Students Ethics in the Academic Research Real Behavior versus Expectations

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Abstract — One of the most important aspect that should be consider nowadays in the educational system is the need for ethics and moral compass when it comes to the research activity. Students are required to read, to study, to analyze, to evaluated and then to write in their own words what they have learn from others. The existing ethical codes speak about respect for the individuals, respect for the society and an honorable approach to every task in the academic world. But what is respect and how can we make sure that we offer it? This is an ethical question to which students have different and subjective answers, as it will be shown in the present paper. A survey among students from the Romanian biggest economic university has been conducted in order to evaluate their perspective on what is ethical in the research activity and what isn't. The main results from this quantitative research show that there is a lack of knowledge when it comes to understanding the ethical requirements of the academic world and also the ethical implications of doing a poor-quality research as students.

Index Terms— research ethics, survey, academic environment, students

I. INTRODUCTION

Ethics and academic are practically two inseparable concepts, as from the ancient times the erudite and wise leaders of the community were preaching for ethical behavior. Thus having an ethical code of conduct is common practice for the academic world for centuries. However, this code is evolving with the socio-economic changes, as what is right and correct in the present era exceeds common sense and has to cover a lot of situations, peculiarities and special categories of people. Moreover, as the academic curricula has developed, there are more dimensions that need to be taken into consideration for ethical assessment. One of these dimensions is research. Considering that research most of the times involves people and their data, the ethical part is of paramount importance in all three stages – design methodology, data collection and dissemination. In the academic world, research is conducted both by professors and students, the former having more information on what it means to do ethical research. This is the reason for which the present paper focuses on the later – students – as they are required to respect the same codes of ethics, but lack the knowledge in doing that. As it will be shown later in the article, is important first to see what students know about research ethics and then try to build from that towards the current requirements of the university in which they study, the domain in which they specialize and the law of their country.

II. RESEARCH ETHICS IN THE ACADEMIC ENVIRONMENT

A. Academic ethics

Ethics describes the standards of moral behaviors expected of autonomous humans living in a community, often through reference to a coherent system of thought or an ethical theory [1]. In a more concise approach, ethics can be defined as the principles and rules for distinguishing between acceptable and unacceptable behavior [2]. As ethics represents a concept debated both in the academic and business environment, there are a lot of discussions on how to evaluate and then improve the situation in universities and companies. One of the most debated model of measurement is Reidenbach and Robin's Multidimensional Ethics Scale [3], which comprises the following ethical dimensions: a moral equity dimension, a relativism dimension, and a contractualism dimension. Although this scale is suited for the business environment, it is largely criticized in the educational sector [4].

When we speak about ethics in the academic environment, we found very often the association with academic freedom, which is necessary for a university dedicated to the pursuit of knowledge in a democratic society. However, academic freedom is not only represented by rights, but also carry with it moral obligations [5]. This is where the problems arise, as these obligations are subjective to own interpretation, if not mentioned formally in a official document.

There is a literature dispute in reference to the need of academic institution to frame formal codes of conduct [5] [6]. Some specialists suggest that, although ethics are important, stating a rigid rule on this might limit the creativity and complicate the research process.

B. Students ethical behavior

Most of the times, when presenting the requirements of students' ethical behavior, we speak of what not to do, in other words we present the unethical or dishonest approaches that have to be avoided.

The unethical graduate student was seen as wanting a high grade but not having or taking the time to prepare adequately to earn it, believing no one is hurt by his or her behavior, and seeing little chance of getting caught [7].

We have to acknowledge the fact that a degree of confusion and ambivalence regarding academic ethical issues exists, as millennial students have a tendency to disregard ownership of knowledge [8], more precisely, plagiarism, as a subcategory of academic dishonesty, which is defined as "the act of using another's work without appropriate acknowledgment" [9]. There are also variances in this regard between different segments of students, as the doctoral students generally consider behaviors related to plagiarism and falsification to be more unethical than the master's students do [10].

This raises questions and concerns about the values and behavior of students, alongside the fact that students are not prepared to cope with the kind of moral dilemmas they will face as practitioners [6]. They will have to learn this by exercise of personal judgement as students. For this reason, Michael Davis brings into discussion the need of teaching ethics to students, exploring how ethics can be integrated into the university curriculum and what part particular cases should play in the teaching of ethics [11]. In this regard, teachers' ethical leadership had significant direct and indirect positive effects (i.e., through the students' moral identity) on the students' academic citizenship behaviors that are directed toward other students and the school [12].

