities and can also lead to group cohesiveness and a sense of responsibility for one another. Cooperative efforts with caring and motivated people bolster individuals' self-efficacy, self-esteem, and ability to address adversity and stress by providing opportunities to share and solve problems and to value their contributions (Johnson & Johnson, 1999).

In this context, CL supports the moral efficacy or confidence required to address ethical and complex challenges (Johnson & Johnson, 2014) by fostering personal mastery, vicarious experiences, reflection, and honest feedback in ethical domains (Bandura, 1997; Hannah et al., 2011). The cognitive perspective highlights how interactions among students increase their academic achievement due to the mental processing of information. Cooperative tasks foster the active involvement of all participants to achieve a common goal, enhancing achievement and productivity (Johnson & Johnson, 2014). Specifically, the opportunities for participants to discuss, argue, and compare their own points of view with those of others contribute to the development of knowledge and higher-level cognitive skills such as inquiry, critical thinking, reasoning, and problem-solving (Davidson & Howell, 2014). Research on CL underlines that its effectiveness increases when tasks require higher-level reasoning problems to solve, a complex project to complete, or forms of constructive controversy to resolve (Johnson & Johnson, 2014). This is exemplified by tasks based on ethical problems or dilemmas, a type of task without a well-defined path to a solution or a single correct answer (Matchett, 2009).

In this context, students can have different views about the nature and cause of the problems, have different values and goals, and disagree about the solutions. CL supports students in the resolution processes of constructive controversies that require the discussion of the advantages and disadvantages of their opinions or solutions, listening to others' arguments, dealing with disagreements and conflicts, critical thinking about perspectives and values, and integrative negotiation aimed at synthesising the best reasoning and novel solutions (Johnson & Johnson, 2014; Matchett, 2009).

Reflecting moral maturation processes (Hannah et al., 2011), CL can aid the development of moral cognition, which entails awareness and processing of moral issues by providing individuals with new perspectives for considering ethical issues through open dialogue and debate on different viewpoints of ethical problems (Peek 1994; Johnson & Johnson, 2014).

The social cohesion perspective emphasises the importance of the quality of promotive interaction, the appropriate use of social skills, and group processing. Based on this perspective, students help their groupmates learn because they care about the group rather than their own interests. Specifically, CL encourages the development of care and responsibility for others' achievements (Cohen, 1994; Johnson & Johnson, 1999), the ability to understand others' perspectives (Davidson & Howell, 2014; Johnson & Johnson, 1999), negotiation skills for resolving disagreements constructively (Loh & Ang, 2020), team and community-building efforts (Weber, 2007), and peer support and commitment to group goals (Loh & Ang, 2020).

Within CL groups, students interact and develop social skills and competencies, which can enhance their sense of moral responsibility towards others and encourage moral actions such as behaving fairly, avoiding disengagement (Bandura, 1997; Mintz, 1996) and responding to others' needs with empathy, care, and support (Johnson & Johnson, 2014).

Based on the above discussion, it is anticipated that the CL approach adopted within a business ethics course can enhance cognitive abilities, social skills, and motivation to be responsible for personal and professional actions. Accordingly, by employing a qualitative study and focus groups with students who participated in the business ethics course designed using the CL approach, the following research questions are addressed:

RQs: Does CL approach contribute in improving graduate students' moral efficacy, moral sensitivity and moral motivation within the business ethics course? How does CL approach support students' moral behaviour learning process?

Methodology

Empirical Context: The 'Ethics and Sustainability Management' Course

Ethics and sustainability management is a blended-learning elective course for second-year students enrolled in a master's degree programme in management at a public university in Italy. The course was designed and delivered by a full professor with extensive practical and theoretical experience in management, assisted by a young research fellow.

Departing from a normative ethics perspective founded on moral philosophies and business theory, the course adopted the CL approach as a flexible laboratory. In this setting, students primarily worked in small groups and shared their knowledge, viewpoints, values, and experiences through social interactions to understand and address ethical issues in a business context. Hence, students were encouraged to (1) develop the ability to recognise ethical issues at individual, organisational, and systemic levels (moral sensitivity); (2) demonstrate their experiences and competencies for moral behaviour processes (moral efficacy); and (3) collaborate with others to negotiate different ethical values and devise shared solutions to ethical problems and dilemmas (moral motivation and action).

The course ran in the second semester from March to May 2022 (duration of 10 weeks), incorporating face-to-face and distance learning activities. Hence, 32 h (of the total 48) were delivered through distance group project work with online tutoring sessions, while the face-to-face lectures accounted for the remaining 16 h (Table 1).

The primary teaching method was group project work, designed following a CL approach. Specifically, students independently formed their working groups (ranging from four to six members), resulting in 13 heterogeneous groups. These groups were diverse concerning the students' educational backgrounds—a natural outcome of the multidisciplinary nature of the master's degree programme, which was

Table 1 Ethics and sustainability management design and delivery

Topics	Hours	Methods	Learning approaches			
			A	P	I	C
Business ethics challenges and case study discussions	32	Distanced—group project work activities and tutoring Key activities Group formation of 4 to 6 members Choice of a grand ethical challenge and a related business case Analyse an ethical challenge and write a study Construction and analysis of a business case study Make a classroom presentation of the work Write a final report on the group work	X			X
Management of ethical challenges	3	Flipped classrooms based on group project work presentations and group processing activities (focus group)	X			X
Introduction to ethical problems and dilemmas	2	Lecture based on role-playing exercise	X			X
Business ethics and sustainability management	2	Film-based discussion	X			X
	2	Submission of an individual essay	X		X	
Individual ethics and ethical leadership	2	Lecture with an ethical leadership trainer		X	X	
Ethics and new technologies	2	Lecture with an expert professor		X	X	
Ethics and governance in wise companies	2	Panel discussion seminar with an executive manager of an ethical business company, an entrepreneur of a B-Corp and a professor of knowledge management		X	X	
	1	Q&A session and submission of an individual essay	X		X	

A Active learning, *P* Passive learning, *I* Individual learning, and *C* Cooperative learning

jointly offered by the Departments of Management, Law, Sociology, and Statistics and attended by students with various bachelor's degrees. In addition, the groups varied in gender, age, nationality, interests, and work experiences.

Following the *formal cooperative-learning* model (Johnson & Johnson, 1999), students worked in the same group, for the entire duration of the course to complete four group assignments. First, they were required to identify a grand ethical challenge (the fast fashion industry, climate change and sustainable supply chain, business in conflict-affected contexts, the greenwashing problem, respect for human rights, the gender gap, and equality or digital ethics) and a related real-life business case that they desired to analyse. They must explain the reasons for their choice and why the case related to the ethical challenge.

Second, the business ethics literature was analysed, and an essay was written on the selected grand ethical challenge. More specifically, each group member searched and analysed academic or grey literature to determine the ethical challenge. The group collectively argued the ethical challenge with reference to the literature review, discussed how the problem was framed, the different theoretical and practical perspectives, and the remaining open questions and issues. They cooperatively wrote a first report on the analysis of the grand ethical challenge and received feedback from the professors.

Third, after framing the ethical challenge, the group work focussed on the construction and analysis of a case study. Students searched for information (newspaper articles, specialised reports, corporate documents) about the case study and performed a documental analysis. In addition to the description of the facts, students discussed the ethical problem, reflected on alternative choices through the lens of normative ethics, and engaged in constructive controversy. Based on these activities, each working group made an effective presentation of the main results of the cooperative work to the class. The presentation covered the framing of the ethical challenge and the main facts of the business case, explained their ethical decision or solution to the ethical challenge and how they arrived at it, and opened a heated discussion with the other working groups and teachers. Finally, each learning group wrote a final report of their work, integrating feedback from the classroom discussion.

During the group project work, students cooperated effectively in identifying key facts, dates, and academic literature, sharing resources and knowledge, discussing solutions to the ethical problem, and reaching a consensus by considering different viewpoints, ideas, values, and experiences to complete the group tasks successfully (i.e. promotive interaction). Thus, cooperative efforts were essential for effectively performing the group assignments and addressing the ethical problem (i.e. positive interdependence). In addition, students were invited to reflect on their learning process and experience (i.e. group processing). Regarding assessment, student evaluations included a collective evaluation of group work (60% of the final grade) and an individual written test designed to raise their individual accountability and assess the individual learning achieved (40% of the final grade).

