

Document downloaded from:

<http://hdl.handle.net/10251/154809>

This paper must be cited as:

Tormo-Carbó, G.; Oltra, V.; Klimkiewicz, K.; Seguí-Mas, E. (2019). "Don't try to teach me, I got nothing to learn": Management students' perceptions of business ethics teaching. *Business Ethics: A European Review*. 28(4):506-528. <https://doi.org/10.1111/beer.12236>



The final publication is available at

<https://doi.org/10.1111/beer.12236>

Copyright Blackwell Publishing

Additional Information

**‘DON’T TRY TO TEACH ME, I GOT NOTHING TO LEARN’ –
MANAGEMENT STUDENTS’ PERCEPTIONS OF BUSINESS ETHICS TEACHING**

Dr. Guillermina Tormo-Carbó

Associate Professor
CEGEA, Centre for Research in Business Management
Universitat Politècnica de València
Camí de Vera, s/n
46022 Valencia, Spain
Email: gtormo@omp.upv.es
Tel. (+34) 963877686

Dr. Victor Oltra*

Associate Professor
Faculty of Economics, Department of Business Management
University of Valencia
Av. Tarongers, s/n
46022 Valencia, Spain
Email: voltra@uv.es
Tel. (+34)963828317

Dr. Katarzyna Klimkiewicz

Assistant Professor
Faculty of Management
AGH University of Science and Technology
Gramatyka, 10
30-067 Cracow, Poland
Email: kklimkie@zarz.agh.edu.pl
Tel. (+48)126174293

Dr. Elies Seguí-Mas

Associate Professor
CEGEA, Centre for Research in Business Management
Universitat Politècnica de València
Camí de Vera, s/n
46022 Valencia, Spain
Email: esegui@cegea.upv.es
Tel. (+34)963877007

* Corresponding author.

ABSTRACT

Interest is growing towards including business ethics in university curricula, aiming at improving ethical behaviour of future managers. Extant literature has investigated the impact of ethics education on different ethics-related students' cognitive and/or behavioural outcomes, considering variables related to training programmes and students' demographic aspects. Accordingly, we aim at assessing students' understanding of business ethics issues, by focusing on the differences in students' perceptions depending on gender, age, work experience, and ethics courses taken. Testing our hypotheses on a sample of 307 management students at a Polish university, and controlling for social desirability bias, we obtained mixed and partially surprising results. We found significant differences in students' understanding of business ethics depending on their gender and age (female and older students showed more ethical inclinations), but not depending on having taken ethics courses – actually perceptions of such courses worsened after taking them. Besides, work experience was not a significant variable. Moreover, course exposure intensiveness (i.e., number of ethics courses completed), and time passed since completion of the latest course, did not confirm hypothesized effects on most of the dependent (sub)variables. These findings stimulate further questions and challenges for future research (e.g., around course design and methodology, and social/cultural/contextual issues).

KEY WORDS: Business ethics, students' ethical perceptions, ethics teaching, management students, social desirability.

1. INTRODUCTION

Business ethics education is receiving substantial attention in the current context of an increasing interest in business ethics by both academic and practitioner communities (Harris, 2008; Lehnert, 2015; Loeb, 1988; Maclagan & Campbell, 2011; Marnburg, 2003; Tormo-Carbó et al., 2016). Although standards and regulatory norms can contribute to reduce the risks of unethical business practice, such as e.g., in marketing, finance, or accounting, the most effective way to achieve this goal would be to develop business practitioners' ability to think and behave ethically (Bampton & Cowton, 2013). Universities and business schools play a key role in improving civic behaviour and professional responsibility of future graduates (Boni & Lozano, 2007).

Future behaviour of business professionals may be greatly influenced by previous business ethics teaching at university (Bampton & Cowton, 2013; Uysal, 2010; Dellaportas et al. 2006). For instance, those financial sector companies that wish to prevent financial malpractice may logically prefer to hire job applicants with high ethical awareness, resulting in a reduction of the risk of such potential financial malpractice (Graham, 2012). Considering that the main goal of business ethics education is to improve ethical behaviour of future management professionals, and having in mind that research outcomes are so far rather inconclusive, it is worthwhile to examine how individuals react to business ethics education (Marnburg, 2003).

Having in mind past inquiry on the influence of ethics teaching on management students' ethical awareness (e.g., Adkins & Radtke, 2004; Tormo-Carbó et al., 2016), we put forward three main research goals: (i) to ascertain to what extent and how business ethics courses influence management students' understanding of the importance of business ethics and its educational goals; (ii) to find out whether there are significant differences in management students' understanding of the importance of business ethics and its educational goals, depending on their gender, age, work experience, and prior enrolment in business ethics

courses; and (iii) to determine, among those management students who have taken at least a business ethics course, whether there are significant differences in their understanding of the importance of business ethics and its educational goals, depending on course exposure intensiveness and time passed since completion of the latest course

This article contributes to the extant literature by offering a novel study of business ethics perceptions among management students in an underexplored context (Poland), also using previously validated research designs. Empirical data were collected with a survey completed by 307 students of the Bachelor's and Master's degrees in Management at the AGH University of Science and Technology (AGH-UST) in Cracow (Poland). Our dependent variable is construed as students' perceptions of business ethics and its educational goals. The term 'perceptions' refers to the students' personal opinion on the importance of ethics in business education, measured as a continuum between negative and positive extremes. Our independent variables are gender, age, work experience, the fact of having (or not) taken a course on business ethics, and (for those who have taken such a course) course exposure intensiveness, and time passed since completion of the latest course. Hence, in addition to already studied variables such as gender, age, ethics course enrolment and work experience, we have added the new variables of intensity of course exposure and time passed since course completion. The introduction of a new context and variables, together with the novel results obtained – often different and rather unexpected compared to prior research – disclose relevant further inquiry opportunities. Furthermore, in order to scrutinize data truthfulness, and following recent calls for paying attention to the impact of social desirability (SD) bias on subject responses in ethics research (Lehnert et al., 2015), we include SD as a control variable (Crowne & Marlowe, 1960; Strahan & Gerbasi, 1972).

Specifically, the Polish context provides an appropriate research setting, as a relatively unfriendly environment for business ethics and a relevant playground for gaining insight into

the rather mixed and complex type of evidence found (Van Liedekerke & Demuijnck, 2011). With our study, we emphasize the importance of considering the specificities of the geographical, historical, political and business-economic contexts where ethics courses are introduced (Crane & Matten, 2004). In this regard, our study sheds new light on the situation in Poland, which is a relatively under-researched environment regarding business ethics education. Since signing the Bologna Act and getting EU membership in 2004, Poland has been trying to enrich its education up to Western European standards. The Polish higher education sector is under constant change, with universities trying to adapt new curricula to adjust the teaching process to the expectations of different stakeholder groups - students, employers, educators, government, European Commission, etc. (Bates & Godoń, 2017; Popowska 2016). Besides, the Polish society is strongly influenced by culturally-embedded traditional moral and ethical values (e.g., Catholic Church, Communist past) that may to some extent impact students' basic assumptions and prior knowledge (Sojkin et.al., 2015). These two contrasting realities (Westernization of education and traditional cultural values) offer a novel and stimulating investigation setting. Thought-provoking contributions are expected, towards a better understanding of, for example, the role of prior students' knowledge and basic assumptions in assessing the effectiveness of business ethics courses in unfriendly environments. For instance, our intricate results lead us to wonder to what extent introducing business ethics education in Poland through Western teaching patterns may negatively influence students' perceptions of business ethics education.

This article is organized as follows. After this introduction, the next section includes an overview of prior research on business ethics in higher education. The third section is devoted to outlining the Polish context regarding social perceptions and attitudes towards business (ethics), and the current situation of business ethics in higher education. The fourth section presents the research model and hypotheses. The fifth section is devoted to explaining data

collection and measures. The sixth section explains the study results. A discussion section follows, and a final conclusion and recommendations section closes the paper.

2. TEACHING BUSINESS ETHICS IN HIGHER EDUCATION

Business ethics education is a timely research topic (Mayhew & Murphy, 2009; Gaa & Thorne, 2004; Tormo-Carbó et al., 2016). The development of individual ethical understanding and judgements has been widely investigated. Trevino (1986) suggested that the personal stage of cognitive moral development will influence decision making aimed at dealing with ethical dilemmas (Kohlberg, 1969). Accordingly, under the influence of many (internal and external) contextual circumstances, personal behaviour is eventually the result of individual processes of decision making, which progress throughout different stages, from moral awareness, judgement and intention, towards actual behaviour (Rest, 1986; Thorne, 1999). In the educational context, Perry's (1998) scheme of intellectual development considers the changes in students' understanding as an evolutionary process, whereby students increase their understanding through time, by recognizing and reflecting on the multiplicity of possible world's views, and increasing the abilities that enable them to properly understand and interpret different ways of reasoning in diverse contexts. All in all, these models emphasize similar dynamics whereby the moral judgment, intention, and eventually actual behaviour comprise a dynamic cause-effect chain, according to which current behavioural consequences are the starting point for future – contextually constricted – ethical decision-making processes (Hunt & Vitell, 1986; Jones, 1991).

The importance of business ethics education in university curricula is growing (Blanthorne et al., 2007; Ghaffari et al., 2008; Macfarlane & Ottewill, 2004; Madison & Schmidt, 2006; Tomo-Carbó et al., 2016). Regarding business ethics learning, Bampton & MacLagan (2005) considered essential to take into account the point of view of the three groups involved: scholars, managers, and students. Most ethics education research focuses on the

perception of educators towards ethics pedagogy and its effectiveness. However, little research considers students' own preferred approaches to learn ethics. Indeed, understanding the students' perspective could importantly help the learning process (Duff, 2004).

The extant literature has pointed at the diversity of instruction methods applicable as an important aspect in influencing students' perceptions of business (ethics) teaching. Waples et al. (2009) examined several course characteristics that influence ethics education effectiveness, concluding that shorter-length workshops using case-based approaches, multiple activities, and focusing on ethical rules, principles, guidelines and strategies, were then most effective when compared to other approaches. Later on, Medeiros et al.'s (2017) extensive review on business ethics instruction found that course designers should limit course objectives to a maximum of three, and key topics between four and seven. Besides, not only topics covered should be considered, but also the relevant teaching and learning processes and class dynamics involved. Accordingly, Medeiros et al. (2017) found that students' active participation, through e.g. presentations and class discussions, considerably improves business ethics course effectiveness. Moreover, stand-alone, workshop-based training lasting around one day proved more effective than integrated and semester-long training, as were face to face courses vs. online education (Medeiros et al., 2017).

The extant literature has found that, generally speaking, ethics teaching is considered relevant by management students. Different studies have supported this idea, in the sense that students' views on ethics training programmes are usually positive, and students who follow those programmes tend to improve aspects of their ethical perceptions and awareness (see e.g., Adkins & Radtke 2004; Crane, 2004; Graham, 2012; Tormo-Carbó et al., 2016). Accordingly, in order to advance substantially on research on ethics teaching effectiveness, it seems crucial to focus on research designs that build their samples around the students who have participated in the ethics training programmes (Graham, 2012). Doing this helps advance research in a

twofold way: on the one hand, it contributes to build an accurate picture of how students understand business ethics and, on the other, it facilitates progress towards better evaluating how effective such courses are.

All of the above considerations must, in any case, be taken with caution. Given the delicate nature of ethics research, it is important to have in mind the potential effect of the so-called SD bias (Crowne & Marlowe, 1960; Chung & Monroe, 2003; Lehnert et al., 2015) – i.e. the extent to which respondents may give answers that the researcher expects to be ‘correct’ instead of responding with honesty (Auger & Devinney, 2007; Zerbe & Paulhus, 1987). In Randall and Fernandes’s (1991, p. 805) words, SD ‘is broadly understood as the tendency of individuals to deny socially undesirable traits and behaviours and to admit socially desirable ones’. Including SD in ethics education research designs strengthens data robustness, as doing so provides a rigorous tool for assessing truthfulness of responses. However, SD issues, traditionally neglected in research on ethics education (Randall & Fernandes, 1991), have been increasingly considered in the past years, in line with the recommendations of recent contributions (see e.g., Campbell & Cowton, 2015; Lehnert et al., 2015). Having this situation in mind, we will explicitly include this issue in our investigation, treating SD as a control variable – as scarce although relevant organizational research has previously done (e.g., Valentine & Hollingworth, 2012).

