## THE RESEARCH HYPOTHESIS IN PHD DISSERTATION

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**Abstract:** There are many ways and approaches to how different researchers approach to the compilation of hypothetical attitudes of their scientific work. In formulating a future thesis of Master's and Doctorate studies, however, we need to have an idea and an orientation on how the research will be conducted. But also, many things revolve around in our heads such as dilemmas and ambiguities about the complexity of our problem and our acknowledgement about it. Every social phenomenon has its presentation trends, developments and forms. So we are interested in many things about how much and how different factors affect a certain phenomenon. All this has to be tested, so we provide a possible prediction, a general idea, and some specific sub ideas about any features of the phenomenon that we want to explore. For example, if we are talking about the introduction of a new anti-depressant herb - our main hypothesis will be public opinion expectations that it will be more effective compared to current drugs and therapies. Or if we do a dissertation research on the hypothesis of how Neawspaper affects the people's voting pattern, then we should research the opinion of the voters compared with the social reality in Macedonia that every powerful political party controls the media in different ways. But the definition of a hypothesis for eg. How sea turtles worry the swimmers during the holidays and how it affects their tourism behavior it would be a tricky job for new doctrinal candidates.

Different authors write and have special views on this issue. But doctoral candidates also have a wide range of approaches and differ from each other in the formulation and importance they give to hypothetical attitudes.

By reviewing the literature and research of scientific works - the doctoral theses at the university will give a personal view on this phenomenon and research practice.

**Keywords:** Hypothesis, dissertation, doctorate, research, prediction

### 1.INTRODUCTION

During my academic experience I have noticed that the biggest problem for the students, after defining the research problem, in thesis, is defining the hypothesis. Hypothetical attitudes are nothing else than an initial idea of how we think of the development of a particular phenomenon that we want to explore. So, our goal is that the findings, the results we want to achieve, are more or less in line with how we see it as a possible development; trend, tendency, and direction of a social appearance. In the natural sciences we also give a hypothesis about the possible causes and consequences of, for example, dryness and the damages that are likely to be made. But at first this seems somewhat obscure and ambiguous and students show uncertainty and walk in the concept sketch but also in compiling the hypothesis during the dissertation's work. On PhD candidates insecurity and uncertainty persist even when they work in doctorate although they have dealt with this issue during master's thesis. Hypothesis in the process of scientific research in dissertation is often not properly defined. This always understands the necessary knowledge of the research methods and techniques that enable us measurements, indicators i.e data that in fact test hypotheses. The compilation of hypothetical attitudes is not only a thinking system of giving an idea but represents a complexity of real, intellectual activities, and combined routine and technical creations.

This is all about organizing scientific research that is in essence an essential quality for any successful study. The necessity of systematic treatment of hypothetical attitudes during doctorate means continuity, harmonious connectivity, our active behavior in the study.

#### 2. HIPOTHESIS AS A PRIOR PLANNING

If we as a doctoral thesis have chose the "Influence and Political Participation of Women in Macedonia", our decision to study this phenomenon immediately imposes upon us a great number of dilemmas and prejudices that people have regarding this topic and life reality. There are different attitudes regarding women's influence and political power, but also on equal income among genders. Does the scholar certainly have in mind the fact and has noticed that some young people (elders) that he knows support (oppose) equal participation of women in politics with men and equal income? Does he believe that the study of attitudes can help shed light on statistical support for these two basic concepts of gender equality? We certainly want to try a theory, an idea that we believe or suppose is true, but that is still not proved, why is it also implied that even with the laws of the state we support the greater or equal participation of women in politics? These and other similar questions can lead to the decision to study gender equality. And this equality has its essence in the participation of women in decision-making. Such initial questions provide the basis for developing a research planning.

Let's suppose we begin with an idea or "guess" - a hypothesis - that there is a link between political participation and influence in the corresponding social-political life in Macedonia. We will assume that the public opinion in

Macedonia will gradually change its mindset and will also support other ideas related to the concept of equality in general. So we believe things will move in a desirable direction where people will have new inclinations, for example, believe that women are physically and mentally capable of doing any work that men can and therefore women should be paid the same for the same job. We essentially think of the same as John Stuart Mill with his famous concept of equality between men and women. If this is true it can be detected by interviews with people. At a point near this stage, in the process, the researcher will browse research literature on this subject to see what others have done and have found.

