



## Primary and Secondary Data in Doctoral Research Studies

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DOI: <https://doi.org/10.26417/tg48kv85>

### Abstract

It is a matter of debate about what a scientific research is. But within this issue we often discuss about the data source. These issues have raised some dilemmas of ethical character on how datas shall be collected, who collects them, and who may use and the way they are used. No doubt those doctorates represent a research but the purpose of this paper is to stimulate debate on some essential criteria which it should have. The first question we put forth is that how much of the data presented by the candidate are of first hand-collected by the candidate himself, his team and how much data are used from other sources or are given from second hand (Mattews, Ross, 2012). From the direct analysis of the doctorate works in SEE University, it turns out that there is a mixed approach of using the data and their presentation. We can freely say that first-hand data are more in number but there is also a great numbers of dissertations without first-hand data, so without source data, collected directly by the author on the determined subject of his paper . So the permanent question that should afflict us is that whether a dissertation should always respect innovation and basic principles of Salzburg Principles? By reviewing of the literature, documents analyzing, statistical analyzing we will be able to give a clear picture of how the of primary and secondary sources in the dissertation work should be used.

**Keywords:** First hand, Second hand, Data, doctoral dissertation, Ethics

## **Introduction**

Scientific research is a very complicated job and full of unknowns and unexpected. It is also known that research work in social sciences is highly influenced by a large number of external factors and by the researcher itself. In any case the investigations which are made by the candidates for their theses carry in themselves a complexity of the social system, the media, public policies, ideologies, religions, cultures, values etc. So they are greatly addicted from the social circle and the socio-political moment. All this is expressed in various forms and dimensions in space and time. But it is a fact that social sciences and the researchers work on their theses are more under the influence of these incentives in comparison with the exact sciences. But another issue which is more important is the research process itself. There is still not a precise definition of what the scientific research is, but one thing is clear. Disagreements have to do with the question whether first of all it represents a job outside cabinets that is done by the author or just a mouse work in the office? Researchers must come out from their own cabinet to become collectors, selection, and analysis of data, facts?

But the thing that mostly interests us is the research of the thesis itself realized as an independent and original work of the applicant. In most of the laws that are brought by governments it exists as a legal norm but also as ethical moral- norm. But the question is whether the factual material gathered by a doctoral student is often firsthand or secondhand material.

## **Methodology**

This research aims that by methods and research techniques, using various sources, collect data on the quality of research work on a very important issue for the quality of higher education in general.

On this topic there are a large number of data, especially of the electronic media who make for the researchers nearer the appearance and concretization of different situations with those encountered during research work. This offers a great advantage to the investigator that he has plenty of examples on how to use research methods and techniques in everyday situations. Through analysis of documentation, statistical method, observations are collected, analyzed and interpreted primary and secondary data.

In the writing there are used mostly first-hand information when compared to those of the second and third.

## **Literature review**

The scientific literature related to doctoral research has also to do with different dilemmas which are carried by the research and work process itself. People differ from each other; an example; Biology says that 25% of people are flawed in the eyes (myopic, scolorblind, etc.) as well as with the hearing and smell, tasting. Well and information obtained from the outer world in the form of sensations are of different

size and therefore, notions, judgments and conclusions that are brought on their bases are different. At the outside we examine things that are part of the society and the life we live.

The Salzburg principles on Doctoral Programmes for the European Knowledge Society, ten basic Principles for the third cycle, clearly determine that "The core component of doctoral training is the Advancement of knowledge through original research." (Eua.be/eua/, 2005, p.2)

Rosycki in his book Plagiarism (1999, p.7) says that in the everyday life we often should not say where our information comes from, but they just need to hear an interesting story. But this is not the case with the school. Teachers are annoyed and want to know where do your data come from, the way you have reached up to them and separately whether they are your or someone else's ideas. So, they want to know the source or the owner of the article, information, idea. And this leads to plagiarism, to troubles for the academy as well, this is a serious issue.

Authors like Mattew and Ross (2010, p. 51) the scientific research in the sciences social understand as a process in which "the primary data are specifically collected for the research project by the researcher itself, who usually chooses the method and designs himself the instruments for the collection of the data (For example, one questionnaire or structured interview). "It may even use instruments developed by other researchers but it lays the foundation, prepares in our case the requests for reasoning of his dissertation. Meanwhile he is a direct participant in collecting, selecting, processing and interpretation of data.

Meanwhile authors like Hox J.Joop, Boeije, R.Hennie (2005, p. 593-594a). They go even further by making a division which describes the structure of data as:

- 1. "Primary data:** - Original data collected for a specific research goal". These data can be of qualitative and quantitative nature; understand the complexity of the social phenomenon in this case. Also it is very important to understand the inside of the phenomenon investigated as the thesis subject, often accompanied with a text, interview or an audiovisual material (Hox J.Joop, Boeije, R.Hennie (2005, p. 593b).
- 2. "Secondary Data;** - Data originally collected for a different purpose and reused for a research question (Hox J.Joop, Boeije, R.Hennie (2005, p. 593c).