3. BUSINESS ETHICS AND HIGHER EDUCATION: THE POLISH CONTEXT

In the business world and also in the academic context, awareness of business ethics is growing in Poland (Lewicka-Strzalecka, 2010). Poland is a post-communist country where very specific historical, cultural, religious and legal backgrounds influence people’s perceptions of the business culture (Potocki, 2015). Negative connotations can be often linked to the term ‘business’, consistent with perceptions of the formerly planned economy as failing to foster economic efficiency (Lewicka-Strzalecka, 2006; Ryan 1995). Also, in Poland, business-related

professions have not usually been very well considered in comparison with other occupations: a business person is often ‘considered to be a beneficiary of the new system, who, according to popular opinions, did nothing to deserve his profit’ (Lewicka-Strzalecka, 2006, p. 441). The Polish society is characterized by lacking a proper balance between (relatively high) human capital and (relatively low) social capital (Czapiński, 2008), and this fact may help explain the pervasive low trust in business. Consequently, the society shows high scepticism towards private companies’ declarations of adherence to social causes, resulting in an understanding of business ethics as a conceptual contradiction. Besides, ethical concerns are approached by business people basically in terms of law abidance (Gasparski et al., 2004). Nevertheless, there is a widespread perception of business laws and regulations as system that poses barriers for business development and also hinders economy development (Lewicka-Strzalecka, 2006). Despite this (not very positive) outlook, Poland has been improving its ranking in the Corruption Perceptions Index (CPI), from the 45th position in 2002 to the 36th in 2017 – although with a one-year deep fall, as it had the 29th position in 2016 (Transparency International, 2018). However, notwithstanding this progress, Poland still lags in the CPI behind many other developed countries, especially after the 2016-2017 notable fall in the ranking (Transparency International, 2018), so we consider it as a relatively ‘unfriendly environment’ (cf., Tormo-Carbó et al., 2016) for business ethics.

From a historical perspective, in Poland there is no long tradition of ethics education. Ethics, together with religion as school subjects, were introduced to Polish schools in 1991. The socio-political transition towards democracy determined the changes also in the approach to moral development and an increase in the awareness of what it means to be a citizen of a democratic country (Leek, 2015). In Poland, similarly as in other continental European countries, education on ethical issues in business was traditionally incorporated in regular lectures on organizations or business management (Scherer & Picot, 2008). Therefore, while

the reflection on business ethics as autonomous subject arrived at universities, we could observe that the content of courses was strongly inspired by institutional literature (Rossouw & Stueckelberger 2012). For people observing the ongoing socio-economic changes, 'business ethics' could seem as an abstraction or a threat for the rapidly growing markets. Acknowledging the low level of trust towards firms and institutions in Poland, and conviction that while doing business you should rather not trust people (CBOS, 2016), teaching on ethical aspects of business seems to be challenging task .

All in all, social perceptions of Polish business culture are evolving, and discussions around teaching on business ethics are increasingly popular, in line with extant research on the role of effective ethics education in supporting the development of moral reasoning skills (Rest, 1980). Young Polish people show a low degree of awareness towards corporate social responsibility (CSR), (Ciemniewski & Buszko, 2009), and managers also assess themselves poorly regarding their CSR engagement (FOB and GoodBrand and Company Polska, 2010). The academic community finds in these facts a strong case for inquiring into the educational implications of these concerns (Rojek-Nowosielska, 2013). Poland has been experiencing in the past years rapid social and economic transformation, including deep changes in education policies. In this context, a broad spectrum of initiatives (conferences, panel discussions, etc.) have been developed around the issue of whether and how to educate on business ethics (Gasparski & Lewicka-Strzańska, 2001; Gasparski, 2008; Gasparski et al., 2012; Kinach-Brzozowska, 1995). All in all, awareness is increasing in Poland regarding the need of better managerial ability to respond to different moral dilemmas, as well as to undertake actions in the fields of business ethics and CSR, consistent with the intensifying global trends linking business socially responsible behaviour and higher education challenges (Gasparski, 2008; Gasparski & Lewicka-Strzańska, 2001; Rojek-Nowosielska, 2013).

In 2007, the Polish Ministry of Science and Higher Education published the fundamental contents for study fields (Standardy kształcenia dla kierunków, 2007). According to these regulations, in the Bachelors' of Management, elements of 'business ethics' were required as topics incorporated within courses on 'organizational behaviour' and 'human resource management'. In the Master's level, a compulsory module on 'business ethics' was required as an integral part of the curricula.

The content of the course – according to the ministerial regulations – had to cover topics connected to relations between ethics and law, values, ideals and moral sanctions', integration of ethics within organizational culture, conflicts of values in the management process, ethical aspects of globalization processes, the relationship between Christianity and other religions and ethics, ethical culture and ethics in selected countries, ethics in management, work ethics, ethics and capital markets, ethical aspects of competition, ethics in marketing and advertising, and professional ethical codes. In general, business ethics courses were aimed at developing students' skills in understanding ethical principles, assessing the ethical aspects of the organization, and choosing the right (ethically correct) behaviour (Standardy kształcenia dla kierunków - Zarządzanie, 2007).

These requirements on quite intense business ethics modules – with 30 teaching hours – could have to some extent limited the number of elective courses on familiar topics, such as e.g. CSR. However, even if there were ministerial standards for including business ethics at bachelor's and master's levels, researchers interested in this topic suggested to offer more Business Ethics courses – i.e., maybe elective courses, above the minimum ministerial requirements (Maruszewska 2011).

In 2011, the amendment of the Act on Higher Education provided initial changes in the approach to business ethics education (Polish Ministry of Science and Higher Education. 2011). The requirements described in terms of specific knowledge, abilities and social competences

did not refer to any precise module that should provide the ethical contents. Based on ministerial guidelines, courses on ‘business ethics’ started to be introduced in diverse modules and forms. At that time, the Polish core curricula supported the idea of leaving lecturers the decision about the scope and ways in which they provide the courses, and which methods they decided to use (Polish Ministry of Science and Higher Education, 2011).

However, in spite of the relevant debate in Poland on the role of education in business ethics, empirical studies at the university level are still scarce; hence, more studies are necessary in the Polish context, in order to further expand the exploration of the effectiveness of business ethics teaching (Nguyen et al., 2013; Stachowicz-Stanusch, 2011). The study conducted by Stachowicz-Stanusch (2011) implies, quite surprisingly, that taking business ethics courses *diminishes* moral competency of students. One explanation for these findings may be found in the possibility that students’ general knowledge and background on ethical issues is quite strong prior to taking ethics courses. Hence, these courses make students highly conscious of their own limitations and shortcomings regarding their ethical business practice, so they deliver responses that apparently show rather negative and sceptical perceptions of business ethics issues (Stachowicz-Stanusch, 2011). A more recent study in Poland found that ethics teaching did not significantly improve students’ moral awareness (Nguyen et al., 2013), a fact that – as the authors themselves suggest – can be attributed to the complexities of accurately measuring moral awareness.

The above findings mostly contradict those of previous studies revolving around similar research questions (e.g., Adkins & Radtke, 2004; Tormo-Carbó et al., 2016). Adkins and Radtke (2004) found that students valued the teaching of ethics, and discussed the presence of an ‘expectation gap’ between students and academics, arising from the perceived differences in importance, values and goals of accounting ethics. More recently, Tormo-Carbó et al. (2016) evidenced that students seem to be highly receptive to ethics teaching. Besides, students also

indicated the importance of learning about ethics in their degrees, with the aim of preparing themselves professionally to be able to effectively tackle ethical decision-making at work. Therefore, Poland seems to be an interesting context for further deepening the inquiry into these topics.

4. MODEL AND HYPOTHESES

Building on the above literature review, we now proceed to present our research questions:

- *To what extent and how do business ethics courses influence management students' understanding of the importance of business ethics and its educational goals?*
- *Are there significant differences in management students' understanding of the importance of business ethics and its educational goals, depending on their gender, age, work experience, and prior enrolment in business ethics courses?*
- *Among those management students who have taken at least a business ethics course, are there significant differences in their understanding of the importance of business ethics and its educational goals, depending on course exposure intensiveness and time passed since completion of the latest course?*

Accordingly, in our model (Figure 1), management students' ethical understanding (i.e. perceptions of the importance of a number of ethical issues), as the broader dependent variable, will be linked to three sets of independent variables: gender, age and work experience (H1), students' group (ethics course vs. non-course) (H2), and exposure intensity to business ethics courses and time passed since completion of latest course (H3).

--- Insert Figure 1 about here ---

4.1. Gender, age and work experience of students

Men and women tend to behave according to socially expected roles and stereotypes (Eagly, 1987; Eagly & Steffen, 1984). Men are expected to focus on assertion, ambition, competitive success, and personal growth, thus being more likely to behave unethically than

women. Conversely, women are socialized in more communitarian principles (altruism), so they are generally more concerned about harmony, warmth, and caring for others' well-being (Pan & Sparks, 2012). Therefore, a more pronounced short-term and result orientation typical of men can lead to more selfish decisions and behaviour compared to women. Women, in turn, are expected to care more about how their actions may have long-term consequences and impact on others. After over 35 years of research, empirical results on gender differences in ethical decision-making were still rather mixed a decade ago (Tenbrunsel & Smith-Crowe, 2008). Relevant literature reviews, such as those by O'Fallon & Butterfield (2005) and Craft (2013) also found a high diversity of results, although the most common significant outcomes were those indicating that women showed more ethical inclinations than men.

In any case, despite the existence of inconclusive results (McCabe et al., 2006), empirical research on the connection between business students' gender and ethical awareness increasingly supports the idea that women behave more ethically than men, as Lehnert et al., (2015) concluded in their recent literature review. A number of studies have shown a higher ethical awareness among female students, compared to male ones (e.g., Eweje & Brunton, 2010; Pan & Sparks, 2012; Stedham et al., 2007). Importantly, these outcomes have been corroborated in research based on business students (Adkins & Radtke, 2004; Nguyen et al., 2013; Tormo-Carbó et al., 2016).

Regarding the age of individuals, it is traditionally assumed that, as people become older, their understanding of ethical issues improves (Kohlberg 1969), as well as their ethical reasoning (Bernardi & Bean, 2010; Trevino, 1992). In this sense, theoretical consensus appears to support the belief that age improves one's ability to apply relevant ethical standards, which in turn produces more disapproving views of ethical lapses (Pan & Sparks, 2012). As for empirical evidence, the overall outlook is that results are rather inconclusive (Eweje & Brunton, 2010; Lehnert et al., 2015), although slightly inclined towards a positive link between age and

ethical awareness. Some empirical studies found that younger people render stricter ethical judgments than older people (Ede et al., 2000). However, most research has found that ethical awareness increases with age (Kish-Gephart et al., 2010; Peterson et al., 2001). Moreover, research has also evidenced that, to a notable extent, older business students show a higher ethical awareness than younger ones (Adkins & Radtke, 2004; Borowski & Ugras, 1992; Nguyen et al., 2013; Ruegger & King, 1992; Tormo-Carbó et al., 2016).

In addition to gender and age, employment background is one of the most studied personal factors that may influence the recipient's response to business ethics education (Ford & Richardson, 1994; Lehnert et al., 2015). Studies in this field show that students and managers differ in their ethical attitudes. On the one hand, some studies illustrate that there is no sufficient support for treating employment background as a significant personal trait (Loe et al., 2000; Lehnert et al., 2015; Malinowski & Berger, 1996; O'Fallon & Buttetfield, 2005; Roozen et al., 2001). On the other hand, other findings provide support for work experience as a significant explanatory variable for understanding student responses to ethics education (Arlow & Ulrich, 1980; Cohen et al., 2001; Cole & Smith, 1996; Stevens et al., 1989). Some findings reveal that older students – with work experience – are more dissatisfied with ethical education than those without work experience (Gómez et al., 2010). An explanation for this might be that older and more work experienced students may place higher expectations on ethics courses and, accordingly, may also get more easily disappointed by them, especially if the course contents and approach does not fit the specific work-related issues and dilemmas on which the students have prior experience. These results lead to consider the type – or 'quality' – of work experience as the key to determine the direction of behavioural intentions in terms of their (un)ethical orientation. In Jones & Kavanagh's (1996, p. 521) words: 'an individual's quality of work experience affects his or her likelihood of engaging in unethical behaviour'. Interestingly, Larkin (2000) concludes that the ability to identify unethical behaviour is related to professional

experience. Consistent with this idea, a number of studies have shown that students are more likely to accept questionable ethical statements than business people (Cole & Smith, 1996).