The group project work was performed in e-learning, in addition the final group presentation in the classroom. Instructors and students utilised an e-learning platform to share training resources, use forums, handle assignment submissions, and provide feedback. The working groups organised themselves independently to work on the group assignments under the guidelines and deadlines defined by the instructors. Groups were supported by online tutorship sessions in which the professor and research assistant supported, facilitated, and monitored the learning progress of each group.

Alongside the group project work, two face-to-face lectures were designed by integrating cooperative-learning activities (case studies, problem-based and film-based group discussions, and role-playing) to discuss the fundamentals of business ethics. Experts delivered two face-to-face lectures on key ethical topics (ethical leadership and digital ethics). Finally, students attended a seminar with business managers who shared real-life ethical challenges in corporate governance and management. In all face-to-face lectures, individual learning activities were also required (submission of individual essays and attendance at the lectures).

Quantitative Study: Participants and Setting

The quantitative study employed a non-equivalent control group design based on a quasi-experimental pretest–post-test approach (Hoyle et al., 2002) to evaluate the effectiveness of the CL approach within a graduate business ethics course in sustaining students' ethical outcomes (moral sensitivity, efficacy, and motivation). The sample comprised two student groups: one exposed to the business ethics course 'Ethics and Sustainability Management' in 2022 (experimental) and one not exposed (control). As the business ethics course was structured based on the CL approach, the experimental group participated in cooperative exercises and discussions related to challenges and case studies in business ethics.

Of the 106 students initially enrolled in the business ethics course, 53 attended the course, completed all the pretest and post-test activities, and served as the treatment group. Their average age was 24.74 years; 51.0% were female and 94.4% were Italian. Most of the experimental group were enrolled in the second year of study (54.7%) and had previous working experience (77.3%).

As is often the case in educational settings (Cohen et al., 2007), random assignment to the experimental or control group was not feasible because the business ethics course

was elective. A control group was identified to ensure the same level of education, experience, and knowledge, addressing this limitation. To achieve this, students from the control group were selected from those enrolled in the same master's degree programme but did not attend the elective business ethics course. Of the 210 students enrolled in the master's degree programme and not in the business ethics course, 42 completed the pretest and post-test activities and served as the control group. The average age was 25.67 years, and, as in the experimental group, most students were female (52.4%) and Italian (90.5%), were enrolled in the second year of study (52.4%), and had previous working experience (73.8%).

Quantitative Study: Data Collection and Measures

Data on pretest and post-test were collected through a questionnaire administered online at two points in time for the treatment and control groups. Specifically, the pretest questionnaire was administered at the beginning of the second semester, while the post-test was administered 12 weeks later, at the conclusion of the course. This method facilitated the collection of dependent measures before and after exposure to the treatment group's business ethics course. By similarly collecting pretest and post-test-dependent measures for the treated and control groups, the researchers controlled for the effects of repeated testing and, to a lesser degree, the history and maturation of the sample, thus reducing threats to the internal validity of the study (Shadish et al., 2001). In addition, a set of extra control variables was included in the pretest questionnaire to mitigate the problem of selection bias and to control for systematic pre-existing group differences that can affect the outcomes of ethics education. The study received approval from the authors' Department, as required by the university's procedure. Participants were provided with verbal information about the study and received details on the first page of the pre and post-test surveys. They were asked to give their consent before proceeding. Following this, each participant completed the remainder of the surveys.

The dependent variables employed to assess the effectiveness of CL within a business ethics course were measured equally in the pretest and post-test questionnaires. All the items, vignettes, and scenarios utilised to measure the dependent variables in the pretest and post-test surveys are reported in the Appendix.

Moral efficacy. Moral efficacy was measured using a scale developed by Parker (1998) and subsequently tested (May et al., 2014). Participants were asked to indicate their confidence in their ability to manage ethical issues in prospective work situations on a seven-point Likert-type response scale, anchored from 1 = 'not confident at all' to 7 = 'very confident'. The scale included eight items, with sample statements such as 'analysing *an ethical problem to find a* solution' and 'presenting *information about an ethical issue to a group of* colleagues'. Factorial analysis was conducted using the principal components method, revealing the presence of a single factor. The item loading varied between 0.6 and 0.8, and the eight-item factor explained 63% and 68% of the total variance in the pretest and post-test, respectively. The Cronbach's alpha for this measure of moral efficacy was 0.91 (pretest) and 0.93 (post-test). As the scale reliability did not improve by dropping one or more items, the original eight-item scale was used for the empirical analysis. Table 2 shows the factor loadings for moral efficacy in the pretest and post-test.

Moral sensitivity. Ten vignettes selected from Conroy and Emerson (2004) were employed to measure students' moral sensitivity. Chosen from the original 25 for their clarity and relevance to university students, these vignettes encompassed a range of ethical dimensions, including environmental, accounting, and marketing ethics; gender discrimination; equal opportunities; bribery; and ethical codes of conduct. Respondents were asked to rank the extent to which they perceived the behaviour described in each vignette as ethically acceptable on a seven-point Likert-type scale (ranging from 1 = 'never acceptable' to 7 = 'always acceptable'). The factorial analysis was performed using the principal components method. The results showed that the items loaded primarily onto one main factor, with loadings ranging between 0.4 and 0.8. The ten-item factor explained 31% of the total variance in the pretest and 40% in the post-test. Two items (MS_5 and MS_8) also loaded onto other factors but maintained shared loadings on the primary factor. Given that the Cronbach's alpha was 0.73 (pretest) and 0.82 (post-test)—slightly higher than 0.72 (pretest) and 0.80 (post-test) obtained with a reduced-item scale—the additive ten-item scale was retained for assessing moral sensitivity. Lower average scores on this scale indicate greater personal moral sensitivity. Table 2 presents the factor loadings for moral sensitivity in both the pretest and post-test.

Moral motivation. Two scenarios were presented to the participants to assess moral motivation, depicting ethical challenges they can encounter in their future workplaces. These scenarios, developed and tested by Sims (1999) and Sims and Keon (1999), included 'group project' and 'year-end report'. In the 'group project' scenario, participants were asked to imagine possessing information that, if revealed, can harm how colleagues and management perceived them. The situation involved an idea that originated from the owner of a restaurant but was presented as the participant's own. The company was impressed with the idea, assuming it was entirely theirs. Participants had to choose among five options for assigning credit, ranging from taking full credit

Table 2 Factor loadings of moral efficacy and moral sensitivity items in pretest and post-test

Moral efficacy		
Question: Imagining that you are going to start working, indicate to what extent you think you are able to implement the following behaviours (if you already work, think about how effective you are at implementing these behaviours at work). Use a response scale ranging from 1 to 7, where 1 = not confident at all and 7 = very confident		
	Factor loadings	
	Pretest	Post-test
ME_1: Analysing an ethical problem and finding a solution	0.823	0.819
ME_2: Be the contact person of your organisational unit for all matters concerning ethical issues	0.733	0.856
ME_3: Define new ways of assessing ethical problems that may arise within your organisational unit	0.845	0.803
ME_4: Provide guidance to management on how to improve the management of ethical issues in your organisational unit	0.878	0.828
ME_5: Dialogue with experts outside your company on ethical issues	0.849	0.841
ME_6: Illustrate an ethical problem to a group of your colleagues	0.731	0.832
ME_7: Formulating an assessment of the various facets an ethical problem may have	0.780	0.820
ME_8: Dealing with possible resistance from bosses and colleagues to proposals and solutions to ethical problems	0.668	0.805
Percentage of variance explained	62.61	68.16
Moral sensitivity		
Question. In this section, we present you with a series of fictitious scenarios. With reference to each scenario, we ask you to indicate to what extent you consider the described behaviour to be ethically acceptable (use a scale from 1 to 7, where 1 = this behaviour is never acceptable, to 7 = this behaviour is always acceptable)		
	Factor loadings	
	Pretest	Post-test
MS_1: An executive earning EUR 100,000 per year has 'inflated' his expense allowance by about EUR 1,500	0.505	0.412
MS_2: To increase his company's profits, a general manager adopted a production process that exceeds the legal limits for environmental pollution	0.702	0.702
MS_3: Due to pressure from his company, a financial advisor recommended a type of stock to his clients that he personally did not consider to be a good investment	0.600	0.619
MS_4: A small family business received 25% of its annual turnover in cash. The owner reported only half of the income for income tax purposes	0.694	0.683
MS_5: The general director of the TGV company paid a bogus EUR 350,000 consultancy fee to an official from a foreign country in exchange for a contract that will allow the TGV company to increase its profits by EUR 10 million	0.427	0.566
MS_6: A company manager promoted a friend and competent manager to the position of divisional vice-president in preference to a more qualified manager with whom he had no personal connection	0.484	0.652
MS_7: An engineer discovered the existence of a design defect in a product manufactured by his company. Although this defect posed a risk to customers, the company refused to correct it. The engineer preferred to say nothing and not report it publicly	0.615	0.737
MS_8: An HR manager received applications for a supervisor position from two equally qualified candidates; he decided to hire the male candidate thinking that some employees would not like being supervised and controlled by a woman	0.457	0.536
MS_9: A small business owner obtained a free copy of a copyrighted software programme from a friend instead of spending EUR 500 to buy the same programme from the official reseller	0.563	0.689
MS_10: Mario is the editor of PrimaNews, a newspaper that will soon publish an article about faulty products sold by some local companies. The owner of one of these companies, Corsa Spa, called Mario and threatened him to withdraw advertising in PrimaNews if the article mentioned his company's name. Mario agreed to remove the name of 'Corsa Spa'. from the article	0.424	0.627
Percentage of variance explained	43.28	49.82

