

# ATTITUDES TOWARD PROFESSIONAL ETHICS: AN INTERUNIVERSITY PROJECT.

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Hirsch, A. (2008). "Attitude toward Professional Ethics: An Inter-University Project", en: Lasker, G y Hiwaki, K. (editors) *Personal and Spiritual Development in the World of Cultural Diversity*, Volume V, Canadá, The International Institute for Advanced Studies in Systems Research and Cybernetics, 39 – 44. ISBN 978 -1-897233-11-5.

## Abstract

In the majority of universities, there is limited formation in professional ethics. That is why in the Universidad Nacional Autónoma de México (UNAM) we have established a research project focused in this problem.

In the first phase of the project, with graduate students, five types of activities were done: the construction of a theoretical frame of reference, interviews to university professors in Spain, the construction of a state of the art, the construction of an attitude scale about professional ethics and the application of the scale to two samples of groups of students: in Valencia University in Spain and in UNAM.

In the second phase, we applied the attitude scale to a sample of professors in UNAM. Also in 2006, we organized the *Interuniversity Project about Professional Ethics*, with the participation of UNAM and 14 other universities in Mexico. The university teams are using the same methodological strategy to research graduate students as well as professors.

We classified the answers of students and professors into four types of competences: cognitive-technical, ethical, social and affective–emotional and in 16 correspondent features. We will present a synthesis of the principal findings.

**Keywords:** Professional Ethics, Attitudes, Mexico, Graduate Students

## The Research Project about Professional Ethics

In the first phase (2003 – 2005), with graduate students, five types of activities were done: the construction of a theoretical frame of reference, interviews to eleven university professors in Spain, the construction of a State of the Art about professional values, the construction of an Attitude Scale about Professional Ethics and the application of the scale in two samples of groups

of students: in Valencia University in Spain (in some knowledge areas) and in UNAM in the forty graduate programs.

In the second phase (2006 – 2008), we applied the same attitude scale to a sample of professors in UNAM. We are still analyzing the results. Also in 2006, we organized the *Interuniversity Project about Professional Ethics*, between UNAM and 14 other universities in Mexico. The university teams are using the same methodological strategy to research graduate students and professors. We will present here the principal results in relation to the sample of students (1,086) of UNAM.

The instrument applied to the graduate students has one open question and an attitude scale (with 55 items). The open question is: “which are the five principal features of being a good professional”. The answers were codified in five types of competencies: cognitive, technical, ethical, social and affective – emotional, with 18 features. The data obtained from the attitude scale, was classified in four types of competences: cognitive and technical (jointly), ethical, social and affective – emotional and its 16 correspondent features.

This are:

*Cognitive and Technical Competencies.* Features: 1. Knowledge, Education, Preparation and Professional Competence, 2. Continuous Education, 3. Innovation and Improvement and 4. Technical Competencies

*Social Competencies.* Features: 1. Companionship, 2. Communication, 3. Team Work and 4. To Work Hard

*Ethical Competencies.* Features: 1. Responsibility, 2. Honesty, 3. Professional and Personal Ethics, 4. Service to Society, 5. Respect and 6. To Act with Moral Principles.

*Affective – Emotional Competencies.* Features: 1. Professional Identity and 2. Emotional Capacity

## **General results with the graduate students in UNAM**

### ***1. Information obtained from the open question: “Which are the five principal features of being a good professional?”***

In reference to the competencies, the higher percentages are in the Ethical (35.46%) and Cognitive Competencies (31.97%). With lower percentages are the Social (13.94%), Emotional – Affective (11.19%) and Technical Competencies (7.43%).

In reference to the features:

a. The answers are dispersed, because the only feature with a high percentage is “Knowledge, Education, Preparation and Professional Competency” (19.21%).

b. “Responsibility” and “Professional and Personal Ethics” (that are part of the Ethical Competencies) are in the second and third position. It is an interesting outcome that the graduate students chose, in the first positions, features from the Cognitive and Ethical Competencies.

- c. Only three features are higher than 7 %: “Continuous Education”, “Honesty” and “Discipline and Dedication”<sup>1</sup>.
- d. Four features got more than 5%: “Emotional Capacity”, “Innovation”, “Service to Society” and “Professional Identity”. The first and the fourth are the two only features from the Emotional – Affective Competencies, “Innovation” is part of the Cognitive and “Service to Society” is part of the Ethical Competencies. We can corroborate the dispersion of answers in all the results to the open question.
- e. The rest of the features were selected by few of the graduate students.

## ***2. Information from the Attitude Scale about Professional Ethics***

In reference to the competencies, the descendant order was as follows: Cognitive and Technical, Affective – Emotional, Ethical and Social.

