



# 'How do students use their ethical compasses during internship? An empirical study among students of universities of applied sciences

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## Abstract

The aim of this empirical study is to understand how bachelor students at universities of applied sciences (UAS) use their ethical compasses during internships. Semi-structured interviews were held with 36 fourth-year bachelor students across four UAS and three different programs in the Netherlands: Initial Teacher Education, Business Services, and Information and Communication Technology. To our knowledge, no studies appear to have investigated and compared students from multiple professional fields, nor identified the dynamics and the sequence of the strategies in the decision-making process that students use when faced with ethical dilemmas during internships. We found that students' ethical dilemmas stemmed from: mentors' or managers' behaviours/requests, colleagues' behaviours, organisations' morally questionable incentives, pupils' home situations, and pupils' behaviours/personal stories. The majority of students used multiple strategies and first investigated the ethical dilemmas they encountered and then avoided, intervened, delegated responsibilities, or adjusted to their environments. Students' values played an important role in experiencing an ethical dilemma, however, these values were not always acted upon. We identified that rather students' beliefs about having influence and/or ownership (or not), personal interest(s) and power relations influenced the way how they used their ethical compasses. Thus, instead of navigating on *moral* standards (of their profession), students reacted on beliefs which reflected the ways in which they constructed their internship contexts, social relationships and their own (and others) needs. As a result, half of the mentioned dilemmas were resolved in a prudent-strategic manner (e.g., by prioritising personal interests), instead of morally. This indicates that students did not always convert (moral) values into moral action and did not use their ethical compasses in the way UAS aspires. Finally, this study found that the ways in which students used their ethical compasses were strongly influenced by their environments.

**Keywords** Ethical compass · Universities of applied sciences · Ethical dilemmas · Strategies · Moral development

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## Introduction

In the Netherlands, like elsewhere in the world, universities and universities of applied sciences (UAS) are expected to teach students not only knowledge and skills they need as future (academic) professionals, but also to contribute to the moral dimension of professionalism (De Ruyter and Schinkel 2017).<sup>1</sup>

In 2015, the collective of UAS in the Netherlands wrote a long-term strategy in which they summarised their moral mission as equipping their students with a ‘moral compass’ (The Netherlands Association of Universities of Applied Science 2015, p. 5). This coincided with an increasing use of the notion ‘moral compass’ both within and outside of academic circles. However, the UAS did not provide any further clarification, and in the literature we could not find studies that had systematically investigated the ‘moral’ or ‘ethical’ compass.<sup>2</sup>

Therefore, our research project on the development of an ethical compass of students in UAS began with a clarification of the metaphor (Van Stekelenburg et al. 2020a). Metaphors can be helpful in everyday life because they stimulate the imagination, provide extraordinary language, and structure how we perceive and think (Lakoff and Johnson 2008). However, using metaphors has downsides too, as they are tied to ambiguous and vague language. For example, our previous literature review showed that consensus regarding ‘what the ethical compass means, should do, or what its *north* is’, is lacking (Van Stekelenburg et al. 2020a, p. 12). To clarify the (use of a) professional ethical compass, we therefore turned to descriptions of moral professional behaviour about which there seems to be general agreement: professionals are expected to be intrinsically motivated to serve the people for whom they work (Oakley and Cocking 2001; Pritchard 2006), to act independently when confronted with ethical dilemmas (Gardner et al. 2001), and to act according to professional codes (Freidson 2001; Kultgen 1988). This gives an indication as to what the metaphor of an ethical compass refers to: it is the professional’s source that guides the professional to act morally when faced with ethical dilemmas – the ethical compass shows the right direction and having a compass provides the motivation to keep the direction of the moral (professional) standards (Van Stekelenburg et al. 2020a).

UAS can use a variety of didactical approaches to equip their students with an ethical compass. There is growing agreement in the academic literature that internships (Craig and Oja 2013), as well as practicums and simulations (Foley et al.

<sup>1</sup> In the Netherlands, UAS prepare 464,281 students for a profession through four-year bachelor’s programmes, in 36 institutions by more than 31,000 lecturers/researchers in various sectors (e.g., Agro and Food, Beta Science, Economics, Healthcare, Sociale Studies, Art, Education and Information and Communication Technology) (Retrieved from <http://www.vereniginghogescholen.nl>. Accessed November 14, 2022). UAS can be found in all countries in Europe next to research universities.

In Europe, more than 450 UAS are represented in UAS4Europe. Associated members include UAS from Germany, Austria, Sweden, Finland, France, Denmark, Estonia, Latvia, Lithuania, Ireland, Israel, Portugal, Belgium, Switzerland and the Netherlands (Retrieved from <https://uas4europe.eu>. Accessed October 2, 2022).

<sup>2</sup> We use the term ‘ethical compass’ throughout the studies, which has, in our view, a deontological and aretaic dimension. The deontological aspect of the ethical compass refers to rules and duties and what professionals ought to or must not do. The aretaic dimension of the ethical compass, in contrast, draws on notions such as virtues and ideals (e.g., the kind of professional they want to be) (Alexander 2016).

2012), extracurricular activities (Brown-Liburd and Porco 2011), and action learning in the workplace (Brook and Christy 2013) are routes to enhance and enrich learning with the aim of supporting students' moral development and readiness for professional practice. These activities appear to be crucial for introducing students to the complexities of work, daily reality, and critical situations in order to make them aware of the values and norms of their chosen professions, along with the skills, qualities and behaviours that accompany them (Bruno and Dell'Aversana 2018).

*In this study, we were particularly interested in students' internship experiences because internships provide students with multiple opportunities to integrate theory and skills in a professional context.* In a previous empirical study, we presented the views of students from three different programmes: Initial Teacher Education (ITE), Business Services (BS), and Information and Communication Technology (ICT). These views included (1) the students' ideas about what it means to have an ethical compass, and (2) about the way in which their ethical compasses had been formed (Van Stekelenburg et al. 2020b). This article presents the analysis of ITE, BS and ICT students' responses to questions about their internship experiences in relation to the use of their ethical compasses. We were curious *what* ethical dilemmas students encounter during internships and *how* they deal with those dilemmas. Following the metaphor this could be described as: How do students use their ethical compasses?

The ethical dilemmas that professionals experience and their strategies used in response to these dilemmas have frequently been investigated among teachers (Banli et al. 2015; Colnerud 1997; Helton and Ray 2006; Husu and Tirri 2001; Koc and Buzzelli 2016; Maslovaty 2000; Oser and Althof 1993; Pope et al. 2009; Shapira-Lishchinsky 2011; Tirri 1999), business professionals (Barnett and Valentine 2004; Larkin 2000; McNeil and Pedigo 2001; Place 2019; Trapp 2011) and ICT professionals (Lucas and Mason 2008; Sharma and Burmeister 2005). However, little empirical research addresses the responses of students to ethical dilemmas they experienced in their internships. Only recently have the ethical dilemmas that student teachers (also called pre-service teachers) encounter during professional practice (Davies and Heyward 2019; Deng et al. 2018; Lilach 2020; Lindqvist et al. 2020a), and the ways in which they cope with emotionally challenging situations (Lindqvist et al. 2017, 2019; Lindqvist et al. 2021) been investigated. However, not in terms of the ethical compass.

In this paper, we first give an overview of how ethical compasses are defined in the literature and give an overview of existing empirical studies relevant for our research. Second, we present the research focus and research questions guiding this study. Third, we describe the research methods we used. Next, we present our study's empirical findings. Finally, we discuss our findings in relation to the academic literature, followed by the educational implications.