#### 3.METHODOLOGY

This research aims to use research methods and techniques, using different sources, to collect research data on a very important issue for the role of hypothesis in dissertation research.

For this subject there is a large number of data from the written and electronic media that for the researcher make closer the appearance and concretization of different situations with those encountered during research work. This provides a great advantage to the researcher so that he may have many examples of how hypotheses can be compiled and tested in a doctoral dissertation and in the scientific research in general. Through the analysis of the documentation, the statistical method, the observation were collected, analyzed and interpreted primary and secondary data.

### 4. LITERATURE REVIEW

Different authors also have different attitudes about the hypotheses and are open to their use in research.

A doctorate thesis is a systematized research and discovery work that moves out from some good questions + information + a lot of good answers = dissertation. When formulating a conceptual sketch for doctorate we formulate questions and hypotheses. The hypothesis is a special type of the question.

Questions usually begin with the search of feedback information; when, how, why? But if we are interested in why the questions are asked then the answer is as follows:

- 1. When we want to describe and examine one or several social phenomena

On the other hand, Matthews and Ross define hypotheses as "a special tyope of research questions which in fact are not questions, but a statement or expression of the relationship between two or more concepts" Here, the main question is whether it can be rpoved or discarded the connection eg. between the Concept A with the Concept B as an impact or as a change. These causal reports are often tested by statistics.

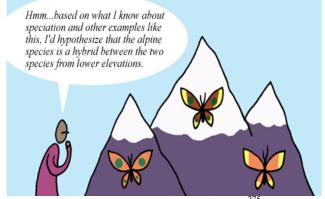


Figure 1. Hypothesis and Biology<sup>27</sup>

From the figure 1 we can conclude that the upper butterfly is a hybrid-crossing of the two butterflies below and as such has characteristics of the both species, and this is scientifically veritable and, with great probability, in

<sup>&</sup>lt;sup>273</sup>. Bussines Dictionary,http://www.bussinesdictionary.com/definitionhypothesis.html, 2011,pp 1

<sup>&</sup>lt;sup>274</sup>. Mattews Bob,Ross, Liz, Metodat e hulumtimit. Udhezues praktik per shkencat sociale dhe humane, CDE, Tirane 2012, pp 57-58.

<sup>275 .</sup> Source: https://www.google.com/search?q=hypothesis&rlz=1C1GGRV\_en MK75 . 21.09.2016

order to confirm the hypothesis by the analysis of the three butterflies, that is their chromosomes, confirms the above hypothesis, than the butterfly that is at the top of the mountain in the figure, must necessarily have ingredients from the genetics of its parents, so the two butterflies that live beam the mountain.

A large number of higher education institutions provide guidance to the doctorate students on how to do doctorate work. So, a conceptual sketch with more metododological – technical but also academic issues. The importance of this activity is that students are easily able to work and, on the other hand, they are placed in equal positions. One of the almost all guidelines or regulations of scientific research institutions is also the definition of a hypothesis of work.

On the other hand, Nikola Grabovac<sup>276</sup> on the question of what is the hypothesis it gives the answer "The hypothesis is a conjecture or a claim on a phenomenon that can be proven or discarded. Obviously, the good hypothesis is what can be verified with cluttered data for that purpose and research problem. So good is the hypothesis that is appropriate to the task, the purposes of the study."

But what is important to us is to take an example of using the hypothesis in the research which are examples of price wining PhD thesis and dissertation.<sup>277</sup>

The author Akpinar<sup>278</sup> gives a primary hypothesis h1 which states the initial idea H1: Higher self-relevance of the product harms information to reduce sharing. Then there is H2 a and H2 b the same is with hypothesis 3. H2a creates a further deepening of the scientific research as follows: Higher self-relevance of the product harm information will reduce sharing as the severity of the risk is high.

So in this way he develops his dissertation by interfering with the problem of research and hypothesis testing which makes the dissertation a significant investigating and evidental link of the primary hypothesis and the other hypotheses that are necessarily linked to H1, which is as follows: H1: Higher self-relevance of the product harm information will reduce sharing. The above argument initially appears to be counterintuitive. In the next section, we will be able to explain in more detail why and when we believe that self-relevance should actually decrease the likelihood of sharing product harm information.