In reference to the 16 features of the Scale:

- a. As in all the results, the highest feature is “Knowledge, Education, Preparation and Professional Competence”. The other features with a high percentage of positive answers are: “Responsibility” and “Respect”. As in the case of the open question, we can appreciate a good combination of features from the Cognitive and Ethical Competencies.
- b. With a middle range of answers we have 9 features: “Honesty”, “Technical Competencies”, “Innovation”, “Professional Identity”, “Emotional Capacity”, “To Work Hard”, “Professional and Personal Ethics”, “To behave with moral principles and professional values” and “Continuous Education”.
- c. With a low range of answers are the four features of the Social Competencies.

## ***3. Comparative results between the open question and the attitude scale***

In reference to the competencies, in the answers to the open question the Ethical Competencies were chosen in the first place and the Cognitive in the second. It is a reverse situation in the attitude scale, because the Cognitive and Technical was the more important and then the Ethical. The same situation occurs between the Social and the Affective – Emotional Competencies that are located in the third and fourth position in the open question and the contrary happens in the attitude scale.

In reference to the common 16 features we found similarities in the higher answers, similarities in the lower answers and some differences.

The similarities in the higher answers, in both methodological strategies, are that “Knowledge...” is in the first place and “Responsibility” in the second, “Honesty” is high in both and “Emotional Capacity”, “Professional Identity” and “Innovation” are in a similar position and in the middle range of answers.

The similarities in the lower answers are that “Companionship”, “Communication”, “Team Work”, “To Work Hard”, “Service to Society” and “To behave with moral principles and professional values” are low in both.

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<sup>1</sup> This feature was eliminated from the Attitude Scale of Professional Ethics. We also eliminated the feature “Efficiency”, that was part of the Technical Competencies.

The principal differences are: “Professional and Personal Ethics” is in the third place in the open question and in the 10<sup>th</sup> position in the attitude scale, “Respect” is in the 15<sup>th</sup> place in the open question and in the third place in the scale, “Continuous education” is high in the open question and low in the attitude scale and “Technical Competencies” is low in the open question and high in the scale.

#### ***4. More and less valued features selected by graduate students of UNAM in the Attitude Scale***

a. In reference to the features of the Cognitive and Technical Competencies:

1. In 34 (of the 40) graduate programs the feature “Knowledge” was chosen between the high scores. In 24 programs it is the first selected feature. In none of the 40 graduate programs it is in the low percentages.

2. In 23 graduate programs, “Technical Competencies” are part of the most valued.

3. The feature: “Innovation” is present only in 12 graduate programs (in all the knowledge Areas) between the four most valued. In none of the 40 graduate programs is in the low percentages.

4. “Continuous Education” appears with a high percentage only in four graduate programs of the Knowledge Area of Humanities and Arts, it is placed in a middle range of answers in 27 programs and it gets low percentages in other nine very diverse graduate programs.

b. In reference to the features of the Ethical Competencies:

1. The three values with a high punctuation are: “Responsibility”, “Respect” and “Honesty”. “Responsibility” is mentioned in 24 of the graduate programs, “Respect” in 23 and “Honesty” in 16.

2. The feature: “Professional and Personal Ethics” is mentioned with a high score only in four very different graduate programs. In the majority of programs it has a middle range of answers.

3. Two ethical features appear occasionally with a high score: “To Act with Moral Principles” and “Service to Society”. In all the other graduate programs there are always in the lowest percentages.

c. In reference to the features of the Affective - Emotional Competencies:

Only in six very different graduate programs “Professional Identity” is mentioned as a most valued aspect. In the majority of programs it has a middle range of answers and none in the low percentages. The feature: “Emotional Capacity” is located in 38 programs in a middle range of answers.

d. In reference to the features of the Social Competencies:

1. “To Work Hard” is located between the most important features in only four graduate programs: In the rest of the programs it is in the middle valued features.

2. In general, in all the 40 graduate programs in UNAM, the other features of the Social Competencies: “Communication”, “Companionship” and “Team Work” are in the low percentages.

#### ***5. Features from the Attitude Scale classified in the four knowledge areas of UNAM***

The feature related to “Knowledge”, has high percentages in the four knowledge areas in which the university unifies all the graduate programs: Physical and Mathematical Sciences and Engineering (98.86%), Biological and Health Sciences (98.42%), Social Sciences (92.36%) and Humanities and Arts (91.77%).