Having in mind the above arguments, we formulate our first hypothesis:

- Hypothesis 1 (H1). *Gender, age and work experience influence business students' ethical understanding, in such a way that female, older and more work experienced students will show a greater perception of the importance of a number of (i) general ethics issues and (ii) objectives of business ethics education.*

4.2. Ethics course vs. non-course students

The teaching of ethics at university has been generally regarded as important by the empirical literature (Adkins & Radtke, 2004; Graham, 2012; Tormo-Carbó et al., 2016). The need of considering the viewpoints of students, scholars, and business professionals alike had been stressed (Bampton & MacLagan, 2005). Nevertheless, the actual impact of business education in fostering ethical awareness among students has been questioned (Ferguson et al., 2011; Stachowicz-Stanusch, 2011). Hence, it is important to assess the extent to which business ethics courses affect students' ethical understanding – as a way to predict ethically-minded future professional behaviour.

Studies on the impact of ethics education on ethical awareness or behaviour have provided mixed outcomes (Neureuther et al., 2011). Some studies could not conclusively prove that (business) ethics education had a significant influence on student perceptions of ethics and/or ethical behaviour (Davis & Welton, 1991; Low et al., 2008; Peppas & Diskin, 2011). Even so, students believed that it was still important to have ethics education in their curricula (Low et al. 2008). Likewise, Dearman & Beard (2009) indicated that experiments on ethics-oriented behaviour did not clearly show that participants, when facing real-life situations, would behave in the same way as shown in the experiments. Hence, substantial business and economics investigations seem to neglect the incentives that participants may have to develop

opportunistic (unethical) behaviour when acting in non-experimental contexts (Dearman & Beard, 2009). Consistent with these ideas, a meta-analysis by Waples et al. (2009) on 25 programmes on business ethics training, concluded that these programmes had a very limited effect on the improvement of ethical awareness, perceptions or behaviour. In this sense, it is argued that ethics courses often tend to be too abstract, thus failing to impact profoundly on the social conditioning of business students (O'Fallon & Butterfield, 2005; Ritter, 2006). However, Nguyen et al. (2008) found out that ethics learning significantly predicted ethical behavioural intent. All in all, business ethics education is becoming increasingly relevant in Poland and monitoring standards in higher education are improving (Polish Ministry of Science and Higher Education, 2007, 2011). Moreover, interest in business ethics is increasing among Polish scholars (Gasparski, 2008; Gasparski et al., 2012; Gasparski & Lewicka-Strzańska 2001). Accordingly, we predict an overall positive impact of ethics courses on students' ethical understanding.

Hence, we propose our second hypothesis:

- Hypothesis 2 (H2). *Exposure to business ethics courses positively influences business students' ethical understanding, in terms of a greater perception of the importance of a number of (i) general ethics issues and (ii) objectives of business ethics education.*

4.3. Exposure intensity to business ethics courses and time passed since completion of latest course

As argued above, the fact of having taken an ethics course should impact students' understanding of (business) ethics. However, it seems reasonable to consider not only the fact of taking a course, but the extent to which students have been exposed to such course(s) – e.g. the teaching load that students have received.

Besides, as time passes, students may increase their understanding of the importance of ethical education and value it more, compared with right after finishing ethics courses.

Receiving courses on business ethics provides new frameworks for analyzing the reality, and the contents of lectures and class activities will interact with students' values, and previous knowledge and experience. However, consistent with cognitive dissonance theory, people are likely to minimize the influence of information that is inconsistent with their beliefs (Festinger, 1957). Hence, students may at first be reluctant to internalize new values provided by ethics courses, but later on, as time passes, they may be more receptive to accepting and applying those values to assess complex situations of daily life. According to Perry's (1998) scheme of intellectual development, individual attitudes may differ across several levels. Perry (1998) shows the changes in students' understanding as an evolutionary process: starting from a basic polar perspective (we-right-good vs. others-wrong-bad), and then, as time passes, increasing their understanding, and reflecting deeper diversity of possible world's views. Accordingly, when individuals experience uncertainty resulting from colliding perspectives and values, they are encouraged to verify their own beliefs on what is right and wrong. By exercising contextual interpretation, an individual builds a commitment to identify with multiple responsibilities and the resulting consequences (Perry, 1998).

Consistent with the above framework, new knowledge gathered while participating in a business ethics course may break a comfortable dualism perspective, increase value and cognitive diversity, and evoke uncertainty among students. This may result, in the short term, in lower satisfaction with the course, as it challenged individuals to confront their usual frameworks of reference of thinking about business with new, alternative models. Such models are often quite new for students, as they rely heavily on cornerstones revolving around ethical frameworks and values, which are usually neglected by traditional management education. With the passage of time, however, students will face the complexities of adult life in general – and of the professional world in particular – and gradually internalize the ethical frameworks and values acquired during the ethics courses. Hence, as time passes, (former) students may be

able to recognize the value of prior business ethics education for their daily – and especially professional – life (Cohen et al., 2001; Cole & Smith, 1996; Stevens et al., 1989).

Considering the above arguments, we propose our third hypothesis:

- Hypothesis 3 (H3). *The intensity of exposure to business ethics courses and the time passed since completion of the latest course, positively influence business students' ethical understanding, in terms of a greater perception of the importance of a number of (i) general ethics issues and (ii) objectives of business ethics education.*

5. DATA COLLECTION AND MEASURES

In order to assess the students' perceptions of several ethical issues, a population of 510 undergraduate and postgraduate management students at the AGH-UST in Cracow (Poland) were requested to complete a survey. Data were collected during regular class time, obtaining 307 valid questionnaires (response rate of 60.2%). The sample characteristics (see Table 1) are comparable to those of the target population: sampling error of 4.64% with a confidence interval of 99% and $p/q=50/50$.

--- Insert Table 1 about here ---

At the time of data collection, the curricula for business ethics education at the target university included a compulsory ethics-related course only for the first-year master students in Management. Bachelor students in Management had an elective course on Business Ethics. For students having their degree (Bachelor's or Master's) in Management and Production Engineering there was no module offered directly connected to business ethics contents, although at the bachelor's level some elements of ethical education were included within the courses on 'Organizational behaviour' and 'Human Resource Management'. Also regarding the degrees on Management and Production Engineering, despite the fact that there were no compulsory courses on business ethics, Bachelor's students had the possibility to take elective courses such as 'Ethics in management' and 'Responsible Supply Chain Management'. This

outlook helps understand why the majority of the students who admit having taken a business ethics course are Master Students, while just a minority are Bachelor students.

Completing the survey was voluntary and anonymous. Three main sections built up the questionnaire, which took around 15 minutes to answer. In addition, questions on demographic and course characteristics were collected: *gender* as a dichotomic variable, and *age*, *work experience*, *course exposure intensiveness*, and *time passed* since completion of the latest course as continuous variables.

The first section of the questionnaire included questions on the *ethics courses* (EC) available (see appendix). We designed this section by adapting the questionnaire developed by Adkins and Radtke (2004), in turn adapted from Cohen & Pant (1989) and also used in other, recent studies (Tormo-Carbó et al., 2016). Responses to questions in this first section were dichotomic, i.e. either ‘yes’ or ‘no’ – and some of them included a ‘not sure’ option. Within this first section of the questionnaire, question EC1 (‘Have you had any ethics course(s) at university?’) also provided information on the *group* variable, which is dichotomic.

The second section of the questionnaire included two types of items (which were in fact shuffled in the actual template filled in by respondents, see appendix). On the one hand, students evaluated their perceived importance of ethics in a number of *general ethics* (GE) issues: dealing with business tasks, teaching business, personal decisions, and workplace decisions. On the other hand, students rated the importance of six potential objectives of business ethics education (*objectives of education*, OE) related to business ethics courses. This second section was mostly adapted from Adkins & Radtke’s proposal (2004), which was in turn based on earlier proposals by Callahan (1980) and Loeb (1988), and was also used in other studies (Geary & Sims, 1994; Graham, 2012; Tormo-Carbó et al., 2016). Items in this second part of the questionnaire were assessed through a seven-point Likert scale, whereby (1–‘totally disagree’; 7–‘totally agree’).

Finally, the third section of the questionnaire consisted of a 10-item short version of the Marlow-Crowne SD scale (Crowne & Marlowe, 1960; Strahan & Gerbasi, 1972). This scale was included to control for potential SD bias. Sample items included ‘I never hesitate to go out of my way to help someone in trouble’ and ‘I am always courteous, even to people who are disagreeable.’ Statements were coded with ‘0’ (False) or ‘1’ (True), and five of these items were reverse scored. Composite SD values were obtained by summing the ten items for a possible range of 0–10 – i.e., a score of 10 would mean a maximum effect of SD in responses, and a score of 0 would imply maximum truthfulness.

6. RESULTS

6.1. Descriptive analyses

This section includes three sub-sections. In the first sub-section, we study management students’ perceptions of the importance of EC. In the second sub-section, we analyze the potential influence of SD bias in our data. In the third sub-section, we investigate, on the one hand, students’ perceptions of GE issues and, on the other, their views on the importance of different OE related to business ethics courses. Particularly, we study whether differences regarding all the above aspects (EC, GE and OE) exist in students’ perceptions, depending on whether they have previously taken business ethics courses or not.

Importance of ethics courses

Data resulting from the first section of the questionnaire – where students answered questions on EC at their university – were analyzed through descriptive statistics (Table 2) and χ^2 tests (Table 3).

From the total of 307 students who completed the questionnaire (Table 2), 73 acknowledged having taken a business ethics course (24.5% of the sample, EC1). However, a considerably higher number of students, 118 exactly, said that they had the *willingness to enrol in an ethics course* (38.6% of the sample, EC5). Out of the 73 students who had taken an ethics

course, 76.7% are 2nd year Master's students, 11% are 1st year Master's students, and the remaining 12.3% are Bachelor's students. Among such 73 students who took an ethics course, only 36.6% think that it was *well designed and effective* (EC2). Indeed, despite although 63.2% of all students surveyed believed it is *appropriate to have ethics courses offered in their degree* (EC6), and almost half (47.4%) believed that such a course would *help solve moral end ethics issues related to professional life* (EC7), a substantial majority of students (73.4%) reported not even knowing (or not being sure of knowing) whether *ethics courses are offered at their university* (EC3). Moreover, knowledge of *the compulsory vs. elective nature of ethics courses* (EC4) was rather low, since 49.4% of respondents reported not to be sure of the (compulsory vs. elective) status of such courses.

--- Insert Table 2 about here ---

Furthermore, we applied χ^2 tests to find out possible significant differences between students who had taken ethics courses (*course students*) and those who had not (*non-course students*). Table 3 shows the results of such χ^2 tests.

--- Insert Table 3 about here ---

First, significant differences can be observed concerning the *willingness to enrol in an ethics course* (EC5, $\chi^2(2)=6.920$, $p=.031$, $\Phi=.152$), in the sense that – rather paradoxically – *non-course students* showed greater willingness to enrol than *course students*. Detailed analysis of data shows that out of the 73 students that took a course on ethics, only 18 (21.7%) would enrol again in another ethics course, 23 (31.5%) would not enrol again, and 32 (43.8%) do not know what they would do. Out of the 225 students who did not take an ethics course, 94 (41.8%) of them would enrol if the university offered it, 53 (23.6%) would not enrol, and 78 (34.7%) do not know what they would do.

Second, 63.2% of all students surveyed supported the belief that an *ethics course is appropriate in the degree* (i.e., the belief that is necessary) without significant differences (EC6,

$\chi^2(2)=.0817$, $p=.665$, $\Phi=.053$) between *course* and *non-course* students (Table 3). However, , although 58.9% students who took an ethics course believe such courses are appropriate, it is worthwhile to remind that only 21.7% of them would be willing to enrol.

Finally, and similar to EC5 (willingness to enrol), the belief that *an ethics course helps solve moral issues at work* (EC7, $\chi^2(2)=36.88$, $p=.000$, $\Phi=.352$), showed significant differences depending on the *group* variable, in the sense that *non-course students* showed a greater belief in ethics course usefulness than *course students*. Out of the 73 students who took an ethics course, 33 (45.2%) believed it was not helpful to solve moral issues at work, only 14 (19.2%) believed it was, and 26 (35.6%) of students were not sure. Conversely, out of the 225 students who did not take the course, 125 (55.6%) considered that such course would be helpful for them to – potentially in their professional life – solve moral issues at work, 36 (16%) thought the opposite, and 64 (28.4%) were not sure.

Analysis of social desirability

As shown in Table 4, SD values are generally low ($M=4.13$, $SE=2.01$, $asymmetry=0.228$; $kurtosis=-0.474$; Percentile 25=3, 50=4 and 75=6). Therefore, we can state that questionnaire responses are truthful and accurately reveal the actual values and beliefs of students.

--- Insert Table 4 about here ---

Nevertheless, a correlation between the *group* variable and *SD* can be observed ($r=0.125$, $p<0.05$) (Table 12). Regarding possible differences between *course* and *non-course students*. Accordingly, a *Mann-Whitney U* test was performed to evaluate the differences regarding *SD* of *course* vs. *non-course students*. The test results show that there are significant differences ($U\ test=6826.5$, $p\text{-value}=.037$), in the sense that *course students* show higher *SD* values than *non-course students*. However, in both cases the average values can be regarded as low, so we can consider that – generally speaking – our sample of students provided truthful responses.