## Background

Recently, the ethical compass has become a popular metaphor in education, business, and science (Jones and Millar 2010). However, what an ethical compass comprises was not entirely clear and an overview of interpretations what the metaphor stands for had not yet been made. Therefore, in our previous literature

review we examined the question as to how ethical compasses are defined in the literature (Van Stekelenburg et al. 2020a). In addition, we categorised the different proposals according to the *content* (i.e., normative proposals), *form* (i.e., conceptual proposals) and *use* (i.e., practical proposals) of the metaphorical ethical compass. For example, we found: (A) *normative* proposals, suggesting that an ethical compass navigates on (A1) a philosophical theory (e.g., Harris 2010), arguing that organisations and leaders should navigate on the ideas of the medieval statesman Machiavelli, (A2) a value (Pettit 2014), positioning freedom at the *north* of the compass, or (A3) virtue(s) (e.g., Lachman 2009), placing the virtue of moral courage at the *north* of the compass encouraging health care managers and professionals to address ethical dilemmas. In addition, we found (B) *conceptual* proposals (e.g., Bell 2011), suggesting that an ethical compass is one's moral identity. Furthermore, we found: (C) *practical* proposals, presenting an ethical compass as (C1) a tool or framework for managing moral challenges and problems (e.g., Thompson 2010) or (C2) an environment that enhances a moral (corporate) identity (e.g., Donnellan 2013). In order to facilitate future research and to eliminate misunderstandings when compass terms are used to refer to different concepts, we argued that the ethical compass should provide (young) professionals the intrinsic motivation to act morally, according to moral (professional) standards, particularly in situations in which they are confronted with ethical dilemmas (Van Stekelenburg et al. 2020a). The compass criteria allowed us to empirically investigate students' ethical compasses and the components involved, such as students' responses to the ethical dilemmas they encounter (during internships). Inspired by Cuban's (1992, p.6) definition of a dilemma, we defined *ethical* dilemmas as 'conflict-filled situations that require choices' between competing (moral) values that cannot both be satisfied. Ethical dilemmas that professionals face often involve moral values, such as fairness, respect or truthfulness, which compete with each other or which compete with non-moral values such as the individual's career prospects or dependency on a good evaluation. In such cases, an ethical compass is necessary to follow a moral path.

Various empirical studies have used *hypothetical* ethical dilemma scenarios in order to measure students' levels of moral reasoning, as well as the influence of education and internships on the development of moral judgment in pre-service teachers (Cummings et al. 2007), business students (Billiot et al. 2012; Brown-Liburd and Porco 2011; Craig and Oja 2013; Sweeney and Costello 2009) and ICT students (Alakurt et al. 2012; Jung 2009). Other empirical studies have examined undergraduate business students' attitudes about hypothetical dilemmas (Malinowski and Berger 1996; Malinowski 2009), students' value(s) orientations (McCabe et al. 1991), and students' orientations on ethical theories (Loo 2002) when resolving hypothetical dilemmas. However, these studies that use hypothetical dilemmas are presenting scenarios that are likely unrelated to students' own experiences during their internships. This disconnect between hypothetical versus actual scenario then raises the question of how students actually deal with ethical dilemmas in real life (Loo 2002).

A small number of studies have investigated the *ethical dilemmas* students encounter during *internships*. Only recently is there a growing body of research about the dilemmas ITE students experience during their practicums (Boon 2011;

Davies and Heyward 2019; Deng et al. 2018; Lilach 2020; Lindqvist et al. 2020a). For example, Lindqvist et al. (2020a) investigated ethical dilemmas that twenty-two Swedish pre-service teachers encountered during their work placements experiences. These dilemmas were mainly related to pupils' behaviours, pupils' (poor) home situations, and teachers' use of derogatory language about pupils while in the teachers' lounge. Additionally, Davies and Heyward (2019) investigated one hundred reflective statements in which student teachers at a university in Auckland described dilemmas they had encountered during their final practicum experiences. In the field of business, Craig and Oja (2013) explored the ethical dilemmas that recreation management undergraduate students encountered as part of a study into the moral growth (and reasoning) of these students during their internship experiences. The study showed that dilemmas were often caused by clashes of ideals whereby students permitted the values of others to overshadow their own values (Craig and Oja 2013). To our current knowledge, the ethical dilemmas experienced by ICT students have not yet been investigated.

Some studies have investigated the *strategies* students applied to ethical dilemmas. For instance, Chapman et al. (2013, p. 134) explored how student teachers dealt with ethical dilemmas in their field. The researchers found that most students, when discussing ethical dilemmas in 'community of inquiry' groups, looked to others first before attempting to resolve the dilemmas through reference to codes or moral principles. Some students exhibited deep reflection or acknowledged their own feelings while standing up (and caring) for themselves. A minority of students responded emotionally by showing empathy, confusion or anger. Lindqvist et al. (2017), showed that student teachers often felt professionally inadequate (e.g., powerless and uncertain, with limited means of action) while dealing with distressing situations during their work placements. As a result, these students modified their ideals, postponed coping with distressful situations, and adopted acceptance strategies. Lindqvist (2019) further investigated how students dealt with these situations, and consequently identified three strategies: students (1) changed practices to better fit their ideals while believing that practices could be influenced and improved (change advocacy), (2) observed and engaged with other members of the collective (collective sharing), and (3) reduced professional influence and believed themselves to have limited influence over the situation (responsibility reduction).

Most of the mentioned studies call attention to the internship *context* (Boon 2011; Chapman et al. 2013; Craig and Oja 2013; Deng et al. 2018; Lilach 2020, p. 4; Lindqvist et al. 2020b), where students are influenced by power relationships which arise, for example, from being supervised and assessed. Lilach (2020, p. 8) found that the interplay between these specific contextual and structural factors fostered a 'people-pleasing-position' among students and called for 'a deeper analysis of the structures and relationships underlying the practicum that might promote conformism and silence over agency and critique'. In response to that call, and with the knowledge that various individual 'reasons and rationalizations' can enable and disable moral action (Gentile 2010, p. 170) and that others can pull the individual's moral compass 'from true north' (Moore and Gino 2013, p. 1), the present study looked for such (underlying) issues.

## Research focus and research questions

Current research on how students use their ethical compasses during internships is lacking. Moreover, there is a dearth of studies that provide deeper insight into the underlying issues that help us understand why students experience ethical dilemmas and prefer particular strategies over others in certain situations. Our present study adds to this underexplored research domain, examining the question: how do students use their ethical compasses during internship? This was divided into three sub-questions:

- (1) What ethical dilemmas do students encounter during internship?
- (2) How do they deal with these ethical dilemmas?

In order to understand *why* students experienced a dilemma (or not) and *why* students applied one particular strategy (rather than another), we also investigate:

- (3) What issues do students mention that underlie the dilemmas they faced and the strategies they used?

## Method

### Participants

Fourth-year bachelor students at UAS were randomly selected and contacted by e-mail asking if they were interested in participating in the study. This procedure was repeated until the groups were completed with equal numbers of respondents across three different programs: ITE (n = 12), BS (n = 12), and ICT (n = 12) and four Dutch UAS. When random selection did not succeed, purposive sampling was used to complete the research group. We selected three distinct professional disciplines because ITE, BS and ICT can be characterised as having their own different social purposes, formal knowledge, market situations and expectations from society (Freidson 2001). These differences may affect how students use their ethical compasses. Students had all finished various (and self-selected) internships during their bachelor programmes. Informed consent was sought in writing and anonymity was guaranteed through use of code keys that indicated each student's professional discipline and assigned a number (e.g., ITE07, BS20 and ICT4).<sup>3</sup> We conducted 36 semi-structured interviews with 12 females and 24 males, who had an average age of 23 years. With only one exception, all of the students had a Dutch cultural background.

<sup>3</sup> The code keys assigned to students in this study (in bold the students who put forward a(n) ethical dilemma(s)): UAS1; **BS1**, 2 (turned out to be an older student with several years of work experience, excluded from the study), 3, 4 | **ICT4**, 5, 6 | **ITE7**, 8, 9. UAS2; **BS10**, 11, 12 | **ICT13**, 14, 15 | **ITE16**, 17, 18. UAS3; **BS19**, 20, 21 | **ICT22**, 23, 24 | **ITE25**, 26, 27. UAS4; **BS28**, 29, 30 | **ICT31**, 32, 33 | **ITE34**, 35, 36.