Student working practices in this direction show and give us data for the different access that their mentors- professors have. In most cases the supervisors experience helps the students and it is essentially a bottom - up imitation of the approach of how the mentor has done his dissertation. This often helps students but there are also times when the mentor is presented as an obstacle to the aspirations of the student, his talent, his independency and originality. It may be noted separately to students who give the greatest priority in life to their work on the thesis than for example get married or go on holiday in the Maldives Isles.

The fundamental question of our discourse is the question that whether in a doctoral thesis we always have data, or rather said original work of high quality. Most authors agree that this is the most important work in the dissertation. The next question is who can be the biggest guarantor of the collection of reliable data? Naturally that the author, the candidate, the student who works on the thesis, he who in industry and community directly observes, listens, gains the impression, test data and then makes their selection by different methods and techniques. Refers to Bentley "Judged by your examiners, who will know the area as well as you, you need to achieve something that is considered valid (that is without mistakes) original (that no one has done before and of high quality (that is, off PhD standard and more substantive than MPhil or MRes-work). "(Bentley, 2006 p.21)

We know that research have always been highly controversial issues. Today when in the society the PhD degree gains in the social status, therefore becomes more and more profitable, the debate is intensified. And this especially when the requirements to the acquisition of this scientific title are growing. But with the growth of demands it also grows the doubt for their quality. Newspapers at the end of 2015 in Albania write for cases when a supervisor of doctorants had 41 doctoral candidates who were oversaw by him. Such cases with 20-30 candidates were plenty.

In the Salzburg Principles (2005, pp.3) it is clearly defined research mission in doctorates as mission of innovations. The promotion of innovative structures: to meet the challenge of interdisciplinary training and the development of transferable skills. These skills include communication and presentation skills, writing skills, project and time management, human resources management, financial resources management, teamwork, risk management and failure management, etc. Industry seeks young researchers who are flexible, creative, communicative, entrepreneurial, and have good language, intercultural and social skills. (Bologna Seminar, p.7 2005)

The other question has to do with the fact whether sometime we can make a comparison with the political manipulation by politicians to their constituents to do the same thing scientists with data, facts that they use in their writings. I think that at least a minute in a week we should stop and think seriously about this dilemma of mine.

All these issues relate to the production of many legal and moral norms, ethical codes, councils, committees, associations. But social practice shows that there is still much work to be done. We can review the scientific paper by software to demonstrate how many sentences and words match: are taken from others so they are second-hand, so they are not our ideas and works, our own data, but we can not prove exactly that the sample is the one that is presented, are people surveyed fairly and punctually and as many as presented in the research, is the collected material useful or not? It, also, have to do with the Software of the Ministry of education where we take our student's works for verification; measure of data encountered borrowed from others. The next questions that should be debating as ethical issues are the concerns whether the

interpretation of data is free of manipulation of numbers and our primary thoughts and beliefs? All this relates to whether we are participants in the collection of data or not, or members of the project? We will come to the conclusion that the bigger use of source data collected by ourselves has to do with our research ethic. This should have as an origin the sincere and timely information, potential risks, the way the data should be used, what is your status vis-a-vis these issues, ownership of data, protection of data, etc.

### **How should a research doctorate with primary wholesale data be done?**

The question of ethics in scientific research and separately in gaining titles is primarily a matter of social practice. We are all witnessing of a large number of works for scientific titles mainly based on second and third-hand sources and with no source of first-hand data.

The research can not be carried out only in a certain laboratory place but it should also be accomplished in a social and natural environment. If a research does not involve ethical reflection, it can be harmful. For example, collection and analytical work with personal data can be a very sensitive issue for individuals and social groups. The same can be applied to experimental work in general (including humans or animals). Today, a researcher must also consider the legislation (in educational research, legislation on data protection is probably the most common case), which sets certain barriers to "free research". For these reasons, in the contemporary period, *research ethics* and *academic integrity* issues are taking on an increasing importance. (Jashari ET al, 2011, p.11)

In order to have first hand information on the use of the primary data by doctoral students we have researched approved and finished topics of the candidates in South East European University, Macedonia, March, 2016). According to the random method we chose topics that were listed in the closet where they are placed for public review before the defense. Overall were researched 67 dissertations as much as were in the closet. The research had this focus. In meantime to see the character of the data, whether they are first-hand or second-hand? Or, also, to be seen the research activity of the candidates and their mentors, but at the same time, to investigate the quality of work at the doctoral School in SEEU. The reason was of ethical nature but as well as legal, which describes the work of doctorates as independent and original work of the applicant. Otherwise the Rule on third cycle studies, Article 21 says that "The doctoral dissertation is a work of independent scientific research representing a contribution to a certain scientific field the candidate may carry out scientific research which is part of the doctoral dissertation at the relevant University, faculty or institute, or in a foreign scientific research center. (Rule, 2014, p.4)