--- Insert Table 4 about here ---

Table 5 shows the correlations among SD and selected items on ethics courses. Interestingly, SD is correlated with responses on students' beliefs on the extent to which ethics courses were *well designed and effective* (EC2) and *help solve moral issues at work* (EC7).

--- Insert Table 5 about here ---

Subsequently, we need to find out whether the differences in responses (yes vs. no in EC2 and yes/no/not sure in EC7) regarding these items are significant. Table 6 shows the results of a *Mann-Whitney U* test for EC2 responses. We can observe that there are significant SD differences in responses regarding the beliefs on *course design and effectiveness* (item that only *course students* assessed).

--- Insert Table 6 about here ---

The average SD value for those students who said that the course was effective was higher than for those who believed the opposite, and also higher than the mean for all respondents (Table 7).

--- Insert Table 7 about here ---

Regarding whether ethics courses help *solve moral issues at work* (EC7 item, assessed by the whole sample), a *Kruskal-Wallis* test showed an absence of significant differences in students' responses (Table 8).

--- Insert Table 8 about here ---

The average SD value for those students who said that the course helps solve moral issues at work was higher than for those who believed the opposite, and also higher than the mean for all respondents (Table 9). Although differences are not significant, in any case the relatively more honest answers are those that point at a negative assessment of ethics courses.

--- Insert Table 9 about here ---

Importance of general ethics issues and the objectives of business ethics education

The second section of the questionnaire evaluated students' perceived importance of ethics in four general areas, GE (business tasks, business teaching, personal decisions, workplace decisions), and also regarding six objectives of business ethics education, OE (moral issues, ethical implications, moral obligation, tackling dilemmas, tackling uncertainties, behaviour change). Non-parametric statistical techniques for testing group differences were applied, as severe non-normality in the distribution of all variables was found. Specifically, the differences between *course students'* perceptions vs. those of *non-course students* were tested by using *Mann-Whitney U* tests (Table 10). Generally speaking, students in our sample – no matter whether they took ethics courses or not – similarly believe that all four GE and three (i.e. half) of OE (OE1, OE2 and OE3) are quite important.

--- Insert Table 10 about here ---

Table 11 shows our findings (*Mean and Standard Error*) for the items measuring those GE and OE that revealed no significant differences in the assessments made by *course students* vs. those made by *non-course students*. All means are well above the scale middle point (4), and all but one are above 5 (min: 4.94, max: 5.55).

--- Insert Table 11 about here ---

Finally, our results (*Mean and Standard Error*) for the items measuring those OE that revealed significant differences in the assessments made by *course students* vs. *non-course students* are included in Table 12. Where these differences were identified (items OE4, OE5 and OE6), they indicated *greater* ethical perceptions among students who had *not* taken any ethics course.

--- Insert Table 12 about here ---

6.2. Hypotheses testing

Hypotheses have been tested through multivariate analysis. Correlations between all the variables included in our hypotheses are presented in Table 13.

--- Insert Table 13 about here ---

Each of the 10 items on GE and OE have been analyzed through linear regressions (Table 14) in order to test H1 and H2. *Gender*, *age*, and *work experience*, and *group* (students who have taken a previous business ethics course vs. those who have not), have been the explanatory variables included in these analyses. *Work experience* is not included in the regression analysis, as this variable is not correlated with any of the GE and OE.

--- Insert Table 14 about here ---

Regarding *gender* and *age*, out of the 10 sub-variables that define students' ethical understanding, only one of them, the need of ethical behaviour for *dealing with business tasks* (GE1), is significantly higher in the case of female and older students. In addition, the impact of ethics education on *fostering change in ethical behaviour* (OE6) is also significantly higher for female students. Considering these results, H1 can only be partially accepted.

As for the *group* independent variable, the fact of taking business ethics courses could *not* be related to more favourable students' perceptions of business ethics and more positive assessments of business ethics education. However, significant differences were found, although – consistent with our prior descriptive analyses – *against* the impact of ethics courses on students' ethical understanding: three OE aspects are found to be significantly related to the fact of *not* taking ethics courses. These aspects are: *developing ethical conflict-tackling abilities* (OE4), *learning to deal with professional uncertainties* (OE5), and *fostering change in ethical behaviour* (OE6). These OE aspects are same ones that, according to our previous descriptive analyses, received significantly higher ratings from non-course students than they do from course students. As a result, H2 is fully rejected.

H3 stated that *course exposure intensiveness* and *time passed since completion of latest course* have a positive impact on student ethical understanding. Hence, the sample here must be restricted *to course students*. On average, students in our sample had taken 1.6 (SD: 0.6)

courses of business ethics, whereas the average time passed since the last one was completed was 10.28 (SD: 8.41) months. Table 15 shows the correlation matrix of all variables involved.

--- Insert Table 15 about here ---

Regression analysis results (Table 16) are mixed. First, only three items (out of 10) of students' ethical understanding showed significant positive links with *course exposure intensiveness*. Such items are *business teaching including ethical issues* (GE2), *developing moral obligation* (OE3), and *fostering change in ethical behaviour* (OE6). In other words, taking a higher number of ethics courses, although positively influences some aspects of students' ethical understanding, does not affect most of these aspects. Second, four items (out of 10) of students' ethical understanding showed significant positive links with *time passed since completion of latest course*. These items are the same ones mentioned above for *course exposure intensiveness*, with the addition of *recognizing ethical implications in business* (OE2). All in all, H3 can be regarded as partially accepted.

--- Insert Table 16 about here ---

7. DISCUSSION

Our Polish sample of management students agree on considering ethical behaviour in business and business ethics education as highly important issues. Nevertheless, the extent to which **management** students' ethical understanding is influenced by specific business ethics courses is questionable and needs further inquiry.

From our preliminary descriptive analyses, some surprising results need to be highlighted, especially regarding students' standpoints on their 'willingness to enrol in an ethics course', and also their belief that 'an ethics course helps solve moral issues at work'. Basically, the evidence showed (counter-logical) results implying that – contrary to our expectations – perceptions on ethics courses were significantly more positive among those students in our sample who did *not* take such courses. Particularly, among course vs. non-course students,

21.7% vs. 41.8% would enrol in an ethics course, and 31.5% vs. 23.6% would not do it. These outcomes seem to indicate that those students who took the ethics course are somehow disappointed with it, and may even regret having taken it. Ultimate reasons for this situation may revolve around possible students' disappointment with too high course expectations, elective vs. compulsory nature of the course, poor course design, contents or implementation, low teacher engagement, etc. Besides, among course vs. non-course students, 21.7% vs. 41.8% agreed with the belief that 'an ethics course helps solve moral issues at work', whereas did not agree with such belief. These results indicate that, perhaps, our survey respondents may have serious doubts on whether ethical demands can be effectively met by the major business actors' actual behaviours; and such doubts seem to be even reinforced (either ineffective or scepticism-triggering) by the fact of taking ethics courses.

Our descriptive analyses also included some results on the impact of SD on the truthfulness of our data – which can also be considered as a novel contribution from our investigation to the extant research on business ethics education. Generally speaking, SD values were low, so we can confidently regard our data as trustworthy. Nevertheless, the relatively higher SD values for *course students* may be interpreted as a (further) reinforcement for the (above mentioned) negative views of the ethics courses by the students who took them. In other words, responses by *course* students, even after being relatively 'softened' by the SD 'filter' (at least to a higher extent than for *non-course* students), were still very critical – and indeed honest as their responses were definitely not in line with teachers' – and researchers' – expectations. In addition, focusing on *course students* and their beliefs on 'course design and effectiveness' (this item was only assessed by *course students*), SD was higher in the answers giving a positive assessment. This result reinforces the general interpretation of data in terms of a(n) (even higher) negative perception by *course students* towards ethics courses. In other words, students who took an ethics course and assessed negatively course design and effectiveness were more

honest that those who made a positive assessment – as in this latter case positive responses may have been influenced to please the teacher by saying what was expected to be a ‘right’ answer.

All in all, these (preliminary) findings seem rather disappointing in terms of course effectiveness. However, they appear to fit the way students evaluated the different items related to the EC (ethics courses) items (which can be also somehow related to aspects of course effectiveness). Accordingly, the three specific OE (objectives of business ethics education) items that apparently worsen if students take ethics courses (ethical conflict-tackling abilities, dealing with professional uncertainties, change in ethical behaviour), should be considered key issues to be properly addressed for adequately designing business ethics courses that are expected to be effective. Otherwise, a business ethics course runs the risk of being ineffective if it fails at influencing students on such three specific OE aspects.

Let us now focus on discussing our hypotheses. Concerning H1, focused on *gender*, *age*, and *work experience* as independent variables, it could only be partially accepted. Out of the 10 sub-variables that define students’ ethical understanding only two of them, the need of ethical behaviour for *dealing with business tasks* (GE1), and the impact of ethics education on *fostering change in ethical behaviour* (OE6), were significantly higher in the case of female students, and only the first one (GE1) in the case of older students. We can conclude that, contrary to most of the extant literature, in our Polish sample students’ gender and age do not influence their understanding of most of business ethics (education) issues. Generally speaking, prior literature mostly supported the influence of being female (Cohen et al., 2001; Dalton and Ortgren, 2011; Luthar & Karri, 2005; O’Fallon and Butterfield, 2005; Stedham et al., 2007), older (Bernardi and Bean, 2010; Kohlberg, 1969; Trevino, 1992), or both (Adkins and Radtke, 2004; Haski-Leventhal et al. 2017; Nguyen, 2013; Tormo-Carbó et al., 2016) – on students’ ethical perceptions, behaviours or intentions. Some studies, however, also found lower ethical perceptions among older students (Kaynama et al., 1996; Tse and Au, 1997). This fact may be

explained by perceptions among mature students a business ethics education as being unnecessary, as it does not deliver practical, instrumental values that help reinforce their career path (Allen et al. 2005). In turn, work experience is not correlated to any of the (GE and OE) items that build the dependent variable. – a result consistent with the recent review conducted by Lehnert et al. (2015).

Regarding H2, focused on *group* as the dependent variable, there were differences between students' perceptions, depending on whether they had actually taken business ethics courses or not. However, contrary to our expectations, understanding of the importance of business ethics education was more positive among those students who had *not* taken business ethics courses. Specifically, those students most willing to enrol in ethics courses were the ones who had actually *not* taken any ethics course. These findings seem to suggest that, although students are generally interested in ethics courses (only 13.5% of the whole sample responded that they are not appropriate at all), taking these courses makes students, rather paradoxically, less inclined in the decision to take them.

In this regard, our results do not fit those of prior research (Adkins & Radtke, 2004; Crane, 2004; Graham, 2012; Tormo-Carbó et al., 2016). However, there are other studies that show findings closer to ours, in the sense that specific (business) ethics courses or ethics training do not influence significantly ethical perceptions, attitudes or behaviour (Davis & Welton 1991; Nguyen, 2013; Peppas & Diskin, 2001), or are even counter-productive (Allen et al. 2005; Gómez et al. 2010; Stachowicz-Stanusch 2011) – as suggested by our findings regarding some aspects of ethical perceptions. While some studies confirm the positive effect of business ethics education on moral efficacy (Lau, 2010; May et al., 2014), others suggest that there are students' private attitudes on consumption and employment that shape their perception and understanding of social responsibility in business (Rajah et al., 2016). The poor assessment of business ethics courses among those students who took such a course may be also due to an instrumental

perception of irrelevant marginal utility of further courses (Allen et.al, 2005), which would not bring value to their future careers – e.g., in comparison with other courses. Therefore, in students' opinion, further training in ethics seemed to be unnecessary. These results rather suggest that, while looking for an explanation of our results, it is necessary to acknowledge the influence of the broader cultural context, the importance of instrumental values, and their role for the self-evaluation of students' further development.

