

# THE TEACHING OF ETHICS IN OCCUPATIONAL RISKS PREVENTION THROUGH THE DEBATE ON ETHICAL DILEMMAS

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## Abstract

It seems reasonable to think that ethics and occupational risk prevention always go hand in hand. However, very little is known about the International Code of Ethics for Occupational Health Professionals, whose third edition was published in 2014 by the International Commission on Occupational Health (ICOH). Moreover, some circumstances in occupational risk prevention can lead to controversial issues and ethical dilemmas. Despite this, most occupational risk prevention master's studies do not include ethics in professional practice matters.

This paper presents the teaching experiences in professional practice ethics workshops in the Master's Degree in Occupational Risks Prevention of the Universitat Politècnica de València. In these workshops, ethical issues are included in their curricula, and ethical dilemmas are discussed through academic debates.

The results of the experience were positive and encouraging. The students learn to open their minds to a different point of view and understand the problems they will have to face in their professional careers.

Keywords: Occupational Risk Prevention, ethical dilemmas, academic debate, Code of Ethics, Occupational Health professionals, health and safety.

## 1 INTRODUCTION

The practice of occupational risk prevention in companies aims to improve the safety and health of workers. This course of action implies the workers' health protection as well as their capacity improvement. Moreover, occupational risk prevention contributes to establishing a safe and healthy environment. Finally, this procedure implicates the work's adaptation to each worker's capabilities, considering their state of health [1].

Nevertheless, the development of these activities sometimes entails contradictory interests, even generating authentic ethical dilemmas. For this reason, the International Commission on Occupational Health published a Code of Ethics for occupational health professionals in 1992, updated to its third edition in 2014.

This concern about professional ethics and its implications for occupational risk prevention is increasing. Consequently, scientific literature has been published since the 1980s [2]–[10], showing different contexts [11] and applied to various countries [12].

On the other hand, students must face these moral dilemmas in education. For this aim, academic debate can be applied to diverse disciplines to develop critical thinking and ethical responsibility [13]–[15].

This paper presents the experience in the subject "Workshop" in the Master's Degree in Occupational Risk Prevention at the Universitat Politècnica de València (Spain). Students worked on ethical dilemmas through face-to-face and online debates in this course. At the end of the period, the students expressed their satisfaction with discussions on the most controversial aspects of occupational risk prevention.

This paper is structured in four sections. The first section presents the necessity and justification of the experience. The following section includes the context, the methodology, and the strategy followed. The subsequent section shows and explains the results obtained. Finally, the last section presents the conclusions of the experience.

## 2 METHODOLOGY

### 2.1 Context

The Master's Degree in Occupational Risks Prevention is structured into two academic years. There are a general module and a specialisation module in the first year. The students can choose among three specialisation areas: "Workplace safety", "Workplace health", and "Ergonomics and Psychosociology".

During the second academic year, students have the practical module. This module includes “Research methodology”, “Communication skills”, and “Workshop”. They can also carry out internships in different companies.

In the “Workshop” subject, students work in different areas such as ethics in the professional practice, workplace hygienic risks, drill designs and fire protection, universal accessibility and occupational hazards prevention management.

During the academic year 2020-21, the academic debate was carried out in this Workshop to improve soft skills such as work team, effective communication, permanent learning, and ethical and professional responsibilities. The course had 27 students enrolled during this academic year, taught in a hybrid format. All the students participated in face-to-face debates or online debates through Ms Teams.

## 2.2 The previous activities

Previously, professors presented the academic debate and some debate topics in the classroom. Subsequently, students were invited to raise issues to debate that they considered current and controversial.

**We argue with someone to convince him**



**and we debate an opponent to convince an audience**

Figure 1. Academic debate presentation

At first, the students must carry out some individual activities to develop and evaluate their autonomous work and critical thinking. These previous activities consisted of describing the topic or resolution, preparing arguments in favour and against a resolution, evidence and references in a Table format (Table 1).

These preliminary works allowed teachers to create the different teams participating in the debates. In this way, six student teams were selected to become Team A, Team B and the jury of two different topic debates.

Table 1. Debate summary

<i>IN FAVOUR of the resolution</i>	<i>AGAINST the resolution</i>
Description	Description
Arguments	Arguments
References	References

Afterwards, students prepared their strategies and speeches following the minutes shown in Table 2. The different arguments must include ethical, professional, social, economic, and environmental issues. They had to be based on evidence and present examples, graphics and all the information they would consider.

Table 2. Debate minutes (Adapted from [16])

<b>Speaker</b>	<b>Team</b>	<b>Speech</b>	<b>Time</b>
Leader	Team A	Constructive speech in favour of the resolution (A)	3 min.
Leader	Team B	Constructive speech against the resolution (B)	3 min.
Speaker 1	Team A	Constructive speech (A)	4 min.
Speaker 1	Team B	Constructive speech (B)	4 min.
Speaker 2	Team A	Constructive A and rebuttal B speech	4 min.
Speaker 2	Team B	Constructive B and rebuttal A speech	4 min.
Speaker 3	Team A	Constructive A and rebuttal B speech	4 min.
Speaker 3	Team B	Constructive B and rebuttal A speech	4 min.
Speaker 4	Team A	Constructive A and rebuttal B speech	4 min.
Speaker 4	Team B	Constructive B and rebuttal A speech	4 min.
Leader	Team A	Summary and conclusion	6 min.
Leader	Team B	Summary and conclusion	6 min.
All		Questions of the jury	10 min.
Total time			60 min.