themselves (scored least ethical) to giving full credit to the owner of the restaurant and recommending compensation (scored most ethical). In the 'year-end report' scenario, participants were aware that a peer struggled to complete an assignment that had historically been assigned to them. The respondent had usually finished the report on his/her own, received encouraging comments from the organisation, and had not wanted anybody else to work on it trying unsuccessfully to block the reassignment. Participants had the chance to review the peer's work close to the deadline and identified

significant formatting, grammatical, and content mistakes. Faced with this challenge, the respondents were given the opportunity to act on the knowledge of their peer's inability using the five alternatives provided as potential decisions. The alternatives ranged from saying nothing about the errors (scored least ethical) to working diligently with the other employee until all errors were corrected (scored most ethical).

Control variables. Beyond sociodemographic characteristics, such as gender (0 = male; 1 = female), age, citizenship (0 = Italian; 1 = foreign), and year of study (0 = I year; 1 = II year), this study controlled for additional variables in the pretest questionnaire that can affect the outcomes of ethics education. First, because practical experience can alter an individual's ability to assimilate ethical issues (May et al., 2014), the study included whether a student worked while they studied (0 = no working experience; 1 = previous working experience). Second, it included whether the participants had previously taken a standalone ethics course (0 = no previous ethics course; 1 = previous ethics course). Finally, to check for self-selection bias due to the interest of participants in the topic of business ethics, the study also controlled for students' ethical exposure and self-perception of ethics' importance in social life. Participants reported the extent to which they discussed ethics with friends, family members, fellow students, and/or co-workers. These responses were assessed on a 5-point Likert-type scale (1 = 'never' and 5 = 'very often'), and the items were averaged to create a construct referred to as exposure to ethical issues, as discussed in the hypotheses. The students were also asked four general, conceptual questions regarding the importance they will assign to ethics in the business community, business courses, personal decisions, and workplace decisions (Adkins & Radtke, 2004). These items were averaged, creating a score reflecting the students' self-perception of the importance of ethics in social life. Table 3 shows the descriptive statistics of control variables by groups.

Qualitative Study: Focus Groups

An exploratory qualitative study was conducted to clarify factors supporting the quantitative results and to explore other emerging dimensions. Qualitative research aims to understand a phenomenon (the CL approach in this study) through the experiences of those directly encountering it (students in this study), recognising the value of participants' unique viewpoints, fully understood within their experiential and worldview context (Yin, 2011).

Four focus groups were held during the course's final lesson, with 15 students attending each, totalling 60 students. Each focus group was managed by two researchers, serving as moderator and observer, and lasted approximately 60 min.

The primary aim of the focus groups was to explore whether and how the CL approach characterising the course supported students' learning about business ethics. The

Table 3 Descriptive statistics of control variables by groups (pretest)

	Treatment $n = 53$		Control $n = 42$	
	M	SD	M	SD
Control variables				
Female	50.9%	0.505	52.4%	0.505
Age	24.74	5.226	25.67	6.071
Foreign student	5.7%	0.233	9.5%	0.297
II year of study	54.7%	0.503	52.4%	0.505
Previous working experience	77.4%	0.422	73.8%	0.445
Previous ethics course	3.8%	0.192	9.5%	0.297
Exposure to ethical issues (mean Exp_1 + Exp_2 + Exp_3)	3.06	0.561	3.04	0.699
Exp_1: How often do you discuss ethical issues with your friends?	3.49	0.724	3.57	0.887
Exp_2: How often do you discuss ethical issues with your family members?	2.98	0.693	2.76	0.932
Exp_3: How often do you discuss ethical issues with your fellow students and/or work colleagues?	2.70	0.992	2.79	1.001
The importance assigned to ethics (mean Imp_1 + Imp_2 + Imp_3 + Imp_4)	4.27	0.520	4.19	0.631
Imp_1: To what extent do you consider ethics important in businesses?	4.38	0.596	4.17	0.881
Imp_2; To what extent do you consider ethics important in university courses?	4.13	0.708	4.10	0.790
Imp_3: To what extent do you consider ethics important in personal choices?	4.21	0.717	4.24	0.958
Imp_4: To what extent do you consider ethics important in behaving at university and/or in the workplace	4.36	0.653	4.26	0.828

focus groups centred on the following main questions: (1) How did the students perform the group work? (2) How did the CL approach foster learning about business ethics issues? (3) What limitations or disadvantages of the group-learning activities in business ethics did the students perceive compared to other learning methods they experienced?

The focus groups were recorded and subsequently transcribed faithfully. All transcripts were independently analysed by the moderator and observer using thematic analysis principles (Braun & Clarke, 2006) with the assistance of NVivo12 software. Initially, the analysis followed an inductive approach: themes were identified by coding data, focussing on descriptive and attribute coding and then combining the identified categories and characteristics into themes (Creswell & Poth, 2018). Both investigators independently coded and categorised emerging themes from the data before reaching a consensus on the overall themes through a review of empirical data and discussion of differences. To ensure the trustworthiness of each analysis (Tracy, 2010), an author not involved in the initial coding reviewed each analysis and read all transcripts to critically evaluate the students' perspectives against the findings, focussing on accuracy and representativeness. Finally, the authors compared the qualitative results with the theory of the CL approach, which identified the motivational, relational, and cognitive dimensions of students' learning processes raised by the CL experience (as explained by Slavin, 1996) and other emerging themes (the relevance of group diversity).

Results

Test for Selection Effects

Before evaluating the research hypotheses, inter-group (control/treatment) pretests and comparisons were conducted to verify whether sociodemographic differences and other characteristics of students provided an appropriate basis for inter-group comparison (Table 4). Specifically, a Chi-squared test and an analysis of variance (ANOVA) were performed to examine the differences between groups regarding sociodemographic characteristics and personal exposures to ethics.

The results indicate that there were no significant differences between the treatment and control groups in terms of age ($F=0.644$, $p=0.424$), gender ($X2=0.019$; $p=0.889$), citizenship ($X2=0.512$; $p=0.474$), year of study ($X2=0.051$; $p=0.821$), or working experience ($X2=0.161$; $p=0.688$). No differences were observed concerning the students' participation in previous ethics courses ($X2=1.309$; $p=0.253$), exposure to ethical issues ($F=0.017$, $p=0.896$), or their perceptions of the importance of ethics in various social contexts ($F=0.440$, $p=0.509$).

In addition, an ANOVA tested for systemic, pre-existing differences in four outcome variables between the treatment and control groups. The findings showed no significant differences in pretest scores regarding moral efficacy ($F=0.239$; $p=0.626$), moral sensitivity ($F=0.052$; $p=0.821$), or moral motivation (Scenario 1: $F=1.298$; $p=0.257$; Scenario 2: $F=1.023$; $p=0.314$).