## Procedure

The first author, a senior UAS teacher, interviewed the students individually at students' own institutions between September 2017 and February 2018. The first and second author evaluated the semi-structured interviews until saturation was reached. The semi-structured interviews lasted approximately 60 min, were recorded and transcribed. The interviews were based on an interview protocol (see Appendix Table 3). The first and second author evaluated the semi-structured interviews in sets of three until saturation was reached. This article presents the analysis of the students' responses to the third topic of the interview protocol. Thus, we divided and reported the results across two articles, which is common practice in qualitative research to meaningfully present the richness of the data (Levitt et al. 2018).

## Data analysis

Data were analysed using the Qualitative Analysis Guide of Leuven (QUAGOL) (Dierckx de Casterlé et al. 2011), allowing the researches to organise and understand students' experiences during their internships, and to focus on the issues 'underlying' these experiences (Miles et al. 2014, p. 232).

At the start of the analysis, the first author made a brief abstract of every interview in order to grasp the essence of the participants' stories. For each interview, open codes grounded in the data were created. The list of these preliminary codes were clustered into categories using paper and pen. Using a random sample of ethical dilemmas, coding was calibrated by an interdisciplinary research team consisting of an experienced field researcher and two doctors of philosophy in education with experience in qualitative research (Dierckx de Casterlé et al. 2011). Ethical dilemmas experienced during students' side jobs and hypothetical ethical dilemmas were excluded from the analysis.

In the second step of the analysis, a 'process coding' method was used to extract respondents' actions (Miles et al. 2014, p. 75). We assigned '-ing words' (e.g., investigating, avoiding) to connote students' actions in response to ethical dilemmas. To ensure interrater reliability, the authors engaged in a four-stage cross-checking procedure with a random sample of analysed data until agreement was reached on categories and subcategories. During this procedure, only those strategies that were put forward spontaneously by the students (instead of being suggested by the interviewer) and actually used by the students (instead of being formulated as an intention) were included. After every stage in the cross-checking procedure, (sub-)categories were revised until identifiable characteristics of non-overlapping and mutually exclusive (sub-)categories were found (Table 1).

In the third step, each ethical dilemma was considered as a separate case. In order to find issues that appeared to influence *why* students experienced a dilemma and applied a strategy, 'a case dynamics matrix' method was used (Miles et al. 2014, p. 231). A case dynamics matrix displays 'demands', 'requirements' or 'strains' (such as dilemmas) and 'underlying issues or assumptions about the meaning of these demands' (Miles et al. 2014, p. 232). Analysis occurs during data entry and by moving across each row of the matrix and cycling back to the data for clarification. First, a matrix was created with

columns labelled as follows: ethical dilemma as perceived by students, strategies applied, explication of the strategies and actions taken by students, main subject(s) and other actors involved. Second, in a three-stage cross-checking procedure various values and beliefs were identified as issues underlying students' practices and integrated in the matrix.

Finally, a 'within-case' analysis (for each case) was conducted in order to deepen understanding and 'explain what [had] happened in a single, bounded context' (Miles et al. 2014, pp. 100–101). In addition, a 'cross-case' analysis was conducted to 'transcend the particular' and 'understand the general' (Miles et al. 2014, p. 101). Similarities and differences across cases were identified. For example, we found that both ITE and BS students experience dilemmas related to mentors' or managers' behaviours/requests and use similar strategies because they share beliefs about how power is distributed among themselves and other agents. Thus, the 'cross-case' analysis helped the researchers to form more general categories of how conditions are related (Miles et al. 2014, p. 101). All cases were then discussed within the research team, resulting in a final framework from which essential findings could be described (Appendix Table 4).

## Findings

Data analyses resulted in the identification of 29 ethical dilemmas. ITE students (n=12) identified seventeen ethical dilemmas encountered during their internships. From the group of BS students (n=12) only five students could recall an ethical dilemma faced as an intern. All ICT students (n=12) but one could recall some ethical dilemmas of which some stemmed from side jobs or hypothetical ethical dilemmas (which were later excluded from the analyses), resulting in seven ethical dilemmas experienced during internships put forward by ICT students. Based on actors involved in the dilemma and subject matter of the dilemma, we identified various themes: (1) mentors' or managers' behaviours/requests, (2) colleagues' behaviours, and (3) organisations' morally questionable incentives. In addition, ITE students also reported ethical dilemmas related to (4) pupils' home situations, and (5) pupils' behaviours/personal stories.

In this section, for each ethical dilemma theme, we present an example of the ethical dilemmas the students referred to. We also describe the (multiple) strategies students applied in response to these dilemmas (Table 1). In addition, we highlight the characterising underlying issues using key codes (Table 2). In order to explain how we approached and described the data, we first highlight one of the ethical dilemmas here.

One of the BS students (BS20) recounted how, during his internship at an international bank, he was confronted with a directive to charge invisible expenses to clients. This directive presented him with a dilemma of either performing the task (which he disapproved of) or refusing and risking being viewed as a disobedient intern. He explained:

*'I just worked according to standardised processes, from which we were not allowed to deviate. That was often to the disadvantage of the client. If a client called: 'I see abnormally high costs charged to me', I had to say: Yes, that is based on this and on that. Then I started to think for myself, and I tried to find out where those costs really came from, how were they calculated. As an employee of the financial institution, I couldn't figure that out...'* (BS20).



While performing the job tasks according to standardised processes, the student started thinking about the moral implications of the invisible cost constructions for customers. Trying to find justifications for these costs, he investigated the situation by checking facts, critically evaluating how the administration costs related to the tasks the bank actually performed, and consulting colleagues. His colleagues, however, could not explain why the company did not make their pricing strategies transparent (e.g., for competitive reasons) and, instead, told him that there was no point in investigating the expense constructions further because 'nothing would happen to it anyway'. Despite feeling uncomfortable performing his tasks, this student first automatically *adjusted* to the job, then started *investigating* the dilemma, and ultimately decided to perform the tasks as expected and *avoid* discussing the invisible cost constructions further.

The student (BS20) said he wanted to value honesty over making money at the expense of his customers and did not want to work for a company with unethical practices. However, after exploring his colleagues' ideas and experiences, the student ultimately decided to mirror his colleagues' practices. He perceived them to be more experienced and better qualified than himself. In addition, he asked himself: 'Why shouldn't I just keep doing my job, doing the assignments for school, and gain another goal in my life' (BS20). Our analysis of the underlying issues suggest that students' beliefs about whether he could *influence* the situation and his *personal interests* influenced the strategy he applied.

## Strategies

In the interviews, multiple strategies and combinations of strategies were found which we divided into subcategories of students' actions (Table 1).

**Table 1** Categories and subcategories of students' strategies

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### **Investigating (n = 20)**

#### *investigating the situation*

- critical thinking (the 'why' and 'how')
- fact-checking (the 'what')
- weighing options (the pros and cons)
- informal inquiry and dialogue
- observation

#### *investigating oneself*

- self-reflection

### **Avoiding (n = 11)**

- not expressing one's values
- downplaying

### **Intervening (n = 9)**

- expressing one's values
- confronting colleagues
- (subtly) setting an example

### **Delegating (n = 4)**

- explicitly (shifting responsibilities by asking)
- implicitly (silently shifting responsibilities to others)

### **Adjusting (n = 4)**

- suspending own values and obeying request(s)
-

## Underlying issues

Various values and beliefs (i.e., underlying issues) were identified which influenced why students experienced an ethical dilemma and preferred a particular strategy (Table 2).