As for H3, only three items (out of 10) of students' ethical understanding showed significant positive links with *course exposure intensiveness: business teaching including ethical issues* (GE2), *developing moral obligation* (OE3), and *fostering change in ethical behaviour* (OE6). The same aspects, and also *recognizing ethical implications in business* (OE2), showed positive links with *time passed since completion of latest course*. On the one hand, it is noteworthy the fact that the higher the exposure to ethics courses and the longer the time passed since completion, the more convinced students are of the importance that business teaching included ethical issues (GE2). However, other general ethics issues (GE1, GE3 and GE4) are not linked to exposure to courses or an internalization process after the courses. On the other hand, such exposure to courses and internalization process after completion do influence the development of personal moral obligations (OE3). This finding seems to support the influence of ethics courses on rather general and abstract feelings of morality-related duties. However, the lack of significance of relationships with other items generates doubts on the impact of business ethics courses on more specific or practical attitudes and abilities. For the majority of aspects that are not connected to *exposure intensiveness* and *time*, the rather discouraging results may be connected to the influence of student maturity, implying perceptions of business ethics education as unnecessary, non-practical, and not delivering career-boosting instrumental values (Allen et al. 2005; Kaynama et al., 1996; Tse & Au, 1997). Sleeper et al. (2006) propose, however, that education may change personal principles over

time. Therefore, an alternative explanation for these results may be found under Perry's (1998) framework: new knowledge acquired while participating in a business ethics course may break a comfortable dualism perspective, whereby cognitive diversity and uncertainty are increased among students. Although in the short term this may appear as course dissatisfaction, we identify an interesting paradox here, whereby individuals are challenged to confront their usual frameworks of reference of thinking about business with new, alternative models. The new thinking frameworks associated to these models may be, in turn, highly critical towards mainstream constructions of business ethics, precisely because business ethics courses received made students become more critical and sceptical towards the way to interpret and perceive business ethics.

The rather surprising results obtained in our study stimulate an active search for potential explanations, which in turn pose new questions and open many possibilities for further inquiry. First of all, the most obvious general explanation might lie in a poor design or implementation of business ethics courses, including – but not limited to – the specific courses contents, theoretical and methodological approaches, and the teaching skills and student orientation of the lecturers in charge of the courses. In the field of business ethics and CSR, context-related teaching materials are crucial for effective education and shaping attitude (Crane & Matten, 2004). In particular, using 'Western' approaches and cases may not fit different cultural and geographical teaching contexts and lead to confusion. Also, failure in reducing pluralistic ignorance of students (Halbesleben et al., 2005), with regard to their prior gathered negative attitudes regarding business ethics education and business ethics in general (caused by unfriendly environment), may help to explain the results of our study. Further research is, thus, necessary, in order to inquire more deeply into the nuances of how business ethics course design and implementation can affect course effectiveness.

Second, we mixed in our sample students who took business ethics courses as elective modules, with other students who had these courses as compulsory modules – and we did not control for this fact. It is reasonable to expect that students who took the ethics courses as elective modules may be more motivated and happier with them (as with any elective module). Conversely, the fact of being obliged to take an ethics course might over-counterbalance an expected improvement of ethical awareness (as a direct influence of the course), due to the negative feelings which may be associated to compulsory courses (Hurt and Thomas, 2008; Tormo-Carbó et al., 2016).

Third, we suggest that the particular socio-cultural and religious background of Poland may be considered as an important factor for understanding our results. Actually, the role of culture, nationality and religion has been stressed as a potentially critical factor for understanding differences in ethical inclinations, and therefore recently proposed as key issues to consider for future research in ethical decision-making (Lehnert et al., 2015). Findings from other studies in Poland (Nguyen, 2013; Stachowicz-Stanusch 2011) with similarly critical outcomes as ours, encourage us to deepen into this type of explanations, including a cultural perspective and the importance of values. The Polish sample was highly homogeneous from an ethnic point of view, and this situation might help shed light on the fact that students' self-perceptions of ethical understanding were rather positive, and at the same time such perceptions worsened when ethics courses were taken. A number of scholars agree that moral standards are shaped at the initial stages of personal development through parents, schools, social institutions (e.g., Church, scouting), and individual experiences (Lewicka-Strzałeczka, 2010; Piper et al., 1993). As the moral character is formed early in life, the role played by parents and family is essential. Besides, Poland is a country with quite a homogenous background according to religion – up to 90 % of Poles declare catholic faith, 80% among young people (CBOS, 2015). The Catholic Church is a well-recognized institution that provides moral education from the

primary school. Some scholars also agree that teaching adults how to behave right at academic institutions may have little sense (Beggs and Dean, 2006; Kristol, 1987; Levin, 1989). This notion is also supported by empirical studies, showing that formal education has a minimal effect on raising students' awareness of ethical issues (Cohen et al., 2001). Moral decisions are made based on individuals' hierarchy of values, sensitivity and needs, and are not the result of theoretical reflections (Lewicka-Strzałecka, 2010). Therefore, young people may feel confused by ethics education offered at universities, the role of which may be perceived rather as providing knowledge on specific issues and not about shaping moral attitudes. Additionally, the homogeneity of our sample according to the nationality and religious background provides a challenge to business ethics education. Regardless of ethics courses, students already hold to their moral beliefs (Siipi, 2006). The catholic morality is deontological in nature, whereas in business a more utilitarian ethical reasoning is often deemed as more appropriate. According to Callahan (1980), in relatively homogenous cultural settings not everything needs to be questioned, therefore both students and teacher may struggle with understanding a 'foreign way of reasoning', considering in this case the Polish context as a cultural environment based upon given and widely shared assumptions ('If everybody agrees why should it be discussed?').

Hence, students with strong, prior moral beliefs may perceive the diversity of ethical approaches (often taught in business ethics courses) as unnecessary or even misleading, a situation that may influence their (negative) attitudes towards business ethics classes. Furthermore, good abilities in moral reasoning may imply less stability and more inconsistency in ethical decision-making (Marnburg 2001). The homogenous ethnical and cultural background of Polish students may therefore strengthen their pre-existing moral principles, so that they may find it difficult to analyse ethical dilemmas according to unfamiliar schemas, theoretical reasoning frameworks, or ethical approaches. As noticed by Siipi (2006), teaching ethics in non-pluralistic (homogenous) environments may cause a range of challenges regarding

teaching methods and teacher attitudes. For example, students may be confused and assume that the variety of ethical paradigms presented by the teacher are linked to his/her own world view, rather than to (more general) abstract/theoretical perspectives. In turn, teachers presenting opposing views should use methods that help ensure that students understand that the teacher is playing an ‘opponent role’ and not defending his/her own ideas. All in all, students with strong, pre-existing moral principles, may find it difficult to analyze ethical dilemmas according to given schemas, theoretical reasoning frameworks, or ethical approaches. Consequently, the case is quite strong for assuming that the Polish culture may play an important role in explaining the divergence between our results and those of prior studies in different cultural settings (e.g., Adkins & Radtke, 2004; Tormo-Carbó et al., 2016). However, further inquiry is necessary in order to deepen into these topics.

8. CONCLUSION AND RECOMMENDATIONS

All in all, our investigation adds value to the literature regarding inquiry on students’ perceptions of business ethics education, exploring the so far neglected Polish context. Moreover, our investigation has explicitly taken into account the potential influence of SD, considered as a control variable. Research methods that rely on self-reported behaviour are prone to SD bias (Chung & Monroe, 2003), which can be especially relevant when ethical issues are considered (Podsakoff & Organ, 1986). As SD has been found to be rather low in our data, our results can be considered as highly trustworthy. Besides, the few significant differences in SD related to sample characteristics reinforce the generally negative perceptions of business ethics courses by those students who took such courses (*vis-à-vis* those who did not).

Some limitations of our investigation must be acknowledged. For instance, the nature of the students’ sample, from a single Polish university, constrains the potential of generalizing results to other universities and contexts. Interesting further inquiry opportunities also emerge, especially, on the one hand, the role of historical, socio-cultural or religious contexts (Lehnert

et al., 2015), and, on the other hand, the role of the type (compulsory vs. elective), contents, design, methods of business ethics courses. Also, new studies, including several Polish universities, would help strengthen result generalization. Moreover, international and cross-cultural studies, such as comparing findings in different types of unfriendly environments for business ethics based on similar research designs, might also shed relevant light on many questions that remain open. Finally, longitudinal approaches might also be worth considering – e.g., assessing past students' (current business professionals') ethical understanding and comparing it with previous results.

APPENDIX. QUESTIONNAIRE ITEMS

SECTION 1. Questions on ethics courses.

1. Does your university offer any ethics course(s)? (please interpret 'course' as a whole subject/module on business ethics) (yes/no/not sure) (If the answer is 'no', please go directly to question 2.)
 - 1.a. Is/are such (a) course(s) compulsory in your degree curriculum? (yes/no/not sure)
2. Have you had any ethics course(s) at university? (yes/no)
(If the answer is 'no', please go directly to question 3.)
 - 2.a. How many ethics course(s) did you take?
 - 2.b. How long ago did the latest one finish? (years and/or months, approx.)
 - 2.c. Do you think these classes were well designed and effective? (yes/no)
3. Do you believe it is appropriate to have ethics course(s) offered in your degree? (yes/no/not sure)
4. If a business ethics course were offered as an elective course, would you enrol in it? (yes/no/not sure)
5. Do you think that having an ethics course at university would help you solve moral and ethics issues related to your professional life? (yes/no/not sure)

Note. Items (questions) correspondences: EC1(2) EC2(2.c), EC3(1), EC4(1.a), EC5(4), EC6(3), EC7(5).

SECTION 2. Perceptions of general (business) ethics issues (GE) and of the objectives of business ethics education (OE). (Seven-point scale: 1. Totally disagree – 7. Totally agree)

1. Dealing with business tasks requires ethical behaviour.
2. Education in business ethics relates business education to moral issues.
3. Teaching business requires including ethical issues.
4. Education in business ethics helps recognize issues in business that have ethical implications.
5. I consider ethical issues in my personal decisions.
6. Education in business ethics helps develop personal moral obligations.
7. Education in business ethics helps develop the abilities needed to deal with ethical conflicts or dilemmas.
8. I consider ethical issues in my workplace decisions.
9. Education in business ethics helps dealing with the uncertainties related to the professional life.
10. Education in business ethics fosters change in ethical behaviour.

Note. Items (questions) correspondences: GE1(1), GE2(3), GE3(5), GE4(8), OE1(2), OE2(4), OE3(6), OE4(7), OE5(9), OE6(10).

NOTES

[1] Up to 70% trust in the Catholic Church, similar to trust in Police (65%) and local government (64)%, and much higher than in national government (38%), big companies (37 %) and newspapers (30%) (CBOS, 2016).

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.
- Allen, W. R., Bacdayan, P., Kowalski, K. B., & Roy, M. H. (2005). Examining the impact of ethics training on business student values. *Education & Training*, 47(2/3), 170–182.
- Arlow, P., & Ulrich, T. A. (1980). Business Ethics, Social Responsibility and Business Students: An Empirical Comparison of Clark's Study. *Akron Business and Economic Review*, 11(3), 17–23.
- Auger, P., & Devinney, T. M. (2007). Do what consumers say matter? the misalignment of preferences with unconstrained ethical intentions. *Journal of Business Ethics*, 76(4), 361–383
- Bampton, R., & Cowton, C. (2013). Taking stock of accounting ethics scholarship: A review of the journal literature. *Journal of Business Ethics*, 114(3), 549–563.
- Bampton, R., & Maclagan, P. (2005). Why teach ethics to accounting students? A response to the sceptics. *Business Ethics: A European Review*, 14(3), 290–300.
- Bates, A., & Godoń, R. (2017) Tackling knowledge 'like a business'? Rethinking the modernisation of higher education in Poland. *Compare: A Journal of Comparative and International Education*, 47(4), 454-467.

- Beggs, J. M., & Dean, K. L. (2006). Legislated Ethics or Ethics Education? Faculty Views in the Post-Enron Era. *Journal of Business Ethics*, 71(1), 15–37.
- Bernardi, R.A., & Bean D.F. (2010). Ranking North American accounting scholars publishing ethics research: 1986 through 2008, in Jeffrey, J. (ed.) *Research on Professional Responsibility and Ethics in Accounting*, Vol. 14 (pp. 139–174).
- Blanthorne, C., Kovar, S. E., & Fisher, D. G. (2007). Accounting educators' opinions about ethics in the curriculum: An extensive view. *Issues in Accounting Education*, 22(3), 355–390.
- Boni, A., & Lozano, J.F. (2007). The generic competences: an opportunity for ethical learning in the European convergence in higher education. *Higher Education*, 54(6), 819–831.
- 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.
- Callahan, D. (1980). Goals in the teaching of ethics, in D. Callahan and S. Bok (eds.), *Ethics Teaching in Higher Education* (pp. 61–80). New York: Plenum Press.
- Campbell, D., & Cowton, C. J. (2015). Method issues in business ethics research: finding credible answers to questions that matter. *Business Ethics: A European Review*, 24(S1), S3-S10.
- CBOS. (2015). *Zmiany w zakresie podstawowych wskaźników religijności Polaków po śmierci Jana Pawła II* [Changes in the basic indicators of religiosity of Poles after the death of John Paul II] (Komunikat z badań CBOS No. 26/2015). Warszawa: CBOS. http://www.cbos.pl/SPISKOM.POL/2015/K_026_15.PDF (Accessed 28.05.2018).
- CBOS. (2016). *Zaufanie społeczne* (Komunikat z badań No. 18/2016). Warszawa: CBOS. http://www.cbos.pl/SPISKOM.POL/2016/K_018_16.PDF. (Accessed 28.05.2018).
- Chung, J., & Monroe, G. (2003). Exploring social desirability bias. *Journal of Business Ethics*, 44(4), 291–302.