Table 4 ANOVA and Chi-squared test of the between-group pretest scores

	Pretest					
	Treatment ($n=53$)		Control ($n=42$)		ANOVA/Chi-squared	
	M	SD	M	SD	*F*-test/Chi-squared test*	Sig
Control variables						
Female	50.9%	0.505	52.4%	0.505	0.019	0.889
Age	24.74	5.226	25.67	6.071	0.644	0.424
Foreign student	5.7%	0.233	9.5%	0.297	0.512	0.474
II year of study	54.7%	0.503	52.4%	0.505	0.051	0.821
Previous working experience	77.4%	0.422	73.8%	0.445	0.161	0.688
Previous ethics course	3.8%	0.192	9.5%	0.297	1.309	0.253
Exposure to ethical issues	3.06	0.561	3.04	0.699	0.017	0.896
Importance assigned to ethics	4.27	0.520	4.19	0.631	0.440	0.509
Dependent variables						
Moral Efficacy	4.79	0.846	4.89	1.179	0.239	0.626
Moral sensitivity	2.24	0.727	2.20	0.738	0.052	0.821
Moral motivation (Scenario 1)	3.00	0.832	3.21	1.001	1.298	0.257
Moral motivation (Scenario 2)	4.21	0.968	4.40	0.912	1.023	0.314

*ANOVA *F*-test was reported for continuous variables; Chi-squared test was reported for dummy variables

Overall, the preliminary analysis reduced the likelihood of selection bias and systematic pre-existing group differences that can confound the examination of treatment effects in the data.

Hypothesis Testing

An ANOVA was conducted on the difference-in-difference pretest/post-test comparisons in the treatment and control groups (Table 5) to assess whether the CL approach within a business ethics course enhanced participants' moral efficacy, moral sensitivity, and moral motivation. The analyses demonstrated significant improvements in moral efficacy ($F(1, 95) = 13.439$, $p = 0.000$) between the pre- and post-test scores within the treatment group. In contrast, those in the control group exhibited no significant changes over time. In accordance with HP1a, students enrolled in the business ethics course designed through a CL approach experienced greater enhancements in moral efficacy compared to those who did not participate.

Second, moral sensitivity did not change significantly depending on the treatment condition ($F(1, 95) = 0.095$, $p = 0.759$). Specifically, moral sensitivity increased between the pretest and post-test within both the treatment and control groups, indicating that its improvement among the course participants (treatment group) cannot be directly attributed to their participation in the business ethics course. Thus, contrary to HP1b, students who engaged in business ethics courses did not report a greater increase in moral sensitivity than those who abstained from such ethics education.

Finally, consistent with HP1c, intra-group comparisons revealed significant enhancements in moral motivation within the treatment group. Specifically, moral motivation in the treatment group significantly improved in scenarios involving 'teamwork' ($F(1, 95) = 4.981$, $p = 0.028$) and 'final report' ($F(1, 95) = 3.741$, $p = 0.056$).

Robustness tests were also conducted through regression analysis, which supports the results. Table 6 lists the correlations for the model variables, while Table 7 reports the results of the linear regression analysis. Even when controlling for a set of control variables (gender, age, citizenship, year of study, working experience, previous ethical courses, ethical exposure, and perceived importance of ethics), the results indicate a positive and significant relationship between the experimental group and the enhancement of moral efficacy ($B = 0.672$; $p < 0.001$) and moral motivation (Scenario 1: $B = 0.372$; $p = 0.046$; Scenario 2: $B = 0.449$; $p = 0.045$). In contrast, no significant relationships were identified between being part of the experimental group and improving moral sensitivity ($B = -0.039$; $p = 0.786$).

Qualitative Results

The qualitative findings explore students' perceptions regarding the effectiveness of a CL approach in a business ethics course. The students valued the group work project to enhance their learning: *'Ethics is difficult to teach and learn. It is a multiplicity of perspectives; it will be useless and counterproductive to approach the subject individually'.*

Specifically, students highlighted various motivational, relational, and cognitive dimensions of the effectiveness of CL in their experience.

Initially, students valued autonomy in selecting which ethical challenge and case study to analyse. Group activities encouraged students' engagement in achieving common goals and a high grade by collaborating and sharing diverse ideas, knowledge, and skills. The students undertook the tasks cooperatively within the groups by integrating each individual's efforts with others' contributions (from individual data collection to database creation), by working on micro-tasks in the form of subgroups (analysing a specific issue raised by the problem), and by collaborating (group discussion). As one student explained: *'The division of work brought out different points of view, but the exchange was always positive. Everyone made an essential contribution based on their own experience and interests, and we learned from each other*. In addition, the opportunity to present the work to the entire class likely enhanced students' self-efficacy by openly discussing ethical issues and sharing the group results: *'Each of us testified about our own case study, trying to get our*

Table 5 ANOVA of the means difference between the treatment and control groups

	Treatment			Control			ANOVA (one-way)	
	N	Post–Pre (mean)	SD	*N*	Pre-Post (mean)	SD	*F*	Sig
Moral efficacy	53	0.5283	0.83947	42	− 0.1250	0.89118	13.439	0.000
Moral sensitivity	53	− 0.1736	0.57651	42	− 0.1310	0.77475	0.095	0.759
Moral motivation (Scenario 1)	53	0.3962	0.83986	42	0.0000	0.88345	4.981	0.028
Moral motivation (Scenario 2)	53	0.4340	0.99052	42	0.0238	1.07040	3.741	0.056

Table 6 Correlations between the model variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Treatment	–												
2. Female	−0.014	–											
3. Age	−0.083	−0.296**	–										
4. Foreign student	−0.073	0.031	0	–									
5. II year of study	0.023	−0.182	0.256*	−0.061	–								
6.Previous working experience	0.041	0.092	0.182	0.065	0.017	–							
7.Previous ethics course	−0.117	−0.008	0.055	−0.073	0.068	0.046	–						
8.Exposure to ethical issues	0.014	0.134	0.003	−0.066	0.04	0.19	0.189	–					
9.Importance assigned to ethics	0.069	0.131	0.091	0.15	−0.035	0.19	0.007	0.394**	–				
10. Moral efficacy	0.355**	−0.098	−0.018	−0.019	0.073	−0.138	−0.027	−0.044	−0.03	–			
11. Moral sensitivity	−0.032	−0.054	0.11	−0.013	−0.016	0.05	−0.07	−0.155	−0.076	−0.048	–		
12. Moral motivation (Scenario 1)	0.225*	−0.068	−0.054	−0.025	−0.055	0.031	0.033	−0.091	0.135	0.13	−0.074	–	
13. Moral motivation (Scenario 2)	0.197	0.175	−0.054	0.009	−0.059	−0.076	−0.063	0.003	−0.051	0.086	0.051	0.194	–

**Correlation is significant at the 0.01 level (two-tailed)

*Correlation is significant at the 0.05 level (two-tailed)

classmates to understand the work we had done and to get them involved. In this way we were able to discuss [topics] more openly and learn'.

Second, students emphasised the importance of social interactions within groups. The discussion was identified as a central activity in the group-learning process. It prompted questions that stimulated the reflections necessary to analyse ethical problems and enhanced negotiation skills to find solutions based on an open and shared vision: *'In the group activities, we have more or less heated discussion. However, the exchange is always positive in understanding others' opinions, putting one's ideas in perspective, and opening many ethical problem-solving pathways. The development of the final thought remains open, and it is a kind of compromise, not having an unambiguous answer'.*

Students highlighted that diversity in group composition (gender, religion, culture, personal interests, and educational background) functioned as a stimulus for ethical discussion and increased the effectiveness of group learning. As a student highlighted: *'In the subject of ethics, it is crucial to have different viewpoints to compare views. If we were just people with the same educational background, we will struggle to see the challenge from different perspectives'*. Specifically, the diversity in educational, work or life experiences played a key role. However, its benefit depended on how willing the students were to engage in social interactions. As one student commented: *'I worked on FIFA ethical scandal in Qatar 2022 with my group. This theme touched me personally because I am a Muslim, and I believe in my religion and observe Islamic Law. Working in a group helped me to reflect on business ethics in different cultural contexts. We were able to understand how often the weight people give to certain words and issues is different. This helped us not to take some things for granted and to understand what other people feel'*. Accordingly, the CL approach allows students to develop other social skills, such as empathy, openness, and respect for others and their perspectives. As another student observed: *'My educational background has been as fundamental as that of others. Experience leads to knowledge that can be shared. One can learn from the knowledge of others'*.