### (1) Mentors' or managers' behaviours/requests

Numerous ethical dilemmas involving students' mentors' or managers' questionable behaviours or requests were mentioned by ITE students and one BS student (ITE16, ITE25, ITE34, ITE36, ITE35, BS30). In contrast, ICT students did not mention any dilemmas of this nature. Confronted with the dilemma of neglecting a less talented pupil or responding to her own values and hence be a disobedient intern, an ITE student explained:

*'My mentor, said: "oh, just leave her, forget her because her elementary school diploma is worth nothing [...] I don't want to invest my time and energy in it"'. (ITE36)*

The student described how justice and care (V) were violated, responding: *'...it made me think...that's not right, because that girl, every child, should be given an education'* (ITE36). She avoided discussing her values and educational vision and tried to find ways to intervene and take care of her pupil by subtly setting an example

**Table 2** Categories and subcategories of underlying issues

#### **Values (V): students' self-reported (moral) principles or standards of behaviour and judgement of what is important in life**

*explicitly*: equality, fairness, helpfulness, honesty, privacy, respect, trustworthiness, wanting to be a role model

*implicitly*: care, fairness, inclusion, integrity, justice, privacy, respect, responsibility, security, truthfulness

*negatively* (i.e., what they value *not* doing): not valuing money over honesty, not wanting to contribute to war, not wanting to work for a company with unethical practices

#### **Beliefs (B): students' self-reported convictions that influence their behaviour**

*influence* (B-I): whether they can change the situation

having influence

not having influence

*ownership* (B-O): whether they are responsible for dealing with the dilemma

having ownership

not having ownership

*personal interest(s)* (B-PI): the (dis)advantages for themselves of the strategy they choose

*power relations* (B-PR): how power is distributed among themselves and other agents

equal

unequal

and filling the perceived gaps in the pupil's care (B-I), thus keeping the 'costs' (conflict with her mentor) as low as possible (B-PI).<sup>4</sup>

## Strategies

In response to dilemmas involving mentors' or managers' behaviours or requests, one student used a single strategy to delegate responsibilities (ITE35). Another student (ITE34) avoided telling her mentor that it was wrong to make telephone calls during the lesson. However, when confronted with another dilemma in the same context, this student (ITE34) intervened in the chaos of the classroom by subtly setting an example and regularly tidying up her mentor's desk. Multiple strategies for single dilemmas were also applied (ITE16, ITE25, ITE36, BS30). For example, students first investigated the ethical dilemma by observing, inquiring about colleagues' opinions, or asking their mentors why they exhibited particular behaviours (toward pupils) before they shifted to intervening (ITE16) or avoiding (ITE25, ITE36, BS30).

## Underlying issues

Students experienced dilemmas because they questioned whether they should conform to the behaviours or requests of their mentors or managers at the expense of their personal values of respect, privacy, justice and care (V). These values were mainly described implicitly. Two students (ITE25, BS30) described explicitly what they valued (e.g., *'I don't think you should treat colleagues like that; you should be equal to the people you work with'* (BS30)).

All but one of the students referred to power relationships and how these permeated their strategies (B-PR). Being subject to assessment and in a position of dependency, most students were motivated to apply an avoidance strategy. How a strained student-mentor relationship made tensions more prevalent is described in the following quote:

*'My mentor and I had different opinions about several things. [...]. So, I tried to make the best of it, but I would never in my own education discuss pupils or work because those people have to assess me.'* (ITE36)

In contrast to ITE and BS students, the ICT students did not mention the influence of power relationships on the strategies they used. Having the most up-to-date information technology knowledge and the capability of managing data that is invaluable to others, these students seemed to have more confidence in their professional abilities and were less dependent on their managers.

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<sup>4</sup> The abbreviations refer to the underlying issues: values (V), influence (B-I), ownership (B-O), personal interest(s) (B-PI), and power relations (B-PR).

## (2) Colleagues' behaviour

Ethical dilemmas involving colleagues' behaviour were mainly mentioned by ITE and BS students (and one ICT student). These students were faced with the ethical dilemma of whether to express their own values or to remain loyal to their colleagues, even when the colleagues showed morally questionable behaviour (ITE09, ITE16, ITE25, BS4, BS19, BS28, ICT23). One ICT student described how colleagues released an uncompleted system:

*'I said: "Yes, but there are 50 bugs in it, you can't do that". "Yeah, no, we have to give it to them, because then we can charge extra maintenance". So, they were just manipulating the situation for more money. They were actually just lying to people.'* (ICT23)

The dilemma the student described involved the decision to confront his colleagues with their behaviour or to engage in questionable practices and violate his own values of integrity and responsibility. Previously, the student had found in the company's records that they financed industries such as oil and coal, of which he disapproved. With this information in mind, he was alert to the moral conduct of his colleagues and openly expressed his astonishment when they released the uncompleted system. However, when the student declared that he did not want to trade his values for money (V), his colleagues' reaction was: *'Yes okay, thanks for sharing your opinion'*, and after that it was back to business as usual. He felt that his moral concerns were not taken seriously because of his junior position (B-PR), and decided that, in the future, he wanted to work for organisations that operate ethically.

### Strategies

When faced with the dilemma of unethical behaviour among colleagues, ITE students (ITE09, ITE16, ITE25) avoided voicing their values. BS and ICT students used multiple strategies to deal with the ethical dilemma (BS19, BS28, ICT23); for example, they had informal dialogues with their colleagues or managers before deciding to avoid (BS19) or intervene (ICT23). Two students (BS4, BS28) immediately confronted their colleagues with their behaviour. After intervening, one student (BS28) shifted to the strategy of investigating when he was unexpectedly excluded by his colleagues, and he attempted to regain control by reflecting on his experiences in the past. Another student (BS4) used the intervening strategy when a colleague was bullied and blamed for mistakes. She did not use this strategy in every situation, however, saying that if something went seriously wrong, it was not her responsibility to let people know.

### Underlying issues

The majority of ITE, BS and ICT students implicitly described how fairness, integrity, respect, responsibility and truthfulness (V) came under pressure in these

situations, which contributed to experiencing them as a dilemma. One student (BS19) expressed that he did *not* want to value money over honesty.

When confronted with their colleagues' behaviour, most ITE students believed they were 'just' the intern (B-PR) and not in a position to enter into a discussion, give feedback or voice their values to their more experienced colleagues. As one student said:

*'Oh, you're just an intern [...] when people take that attitude with me or it comes across in the way they act, then I figure, well, if I'm just the intern then I'm not going to make any extra effort for you.'* (ITE25)

Thus, it seems when others reinforced this belief, ITE students were more likely to exhibit expected 'appropriate' behaviour and were less likely to navigate on their own ethical compass, resulting in pliable ethical standards and evasion of responsibilities.

### (3) Organisations' morally questionable incentives

Morally questionable incentives by organisations were mentioned by six ICT students and one BS student (ICT4, ICT5, ICT6, ICT14, ICT24, ICT33, BS20). ITE students did not mention any dilemmas of this nature. The majority of ICT students were confronted with the dilemma to either participate in questionable activities or refuse tasks in order to stay true to their own values. One student explained:

*'During my internship, I worked on an application; however, we discovered that it wasn't actually being used [...]. I did express my concerns, but of course, the company wants to make money and as long as the money comes in, they just keep working on it.'* (ICT5)

The student thought about his responsibilities (V) as conflicts of interest arose. He expressed his concerns about the organisation's decisions to develop new applications for the purpose of profit although customers were not in need of these new applications. Meanwhile, he realised that as long as money plays a role, these practices would continue (B-I).

## Strategies

When faced with organisation's questionable incentives, most ICT students first investigated their ethical concerns regarding the organisational demands. They critically evaluated the moral implications of the incentives, the conflicts of interest that could arise, and the privacy and security issues that were at stake. Students checked facts, informally consulted their colleagues, and mapped out the pros and cons before they intervened (ICT5), avoided (BS20) or adjusted (ICT4, ICT6) to their tasks. Two students indicated that they were still investigating the dilemma (ICT14, ICT24). Although one student (ICT33) decided to become an intern within a firm that developed various technical systems, he immediately intervened and refused to work on a tracking system for soldiers, despite his position as an intern.