### 5.1 Physical and Mathematical Sciences and Engineering

- a. Three features obtained the highest percentages. After the most valued, mentioned before, there are other two belonging to the Ethical Competencies: “Honesty” and “Respect”. We can see here the same interesting combination of the general results of the open question and the attitude scale, between Cognitive and Ethical Competencies.
- b. With middle percentages there are six features: “Technical Competencies”, “Responsibility”, “Professional Identity”, “To Work Hard”, “Emotional Capacity” and “Continuous Education”. “Responsibility” was in the second position in the general results of the open question and the attitude scale. Surprisingly in this knowledge area it is in the middle range of answers.
- c. With low results are the rest of the features.

### 5.2. Biological and Health Sciences

- a. There are six features with high percentages. After the most valued, which is always “Knowledge”, there are: “Technical Competencies”, “Respect”, “Honesty”, “Responsibility” and “Innovation”. In this area, there are three more features than in the Physical and Mathematical Sciences and Engineering Area.
- b. With middle results there are six features: “Professional Identity”, “To behave with moral principles and professional values”, “To Work Hard”, “Emotional Capacity”, “Professional and Personal Ethics” and “Continuous Education”.
- c. The least valued features are four: “Service to Society”, “Team Work”, “Companionship” and “Communication”, which are coincidental with the Physical and Mathematical Sciences and Engineering Area.

### 5.3. Social Sciences

- a. In this area, there are only two features with a high level of positive answers: “Knowledge”, that is located in the second place and “Responsibility” (which is the most valued in this knowledge area). This feature is also high in the *Biological and Health knowledge Area* and in *Humanities and Arts* and it comes in an intermediate level in the *Physical and Mathematical Sciences and Engineering Area*.
- b. With middle percentages there are eight features: “Honesty”, “Technical Competencies”, “Professional Identity”, “Innovation”, “Respect”, “To Work Hard”, “Professional and Personal Ethics” and “Emotional Capacity”.
- c. The least valued are: “Service to Society”, “Continuous Education”, “To behave with moral principles and professional values” and “Team Work”. “Companionship” and “Communication”, in the same way as in the two previous areas, are the least valued features.

### 5.4. Humanities and Arts

- a. We found only two features with high percentages (the same as in the Social Sciences). The most important is again “Knowledge” and “Responsibility” (which is high in the *Biological and Health Sciences* and in *Social Sciences* and occupies an intermediate position in *Physical and Mathematical Sciences and Engineering*).
- b. With middle percentages there are ten features (the majority).
- c. With low percentages we have four features: “Communication”, “Companionship”, “To behave with moral principles and professional values” and “Team Work”.

### 5.5 General perspective of the four knowledge areas

It is easy to see, that there are more similarities in the first two knowledge areas, in reference to the answers to the attitude scale *Physical and Mathematical Sciences and Engineering* and *Biological and Health Sciences* in one side and among *Social Sciences* and *Humanities and Arts* in the other side.

In relation with the four areas, in the high level of answers only the feature “Knowledge” is coincidental. In the intermediate level three features are similar: “To Work Hard” (a *Social Competency*) and “Professional Identity” and “Emotional Capacity” (*Affective – Emotional Competencies*). With low percentages we can find in all the areas the majority of features of the Social Competencies.

## Conclusions

1. It is not a surprising fact that the feature related to knowledge, was chosen by the students as the most valued. The handling of knowledge (in different activities and functions, such as: transmission, research and diffusion) is the key element of all higher education institutions.
2. There is an evident emphasis in cognitive and technical training in our university and that those other elements (ethical, social and affective – emotional) are considered secondary and are not explicitly part of the learning process. Value preparation could introduce these types of knowledge and abilities in an explicit way, to enrich professional upbringing.
3. Graduate students may be aware that even if the Cognitive and Technical Competencies are central, other factors are also significant. As we said before two values: Responsibility and Respect got high percentages of positive answers and Professional Identity and Emotional Capacity obtained a middle position.
4. The low percentages of other Ethical Competencies, specifically: Service to Society and To Act with Moral Principles may confirm that professional ethics has not been a relevant aspect of the professional training. Each profession provides indispensable services to society. It is important that university students be aware of which are those services, who are the direct and indirect beneficiaries and the best ways to provide them. That is why the low range of response to the feature “Service to Society” is preoccupying and indicates the necessity to include it in our university. Professionals can encounter ethical dilemmas in their work. The university should provide them with arguments to considerate this problems and to prepare them to take rational and ethical decisions.
5. Most of the features of the Social Competencies got low percentages of positive answers. Communication, Companionship and Team Work, classified as not relevant by the graduate students, are also necessary in all professional studies.
6. The results of the research project can serve as an orientation as which competencies and features are not being considered and need to be explicitly included in all the university disciplines<sup>2</sup>.

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<sup>2</sup> In some Spanish universities such as the Pontifical University of Comillas in Madrid the academic subject of Professional Ethics is compulsory for all the careers. It is not so in UNAM.

## References

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