## 2.3 The debates

Among the entire student proposal for the debate, they voted and chose two topics for the debates.

In the first debate, the topic was “Social, and family meetings or celebrations are necessary, even in times of pandemic”. In this case, team A was in favour of the resolution, while team B was against the resolution, that was: “Social, and family meetings must be forbidden during the pandemic times”. This debate was carried out online using Ms Teams. Nevertheless, some students and the moderator were in the classroom.

The second debate topic was “Medical examinations must be voluntary (except in those jobs that are mandatory by law)”. Unlike the previous debate, this was conducted face-to-face in the classroom, even though some students were online as spectators.

In this debate, like the former one, team A defended the resolution proposed, while team B defended the contrary: “Medical examinations should be mandatory for all jobs”.

Afterwards, the jury asked some questions to both teams. Finally, the students’ jury and the professors evaluated the team members following the rubric shown in Table 3 and decided the debate’s winner.

Table 3. Debate rubric (Adapted from [17])

<b>CONTENTS</b>	Do they use varied arguments?
	Do they provide rigorous evidence in each argument?
	Do they use varied evidence (statistics, facts, data...)
	Are the arguments appropriate to the debate?
<b>NONVERBAL COMMUNICATION</b>	Are they natural and expressive in their gestures?
	Do they dominate the space?
	Do they look at the audience and the jury?
	Do they avoid monotony with their voice?
	Do they start their speech in a captivating way?
<b>VERBAL COMMUNICATION</b>	Do they define the order of the arguments?
	Do they use varied and appropriate language?
	Is the end convincing?
<b>DEBATE</b>	Do they give the floor to the other team?
	Do they answer the questions with speed and clarity?
	Are they courteous towards the other team?



Figure 2. Online debate.



Figure 3. Face-to-face debate.

### 3 RESULTS

After the debates, the students filled out a Ms Forms questionnaire where they valued the experience, and a focus group were also held in which the students expressed their opinions.

The student valuation of the activity was 4.05 points out of 5.00, as shown in Fig. 4. Some of the students' comments are shown in Fig. 4 and Table 4.



Figure 4. Students' questionnaire answers (Ms Forms)

Table 4. Students' comments

<b>Indicate what you found most interesting about the academic debate activity, as well as what you would change or eliminate.</b>	
1	Confront the points of view, and empathise with some topics you do not share.
2	I had never before done an academic debate; it seemed to be an enriching experience since it teaches us to think quickly in the face of a possible conflict in the workplace, how to refute points and be able to try to express our opinions.
3	It motivates you to read regulations, codes, rules, etc., to be able to debate based on the law. I would not change anything.
4	The most exciting thing is exposing yourself to speaking in public.
5	I liked preparing for the debate and carrying out the group activity dynamic with my classmates.
6	I found it interesting to see how students defend a position, regardless of their thoughts. One change I would make would be to reduce the possibility of resorting to prepared texts. It increased my versatility of thinking.
7	Although the topics have not been very controversial, it has been quite good. I guess that is better than causing an internal fight between the students.
8	Excellent, the topics have been exciting. I do not think I would change anything now.
9	I liked a lot the activities that we carried out during the debate. I would not change anything.
10	It has been interesting to participate in it and deal with current issues.
11	The most exciting thing about debates is being able to express your opinion while maintaining ideas based on real data.
12	The most exciting thing about the academic debate has been being able to defend a position in front of the other classmates. With these exercises, I managed to improve different communicative and argumentative skills. The topics touched on in the debates are current issues and help to have other points of view. It is an excellent exercise, which should be done more frequently.
13	The possibility of speaking, presenting ideas, and refuting colleagues' arguments.
14	Despite the difficulties due to Covid-19 in holding the team debates, they have been good.
15	The search for truthful information and its subsequent use, since not all information is valid to deal with a specific topic, was an interesting point, as was time management.
16	Interesting: The video (voluntary medical examinations), because the constructive criticism helped me to prepare for a job interview through a video.
17	It allows us to support a point of view and a situation with arguments; it is of significant academic contribution since they are experiential and authentic experiences similar to workplace ones.

## 4 CONCLUSIONS

The students' comments reflect that it has been a positive activity. It leads them to delve into the theoretical subject and, in addition, to work on soft skills, mainly critical thinking, effective communication and teamwork.

The main conclusions are as follows:

- This activity requires a lot of planning and time management. All the activities must be carried out the activities within the teaching hours.
- Choosing controversial and current topics is essential to attract students to search the information and prepare the arguments.
- Argumentation training is required because, in some cases, students confuse arguments with their opinions and do not search for evidence (facts, data, statistics, and examples) to support them.
- It is essential to work on verbal and non-verbal communication. In this sense, the feedback given to students with the video recording is necessary. It is also essential to record the discussions. Later on, the students can view them to see how they are conveying their ideas: aggressively, persuasively, enthusiastically, apathetically, etc., and whether they are courteous to their peers.
- This teaching technique can be used in face-to-face, online, and hybrid formats.

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