## Underlying issues

Most ICT students implicitly described how responsibility and (safeguarding) privacy and security were challenged when they were asked to perform certain tasks (V). Two students (BS20, ICT33) described what they did *not* value (e.g., not valuing money over honesty, not wanting to contribute to war).

Students either decided to avoid the dilemma or adjust to their environments and perform the tasks because they believed they had limited influence to change organisations from within (B-I). As one student put it:

*‘What I’ve learned is that as a programmer, as an intern, you can’t really change your work. Protesting about that while you’re working there isn’t really useful, I think. If you really have a problem with that, then you have to do it in a different way instead of working there and changing it from the inside, because that doesn’t work.’ (ICT6)*

As a result, some BS and ICT students suspended their values and obeyed requests in favour of personal interests such as their technical skills development. After weighing the pros and cons, the students’ personal interest(s) prevailed and they ended up performing the tasks in order to finish their internships successfully (B-PI). However, adjusting to the environment and ignoring moral concerns led to some students determining to find a job, in the future, with a company whose moral standards aligned with their own ethical compasses.

### (4) Pupils’ home situations

Several ITE students described ethical dilemmas that related to pupils’ home situations, in which they wanted to protect pupils while at the same time respect the pupils’ parents’ privacy (ITE07, ITE08, ITE17, ITE18, ITE27). The most pressing ethical dilemmas students referred to in this category were related to suspected neglect and violence. One student recounted:

*‘A boy in our class sometimes came to school with strange injuries, which he said were from playing football. I talked to my mentor about it because I was really worried: What can you do and what should you do about it? Can you, as a teacher, interfere with that? Because maybe it is due to playing football, and how badly would you hurt those parents if you suggested otherwise?’ (ITE18)*

The student implicitly described how the value of privacy influenced her in experiencing the dilemma (V). She discussed her concerns with the mentor and informally asked the pupil and his friends what happened during football to understand the pupil’s injuries. Although the student thought that it is a teacher’s duty to report abuse (B-O), she avoided the situation in her role as an intern because she was afraid of drawing wrong conclusions (B-PR).

## Strategies

In order to understand the complexity of an ethical dilemma with regard to pupils’ home situations and the perspectives of the multiple stakeholders involved, all

students first investigated the consequences of possible choices and actions through informal inquiries and dialogues with their mentor(s), colleagues or pupil(s). After investigating the ethical dilemma, students delegated responsibilities (ITE07), intervened (ITE08), adjusted (ITE17) or avoided the situation (ITE18, ITE27).

### **Underlying issues**

Most students implicitly described how their values of inclusion, privacy and responsibility to protect pupils against physical or mental harm influenced them in experiencing the dilemma (V). For example, the value of privacy was (implicitly) described by a student as follows:

*'I think I would mainly focus on the facts, on everything that I see without giving my opinion [...]. And then observe how the parents themselves react to that' (ITE18).*

Most students believed that they could not 'own' the dilemma as an intern (B-O). Some of them described that they were not (yet) competent and prepared to act according to their own values (B-PR). One student said:

*'As a teacher, you have a huge responsibility [...] which weighs down heavily on me. I'm so afraid to do the wrong thing and that it will have an adverse effect on the pupils, and then it will be my fault.'* (ITE07)

Two students (ITE17, ITE18) seemed embarrassed when asked about their avoidance strategies and said: *'As an intern, it is really very difficult to take on your role [...] the mentor is always responsible'* (ITE17). In addition, some students realised that they had little influence over the lives of others and the ways that parents raise their children. Their limited means of action to influence the situation and protect pupils against physical or mental harm made it complicated for the students to intervene (B-I).

### **(5) Pupils' behaviours/ personal stories**

Ethical dilemmas that related to pupils' behaviours/ personal stories were mentioned by a minority of ITE students (ITE26, ITE34, ITE35). One ITE student (ITE26) faced a dilemma of how to confront a class about their poor behaviour while walking to the gym on a public road. He debated about whether to reprimand the whole class, and thus also the pupils who had behaved well, or call out and reprimand only the troublemakers and make an example of them.

Some other students (ITE34, ITE35) encountered the dilemma of whether to share pupils' (confidential) stories with others and, thereby, violate their own values. This situation is described in the following excerpt:

*'My mentor was ill, and I had taken over the class for a whole week. I asked the pupils: 'Do you like the way I teach?' Well, at a certain point they were very critical of my mentor, and I was really shocked [...]. I had to swear to my pupils that I wasn't going to tell anyone; they really trusted me.'* (ITE34)

## Strategies

When faced with ethical dilemmas involving pupils' behaviours or personal stories, one student (ITE26) decided to intervene and discuss her pupils' misbehaviour in an open dialogue with them. Others delegated responsibilities to the school's management (ITE34) and the mentor (ITE35).

## Underlying issues

The value of trustworthiness was explicitly mentioned by students, and it played a role in the dilemma of whether to share pupils' personal stories with others for the (perceived) benefit of the pupils (V). One student implicitly appealed to the value of responsibility saying:

*'Then at the end of the day, I want to talk to the pupils about their behaviour. What have you achieved? [...]. I think they learn more if they can tell it themselves. Then they are more aware of it.'* (ITE26)

Beliefs of having ownership (or not) turned out to be decisive when the students were confronted with dilemmas that related to their pupils' behaviours and personal stories (B-O). The student who discussed pupils' misbehaviour in an open dialogue with them indicated that he was motivated to intervene because his mentor was absent that day. Others applied the delegating strategy because they believed they could not carry *final* responsibility, in their short internship periods, for acting upon pupils' stories.

## Discipline-specific perspectives

In sum, of the three groups investigated ITE students readily recalled most of their ethical dilemmas, highlighting the moral nature of teaching; conversely, half of the BS students had trouble recalling and recognising any ethical dilemmas. While all but one of the ICT students could recall an ethical dilemma, they had not encountered these in their internship: some were hypothetical ethical dilemmas or stemmed from side jobs. In addition, the results of this study show that most ethical dilemmas that ITE and BS students mentioned emerged in situations in which they had to deal with the behaviours of their mentors or managers and colleagues. In contrast, most ICT students were confronted with dilemmas that related to morally questionable incentives by organisations. Additionally, ITE students also described dilemmas related to pupils' home situations, and pupils' behaviours or personal stories. Across the three professional disciplines students used multiple strategies in order to resolve ethical dilemmas. The majority of students first investigated the dilemma before they avoided, intervened, or adjusted to their environments. Only ITE students delegated responsibilities to their mentors. ITE, BS and ICT students shared beliefs about: (1) whether they could change the situation, (2) whether they were responsible for dealing with the ethical dilemma, (3) what the (dis)advantages of the chosen strategies were to themselves, and (4) how power was distributed between themselves and other actors. ICT and BS students were more likely



to consider the advantages of the chosen strategies for themselves than ITE students. Moreover, most ITE students believed that power was unequally distributed between themselves and other actors, they felt that they were not (yet) competent to deal with the complexities of teaching and prepared to act according to their own values.

## Discussion and conclusion

To our knowledge, this is the first empirical study that investigates how UAS students from a variety of courses use their ethical compasses during internship. The study adds to the existing academic literature by offering two novelties: (a) the selection of students from three professional disciplines (ITE, BS and ICT), and four UAS, and (b) the systematic and detailed analysis of why students experienced ethical dilemmas in their particular internship contexts and why they dealt with them in the way they did. Below, we describe *how* the chosen strategies are related to the nature of the ethical dilemma and *why* students experienced a dilemma (or not) and applied one particular strategy (rather than another). We compare the results with the current knowledge base in the existing academic literature. Finally, we present how the study's findings give rise to a number of practical implications with regard to professional ethics education.