- Ciemniewski, W., & Buszko, M. (2009). *Młodzi konsumenci o CSR. Raport z badania ilościowego*. [Young consumers on CSR. Report] Gemius, FOB. http://pliki.gemius.pl/Raporty/2009/2009_11_-_Mlodzi_konsumenci_o_CSR.pdf (Accessed 28.05.2018).
- Cohen, J., & Pant, L. (1989). Accounting Educators' Perceptions of Ethics in the Curriculum. *Issues in Accounting Education*, 4(1), 70–81.
- Cohen, J., Pant, L., & Sharp, D. (2001). An examination of differences in ethical decision-making between Canadian business students and accounting professionals. *Journal of Business Ethics*, 30(4), 319–336.
- Cole, B. C., & Smith, D. L. (1996). Perceptions of business ethics: Students vs. business people. *Journal of Business Ethics*, 15(8), 889–896.
- Craft, J.L. (2013). A review of the empirical ethical decision-making literature: 2004–2011. *Journal of Business Ethics*, 117(2), 221–259.
- Crane, F. G. (2004). The teaching of business ethics: An imperative at business schools. *Journal of Education for Business*, 79(3), 149–151.
- Crane, A., & Matten, D. (2004) Questioning the Domain of the Business Ethics Curriculum *Journal of Business Ethics*, 54(4): 357-369.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349.
- Czapiński, J. (2008). *Kapitał ludzki i kapitał społeczny a dobrobyt materialny. Polski paradoks*. [Human and Social Capitals as Sources of Economic Well-Being. Polish Paradox] *Zarządzanie Publiczne*, 2(4) 5–28.
- Dalton, D., & Ortegren, M. (2011). Gender differences in ethics research: The importance of controlling for the social desirability response bias. *Journal of Business Ethics*, 103(1), 73–93.

- Davis, J. R., & Welton, R. E. (1991). Professional ethics: Business students' perceptions. *Journal of Business Ethics, 10*(6) 451–463.
- Dearman, D., & Beard, J. (2009). Ethical Issues in Accounting and Economics Experimental Research: Inducing Strategic Misrepresentation. *Ethics & Behavior, 19*(1), 51–59.
- Dellaportas, S., Cooper, B. J., & Leung, P. (2006). Measuring moral judgement and the implications of cooperative education and rule-based learning. *Accounting and Finance, 46*(1) 53–70.
- Duff, A. (2004). The role of cognitive learning styles in accounting education: Developing learning competencies. *Journal of Accounting Education, 22*(1) 29–52.
- Eagly, A. H. (1987). *Sex differences in social behaviour: A social-role interpretation*. Lawrence Erlbaum Associates.
- Eagly, A.H., & Steffen, V.J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology 46*(4), 735-754.
- Ede, F.O., Panigrahi, B., Stuart, J., & Calcich, S. (2000). Ethics in small minority businesses. *Journal of Business Ethics, 26*(2), 133-146.
- Eweje, G., & Brunton, M. (2010). Ethical perceptions of business students in a New Zealand university: do gender, age and work experience matter?' *Business Ethics: A European Review, 19*(1), 95–111.
- Ferguson, J., Collison, D., Power, D., & Stevenson, L. (2011). Accounting education, socialisation and the ethics of business. *Business Ethics: A European Review, 20*(1), 12–29.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. New York: Stanford University Press.
- FOB and GoodBrand and Company Polska (2010). CSR w Polsce – Menedżerowie/Menedżerki 500, Lider/Liderka CSR. [CSR in Poland - Managers 500, Leaders CSR]. Warszawa.

http://odpowiedzialnybiznes.pl/public/files/raport_menedzerowie500_lidercsr_2010.pdf

(Accessed 28.05.2018)

- Ford, R. C., & Richardson, W. D. (1994). Ethical decision making: A review of the empirical literature. *Journal of Business Ethics*, 13(3), 205–221.
- Gaa, J. C., & Thorne, L. (2004). An introduction to the special issue on professionalism and ethics in accounting education. *Issues in Accounting Education*, 19(1), 1–6.
- Gasparski, W. (Ed.). (2008). *Responsible management education*. Warsaw, Poland: Academic and Professional Press – Kozminski University.
- Gasparski, W., & Lewicka-Strzałecka, A. (eds.). (2001). *Etyka biznesu jako przedmiot nauczania*. [Business Ethics as a Teaching Subject] Wydaw. Wyższej Szkoły Przedsiębiorczości i Zarządzania im. Leona Koźmińskiego, Warsaw, Poland.
- Gasparski, W., Lewicka-Strzałecka, A., Bąk, D., & Rok, B. (2012). Business Ethics. Teaching and Learning. Management and Business Administration. *Central Europe*, 3(116), 5–25.
- Gasparski, W., Lewicka-Strzałecka, A., Rok, B., & Szulczewski, G. (2004). *Zasady etyki i społecznej odpowiedzialności w praktyce firm w Polsce* [Rules of ethics and social responsibility in practice of Polish firms]. In L. Kolarska-Bobińska (Ed.), *Świadomość ekonomiczna społeczeństwa i wizerunek biznesu* [The Economic Awareness of Society and the Business Image] (pp. 243–272). Instytut Spraw Publicznych, Warsaw, Poland.
- Geary, W., & Sims, R. (1994). Can Ethics be Learned? *Accounting Education*, 3(1), 3–18.
- Ghaffari, F., Kyriacou, O., & Brennan, R.. (2008). Exploring the implementation of ethics in UK accounting programs. *Issues in Accounting Education*, 23(2), 183–198.
- Gómez, F., Borra, C., & Caraballo, M. A. (2010). *Determinants of University Students' Satisfaction with Their Education in Professional Ethics: Evidence from a New Sample* (SSRN Scholarly Paper No. ID 1563993). Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=1563993>. (Accessed 28.05.2018).

- Graham, A. (2012). The teaching of ethics in undergraduate accounting programmes: The students' perspective. *Accounting Education*, 21(6), 599–613.
- GUS (2015). *Wartości i zaufanie społeczne w Polsce w 2015 r* [Values and social trust in Poland in 2015] Główny Urząd Statystyczny. https://stat.gov.pl/files/gfx/portalinformacyjny/pl/defaultaktualnosci/5486/21/1/1/wartosci_i_zaufanie_spoleczne_w_polsce_w_2015r_.pdf (Accessed 28.05.2018).
- Halbesleben, J.R.B., Wheeler, A.R., & Buckley, M.R. (2005). Everybody else is doing it, so why can't we? Pluralistic ignorance and business ethics education. *Journal of Business Ethics*, 56(4): 385–398.
- Haski-Leventhal, D., Pournader, M., & McKinnon A. (2017). The role of gender and age in business students' values, csr attitudes, and responsible management education: Learnings from the PRME international survey. *Journal of Business Ethics*, 146(1): 219-239.
- Harris, H. (2008). Promoting ethical reflection in the teaching of business ethics. *Business Ethics: A European Review*, 17(4), 379–390.
- Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, 6(1), 5–16.
- Hurt, R. K., & Thomas, C. W. (2008). Implementing a required ethics class for students in accounting: The Texas experience. *Issues in Accounting Education*, 23(1), 31–51.
- Jones, G. E., & Kavanagh, M. J. (1996). An Experimental Examination of the Effects of Individual and Situational Factors on Unethical Behavioural Intentions in the Workplace. *Journal of Business Ethics*, 15(5), 511–523.
- Jones, T. M. (1991). Ethical decision-making by individuals in organizations - an issue-contingent model. *Academy of Management Review*, 16(2), 366–395.

- Kaynama, S. A., King, A., & Smith, L. W. (1996). The impact of a shift in organizational role on ethical perceptions: A comparative study. *Journal of Business Ethics*, 15(5), 581–590.
- Kinach-Brzozowska Krystyna. (1995). Window on Eastern Europe: Teaching Ethics in Gdańsk. *Business Ethics: A European Review*, 4(4), 233–235.
- Kish-Gephart, J.J., Harrison, D.A., & Treviño, L.K. (2010). Bad apples, bad cases, and bad barrels: meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, 95(1), 1-31.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization . In Goslin, D.A. (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally,.
- Kristol, I. (1987). Ethics, Anyone? Or Morals? *Wall Street Journal*, Sept. 15.
- Lau C.L.L. (2010). A Step forward: Ethics education matters! *Journal of Business Ethics*, 92(4): 565-584.
- Larkin, J. M. (2000). The Ability of Internal Auditors to Identify Ethical Dilemmas. *Journal of Business Ethics*, 23(4), 401–409.
- Leek, J. (2015). Ethics education in Polish schools - a multicultural approach with a global view. *RoSE- Research on Steiner Education*, 6(Special Issue), 185–191.
- Lehnert, K., Park, Y., & Singh, N. (2015). Research note and review of the empirical ethical decision-making literature: Boundary conditions and extensions. *Journal of Business Ethics*, 129(1), 195-219.
- Levin, M. (1989). Ethics Courses Are Useless. *New York Times*, Nov. 26.
- Lewicka-Strzalecka, A. (2006). Opportunities and limitations of CSR in the postcommunist countries: Polish case. *Corporate Governance: The International Journal of Effective Board Performance*, 6(4), 440–448.

- Lewicka-Strzałecka, A. (2010). Spór o kształt etycznej edukacji menedżerów' [The debate about the ethical education of managers]. *Diametros*, 25, 38–54.
- Loe, T. W., Ferrell, L., & Mansfield, P. (2000). A Review of Empirical Studies Assessing Ethical Decision Making in Business. *Journal of Business Ethics*, 25(3), 185–204.
- Loeb, S.E. (1988). Teaching students accounting ethics: some crucial issues. *Issues in Accounting Education*, 3(2), 316–329.
- Low, M., Davey, H., & Hooper, K. (2008). Accounting scandals, ethical dilemmas and educational challenges. *Critical Perspectives on Accounting*, 19(2), 222–254.
- Luthar, H.K., & Karri, R. (2005) Exposure to ethics education and the perception of linkage between organizational ethical behavior and business outcomes. *Journal of Business Ethics*, 61(4): 353-368.
- Macfarlane, B., & Ottewill, R. (2004). Business ethics in the curriculum: Assessing the evidence from UK subject review. *Journal of Business Ethics*, 54(4), 339–347.
- Maclagan, P., & Campbell, T. (2011). Focusing on individuals' ethical judgement in corporate social responsibility curricula. *Business Ethics: A European Review*, 20(4), 392–404.
- Madison, R. L., & Schmidt, J. J. (2006). Survey of time devoted to ethics in accountancy programs in North American colleges and universities. *Issues in Accounting Education*, 21(2), 99–109.
- Malinowski, C., & Berger, K. A. (1996). Undergraduate student attitudes about hypothetical marketing dilemmas. *Journal of Business Ethics*, 15(5), 525–535.
- Marnburg, E. (2001). The Questionable Use of Moral Development Theory in Studies of Business Ethics: Discussion and Empirical Findings. *Journal of Business Ethics*, 32(4), 275–283.

- Marnburg, E. (2003). Educational impacts on academic business practitioner's moral reasoning and behaviour: effects of short courses in ethics or philosophy. *Business Ethics: A European Review*, 12(4), 403–413.
- Maruszewska, E. (2011). Ethical Education of Accounting Students in Poland. *General and Professional Education Journal*, 1/2011, 26–30.
- May, D.R., Luth, M.T., & Schworer, 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.
- Mayhew, B. W., & Murphy, P. R. (2009). The impact of ethics education on reporting behaviour. *Journal of Business Ethics*, 86(3), 397–416.
- McCabe, A.C., Ingram, R., & Dato-On, M.C. (2006). The business of ethics and gender. *Journal of Business Ethics*, 64(2), 101–116.
- Neureuther, B.D., Swicegood, P., & Williams, P. (2011). The efficacy of business ethics courses when coupled with a personal belief system. *Journal of College Teaching and Learning*, 1(4), 17–22.
- Nguyen, N.Y., & Biderman, M.D. (2008). Studying Ethical Judgments and Behavioural Intentions Using Structural Equations: Evidence from the Multidimensional Ethics Scale. *Journal of Business Ethics*, 83(4), 627-640.
- Nguyen, N. T., Reichel, J., & Rudnicka, A. (2013). Business Ethics Education in Poland: An Empirical Study. *Proceedings for the Northeast Region Decision Sciences Institute (NEDSI)*, 335–343.
- 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.
- Pan, Y., & Sparks, J.R. (2012). Predictors, consequence, and measurement of ethical judgments: Review and meta-analysis. *Journal of Business Research*, 65(1), 84–91.