Third, group work contributed to understanding the connections between ethical theories and business practices. It stimulated ethical reasoning, as one student remarked: *'In my opinion, with the group work, we learned how to think about ethical issues to find our solutions'.*

Some students also expressed dissatisfaction with framing ethical issues because face-to-face lectures and teaching materials were insufficient to develop effective ethical knowledge. However, a group member observed: '*We cannot find literature for our ethical challenge, but this situation spurred us to construct inductive reasoning, which was very stimulating*'.

Table 7 Linear regression analyses using treatment group as predictors and the post–pre difference of moral efficacy, moral sensitivity, and moral motivation as dependents

	Moral efficacy		Moral sensitivity		Moral motivation (Scenario 1)		Moral motivation (Scenario 2)	
	B	*p*	*B*	*p*	*B*	*p*	*B*	*p*
Treatment	0.672	< .001	−0.039	0.786	0.372	0.046	0.449	0.045
Female	−0.118	0.551	−0.017	0.911	−0.182	0.348	0.427	0.069
Age	0.001	0.952	0.013	0.366	−0.013	0.451	0.012	0.569
Foreign student	0.092	0.797	−0.077	0.783	−0.168	0.634	0.152	0.72
II year of study	0.098	0.608	−0.053	0.719	−0.091	0.629	−0.087	0.700
Previous working experience	−0.312	0.166	0.111	0.523	0.087	0.692	−0.252	0.342
Previous ethics course	0.085	0.827	−0.149	0.619	0.340	0.371	−0.158	0.729
Exposure to ethical issue	−0.015	0.926	−0.154	0.237	−0.270	0.102	0.073	0.711
Importance assigned to ethics	−0.027	0.88	−0.041	0.771	0.329	0.068	−0.189	0.38
R	0.400		0.216		0.338		0.306	
R2	0.160		0.047		0.114		0.093	

Other students highlighted the distance between their personal experiences and the business cases: *'We all discussed complex business cases, and it was difficult for us to mirror ourselves in these companies. Having never had certain managerial skills, it was difficult to identify with them on a practical level'.* Thus, students suggested that group work should be extended to common real-life situations to foster empathy and integrate their experiences.

Beyond the group work, participants appreciated the integration of different methods to enhance their ethical skills and knowledge. Students particularly valued the direct testimonials, which allowed them to confront concrete business ethical issues and positive experiences. By the end of the course, some students perceived themselves as more responsible concerning their future professional careers (*'When I look for a job, I will evaluate differently the company where I work'.*) or other personal choices (*'I used to buy from a fast fashion company, and I realised that this business was not so sustainable and ethical. I eliminated the app and didn't buy [from them] anymore; there has been a change in my habits'.)*

Discussion

The study aimed to explore the effectiveness of a business ethics course delivered within a university master's programme in improving graduate students' moral efficacy, moral sensitivity, and moral motivation and the contribution of the CL approach to the development of students' ethical outcomes. A mixed-method approach was employed, wherein a pretest–post-test study was conducted to evaluate the effectiveness of the business ethics course, while focus groups were organised to investigate the mechanisms through which the CL approach contributes to the learning processes of graduate students.

Consistent with HP1a, students who participated in the business ethics course experienced a greater increase in moral efficacy than those who did not. These quantitative results confirm previous studies that attributed participation in a business ethics course to improvements in moral efficacy (May et al., 2010, 2014). In addition, the focus groups suggested that adopting CL as the pedagogical approach can significantly benefit students' beliefs and abilities to actively and positively address the ethical issues that can arise in the workplace. The qualitative findings revealed that participation in a CL experience provided each student with the opportunity to contribute to discussions on ethical problems in small groups, openly share their ethical positions, and learn from others' experiences. In addition, the presentation and discussion of their final work with the entire class encouraged students to reflect and self-assess their learning achievements (performance feedback). Focus groups also revealed that the CL approach can support student motivation in addressing the challenges of discussing complex ethical issues (Johnson & Johnson, 2009; Slavin, 2014) and, particularly, their moral efficacy by creating a safe learning environment (Martineau & Cyr, 2024; Sim 1996; Ritter, 2006) that enhances personal mastery, vicarious experiences, and performance feedback (Bandura, 1997; Hannah et al., 2011; May et al., 2014).

Based on the quantitative study, students enrolled in the business ethics course also experienced an improvement in their moral sensitivity. In terms of the qualitative findings, students highlighted the critical role of group discussions in supporting their moral reasoning on ethical problems, including inquiry, consideration of different viewpoints, and evaluation of alternative solutions. However, the improvement in moral sensitivity within the experimental group was

not significantly different from that observed in the control group. For this reason, contrary to what was assumed (HP1b), the students' growing moral sensitivity cannot be directly attributed to the business ethics course.

As reflected in previous studies (Kreismann & Talaulicar, 2021), these results do not provide definitive conclusions about the capacity of business ethics courses and CL to improve individuals' attitudes towards ethical issues. However, these counterintuitive results can have various justifications. First, while the business ethics course did contribute to improving students' moral sensitivity, it was not significantly more effective than its absence, indicating that other social/situational factors influenced this outcome. In this regard, the students who were not enrolled in the business ethics course attended a 'Sustainable Innovation Management' course and a public seminar on ethics and governance during the same semester. Therefore, participation in one or both initiatives can heighten their awareness of ethical issues in business. Second, the business ethics course cannot have been fully effective in enhancing participants' moral sensitivity. Specifically, the business ethics course cannot adequately reinforce students' capacities, such as moral identity, moral complexity, and meta-cognitive abilities, which underlie moral cognition processes (Hannah et al., 2011). In this regard, the qualitative study revealed that although group discussions can contribute to moral reasoning (Ohreen et al., 2022) and the development of higher cognitive skills related to moral development (Johnson & Johnson, 2014), shortcomings in the design of the group project work, such as a lack of supporting teaching materials on normative theories and the complexity and distance of the ethical issues discussed can have reduced the effectiveness of the course and the CL approach on meta-cognitive abilities. The BEE literature suggests the need to combine normative instruction on ethical theories and rules with experiential activities (de Los Reyes et al., 2017) and to propose ethical case studies and dilemmas that are closely related to students' real-life experiences (Laditka & Houck, 2006; Venkat Raman et al., 2019) or that they can encounter in their professional future (Sims & Felton, 2006).

Based on the HP1c, students enrolled in the business ethics course experienced a greater increase in moral motivation than those who did not participate. The increased moral motivation occurred similarly in both scenarios presented to the students: group projects and year-end reports. Therefore, the quantitative study suggests that participating in the business ethics course enhances the learning of ethics knowledge and skills and contributes to changing students' behaviour towards ethics. This finding is particularly significant, as sustaining ethical motivation and responsibility to act morally can be the primary objective of a business ethics course aimed at graduate students. In addition, the study contributes to the limited literature assessing the impact of BEE on ethical motivation and actions, with some studies reporting conflicting results (Parks-Leduc et al., 2021; Wang & Calvano, 2015; Gautschi & Jones, 1998; see also Kreismann and Talaulicar (2021). More specifically, this study highlights the potential value of a business ethics course in enhancing ethical behaviour among future business leaders. After all, as proposed by Hannah et al. (2011), moral efficacy is an individual capacity that supports ethical motivation and character based on Rest's model. This theory can explain the observed substantial increase in moral efficacy, followed by a significant improvement in moral motivation in the empirical case.

Qualitative findings suggest that the CL approach fosters social skills such as negotiation, empathy, and respect for others, which can encourage students to act fairly and responsibly within the group-learning environment and in other real-life situations. In addition, students recognise the diversity in group composition as a key factor in enhancing the effectiveness of the CL approach. Heterogeneous groups are generally more productive than homogeneous ones (Loh & Ang, 2020; Yang, 2023). More specifically, working in a heterogeneous group allows one to expose oneself to different and even divergent values, perspectives, and knowledge, breaking out of cognitive homogeneity (Gurin et al., 2002), respecting others and resolving conflicts to achieve a common goal (Gozalvez Perez et al., 2011; Ohreen et al., 2022).