## Strategies in relation to ethical dilemmas and underlying issues

Investigating was the strategy most frequently used by students across the three professional disciplines. This was especially the case when BS and ICT students were confronted with complex situations such as dilemmas related to morally questionable incentives by organisations and, in case of the ITE students, from pupils' home situations. While confronted with these dilemmas students experienced a conflict between their moral values (e.g., respect, honesty) and (safeguarding) the interests of other multiple agents. Chapman et al. (2013) showed that openness to multiple stakeholders' perspectives was a strategy used by students (pre-service teachers) to make sense of situations. However, our study reveals that making sense of situations appeared to be a gateway to other subsequent strategies that students used to deal with the dilemmas. Students' beliefs were found to play an important role for choosing a follow-up strategy. We found that across the different professional disciplines, students share beliefs about the (im)possibilities of changing the situation (as interns), and about how power and responsibilities were divided between themselves and others.

A strategy of avoidance was mainly applied when ITE and BS students were confronted with questionable behaviours from those in authority. Interestingly, ICT students did not use an avoiding strategy. Having a monopoly of knowledge as technology experts made ICT students less sensitive to authority than ITE and BS students. Confronted with mentors', managers' and colleagues' inappropriate behaviours, ITE and BS students referred to a lack of experience and tested professional abilities and believed that they did not have the ability to affect change while in the position of an intern. In addition, they mentioned that

they were afraid of being negatively assessed by their mentors or managers. As a result ITE and BS students did not react in accordance with their *moral* values (e.g., integrity, respect, justice). Other studies among ITE and BS students have likewise found that power dynamics contribute to students' moral inaction, due to the students' sense of powerlessness and an inability to act autonomously and with authority (Boon 2011; Chapman et al. 2013; Craig and Oja 2013; Deng et al. 2018; Lilach 2020; Lindqvist et al. 2020b). Our study adds to this finding by revealing that when ITE and BS students' colleagues (who were more experienced and better qualified) considered the behaviour of those in authority positions as 'normal business' or expressed discouraging thoughts that some practices 'would never change anyway', the students' strategy of avoidance was reinforced. This finding confirms that social processes can influence students' ethical compasses 'to deviate from their true north' (Moore and Gino 2013, p. 9). This study adds that not only interpersonal processes but also having the most up-to-date knowledge may influence students' maintaining an independent moral position.

In contrast, the strategy of intervening was sometimes used when students were confronted with questionable behaviour by their mentors, managers or colleagues. Not always aware of the impact of this strategy and without prior moral deliberation, a minority of students voiced their moral concerns in a directive way and confronted colleagues about their (mis)behaviour. Some ITE students chose to intervene (in the classroom) by setting an example instead of explicitly expressing their moral values to their mentors. Feeling responsible for dealing with the dilemma and having opportunities to make a difference motivated some ITE, BS and ICT students in this study to execute moral action. In contrast to Chapman et al.'s (2013) findings that some students attempted to resolve ethical dilemmas by referencing codes of conduct or moral principles, this study showed that ITE, BS and ICT students intervened on the basis of their own moral standards. However, from an ethical professional standpoint, it is expected that students in professional contexts should also display critical and consistent reasoning that is in accordance with and references codes of conduct when using their ethical compasses (Bell 2011). Critical and consistent reasoning in accordance with codes of conduct should make students' ethical compasses less vulnerable when they act as an 'outsider' confronting their mentor, manager, or colleague(s) about questionable behaviour because their actions would not be random but rather occurring in a systematic and deliberate manner (Craig and Oja 2013; Deng et al. 2018, p. 448).

The strategy of delegation was only applied by ITE students when they were confronted with the dilemma of whether to share a pupil's personal story with others when they had promised in advance to keep it a secret. ITE students delegated responsibility to their mentors or the school management because they were only temporarily assigned to the school and had limited influence to, for example, safeguard the information that pupils entrusted to them. To date, no other study has identified this strategy among students. Only Lindqvist (2019)

found that ITE students sometimes reduced their role and professional influence in order to alleviate emotionally challenging situations and thoughts. However, in this study, ITE students shifted responsibilities and delegated tasks not as a way to reduce or avoid their responsibilities but rather to proactively take responsibility for their pupils within the possibilities available to them within their internship contexts.

Adjusting to an environment (e.g., adopting socially acceptable behaviour and obeying requests) was used as a strategy by a minority of BS and ICT students in this study when confronted with dilemmas that were hard to influence on an organisational (e.g., organisational culture, policies, professional ethics) and community level (financial contexts). Some BS and ICT students in this study suspended their own (moral) values and obeyed requests because they prioritised successfully completing their internship above trying to 'change the system'. Previous studies found that (recreation management) students with an average age in the lower- to mid-20 s tended to conform to institutional norms (Craig and Oja 2013) and comply with certain behaviours because they were often looking to others 'for guidance on right and wrong' (Sweeney and Costello 2009, p. 91). Specifically, our study shows that some BS and ICT students consciously and deliberately suspended acting upon their own (moral) values in the short term because they were thinking about the longer-term consequences of such actions. Thus, although students used a 'reactive strategy' (Lindqvist et al. 2020b, p. 758), their ethical compasses were 'activated' because after witnessing unethical behaviour, they decided to do things differently in the future by looking for a job in a company with moral standards in line with their own ethical compasses.

Overall, this study shows that all ITE students, half of BS students, and the majority of ICT students have an ethical compass that gives them the intrinsic motivation to respond to ethical dilemmas. However, instead of navigating on moral standards (of their profession), students most often reacted based on personal beliefs which reflected the ways in which they had constructed their internship contexts, social relationships and their own (and others') needs. As a result, half of the mentioned dilemmas were resolved in a prudent-strategic manner (e.g., by prioritising personal interests) instead of in a moral manner (see Appendix Table 4). This finding underscores the importance of developing ITE, BS and ICT students' critical and consistent reasoning that is in accordance with codes of conduct when using their ethical compasses. Critical and consistent moral reasoning will make students less vulnerable for the influence of social-psychological processes on (im)moral behaviour (Monin and Jordan 2009), such as obedience to authority (Milgram 1963), and the influence of 'bad apples (individuals), bad barrels (situations) and bad barrel makers (systems)' (Zimbardo 2011, p. 2). Furthermore, the identified sequences of strategies among students from the three professional disciplines highlights the importance of giving attention to the complexities in moral decision-making processes and stresses the importance of an ethical compass that can navigate students through these dynamics. Consequently, ITE and BS students may be less likely to assimilate into their social environments as 'just interns' and more likely to convert (moral) values into moral action. This includes giving attention to the underlying issues influencing

students' behaviour as we have seen, across the three professional disciplines, that students' personal beliefs undermine their values and can prevent moral action from actually happening.

Several limitations of this study should be mentioned. Firstly, all but one respondent had a Dutch cultural background, so the present findings may have been different if the student population had been more diverse. Secondly, while the sample is spread across disciplines, it is still limited to three professional programmes of UAS and to four UAS institutes, thus not including for instance agro and food, science, health care, social work, or art.

## Educational implications

In our view, the present study's findings have a number of practical implications for professional ethics education. Maxwell and Schwimmer (2016), reviewed scholarly writings on professional ethics education (for future teachers) over the last 30 years. Common themes they found in the literature were that ethics education should: (1) familiarise students with (the practical application of) moral standards of the profession; (2) help students reflect on ethical dimensions in order to increase sensitivity to the ethical issues that arise in professional practice; and (3) promotes students' cognitive moral judgment development, 'making them more likely to find the most rationally defensible solutions to the ethical dilemmas encountered at work' (Maxwell and Schwimmer 2016, p. 366). We endorse attention to these aspects in professional ethics education. However, this study shows that professional ethics education should have two further task. First, it should help students to identify the issues underlying their behaviour, as we have seen that students' (unarticulated) values and (personal) beliefs sometimes precluded moral action from actually happening. Second, professional ethics education should address the influence of the social-psychological processes (e.g., social conformity, diffusion of responsibility and obedience to authority) which cause students to compromise moral standards (of the profession) for social reasons when students are trying to fit into an internship environment as an intern (Moore and Gino 2013; Monin and Jordan 2009).