- Peppas, S.C., and Diskin, B.A. (2001). College Courses in Ethics: Do they Really Make a Difference?' *The International Journal of Educational Management*, 15(7), 347-353.
- Perry, W.G. Jr. (1998). *Forms of Ethical and Intellectual Development in the College Years: A Scheme*. Jossey-Bass.
- Peterson, D., Rhoads, A., & Vaught, B.C. (2001). Ethical beliefs of business professionals: A study of gender, age and external factors. *Journal of Business Ethics*, 31(3), 225-232.
- Piper, T. R., Gentile, M.C., & Parks, S.D. (1993). *Can Ethics Be Taught? Perspectives, Challenges, and Approaches at Harvard Business School*. Boston, MA: Harvard Business School Press.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.
- Polish Ministry of Science and Higher Education (2011). Ustawa z dn. 18.03.2011 o zmianie ustawy – Prawo o szkolnictwie wyższym, ustawy o stopniach naukowych tytule naukowym oraz stopniach i tytule w zakresie sztuki oraz zmianie niektórych innych ustaw. [The Act of 18.03.2011 on the amendment to the Act - Law on Higher Education, the Act on Academic Degrees, the Academic Title and Degrees and Title in the Field of Art, and the Conversion of Certain Other Acts.] Dz. U. z dn. 18.03.2011, Nr 84, 455–5110, dziennikustaw.gov.pl/du/2011/s/84/455/1 (Accessed 21.09.2018)
- Popowska, M. (2016). Shaping New Generations of Managers and Consumers: CSR Implementation and Higher Education System in Poland. In: Turker D., Altuntas C., Idowu S. (eds) *Social Responsibility Education Across Europe. CSR, Sustainability, Ethics & Governance*. Springer, Cham.
- Potocki, T. (2015). Corporate Social Responsibility in Poland: From Theory to Practice. In S. O. Idowu, R. Schmidpeter, & M. S. Fifka (Eds.), *Corporate Social Responsibility in Europe* (pp. 245–269). Springer International Publishing.

Rajah R., Reifferscheid G., & Borgmann E.L. (2016) Social Responsibility Education in Germany. In: Turker D., Altuntas C., Idowu S. (eds) *Social Responsibility Education Across Europe. CSR, Sustainability, Ethics & Governance*. Springer, Cham

Randall, D.M., & Fernandes, M.F. (1991). The social desirability response bias in ethics research. *Journal of Business Ethics*, 10(11), 805-817.

Rest, J. R. (1980). Development in moral judgment research. *Developmental Psychology* 16(4), 251–256.

Rest, J.R. (1986. *Moral Development: advances in Research and Theory*. Praeger, New York.

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.

Rojek-Nowosielska, M. (2013). Edukacja jako instrument kształtowania wiedzy o społecznej odpowiedzialności przedsiębiorstw' [Education as a Tool of Shaping the Knowledge of Corporate Social Responsibility]. *Studia Ekonomiczne / Uniwersytet Ekonomiczny w Katowicach* (nr 131 Problemy edukacji wobec rozwoju społeczno-gospodarczego), 42–50.

Roozen, I., Pelsmacker, P. D., & Bostyn, F. (2001). The Ethical Dimensions of Decision Processes of Employees. *Journal of Business Ethics*, 33(2), 87–99.

Rossouw, D., & Stueckelberger, C. (2012). *Global Survey of Business Ethics: In Training, Teaching and Research* (1st edition.). Geneva: Globethics.net. http://www.globethics.net/documents/4289936/13403236/GlobalSeries_5_GlobalSurveyBusinessEthics_text.pdf/d13e186c-198a-4e77-ac7a-9aa5584e7a8c (Accessed 30.10.2018)

Ruegger, D., & King, E.W. (1992). A study of the effect of age and gender upon student business ethics. *Journal of Business Ethics*, 11(3), 179-186.

Ryan, L. V. (1995). Window on Eastern Europe: Ethical Perceptions of Polish Business Students. *Business Ethics: A European Review*, 4(1), 36–42.

- Scherer, A. G., & Picot, A. O. (2008). *Business Ethics and Corporate Social Responsibility: Challenges for Business Administration (Unternehmensethik und Corporate Social Responsibility: Herausforderungen fuer die Betriebswirtschaftslehre)* (SSRN Scholarly Paper No. ID 1295358). Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=1295358>. (Accessed 17.06.2016)
- Siipi, H. (2006). Cultural Dependency in the Teaching of Ethics: The Case of Finland. *Trames*, 10(60/55), 3, 278–291.
- Sleeper, B.J., Schneider, K.C., Weber, P.S. Weber, J. (2006). Scale and Study of Student Attitudes Toward Business Education's Role in Addressing Social Issues. *Journal of Business Ethics*, 68(4): 381-391.
- Sojkin, B., Bartkowiak, P., & Skuza, A. (2015). Changes in students' choice determinants in Poland: a comparative study of tertiary business education between 2008 and 2013. *Higher Education*, 69(2): 209-224.
- Stachowicz-Stanusch, A. (2011). The Impact of Business Education on Students' Moral Competency: An Exploratory Study from Poland. *Vision*, 15(2), 163–176.
- Standardy kształcenia dla kierunków - Zarządzanie [*Education Standards for study fields - Management*] (2007) http://www.rgnisw.nauka.gov.pl/g2/oryginal/2013_05/b30fc0e1e331609dd0592e3666e25549.pdf. (Accessed 26.09.2018)
- Stedham, Y., Yamamura, J. H., & Beekun, R. I.: (2007). Gender differences in business ethics: Justice and relativist perspectives. *Business Ethics: A European Review*, 16(2), 163–174.
- Stevens, G. E., Richardson, W. D., & Abramowitz, A. E. (1989). Perceptual Differences of Ethical Decision Situations Business vs. Law: A Difference of Opinion? *Southern Management Association Proceedings*, 199-201.

- Strahan, R., & Gerbasi, K.C. (1972). Short, homogeneous versions of the Marlow-Crowne social desirability scale. *Journal of Clinical Psychology*, 28(2), 191-193.
- Tenbrunsel, A. E., & Smith-Crowe, K. (2008). Ethical decision making: Where we've been and where we're going. *Academy of Management Annals* 2, 545–607.
- Thorne, L. (1999). An analysis of the association of demographic variables with the cognitive moral development of Canadian accounting students: An examination of the applicability of American-based findings to the Canadian context. *Journal of Accounting Education*, 17(2–3), 157–174.
- Tormo-Carbó, G., Seguí-Mas, E., & Oltra, V. (2016). Accounting ethics in unfriendly environments: The educational challenge. *Journal of Business Ethics*, 135(1), 161-175.
- Transparency International (2018). Corruption Perceptions Index. Available online: <http://www.transparency.org/research/cpi/overview> (Accessed 28.05.2018)
- Trevino, L. K. (1986). Ethical decision-making in organizations - a person-situation interactionist model. *Academy of Management Review*, 11(3), 601–617.
- Trevino, L.K. (1992). Moral reasoning and business ethics: Implications for research, education, and management. *Journal of Business Ethics*, 11(5-6), 445–459.
- Tse, A. C. B., & Au, A. K. M. (1997). Are New Zealand Business Students More Unethical Than Non-Business Students? *Journal of Business Ethics*, 16(4), 445–450.
- Uysal, O.O. (2010). Business ethics research with an accounting focus: A bibliometric analysis from 1988 to 2007. *Journal of Business Ethics*, 93(1), 137–160.
- Valentine, S., & Hollingworth, D. (2012). Moral intensity, issue importance, and ethical reasoning o operations situations. *Journal of Business Ethics*, 108(4), 509-523.
- Van Liedekerke, L., & Demuijnck, G. (2011). Business Ethics as a Field of Training, Teaching and Research in Europe. *Journal of Business Ethics* 104(Suppl 1): 29-41.

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.

Zerbe, W. J., & Paulhus, D. L. (1987). Socially Desirable Responding in Organizational Behaviour: A Reconception. *Academy of Management Journal*, 12(2), 250-264.

FIGURES AND TABLES

Figure 1. Hypotheses

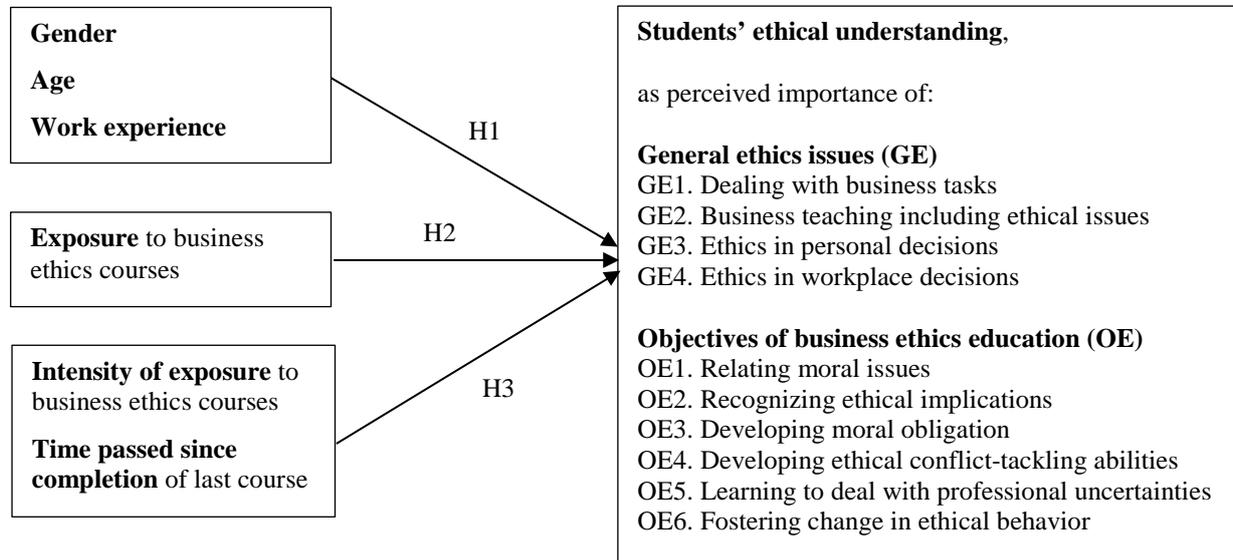


Table 1. Sample characteristics

n=307	
Gender	
Female	196 (63.8%)
Male	110 (35.8%)
No response	1 (0.3%)
Age	Mean= 20.95 years SE =2.15
Work Experience	
No	41 (13.36%)
Yes	266 (86.65%)
Full time	128 (Mean=7.01 months, SE= 12.16 months)
Part time	138 (Mean=11.11 months, SE= 15.57 months)
Nationality	
Polish	300 (97.7%)
Other	4 (1.3%)
No response	3 (1%)
Year	
1st year Bachelor	104 (33.9%)
2nd year Bachelor	66 (21.5%)
3rd year Bachelor	48 (15.6%)
1st year Master	25 (8.1%)
2nd year Master	63 (20.5%)
No response	1 (0.3%)

Table 2. Responses to questions on ethics courses (EC)

<i>Items</i>	<i>Yes</i>	<i>No</i>	<i>Not sure</i>
EC1. Previous ethics course (n=298)	73 (24.5%)	225 (75.5%)	
How many ethics courses did you take? (n=58)	M=1.67 SE= 0.604		
How long ago did the latest one finish? (n=54)	M= 9.24 months SE= 4.621		
EC2. Course well designed and effective (n=71)	26 (36.6%)	45 (63.4%)	
EC3. Ethics courses are offered at university (n=305)	81 (26.6%)	40 (13.1%)	184 (60.3%)
EC4. Ethics course compulsory in degree (n=265)	62 (23.4%)	72 (27.2%)	131 (49.4%)
EC5. Willingness to enrol in ethics course (n=306)	118 (38.6%)	76 (24.8%)	112 (36.6%)
EC6. Appropriateness of ethics course in degree (n=304)	192 (63.2%)	41 (13.5%)	71 (23.4%)
EC7. Ethics course helps solve moral issues at work (n=306)	145 (47.4%)	69 (22.5%)	92 (30.1%)

Table 3. χ^2 tests for questions on ethics courses (EC)