C. Research ethics

The need of a more controlled code of research ethics emerged from the medical and health-related domains, where the implications are more obvious and important. Here, the ethical level is evaluated based on consequences or outcomes [13]. However, in social studies, specialists argued for a long time that the context is different, thus the evaluation of ethics must be adapted. Thus, when discussing ethics of the research activity in social sciences, we most often speak about consent, data ownership and the management of confidentiality and anonymity [14].

Another important dimension of social research ethics is related to the reporting phase, where researcher, due to their needs of grandeur and academic recognition, tend to bend the rules. Some of potentially misleading data reporting include using inappropriate statistical tests, neglecting negative results, omitting missing data points, failing to report actual numbers of eligible subjects, using inappropriate graph labels or terminology, data dredging [15].

As a member of the academic community, there are at least 3 situations in which your research ethics is under scrutiny: when writing papers required by the university (dissertations, essays, term papers, etc.), when writing papers for international conferences or journals and when applying for funding.

Regarding the first situation, here we have different academic codes of ethics that should be making sure that every document that represents the university has the minimum level of ethics imposed by the structure to which the university responds hierarchically and also by the national laws.

Another academic research dimension that tends to cover in a more controlled way the ethics is related to journals and publications, where we start to see special requirements of ethics declarations, without which the papers are not taken into consideration.

When it comes to the third situation, Bruce Macfarlane brings into discussion the increasing power and influence of funding bodies [16]. Publicly funded academic inquiry is a privilege and honor enjoyed by a trusted few [15], thus the entire academic community dreams of participating is such projects. In this situation, the research ethics is evaluated, most of the times, by the requirements established by the European Committee, through its Directorate-General for Research and Innovation. In US we have the Code of Ethics of the American Educational Research Association.

III. ANALYSIS ON STUDENTS' ATTITUDE TOWARDS RESEARCH ETHICS

A. Research Methodology

As mentioned, the *scope* of the present research refers to the analysis of students' attitude towards research ethics, when considering the research activity that they have carried out in the academic environment. As attitude has three main dimensions – cognitive, affective and conative [17], we have detailed our research on the following main *objectives*:

a) reasons for conducting academic researches
b) cognitive dimension of students' attitude towards research ethics – mental associations
c) affective dimension of students' attitude towards research ethics – how they feel about certain aspects of research ethics
d) conative dimension of students' attitude towards research ethics – how they covered research ethics in the past.

Considering the sensitive nature of our subject, we have decided to use online survey as the *research method*, this way respondents are given the necessary confidentiality required for them to be honest when assessing the true level of their ethics in the studies conducted so far. The questionnaire was built using the Google forms platform, which offered us the option of transforming the data into SPSS format for the analysis part.

Data was collected in the fall of 2022 from students of the Bucharest University of Economic Studies, the biggest economic university from Romania and one of the top universities in the East-Central Europe. The *sample* was represented by students

from the graduate and doctoral studies, as both segments are conducting researches for their term projects, final thesis and, sometimes, research projects in which they take part. We had a total sample of 156 students, out of which 2/3 where PhD students, considering that they undergo more research activities as required by their curricula.

B. Research Results

In order to better understand the research results, we have to take into consideration the relatively low experience of students when conducting research activities, so when we will analyze the data we have to assume that ethics is not quite the most common knowledge for students. Moreover, the results of the present study must be seen more as a context analysis rather than a benchmark, so this way we can identify which are the ethical dimensions on which to focus for educational programs among students. The relatively low experience mentioned above is supported also by our data, as 70% of our respondents haven't developed more than 5 researches, 23% conducted between 6 and 10 academic researches and only 7% can be seen as experienced, having between 11 and 20 researches so far.

The first objective of our research is concerning the ***reasons leading student's to the decision of doing research***. As it can be seen in Table 1, we can split these reasons in two categories:

- First we have those situations in which research increases the quality level of a paper, being just part of the whole; here we talk both about scientific papers written for conferences or journals and about graduation papers (bachelor/dissertation/doctoral)
- The second situation is the one in which the activity is 100% represented by research, be it either at the request of the business environment, or in order to conduct researches that are funded by national or international bodies.

Of course the first situation is the one in which we find students most often and we have to see the advantage here in terms of supervision. In the process of writing the Bachelor's thesis, the master's dissertation or the doctoral thesis, the student is always under the supervision of a professor, who makes also the ethics assessment of his students' work. In the case of writing scientific communications and articles, we have the editorial committee, which again can make comments and recommendations where ethical issues appear.