The qualitative results of the present study make it possible to discuss how the conditions for CL effectiveness (Johnson & Johnson, 1999, 2014) were experienced by students in the business ethics course and contributed to achieving learning outcomes. Students' experiences highlight positive interdependence. They recognised the importance of working together towards a common goal and the value of integrating different experiences, knowledge, and points of view about the ethical problem. Individual accountability occurred because each group member had to make an essential contribution to the group project. Students' experiences strongly reflect promotive interaction, as they supported each other through socio-cognitive activities. They needed to jointly discuss the nature of the ethical problems, challenge each other's reasoning and conclusions, and connect ethical theories with business practices. Doing so resulted in positive exchanges where students learned from one another's experiences and backgrounds, and the group discussions were essential for enhancing their learning. This form of interaction fostered empathy, negotiation skills, and respect for diverse viewpoints. Finally, students reflected on their collaborative experience and identified ways to improve it. This reflection on the group experience allowed them to evaluate their learning and future actions, as illustrated by the students who claimed to have become more conscious about ethical consumption and career choices. Interestingly, no students mentioned the group reward structure in their

reflection on the effectiveness of CL, but they highlighted strong task motivation and motivation to interact in the group (Slavin, 2014). Since ethical problems are complex and often controversial tasks (Johnson & Johnson, 2009), the opportunity to participate actively in discussions, listen to others, justify their opinions or solutions, and reach a consensus can be essential to enhance their learning, social skills, and intention to act responsibly within and outside the class.

Overall, the quantitative and qualitative results contribute significantly to the literature on BEE. Although previous studies often examine the effectiveness of ethical training programmes focussing on specific components of Rest's model for moral behaviour, this study adopted a more holistic approach that examines different capacities (moral efficacy) and processes (moral sensitivity and moral motivation). This approach provides a more robust understanding of the effects of BEE on graduate students' ethical knowledge, skills, and behaviours (Ballantine et al., 2018; McDonald, 2015; Ohreen et al., 2022; Peek et al., 1994). Specifically, the quantitative results suggest that the business ethics course was effective not only in developing ethical competencies (moral efficacy), which represent the first step in moral behaviour (Ritter, 2006) but also in fostering graduate students' commitment and motivation to take moral actions and assume responsibility for the moral outcomes of their choices and behaviours. In addition, the study not only assesses the effectiveness of the business ethics course but also considers the role of the pedagogical approach used within the course. From this perspective, the qualitative study and focus groups conducted with students who attended the business ethics course facilitated an exploration of the motivational, cognitive, and relational mechanisms through which CL fostered the development of moral behaviour within the business ethics course.

Practical Implications

This study highlights implications for those involved in and responsible for designing university and business ethics courses by incorporating the role of learning design in assessing business ethics courses, which remains underexplored (Kreismann & Talaulicar, 2021). The effectiveness of BEE depends on the design and delivery of various learning approaches and methods. BEE can favour a normative or rational approach based on traditional, classroom-based instruction on ethical theories and rules. Alternatively, it can adopt an experiential and behavioural approach that requires integrating students' values and experiences as they make decisions in complex situations (de Los Reyes et al., 2017; Reficco et al., 2019; McDonald, 2015; Ohreen et al., 2022). This study suggests that, given the complexity of ethics, enhancing a CL approach in course design can facilitate the experiential learning processes of university students. A dynamic CL environment encourages dialogue. Such an environment also allows students to encounter others' values, ideas, prior knowledge, and experiences and engage in responsible behaviour towards others as they strive to achieve group goals. However, to effectively integrate the normative, behavioural, and social components of business ethics learning processes, course designers must consider the complexity and distance of the proposed moral issues. These issues must be discussed in the context of students' experiences and cultural backgrounds, as well as the development level of basic managerial skills (marketing, accounting, finance, strategic management, and human resource management) necessary to understand business contexts.

Limitations and Future Research

Given the significant and novel findings, it is essential to determine some of the limitations of this research that future studies can address.

First, as with any empirical study, the findings can be specific to the dataset utilised. This study focuses on students enrolled in a master's degree programme at a public university in Italy. However, graduate students can have different academic, work, and life experiences compared to undergraduate students (Felton & Sims, 2005) or even with students in different countries and university environments, which can affect the overall effectiveness of business ethics courses and CL in developing ethical outcomes. Future studies should explore this issue using data from other courses (bachelor's degrees) and higher education institutions worldwide to determine whether these findings can be generalised to different student cohorts and institutional contexts. In addition, as most participants in this study were in their final year, a new survey can be conducted with those who attended the course and those who did not after their graduation to assess possible differences in their attitudes and behaviours towards ethics in the workplace.

Second, self-selection bias can be an issue in this study due to the optional nature of the treatment condition (the business ethics course was elective). The inter-group pretests and comparisons indicate that the control and experimental groups do not differ in terms of sociodemographic characteristics, ethical attitudes, and initial outcome values. However, the positive impact of the business ethics course can be at least partially influenced by students' personal and unobservable characteristics, which are related to their choice to participate in an optional course on business ethics (Delis & Jones, 2023). In order to reduce this bias, future work should focus on business

ethics courses that are compulsory for students and compare the learning outcomes between participants and non-participants.

Finally, the small sample size in both treatment and control groups can have limited power to detect differences between the ethics education treatment conditions. Although the sample size aligns with previous experimental studies within BEE (May & Luth, 2013; Ritter, 2006), the findings of this research should be interpreted as preliminary. Future research utilising larger samples should be conducted to confirm the findings.

Other Future Research Developments can be Highlighted

This study adopts an assessment framework incorporating moral efficacy into the components of moral behaviour originally included in Rest's model. However, future research should increasingly rely on Hannah et al. (2011) to assess the impact of business ethics courses on additional individual capacities beneficial for self-awareness and moral motivation, along with those more pertinent to ethical intent and action. Although this choice risks making the survey questionnaires excessively lengthy and burdensome, potentially resulting in missing data, it will undoubtedly aid in better clarifying the results of the course's effectiveness on university students' moral development. The absence of any significant effect of BEE on moral sensitivity in this study can indicate that the course did not fully succeed in enhancing capacities such as moral identity, moral complexity, and meta-cognitive abilities, which underpin moral cognition processes (Hannah et al., 2011). However, no definitive conclusions can be drawn since these abilities were not considered among the training outcomes.

Second, future research can compare the outcomes of a business ethics course employing the CL approach with those of another course designed using a different pedagogical approach to strengthen the evidence regarding the effectiveness of CL in the context of BEE and to investigate the learning benefits of the CL approach. In addition, future studies can evaluate the role of the instructor. The overall effectiveness of a business ethics course can be influenced by the pedagogical approach, the instructor's training style, and the practices employed to engage students and guide their learning processes. Future research should compare the effects of two or more business ethics courses designed around CL and led by instructors with varying backgrounds, experiences, and teaching strategies to control the role of the instructor.

Conclusion

This study suggests that business ethics courses can be effective. Specifically, incorporating a business ethics course designed on CL fosters graduate students' capacities and processes for moral behaviour. Alongside other soft skills such as communication, dialogue, negotiation, and respect for others, a CL approach is an effective active and social-learning strategy for developing ethical outcomes. Thus, CL benefits BEE by guiding future employees and managers to make ethical decisions and take ethical actions collaboratively in the workplace while being accountable for the results.

Appendix: Moral motivation

SCENARIO 1: Group project

In your company, you have been chosen to lead a team that completed an important project commissioned by top management. The project deadline is approaching and your team has not yet come up with a viable proposal. Although discussing this issue with your boyfriend/girlfriend in a restaurant, the owner overhears you talking and presents you with a fantastic idea. The owner of the restaurant does not know you, nor does he know your company. It is very likely that he will never meet anyone from your company in the future. The next day you present the idea to your team and top management. Both your team members and top management are enthusiastic and compliment you. It is likely that you will also be awarded a small cash prize (a fairly common practice in your company).

Think you are in this situation. What do you do?

1. I take all credit
2. I say nothing and let the group and top management think what they want
3. I explain that part of the credit for this idea belongs to the owner of the restaurant
4. I immediately explain to the group and top management that the idea is not mine but only the restaurant owner's
5. I give all the credit to the restaurant owner and propose to the top management to provide him with a reward

SCENARIO 2: Year-End Report

The Marketing Department where you work has to prepare an end-of-year report. For the past 3 years, you have always worked alone on this report and have always received positive feedback from your boss and colleagues. You actually

enjoy this part of your work and are also proud of it. This year, however, you were asked to involve a newly recruited colleague in writing the report. You reluctantly agreed since there was no alternative. Your boss assigned a specific section of the report to each of you. Two days before the deadline for submission, your newly hired colleague makes you read his section. You are horrified by what you read and find numerous grammatical, content, and editing errors.