Exactly the primary data become meaningful by the collection of data itself by the candidate and his original ideas. We will take a concrete example. If some authors have studied and researched the divorce in the region of Polog from 1950 onwards we will see that in those years we rarely had divorce cases even to Macedonians

themselves who since 1950 had been involved in the process of industrialization. Albanians and Turks were not part of this process and education, the independence of woman, therefore divorces were rare. Research was done also after 1991 when it began the intensive education of Albanian women, her employment of which brought its independency and its social and economic strengthening. By the 2000s there was an increase of divorces in both communities. Different authors investigate that the mobility of the population abroad, the strengthening of social assistance, education, change of values, the rights of women, protection by laws have contributed to the increase of divorce ... But what can a young PhD candidate student do? He must go further. Explore by its own ideas, reveal tendencies, trends, average size, test his hypothesis, penetrate deeper than others have seen. So give valid answers to the questions how, the causes, the consequences, what next? E.g. Connect divorces to various external and internal factors in the last 5 years, to note new qualities and quantities of this phenomenon. But the new task that the candidate can do is to set out the measures to be taken and by the community and industry in relation to these phenomena. For example, the divorced mothers, children with a single parent etc. So, to see what needs to be done in next 5 years in order to reduce the causes of divorce and harmful consequences for new generations, especially children.

Regarding to table number 2 and 3 shows that 56% of PhDs in 2014 in Macedonia were from the Social Sciences and Humanities, 16% in the medicinal ones, in the technological 17%, biotech 6% and the smallest number in natural sciences and mathematics just 5%. It would be better if in Macedonia, as a small country with little economic growth, the ranking to be with opposite tendency, ie the largest number of PhDs not be in the social sciences but in the technical-technological ones and in natural sciences.

In the nr.1 we could notice some trends. It is worth mentioning that the number of female PhD graduates is 106 opposite 100 male PhD that speaks to gender equality and the role of women in public and scientific life. Characteristic is that almost in all cases, seen from scientific research methodology point of view, at the same mentor and different candidates, used methods and techniques are the same.

	Total		Age							
			up to 29		30-34		35-39		40+	
	Tot al	Wom en	Tot al	Wom en	Tot al	Wom en	Tot al	Wom en	Tot al	Wom en
<b>Total</b>	<b>206</b>	<b>106</b>	<b>17</b>	<b>9</b>	<b>54</b>	<b>31</b>	<b>41</b>	<b>18</b>	<b>94</b>	<b>48</b>
Natural sciences and	10	6	-	-	2	2	5	2	3	2

mathematics										
Technical - technological sciences	36	10	1	-	13	2	4	1	18	7
Medical sciences	32	14	-	-	-	-	6	1	26	13
Biotechnical sciences	12	7	-	-	4	4	5	3	3	-
Social sciences	86	46	14	7	25	16	13	5	34	18
Humanities	30	23	2	2	10	7	8	6	10	8

**Table Nr. 1** Doctors of science by type of tertiary education institution where they have obtained their doctor's degree, scientific branch of the doctoral dissertation, age and sex, 2014

Natural sciences and mathematics	5 %
Technical-technological sciences	17 %
Medical sciences	16 %
Biotechnical sciences	6 %
Social sciences	41 %
Humanities	15 %
<b>Total</b>	<b>206 = 100 %</b>

**Table Nr. 2** (Source: Statistical Review (2015). 2.4.15.23/840. Skopje.)

**Documentary analyses. Doctoral thesis analyzing, SEE. University.**

Analysis of 67 doctorate works in SEEU shows that the largest numbers of PhDs have collected primary data, so they have made the research by themselves by combining their research activity with secondary and tertiary data by other authors (36). But also a large number of candidates (31), the research and writing of the doctoral have done only by research of the literature or by material collected from other authors. 25 of them have truly made their methodological concept of their paper.

	<b>Frecuency , %</b>	<b>total</b>
First Hand Data	36 53,7	67
Second and Third H.D.	31 46,2	67
Research methods well describe and applied	30 44,7	67
There are described research methods-planning, no First Hand Data	23 34,3	67
No exact data, time, place, equipment, people	27 40,2	67
The same author with all thesis work with no First Data	8 11,9	67
Well defined and applied sampling	42 62,6	67
The sample partially or not at all defined and clearly defined	16 23,8	67

**Table Nr. 3** Analysis of Doctoral work in SEEU, 2009-2015

Almost all 30 of them have described and implemented good the methods process and their application in the field. But also there are too many of them who have not given true data about the time, place, people, equipment that are used for the research. There are concessions in the definition of the sample. 16 of them have

### **Conclusions**

Issues of scientific research as part of the doctoral thesis and the way of collection of factual material are quite controversial.

There are different theories about how different authors refer to the nature of the primary and secondary data.

No doubt the original and independent work of the candidate means collecting data from himself and the discovery of something that is new, thus of the new conditions, situations and causal consequential relationships.



In the SEE University in the doctoral work, the use of primary data compared to the secondary ones is an increasing trend and it is bigger but still small considering that the research work in doctorate is original.

In Macedonia there have not been studies in the field of collecting and quantifying the issue of data.

Almost in all cases, seen from the aspect of scientific research methodology, at the same mentor and different candidates, the access and use of methods, techniques, character of data, are the same.

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