<i>Items</i>	χ^2 (df)	<i>p-value</i>	<i>Phi</i>
EC5. Willingness to enrol in ethics course (n=298)	6.920 (2)	.031*	.152
EC6. Appropriateness of ethics course in degree (n=296)	.817 (2)	.665	.053
EC7. Ethics course helps solve moral issues at work (n=296)	36.88 (2)	.000**	.352

* p<.05 **p<.01

Table 4. Social desirability: course vs. non-course students

<i>Variable</i>	<i>Course students (n=73)</i>		<i>Non-course students (n=223)</i>			
	<i>Mean</i>	<i>SE</i>	<i>Mean</i>	<i>SE</i>		
Social Desirability (n=296)	4.13	2.01	4.57	2.09	3.99	1.97

Table 5 . Social desirability and selected course items: Pearson's χ^2 correlation matrix

	EC2	EC3	EC5	EC7	SD
EC2. Course well designed and effective (n=71)					
EC3. Ethics course offered at university (n=304)	.154				
EC5. Willingness to enrol in ethics course (n=304)	.011	.315**			
EC7. Ethics course helps solve moral issues at work (n=304)	.142	.273**	.335**		
Social Desirability (SD) (n=304)	.255*	.094	.064	.144*	

*p ≤ .05; **p ≤ .01

Table 6. Social desirability and course design and effectiveness: Mann-Whitney U test

<i>Items</i>	<i>U test</i>	<i>p-value</i>
EC2. Course well designed and effective	416.0	.042*

* p<.05; **p<.01; N=71

Table 7. Social desirability and course design and effectiveness: Results

<i>Item</i>	<i>Well designed and effective (n=26)</i>		<i>Not well designed and effective (n=45)</i>			
	<i>Mean</i>	<i>SE</i>	<i>Mean</i>	<i>SE</i>		
Social Desirability (n=71)	4.66	2.05	5.35	2.11	4.27	1.93

Table 8. Social desirability and course helping solve moral issues at work: Kruskal-Wallis test

<i>Items</i>	χ^2 (<i>df</i>)	<i>p-value</i>
EC7. Ethic course helps solve moral issues at work	3.770 (2)	.152

* p<.05 **p<.01

Table 9. Social desirability and course helping solve moral issues at work: Results

<i>Item</i>	<i>Helps</i> (n=144)		<i>Does not help</i> (n=69)		<i>Not sure if helps</i> (n=91)			
	<i>Mean</i>	<i>SE</i>	<i>Mean</i>	<i>SE</i>	<i>Mean</i>	<i>SE</i>		
Social Desirability (n=304)	4.15	2.02	4.18	1.96	3.75	2.10	4.41	2.03

Table 10. Mann-Whitney U test for general ethics issues (GE) and for the objectives of business ethics education (OE)

<i>Items</i>	<i>U test</i>	<i>p-value</i>
GE1. Dealing with business tasks	6828.0	.085
GE2. Business teaching including ethical issues	7500.0	.498
GE3. Ethics in personal decisions	7438.0	.541
GE4. Ethics in workplace decisions	7510.5	.584
OE1. Relating moral issues	7013.0	.210
OE2. Recognizing ethical implications	7675.5	.874
OE3. Developing moral obligation	7676.0	.785
OE4. Developing ethical conflict-tackling abilities	6120.0	.003**
OE5. Learning to deal with professional uncertainties	6386.0	.017*
OE6. Fostering change in ethical behaviour	6327.5	.012*

* p<.05 **p<.01

Table 11. Results for general ethics issues (GE) and for objectives of business ethics education (OE), where there are no differences between course students and non-course students

<i>Items</i>	<i>Mean</i>	<i>SE</i>
GE1. Dealing with business tasks (n=306)	5.30	1.44
GE2. Business teaching including ethical issues (n=306)	5.13	1.33
GE3. Ethics in personal decisions (n=304)	5.55	1.43
GE4. Ethics in workplace decisions (n=305)	5.34	1.36
OE1. Relating moral issues (n=305)	5.11	1.30
OE2. Recognizing ethical implications (n=303)	5.09	1.30
OE3. Developing moral obligation (n=305)	4.94	1.32

Table 12. Results for general ethics issues (GE) and for objectives of business ethics education (OE), where there are differences between course students and non-course students

<i>Items</i>	<i>Ethics course</i> (n=73)		<i>Non-ethics course</i> (n=225)			
	<i>Mean</i>	<i>SE</i>	<i>Mean</i>	<i>SE</i>		
OE4. Developing ethical conflict-tackling abilities (n=298)	5.05	1.47	4.64	1.53	5.18	1.43
OE5. Learning to deal with professional uncertainties (n=298)	4.62	1.50	4.22	1.56	4.75	1.46
OE6. Fostering change in ethical behaviour (n=298)	5.11	1.38	4.75	1.42	5.23	1.35

Table 13. Pearson's χ^2 correlation matrix

	GE1	GE2	GE3	GE4	OE1	OE2	OE3	OE4	OE5	OE6	Group	Gender	Age	FTWE	PTWE	SD
GE1. Dealing with business tasks																
GE2. Business teaching including ethical issues	.570**															
GE3. Ethics in personal decisions	.361**	.414**														
GE4. Ethics in workplace decisions	.387**	.533**	.618**													
OE1. Relating moral issues	.441**	.648**	.409**	.429**												
OE2. Recognizing ethical implications	.262**	.498**	.304**	.364**	.476**											
OE3. Developing moral obligation	.257**	.471**	.474**	.416**	.481**	.470**										
OE4. Developing ethical conflict-tackling abilities	.196**	.388**	.341**	.465**	.342**	.346**	.524**									
OE5. Learning to deal with professional uncertainties	.243**	.371**	.299**	.407**	.338**	.436**	.457**	.524**								
OE6. Fostering change in ethical behaviour	.294**	.522**	.289**	.370**	.357**	.428**	.495**	.523**	.457**							
Group	.082	.026	.032	-.017	.059	-.004	-.008	-.157**	-.154**	-.150**						
Gender	.079	.052	.046	.066	.013	.057	.024	.018	-.049	.088	-.017					
Age	.119*	.072	-.010	-.017	.066	.047	-.021	-0.050	.006	-.075	.559**	-.468**				
Full time work experience (FTWE) (N=128)	-.037	-.044	-.070	-.028	-.077	-.008	.051	-.007	.050	.009	.166	-.073	.406**			
Part time work experience (PTWE) (N=138)	-.009	-.054	-.101	-.083	-.134	-.028	-.061	-.128	-.154	.013	.218*	-.219*	.204*	.268*		
Social Desirability (SD)	.020	.030	.111	.072	.103	.006	.080	-.006	.057	.016	.125*	.081	.014	-.406	-.107	

* $p \leq .05$; ** $p \leq .01$; N=307

Note. Gender: 1=male; 2=female. Group: 0=students who have not previously taken a business ethics course; 1=students who have previously taken a business ethics course. Age: continuous variable. Dependent variables (GE1-GE4 and OE1-OE6): Likert-type scale (1. Totally disagree ... 7. Totally agree).

Table 14. Multiple regression analyses for gender, age and group

<i>Items</i>	<i>Constant</i>	<i>Gender</i>	<i>Age</i>	<i>Group</i>
GE1. Dealing with business tasks n=306 R ² = .039				
B	1.727	.224	.154	-.150
SBE	1.228	.082	.056	.249
β		.190**	.230**	-.045
GE2. Business teaching including ethical issues n=306 R ² = .016				
B	2.824	.145	.100	-.198
SBE	1.143	.076	.052	.232
β		.133	.162	-.064
GE3. Ethics in personal decisions n=304 R ² = .003				
B	5.852	.040	-.019	.151
SBE	1.249	.083	.057	.253
β		.034	-.029	.045
GE4. Ethics in workplace decisions n=305 R ² =.007				
B	4.640	.100	.028	-.160
SBE	1.160	.078	.053	.235
β		.091	.045	-.051
OE1. Relating moral issues n=305 R ² = .005				
B	4.240	.045	.037	.075
SBE	1.119	.075	.051	.227
β		.043	.061	.025
OE2. Recognizing ethical implications n=303 R ² = .016				
B	2.917	.142	.096	-.293
SBE	1.109	.074	.051	.225
β		.135	.161	-.098
OE3. Developing moral obligation n=305 R ² = .001				
B	4.890	.025	.000	-.038
SBE	1.144	.076	.052	.232
β		.023	.001	-.012
OE4. Developing ethical conflict-tacking abilities n=305 R ² = .032				
B	3.708	.075	.066	-.743
SBE	1.251	.084	.057	.254
β		.062	.098	-.217**
OE5. Learning to deal with professional uncertainties n=304 R ² = .041				
B	2.489	.030	.110	-.880
SBE	1.273	.085	.058	.258
β		.025	.158	-.252**
OE6. Fostering change in ethical behaviour n=305 R ² = .039				
B	3.489	.161	.073	-.701
SBE	1.175	.079	.054	.238
β		.143*	.114	-.218**

* p<.05 **p<.01

Note. Gender: 1=male; 2=female. Group: 0=students who have not previously taken a business ethics course; 1=students who have previously taken a business ethics course. Age: continuous variable. Dependent variables (GE1-GE4 and OE1-OE6): Likert-type scale (1. Totally disagree ... 7. Totally agree).

Table 15. Pearson's χ^2 correlation matrix for independent variables applicable to course students

	GE1	GE2	GE3	GE4	OE1	OE2	OE3	OE4	OE5	OE6	CEI	Time	SD
GE1. Dealing with business tasks													
GE2. Business teaching including ethical issues	.501**												
GE3. Ethics in personal decisions	.319**	.485**											
GE4. Ethics in workplace decisions	.415**	.545**	.664**										
OE1. Relating moral issues	.405**	.602**	.517**	.486**									
OE2. Recognizing ethical implications	.359**	.759**	.488**	.498**	.494**								
OE3. Developing moral obligation	.207**	.577**	.666**	.553**	.440**	.574**							
OE4. Developing ethical conflict-tackling abilities	.206*	.450**	.577**	.593**	.355**	.460**	.698**						
OE5. Learning to deal with professional uncertainties	.264*	.528**	.650**	.627**	.368**	.550**	.624**	.715**					
OE6. Fostering change in ethical behaviour	.332**	.495**	.382**	.357**	.258*	.567**	.566**	.610**	.608**				
Course exposure intensiveness (CEI)	.149	.292*	.047	.085	.219	.254*	.207	.123	.179	.361**			
Time since latest course completed (Time)	-.025	.291*	.240	.266*	.239	.236	.263*	.238	.212	.209	-.185		
Social Desirability (SD)	-.137	-.084	.061	.053	.137	-.091	-.041	.008	-.022	.044	.002	.017	

* $p \leq .05$; ** $p \leq .01$; N=73

Note. CEI and Time: continuous variables. Dependent variables (GE1-GE4 and OE1-OE6): Likert-type scale (1. Totally disagree ... 7. Totally agree).

Table16. Multiple regression analyses for independent variables applicable to course students

<i>Items</i>	<i>Constant</i>	<i>CEI</i>	<i>Time</i>
GE1. Dealing with business tasks n=48 R ² = .012			
B	5.166	.265	-.005
SBE	.823	.373	.043
β		.107	-.017
GE2. Business teaching including ethical issues n=48 R ² = .170*			
B	2.916	.802	.104
SBE	.804	.364	.042
β		.304*	.340*
GE3. Ethics in personal decisions n=48 R ² = .060			
B	4.360	.308	.080
SBE	.926	.420	.049
β		.108	.240
GE4. Ethics in workplace decisions n=48 R ² = .078			
B	4.200	.133	.084
SBE	.810	.367	.043
β		.053	.285
OE1. Relating moral issues n=47 R ² = .102			
B	3.504	.585	.082
SBE	.833	.377	.044
β		.225	.268
OE2. Recognizing ethical implications n=48 R ² = .115*			
B	3.472	.618	.088
SBE	.823	.373	.043
β		.236	.291*
OE3. Developing moral obligation n=48 R ² = .139*			
B	2.806	.685	.088
SBE	.765	.347	.040
β		.279*	.306*
OE4. Developing ethical conflict-tacking abilities n=48 R ² = .069			
B	2.947	.412	.088
SBE	.968	.439	.051
β		.138	.520
OE5. Learning to deal with professional uncertainties n=48 R ² = .334			
B	2.918	.313	.068
SBE	.914	.414	.048
β		.112	.209
OE6. Fostering change in ethical behaviour n=48 R ² = .195**			
B	2.475	.990	.080
SBE	.744	.337	.039
β		.400**	.276*

* p<.05 **p<.0

Note. CEI and Time : continuous variables.

Dependent variables (GE1-GE4 and OE1-OE6): Likert-type scale (1. Totally disagree ... 7. Totally agree).