Divers methods can be used by UAS to develop students' ethical compasses further. One way to allow ITE and BS students to become aware of their (in)abilities to use their ethical compasses and respond to ethical dilemmas is by facilitating supervision sessions in which they can reflect on how to act autonomously and with authority during internship. In order to prevent ITE and BS students from avoiding an open exchange, we suggest that students' internship experiences should be supervised by an experienced UAS coach who does not assess the

students. This is important because we have seen that ITE and BS students' beliefs about how power is distributed among themselves and other agents influence how students, who are often seen as 'just interns', use their ethical compasses. In addition, BS students' teachers should help their students to identify ethical dilemmas. For example, they could help students articulate the competing (moral) values involved in experiencing an ethical dilemma. Teachers could use a 'robust debate' (Boon 2011, p. 88) and 'round-table' meetings (Oser and Althof 1993, p. 271) as a mean to develop BS students' ethical sensitivity while discussing cases. For ICT students, it is important to help them articulate their values when faced with organisations' morally questionable incentives and tend to adapt to the environment. Even though they already occupy expert positions within organisations, they should be mentored during their internships in keeping and strengthening their autonomous positions.

Overall, ITE, BS and ICT students' awareness could be raised of how moral standards (of the profession) should be used and integrated in moral action. Maxwell (2017, p. 338) suggests that 'consciousness-raising and more knowledge about how codes of ethics are used in the assessment of allegations of professional misconduct would be a good start' to familiarise students with codes of ethics. All together, these methods would better enable students to actually use their ethical compasses during internships and in professional practice in the future.

## Appendix 1

**Table 3** Interview protocol

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Central Question: Which moral ideas and experiences do students have of being a responsible professional with an 'ethical compass'?

1. To what extent do you consider yourself to be a responsible professional with an ethical compass?
  2. Can you describe how your ethical compass was formed?
  - 3. Can you describe an ethical dilemma you encountered during internship? How did you cope with this dilemma: what were your feelings, thoughts, actions?**
-

## Appendix 2

Table 4 Ethical dilemmas identified by students, underlying issues, strategies applied and main subject(s) &amp; stakeholders involved

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
(1) Mentors' or managers' behaviours/ requests	Sharing one's discovery that mentor's behaviour is the reason for a pupil's problem behaviour, or not (ITE16)	<i>B-O</i> : having ownership over a UAS (observation) assignment <i>B-I</i> : feeling that you can make a difference by observing and listening to pupils	<i>Investigating</i> followed by <i>intervening</i>	Finding out that the mentor's behaviour is the problem; discussing observations with pupil's mentor and pupil's parents; setting an example and making an action plan	Pupil, mentor, pupil's parents, UAS
	Working with an IQ classification of the pupils made by the mentor versus ignoring mentor's request (ITE25)	<i>B-PR</i> (unequal): having a strained relationship with the mentor <i>V</i> : fairness (explicit)	<i>Investigating</i> followed by <i>avoiding</i>	Asking the mentor why pupils are treated in certain ways	Pupils, mentor
	Telling a mentor it is wrong to make telephone calls during the lessons, or not (ITE34)	<i>B-I</i> : not having influence because of a strained relationship with the mentor <i>B-PR</i> (unequal): being assessed <i>V</i> : respect for pupils (implicit)	<i>Avoiding</i>	Experiencing difficulties in giving feedback on mentor's behaviour	Pupils, mentor
	Confronting a mentor about the chaos in the class, or not (ITE34)	<i>B-I</i> : finding ways to have influence <i>B-PR</i> (unequal): having a strained relationship with the mentor, being assessed <i>V</i> : respect for pupils (implicit)	<i>Intervening</i>	Tidying up a mentor's desk regularly, setting an example	Pupils, mentor
	Explaining mentor's rough behaviour to bystanders in a public place when he pushes a pupil to the ground, or not (ITE35)	<i>B-O</i> : believing that security guards should intervene when something goes wrong <i>V</i> : privacy (implicit)	<i>Delegating</i> (implicit)	Not explaining mentor's behaviour to bystanders, trusting the security guards to take action if something goes wrong	Pupils, mentor, bystanders, security guards

Table 4 (continued)

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
(2) Colleagues' behaviours	<p>Obeying mentor's request to neglect a pupil with learning difficulties, or not (ITE36)</p>	<p><i>B-I</i>: personally taking care of the pupil during one-day-a-week internship  <i>B-PI</i>: not expressing values in order not to further strain the relationship with the mentor  <i>B-PR</i> (unequal): having a strained mentor-student relationship, being assessed  <i>V</i>: justice; care (implicit)</p>	<p><i>Avoiding</i> followed by <i>intervening</i></p>	<p>Having a different educational vision; not voicing different opinions; giving the pupil extra attention; setting an example</p>	<p>Pupils, mentor</p>
	<p>Confronting a manager with his morally questionable behaviour as he scolds employees, or not (BS30)</p>	<p><i>B-I</i>: believing that if a situation has been going on for a long time, then you cannot change it  <i>B-PR</i>: unequal manager-student relationship  <i>V</i>: equality (explicit)</p>	<p><i>Investigating</i> followed by <i>avoiding</i></p>	<p>Checking colleague's opinions; deciding to avoid a confrontation and expressing own values</p>	<p>Manager, colleagues</p>
	<p>Confronting other teachers who ridicule pupils in the teachers' staffroom, or not (ITE09)</p>	<p><i>B-O</i>: not feeling ownership, 'it is just a joke'</p>	<p><i>Avoiding</i></p>	<p>Downplaying</p>	<p>Pupils, other teachers</p>
	<p>Idem (ITE16)</p>	<p><i>B-PR</i> (unequal): experiencing barriers between a mentor (and other teachers) as an intern  <i>V</i>: respect (implicit)</p>	<p><i>Avoiding</i></p>	<p>Not expressing values</p>	<p>Pupils, other teachers</p>
	<p>Idem (ITE25)</p>	<p><i>B-PR</i> (unequal): be seen as 'just' an intern  <i>V</i>: respect for pupils (implicit)</p>	<p><i>Avoiding</i></p>		<p>Pupils, other teachers</p>

Table 4 (continued)

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
	Speaking out to colleagues who wrongfully blame a colleague for mistakes, or not (BS4)	<i>V</i> : truthfulness (implicit)	<i>Intervening</i>	Confronting colleagues that their opinion about a colleague is based on wrong information	Colleague(s)
	Confronting colleagues with their morally questionable behaviour as they silently accept that their customers (illegally) reclaim holiday entitlements, or not (BS19)	<i>B-I</i> : not having influence because practices are treated as 'normal business' <i>B-O</i> : believing that the manager is responsible <i>V</i> : not valuing money over honesty (negative)	<i>Investigating</i> followed by <i>avoiding</i>	Informal inquiry and dialogue manager; silently accepting immoral practices	Colleagues, manager, customers
	Confronting colleagues with their morally questionable behaviour as they secretly photograph their female customers, or not (BS28)	<i>B-I</i> : not having influence because of the organisational culture <i>B-PI</i> : wanting to finish internship successfully and not wanting to pay tuition fees for another year <i>B-PR</i> : (unequal) manager has the power <i>V</i> : fairness & responsibility (implicit); respect (explicit)	<i>Intervening</i> followed by <i>investigating</i>	Discussing with colleagues that they should treat their customers with more respect; self-reflection by asking oneself questions about one's attitude; discussing options with UAS mentor to choose for another internship (and paying another year's tuition) or to finish internship successfully (and respectfully)	Colleagues, customers, UAS mentor
	Leaving bugs in the system to make more money, or not (ICT23)	<i>B-PR</i> : not being taken seriously as an intern <i>V</i> : integrity & responsibility (implicit)	<i>Investigating</i> followed by <i>intervening</i>	Checking facts and company's (morally questionable) investments; thinking about conflicts of interest, expressing astonishment when colleagues release a program with errors	Colleagues, customers, internship company