Table 1. Reasons for doing research within the academic environment

Reasons	Resp.
Writing scientific communications and articles	65.4%
Writing the doctoral thesis	65.4%
For the Bachelor's thesis/dissertation	57.7%
For national or international research projects	19.2%
Business environment studies	15.4%

As mentioned in the methodology section, we have split attitude evaluation based on its three dimensions: cognitive, affective and conative.

The ***conative dimension*** refers to what people know about a phenomenon, thus in our research we used a projective technique, call free word association, asking student to tell as what comes to their mind when thinking about research ethics.

Table 2. Spontaneous mental association made with the concept of research ethics

	Resp.
Avoiding plagiarism / mentioning the sources used	28.0%
Fairness / Honesty / Integrity	20.0%
Originality / Own composition	16.0%
Responsibility	12.0%
Rules and values to be respected	8.0%
Others	*32.0%*

As it can be seen in Table 2, most of the times students associate ethics with avoiding plagiarism and mentioning the sources used. This can be the result of one of the disciplines that first year students take, where they are taught how to write a scientific paper correctly. We can also comment of the fact that the associations with fairness, honesty, integrity, responsibility corresponds highly with the European codes of research ethics.

What is important here is to determine if students understand afterwards how a fair, honest, responsible research is designed and conducted. In order to have a detailed look on this issue, we have asked students to present their free responses to the following three questions:

• When a new research is designed (starting from the research idea), what do you think are the ethical elements to be considered by the researcher?

• What about in the implementation stage, when data is collected?

• What about in the post-research stage, when we present the results?

In the design part, most students mentioned fairness, honesty, integrity, as well as truth. In the implementation stage we see a shift towards more concrete elements, such as not influencing or altering the answers and data protection. When it comes to the post-research stage, where results are presented, students mentioned truth, objectivity and impartiality.

The second dimension of students' attitude is the ***affective*** one, where respondents were asked how they feel about certain aspects of research ethics. For this part we have used a 10-points scale, where 1 means completely unethical and 10 means completely ethical. Table 3 presents the results in comparison to professors, as is important to understand the differences and take them into consideration when building a university strategy for research ethics improvement. The set of variables analyzed in this section was built based on the European code of conduct called "Ethics in Social Sciences and Humanities" [18]. As it can be seen, most issues are related to data collection and the respondents' rights in this manner. Although there isn't yet a strict law about informing people were data is collected about them, all codes of ethics mention this as a must-do.

Analyzing the average means from Table 3, we can now state that for students the most ethically sensitive issues is the one on research on minors (2,19), followed by an aspect in which students are also very involved – social media. The average score of 4.04 shows that students don't consider data collection from public profiles of social media users, without informing them, an ethical behavior.

At the opposite pole, we see an average score of 8.35 for conducting research on a sensitive topic (such as alcohol, drug or domestic violence), which shows that students find this type of research to be ethically acceptable. We must comment this result in comparison to what the European code of research ethics states: "If you involve vulnerable participants or carry out research on vulnerable topics, you must provide a rationale for doing so. Moreover, you have to explain how you ensure that the people you involve will not be stigmatized, traumatized or otherwise harmed by their participation in your research". This is something that most students don't take into consideration, as they don't process and asses also the repercussions of their research.

Table 3. Level of ethics perceived by students (measured on a scale from 1 to 10, where 1 means completely unethical and 10 means completely ethical)

Research ethics aspects	Average score	
	Students	Professors
Inclusion of minors (children under 18 years of age) in research, without obtaining prior consent from their parents or guardians	2.19	2.13
Collecting data from the public profiles of social media users, without informing them	4.04	4.67
Concealing the concrete purpose of a research and presenting it in a more generic manner, so as not to influence the answers given by the participants	4.19	4.51
Reporting to authorities illegal or illicit behavior identified during research, even at the risk of violating the promise of confidentiality made to research participants	4.50	5.93
Carrying out observations on the behavior of individuals in public spaces, without informing them	4.92	4.67
Concealment of the organization/entity for which the research is carried out, in order not to influence the opinion of the respondents	5.42	4.89
Conducting research on a sensitive topic (such as alcohol, drug or domestic violence)	8.35	8.69

When it comes to the comparison with professors' opinion on these issues, we see a significant difference regarding the part of reporting to authorities of illegal or illicit behavior identified during research, even at the risk of violating the promise of confidentiality made to research participants. This difference doesn't surprise us, as professors have a more active compass of responsibility then students, especially when rules or laws are broken. Such a behavior must be discussed in classes, as covering for unethical or wrong behavior will lead to such behavior being seen as normal.