Think you are in this situation. What do you do?

1. I say nothing to anyone
2. I report this to my boss
3. I correct the errors in my own hand
4. I explain to my colleague what mistakes he has made
5. I work side by side with my colleague to correct all errors together

Authors' Contribution Conceptualisation: Dario Cavenago and Mattia Martini; Methodology: Mattia Martini and Dario Cavenago; Formal analysis and investigation: Mattia Martini and Monica Carminati; Writing—original draft preparation: Mattia Martini and Monica Carminati; Writing—review and editing: Dario Cavenago and Mattia Martini; Supervision: Dario Cavenago.

Funding Open access funding provided by Università degli Studi di Milano - Bicocca within the CRUI-CARE Agreement. The authors did not receive support from any organisation for the submitted work.

Declarations

Conflict of interest The authors have no relevant financial or non-financial interests to disclose.

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References

Adkins, N., & Radtke, R. R. (2004). Students' and faculty members' perceptions of the importance of business ethics and accounting ethics education: Is there an expectations gap? *Journal of Business Ethics, 51*(3), 279–300.

Ballantine, J. A., Guo, X., & Larres, P. (2018). Can future managers and business executives be influenced to behave more ethically in the workplace? The impact of approaches to learning on business students' cheating behavior. *Journal of Business Ethics, 149*, 245–258.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. Freeman.

Blatt, M. M., & Kohlberg, L. (1975). The effects of classroom moral discussion upon children's level of moral judgment. *Journal of Moral Education, 4*(2), 129–161.

Borkowski, S. C., & Ugras, Y. J. (1992). The ethical attitudes of students as a function of age, sex and experience. *Journal of Business Ethics, 11*(12), 961–979.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Brokerhof, I. M., Sucher, S. J., Matthijs, B. P., Hakemulder, F., Jansen, P. G. W., & Solinger, O. N. (2023). Developing moral muscle in a literature-based business ethics Course. *Academy of Management Learning and Education, 22*(1), 63–87.

Calabretta, G., Durisin, B., & Ogliengo, M. (2011). Uncovering the intellectual structure of research in business ethics: A journey through the history, the classics, and the pillars of journal of business ethics. *Journal of Business Ethics, 104*(4), 499–524.

Callahan, D. (1980). Goals in the Teaching of Ethics. In D. Callahan & S. Bok (Eds.), *Ethics Teaching in Higher Education* (pp. 61–80). The Plenum Press.

Christensen, L. J., Peirce, E., Hartman, L. P., Hoffman, W. M., & Carrier, J. (2007). Ethics, CSR, and sustainability education in the financial times Top 50 global business schools: baseline data and future research directions. *Journal of Business Ethics, 73*(4), 347–368.

Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research, 64*(1), 1–35.

Cohen, L., Manion, L., and Morrison, K. (2007). *Research methods in Education (6th edition)*. Routlege/Taylor & Francis Group.

Conroy, S. J., & Emerson, T. L. N. (2004). Business ethics and religion: Religiosity as a predictor of moral sensitivity among students. *Journal of Business Ethics, 50*(4), 383–396.

Conway, E., & Kotera, Y. (2020). Ethical judgement and intent in business school students: The role of the psyche? *International Journal of Ethics Education, 5*, 151–186.

Cornelius, N., Wallace, J., & Tassabehji, R. (2007). An analysis of corporate social responsibility, corporate identity and ethics teaching in business schools. *Journal of Business Ethics, 76*, 117–135.

Craft, J. L. (2013). A review of the empirical ethical decision-making literature: 2004–2011. *Journal of Business Ethics, 117*(2), 221–259.

Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches (4th ed.)*. Sage Publications.

Cullen, J. G. (2020). Varieties of responsible management learning: A review, typology and research agenda. *Journal of Business Ethics, 162*(4), 759–773.

Davidson, N. M., & Howell, C. (2014). Boundary crossings: Cooperative learning, collaborative learning, and problem-based learning. *Journal on Excellence in College Teaching* 25 (3and4): 7–55.

Delis, A., & Jones, C. (2023). The impact of work placements on graduate earnings. *Studies in Higher Education, 48*(11), 1708–1723.

de Los Reyes, G., Kim, T. W., & Weaver, G. R. (2017). Teaching ethics in business schools: A conversation on disciplinary differences, academic provincialism, and the case for integrated pedagogy. *Academy of Management Learning and Education, 16*(2), 314–336.

Deutsch, M. (1949). A theory of cooperation and competition. *Human Relations, 2*, 129–152.

Dewey, J. (1938). *Experience and education.* New York, NY: Kappa Delta Pi. (Republished by Collier, 1963).

Duff, A. (2004). The revised approaches to studying inventory (RASI) and its use in management education. *Active Learning in Higher Education, 5*(1), 56–72.

Dziubaniuk, O., & Nyholm, M. (2021). Constructivist approach in teaching sustainability and business ethics: A case study. *International Journal of Sustainability in Higher Education, 22*(1), 177–197.

Elango, B., Paul, K., Kundu, S. K., et al. (2010). Organizational ethics, individual ethics, and moral motivations in international decision-making. *Journal of Business Ethics, 97*, 543–561.

Felton, E. L., & Sims, R. R. (2005). Teaching business ethics: Targeted outputs. *Journal of Business Ethics, 60*(4), 377–391.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs-principles and practices. *Health Service Research., 48*(6), 2134–2156.

Gautschi, F. H., III., & Jones, T. M. (1998). Enhancing the ability of business students to recognize ethical issues: An empirical assessment of the effectiveness of course in business ethics. *Journal of Business Ethics, 17*, 205–216.

Gozalvez Perez, V., Traver Marti, J. A., & Garcia Lopez, R. (2011). Cooperative learning from an ethical point of view. *ESE-Estudios Sobre Educacion, 21*, 181–197.

Gulseren, D., Turner, N., & Weinhardt, J. M. (2021). What makes ethics education effective? An umbrella review and evidence-led best practices. *Journal of Business Ethics Education, 18*(1), 5–24.

Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review, 72*(3), 330–367.

Hannah, S. T., Avolio, B. J., & May, D. R. (2011). Moral maturation and moral conation: A capacity approach to explaining moral thought and action. *Academy of Management Review, 36*(4), 663–685.

Haski-Leventhal, D., Pournader, M., & Leigh, J. S. (2022). Responsible management education as socialization: Business students' values, attitudes and intentions. *Journal of Business Ethics, 176*(1), 17–35.

Hoyle, R. H., Harris, M. J., & Judd, C. M. (2002). *Research Methods in Social Relations*. Wadsworth.

Jaganjac, B., Abrahamsen, L. M., Olsen, T. S., & Hunnes, J. A. (2023). Is it time to reclaim the 'Ethics'. In: Business ethics education? *Journal of Business Ethics*, pp 1–22.

Jewe, R. D. (2008). Do business ethics courses work? The effectiveness of business ethics education: An empirical study. *The Journal of Global Business Issues*, Burbank (Spring 2008), pp 1–6.

Johnson, D. W., & Johnson, R. T. (1999). Making cooperative learning work. *Theory into Practice, 38*(2), 67–73.

Johnson, D. W., & Johnson, R. T. (2009). Energizing learning: The instructional power of conflict. *Educational Researcher, 38*(1), 37–51.

Johnson, D. W., & Johnson, R. T. (2014). Cooperative learning in 21st century. [Aprendizaje cooperativo en el siglo XXI]. *Anales de Psicología/Annals of Psychology, 30*(3), 841–851.

Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. *Academy of Management Review, 16*(2), 366–395.

Kirkpatrick, D. L., and Kirkpatrick, J. D. (2006). *Evaluating Training Programs: the Four Levels*. Berrett-Koehler Publishers.

Klinker, J. F., & Hackmann, D. G. (2004). An analysis of principals' ethical decision making using Rest's four component model of moral behaviour. *Journal of School Leadership, 14*(4), 434–456.

Kreismann, D., & Talaulicar, T. (2021). Business ethics training in human resource development: A literature review. *Human Resource Development Review, 20*(1), 68–105.