Table 4 (continued)

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
(3)Organisations' morally questionable incentives	Refusing to work with invisible expense constructions for clients, or not (BS20)	<p><i>B-I</i>: not having influence, believing it's all about money; nothing will change anyway</p> <p><i>B-PI</i>: wanting to finish internship successfully</p> <p><i>V</i>: honesty (negative: not wanting to work for a company with shady practices)</p>	<i>Adjusting</i> followed by <i>investigating</i> and <i>avoiding</i>	Doing the job; thinking about the moral implications of invisible cost constructions for customers; trying to find justifications for costs, checking facts and consulting with colleagues; deciding to avoid a confrontation and to successfully finish internship	Customers, colleagues, internship company
	Working on opaque chains of ICT applications while not knowing the effect of choices, or not (ICT4)	<i>V</i> : responsibility (implicit); privacy/ security (implicit)	<i>Investigating</i> followed by <i>adjusting</i>	Safeguarding security by mapping out pros and cons	Customers, internship company
	Idem (ICT24)	<i>V</i> : privacy (explicit); security (implicit)	<i>Investigating</i> (still in progress)	Thinking about privacy & security and the consequences of abusing systems	Customers, internship company
	Offering new versions of ICT programs that nobody uses, or not (ICT5)	<p><i>B-I</i>: not having influence because as long as money plays a role, practices continue</p> <p><i>V</i>: responsibility (implicit)</p>	<i>Investigating</i> followed by <i>intervening</i>	Thinking about conflicts of interest and why new ICT programs should be developed; expressing one's concerns about decisions	Customers, internship company
	Performing tasks related to automating the lives of lambs from insensitisation to slaughter, or not (ICT6)	<p><i>B-I</i>: believing that during an internship you just have to do the job; there is no point in protesting against systems; changing organisations from the inside is impossible</p> <p><i>B-PI</i>: gain experience with programming; disadvantage: not being proud of oneself</p> <p><i>V</i>: responsibility (implicit)</p>	<i>Investigating</i> followed by <i>adjusting</i>	Thinking of the impact of technology on animals' lives, considering whether performed tasks are legal; reflecting on own moral standards; deciding just to do the job as an intern and successfully finish internship assignments	Customers, internship company, animals, society

Table 4 (continued)

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
(4) Pupils' home situations	Sharing climate change data related to the (reduction of) value of agricultural land, or not (ICT14)	<i>B-I</i> : realising one can make a difference (with data) <i>V</i> : responsibility (implicit); helpfulness (explicit)	<i>Investigating</i> (still in progress)	Thinking of the impact of technology on peoples' lives and ICT programs that calculate the value of agricultural land in the future, mapping out pros and cons of a situation and calculating the impact of this technology on the owners of agricultural land	Owners of agricultural land, internship company, society
	Working on a tracking system for militants, or not (while knowing that as a start-up the internship company is in need of customers) (ICT33)	<i>V</i> : responsibility (implicit), not wanting to contribute to war (negative)	<i>Intervening</i>	Making clear one's refusal to be part of certain developments	Customers, internship company
(4) Pupils' home situations	Discussing suspected abuse with parents without hard evidence versus respecting their privacy (ITE07)	<i>B-O</i> : believing that the school should intervene <i>B-PR</i> : equal mentor-student relationship <i>V</i> : responsibility, privacy (implicit)	<i>Investigating</i> followed by <i>delegating</i>	Discussing concerns with the mentor; observing a pupil during breaks on the playground with another teacher to get information and understand pupil's behaviour; explicitly asking the mentor to intervene	Pupil, parents, mentor(s), other teachers, school
	Idem (ITE18)	<i>B-O</i> : thinking about teachers' duty to report abuse <i>B-PR</i> (unequal): being 'just' an intern <i>V</i> : privacy (implicit)	<i>Investigating</i> followed by <i>avoiding</i>	Discussing concerns with the mentor; asking (informally) the pupil and his friends what happened during football to understand the pupil's injuries	Pupil, parents, pupil's friends, mentor
Idem (ITE27)	Idem (ITE27)	<i>B-O</i> : believing that Youth Care should intervene <i>B-I</i> : believing one cannot make a difference as an intern <i>B-PR</i> (unequal): being 'just' an intern <i>V</i> : responsibility, privacy (implicit)	<i>Investigating</i> followed by <i>avoiding</i>	Thinking through the care that the pupil receives (or lacks); not expressing one's values as an intern	Pupils, parents, youth welfare institutions

Table 4 (continued)

Ethical dilemma theme	Ethical dilemma as perceived by students	Identified underlying issues	Strategies applied	Explanation of the strategies and actions taken by students	Main subject(s) and other actors involved
	Respecting parents' wish to exclude a pupil from birthday parties in the classroom because of religion versus wanting to include all children (ITE08)	<p><i>B-I</i>: believing that as a teacher you have little say in what parents do, however in the classroom a teacher can look for possibilities to involve the pupil in as many activities as possible</p> <p><i>V</i>: inclusion (implicit)</p>	<p><i>Investigating</i> followed by <i>intervening</i></p>	<p>Checking pupil's experiences and feelings; telling the mentor that one wishes to involve the pupil in as many activities as possible</p>	<p>Pupils, parents, mentor, class</p>
	Forbidding pupils from singing sexually tinged carnival songs (taught by their parents) at school, or not (ITE17)	<p><i>B-I</i>: believing one has little say in what parents do</p> <p><i>B-PR</i> (unequal): being 'just' an intern</p> <p><i>V</i>: responsibility (implicit); wanting to be a role model (explicit)</p>	<p><i>Investigating</i> followed by <i>adjusting</i></p>	<p>Having informal conversations about pupils' behaviour in the teachers' room; reflecting on own standpoints and the influence a teacher can/may have on pupils' home situation</p>	<p>Pupils, parents, other teachers, school</p>
(5) Pupils' behaviours/ personal stories	Punish pupils' nude and offensive behaviour while walking to the gym on a public road, or not (ITE26)	<p><i>B-O</i>: one is responsible because the mentor is away for one day</p> <p><i>V</i>: responsibility (implicit)</p>	<p><i>Intervening</i></p>	<p>Discussing pupils' behaviour in open dialogue with them</p>	<p>Pupils, mentor, school director, window cleaners and garden workers working on the public road</p>
	Sharing pupils' complaints about the mentor with the mentor or management of the school, or not (ITE34)	<p><i>B-PI</i>: not wanting to strain the relationship with the mentor further</p> <p><i>B-PR</i> (unequal): having a strained mentor-student relationship and being assessed by the mentor</p> <p><i>V</i>: trustworthiness (explicit)</p>	<p><i>Investigating</i> followed by <i>delegating</i></p>	<p>Seeking advice from other teachers; discussing pupils' feedback with the management of the school; explicitly asking them to intervene</p>	<p>Pupils, mentor, other teachers, management of the school</p>
	Sharing pupils' confidential information with the mentor, or not (ITE35)	<p><i>B-O</i>: believing that the mentor is responsible and must know pupils' story</p> <p><i>V</i>: trustworthiness (explicit)</p>	<p><i>Investigating</i> followed by <i>delegating</i></p>	<p>Having conversations with a pupil about her past; considering whether to share pupil's confidential information with a mentor; explicitly shifting responsibilities</p>	<p>Pupil, mentor</p>

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**Data Availability** The datasets (transcribed interviews, informed consent letters and coding material) used and analysed during the current study are available from the corresponding author on reasonable request.

#### Declarations

This research has been approved by the ethical committee of research of Fontys University of Applied Science under file number [FCEO19-05].

**Competing Interests** We (the authors) declare that we have no competing interests.

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