The third dimension of students' attitude – ***conative*** – refers to the actions taken in regards to research ethics. Thus respondents were asked how they have covered some ethical issues in the past researches. For each issue we have presented the specific research method (survey, qualitative interview, observation, experiment, social media analysis and research on minors) and also the ethical requirement at hand. The sentences for each issues were as follows:

• As of 2018, when you conducted survey research or qualitative interviews involving the active participation of other individuals, did you also have a specific question about the written consent of those individuals to participate in the research?

• In your observational research (in which the participant is not informed at the outset of their inclusion in the research in order not to change their behavior), have you informed the participants of their inclusion in the study afterwards?

• In your experimental research (where the participant is not informed at the outset of the true purpose of the research in order not to change their behavior), have you informed the participants of the true purpose of the research afterward?

• In research involving the analysis of public data from social media accounts, have you informed the users of the analyzed

accounts about their inclusion in the research?

• In research involving the participation of minors (for example, students under 18), have you sought written consent from their parents or guardians?

Results are presented in Table 4a and 4b (the split is due to the format of the present paper, not on any specific research criteria). As it can be assumed, our expectations were to find higher percentages in the lines of 'most often' or 'every time'. Moreover, we can assume that these percentages can be even worse, as they are just the result of students' declarations, thus we don't know their closeness to reality.

Table 4a. Research ethics issues covered in surveys, qualitative interviews and observations

Frequency	Survey or qualitative interviews	Observations
Never	15.4%	7.7%
Few times	3.8%	-
In about half of the cases	3.8%	-
Most often	7.7%	3.8%
Every time	38.5%	23.1%
I did not carry out such research	*30.8%*	*65.4%*

Table 4b. Research ethics issues covered in experiments, analysis of public social media accounts and research on minors

Frequency	Experiment	Analysis of public data from social media accounts	Research on minors
Never	3.8%	11.5%	-
Few times	7.7%	7.7%	-
In about half of the cases	3.8%	3.8%	-
Most often	7.7%	3.8%	-
Every time	15.4%	11.5%	11.5%
I did not carry out such research	*61.5%*	*61.5%*	*88.5%*

What we must highlight as a positive aspect from these results is again the sensitivity perceived also by students when conducting researches on minors, thus for all of them we have a prior agreement from parents or guardians (see last column in Table 4b).

A negative aspect can be represented by the fact that, in the case of surveys or qualitative interviews, there is a 15.4% of students that haven't requested the written agreement from participants which in the new European GDPR law, in force from 2018, is mandatory. Let's assume that those researches conducted by students did not have a commercial purpose, but rather an educational one, thus the GDPR restrictions would not apply here. However, for future researches, in which students represent the university, a more careful approach must be taken, maybe the ethics committee from each university can provide a formal guide to conducting correct data collection.

Another element worth mentioning in this section is the fact that, even though in Table 3 we see that students perceive the process of collecting data from the public profiles of social media users, without informing them, as being rather unethical, Table 4b shows us that only half of the students doing analysis of public data from social media accounts have informed the users about that.

IV. CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH

Research ethics in the academic environment should cover consent, data ownership, the management of confidentiality and anonymity, as well as the process of result dissemination. All these areas are important in providing a more secure and healthy socio-economic context to the research sector. There are a lot of codes of ethics in place, codes that give us the ground rules, but live out the specifics, as there are too many peculiarities and exceptions to be covered. Thus, is the role of each university to design a specific code of research ethics, taking into consideration its educational profile, national context and laws.

However, the code is not the only solution, as it's more of measurement instrument on what research must do and what happens if they don't. Many academics considered a proactive approach the best way to prevent misconduct [2]. It has been suggested that ethics and research integrity need to be addressed in several courses across the curriculum, not only in a specialized course [19] or code of ethics.

Having the results of the present research, we can now see how big the gap is between what students know about ethics, how they behave in terms of obeying by the rules and the expected behavior according to the ethical codes of conduct. One major implication of the present paper is represented by the opportunity it brings in terms of designing special courses and debates with students on the research ethics, as it more efficient to be proactive, thus educate, and not to impose a coercive behavior. Knowing the vast covering of ethics and research ethics, is more efficient to discuss this aspect in each academic discipline, rather than just one, considering the ethical specifications of each field of study. Our first and most urgent recommendation would be to include a 1-hour course about ethics in each discipline. Moreover, professors have to be educated also in what are the requirement of today's codes of research ethics, as the concept has evolved so much in the last decade.

When we think about the limitations of the present research, we must mention the fact that it covers just the students from the Bucharest University of Economic Studies, thus it's about the economic field of study and it represents Romania. Therefore, future research must expand the are both in terms of the academic field and regional coverage.

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