Kristjánsson, K. (2022). Collective phronesis in business ethics education and managerial practice: A neo-Aristotelian analysis. *Journal of Business Ethics, 181*(1), 41–56.

Laasch, O., Moosmayer, D. C., & Antonacopoulou, E. P. (2022). The interdisciplinary responsible management competence framework: An integrative review of ethics, responsibility, and sustainability competences. *Journal of Business Ethics*, pp 1–25.

Laditka, S. B., & Houck, M. M. (2006). Student-developed case studies: An experiential approach for teaching ethics in management. *Journal of Business Ethics, 64*, 157–167.

Lehnert, K., Park, Y. H., & Singh, N. (2015). Research note and review of the empirical ethical decision-making literature: Boundary conditions and extensions. *Journal of Business Ethics, 129*, 195–219.

Liu, Y., Mai, F., & MacDonald, C. (2019). A big-data approach to understanding the thematic landscape of the field of business ethics, 1982–2016. *Journal of Business Ethics, 160*(1), 127–150.

Loh, R. C. Y., & Ang, C. S. (2020). Unravelling cooperative learning in higher education. *Research in Social Sciences and Technology, 5*(2), 22–39.

Loyens, S. M. M., & Gijbels, D. (2008). Understanding the effects of constructivist learning environments: Introducing a multi-directional approach. *Instructional Science, 36*(5–6), 351–357.

Maddux, J. E. (2002). Self-Efficacy: The Power of Believing You Can. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 277–287). Oxford University Press.

Martineau, J. T., and Cyr, A. A. (2024). Redefining academic safe space for responsible management education. *Journal of Business Ethics*, pp 1–21.

Matchett, N. J. (2009). Cooperative Learning, critical thinking, and character: Techniques to cultivate ethical deliberation. *Public Integrity, 12*(1), 25–38.

May, D. R., & Luth, M. T. (2013). The effectiveness of ethics education: A quasi-experimental field study. *Science and Engineering Ethics, 19*, 545–568.

May, D. R., Luth, M. T., & Schwoerer, C. E. (2014). The influence of business ethics education on moral efficacy, moral meaningfulness, and moral courage: A quasi-experimental study. *Journal of Business Ethics, 124*(1), 67–80.

May, D. R., Luth, M., & Schwoerer, C. E. (2010). The effects of moral efficacy, moral courage, and moral meaningfulness on moral behaviors at work. In *Paper presented at the 2010 Academy of Management meeting in Montreal, Canada*

McDonald, R. (2015). Leveraging change by learning to work with the wisdom in the room: Educating for responsibility as a collaborative learning model. *Journal of Business Ethics, 131*(3), 511–518.

Medeiros, K. E., Watts, L. L., Mulhearn, T. J., Steele, L. M., Mumford, M. D., & Connelly, S. (2017). What is working, what is not, and what we need to know: A meta-analytic review of business ethics instruction. *Journal of Academic Ethics, 15*(3), 245–275.

Mintz, S. M. (1996). Aristotelian virtue and business ethics education. *Journal of Business Ethics, 15*, 827–838.

Morales-Sánchez, R., & Cabello-Medina, C. (2013). The role of four universal moral competencies in ethical decision-making. *Journal of Business Ethics, 116*, 717–734.

O'Fallon, M. J., & Butterfield, K. D. (2005). A review of the empirical ethical decision-making literature: 1996–2003. *Journal of Business Ethics, 59*(4), 375–413.

Ohreen, D., Sundararajan, B., Trifts, V., & Comber, S. (2022). Vygotskian business ethics: The influence of peers on moral reasoning in business ethics education. *Journal of Management Education, 46*(1), 70–105.

Okechukwu Ugwuozor, F., & Out, M. S. (2020). Effect of exposure to business ethics courses on students' perceptions of the linkage between ethics education and corporate social responsibility. *Journal of Education for Business, 95*(4), 242–247.

Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology, 83*(6), 835–852.

Parks-Leduc, L., Mulligan, L., & Rutherford, M. A. (2021). Can ethics be taught? Examining the impact of distributed ethical training and individual characteristics on ethical decision-making. *Academy of Management Learning and Education, 20*(1), 30–49.

Peek, L. E., Peek, G. S., & Horras, M. (1994). Enhancing Arthur Andersen Business Ethics Vignettes: Group discussions using cooperative/collaborative learning techniques. *Journal of Business Ethics, 13*(3), 189–196.

Piaget, J. (1976). Piaget's Theory. *Piaget and His School* (pp. 11–23). Springer.

Pohling, R., Bzdok, D., Eigenstetter, M., Stumpf, S., & Strobel, A. (2016). What is ethical competence? The role of empathy, personal values, and the five-factor model of personality in ethical decision-making. *Journal of Business Ethics, 137*, 449–474.

Reficco, E., Jaén, M. H., & Trujillo, C. (2019). Beyond knowledge: A study of Latin American business schools' efforts to deliver a value-based education. *Journal of Business Ethics, 156*(3), 857–874.

Rest, J. R. (1986). *Moral Development: Advances in Research and Theory*. Praeger Publishers.

Rest, J. R., & Narvaez, D. (1994). Background: Theory and Research. In J. R. Rest & D. Narvaez (Eds.), *Moral Development in the Professions: Psychology and Applied Ethics* (1st ed., pp. 1–26). Lawrence Erlbaum Associates.

Rest, J. R., Thoma, S. J., & Bebeau, M. J. (1999). *Postconventional moral thinking: A neo-Kohlbergian approach*. Psychology Press.

Ritter, B. A. (2006). Can business ethics be trained? A study of the ethical decision-making process in business students. *Journal of Business Ethics, 68*(2), 153–164.

Salvador, R. O. (2019). The trolley problem: A social constructivist pedagogy approach. *Journal of Education for Business, 94*(5), 333–341.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2001). *Experimental and quasi-Experimental Designs for Generalized Causal Inferences*. Houghton Mifflin.

Sims, R. L. (1999). The development of six ethical business dilemmas. *Leadership and Organization Development Journal, 20*(4), 189–197.

Sims, R. R., & Felton, E. L. (2006). Designing and delivering business ethics teaching and learning. *Journal of Business Ethics, 63*(3), 297–312.

Sims, R. L., & Keon, T. L. (1999). Determinants of ethical decision making: The relationship of the perceived organizational environment. *Journal of Business Ethics, 19*(4), 393–401.

Skinner, B. (1968). *The technology of teaching*. Appleton Century-Crofts.

Slavin, R. E. (1996). Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary Educational Psychology, 21*(1), 43–69.

Slavin, R. E. (2014). Cooperative Learning and Academic Achievement: Why Does Groupwork Work?. [Aprendizaje cooperativo y rendimiento académico:¿ por qué funciona el trabajo en grupo?]. *Anales de psicología/Annals of Psychology, 30*(3), 785–791.

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative Inquiry, 16*, 837–851.

Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management, 32*(6), 951–990.

Valentine, S. R., & Rittenburg, T. L. (2004). Spanish and American Business Professionals' Ethical evaluations in global situations. *Journal of Business Ethics, 51*, 1–14.

Venkat Raman, G., Garg, S., & Thapliyal, S. (2019). Integrative live case: A contemporary business ethics pedagogy. *Journal of Business Ethics, 155*, 1009–1032.

Vygotsky, L. S. (1987). Problems of general psychology: Including volume thinking and speech. In: Rieber RW, Carton AS, eds. *The Collected Works of L. S. Vygotsky*, 1. Plenum Press.

Wang, L. C., & Calvano, L. (2015). Is business ethics education effective? An analysis of gender, personal ethical perspectives, and moral judgment. *Journal of Business Ethics, 126*, 591–602.

Waples, E. P., Antes, A. L., Murphy, S. T., Connelly, S., & Mumford, M. D. (2009). A meta-analytic investigation of business ethics instruction. *Journal of Business Ethics, 87*(1), 133–151.

Weber, J. A. (2007). Business ethics training: Insights from learning theory. *Journal of Business Ethics, 70*(1), 61–85.

Yang, X. (2023). A historical review of collaborative learning and cooperative learning. *TechTrends, 67*(4), 718–728.

Yin, R. K. (2011). *Qualitative research from start to finish*. Guilford publications.

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