### 5. EACH UNIVERSITY HAS ITS OWN WAYS-APPROACHES

But we are interested in how the dissertation works after defining the research problem is developed. Of course we begin to seek for its solution. So we start collecting complete literature and information for the whole problem. And each time a PhD student or researcher tries to give a hypothesis that is likely to be the solution of the problem. Here we are concerned with the fact that the required phenomenon to take on that development that we have foreseen as a tendency,eg.growth or specific manifestation. So the researcher investigates the validity of the hypothesis<sup>279</sup>.

### 6.FORMULATION OF THE RESEARCH HYPOTHESIS

The research questions and hypotheses should be formulated in such a way that in principle their testing, control and verification is allowed. The formulation of the research question should clearly provide a promising line of inquiry about the perception of the problem, issue or problem. So it should include trying to test the hypothesis of the research. The research hypothesis should be formulated as precisely as possible to avoid holes and questions. The hypothesis that is not open to verification at some point does not present a hypothesis. In empirical research, the questions and hypotheses in question should be able to stimulate phenomena that can be measured and that the candidate should know which appropriate instruments provide measurements and support. It is important that the findings be presented in such a way that can be drawn conclusions. In quality research, it is important to capture the true research phenomena to present the experience, in a way that reflects understanding and permits the withdrawal of implications. Whether quantitative or qualitative research (or most of all, a mix of both) is used, it is also important to generate an important set of criteria that will confirm or reject a hypothesis.

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<sup>&</sup>lt;sup>276</sup> N. Grabovac. Instruction on writing a doctoral thesis disertaion Bosnia and Herzegovina, Školska 23 72270 Travnik University "vitez", Vitez, 20 February 2012, Page 9.

<sup>&</sup>lt;sup>278</sup> E.Akpinar Consumer Information Sharing Understanding Psychological Drivers of Social Transmissio to obtain the degree of Doctor from the Erasmus University Rotterdam by command of the rector magnificus Corriere Luca Roterdam ,2012 ,page 17

<sup>&</sup>lt;sup>279</sup> M. Šolić: M. Šolić: Uvod u znanstveni rad .Sveučilište u Splitu studij: «biologija i ekologija mora» uvod u znanstveni rad, Institut za oceanografiju i ribarstvo – Split ,2005, pp.12-18

Take a hypothesis example: "A number of researchers experience stress in their work." It will not be difficult to find theoretical arguments, as well as the empirical surveys that appear to support such hypotheses, in which each individual is likely to experience stress in one or another time. The real problem in this hypothesis, however, is a generalization that does not tell us much about the actors or the stress. First, the criterion achieved or the overall scope - "too much" - is extremely ambiguous and subjective. How much is "too much"? What is the limit between "many" and "not so much"? Secondly, the profound or bulky criterion - stress - is dubious. All of us experience stress at one or another time, it is quite normal and limited intensity, as well as quantity that can be useful as it raises our level of knowledge and activates chemical substances in our brains to stimulate the appropriate masses. But, if you are subjected to prolonged and intense stress, it is usually detrimental to our wellbeing and affects negatively on our performance. So, this hypothesis if it is possible should be reworded to make confirmation or potential rejection. It can be formulated as follows: "A large number of doctors experience unnecessary work stress in their work with patients, and this stress, according to statistical data and collected factographic material, is greater in first aid centers than in hospitals ". This is now a hypothesis that can be clarified and then tested in a specific context.280

Also if we want to give a hypothesis why Benny Hill in his movies prefers to treat men differently and women differently, for example, when they need to come on the stage for women does not open the door and he takes them in his arms, supposedly to help, and when ladies first finish, then he makes attempts and "in a strange way" the door opens, and thus men do not need to help by carrying them in their arms. The hypothesis would be easy to find in an interview with people and most of them would say the same "this is because of humor and because of people's having fun."

## 7. DOCUMENTARY ANALYSES. DOCTORAL THESIS ANALYZING, SEEU

SEE University in Macedonia it defines as: Research question(s) .Hypothesis . And below are made the questions: What is the relationship between one or more concepts, variables, phenomena, events that you are determined to do research etc? This should also include an operational definition of key terms that the PhD candidate will use in his/her dissertation. (Max. 7 key terms).  $^{281}$ 

If we take and operationally analyze a doctorate at the construction of this course, under the guidance of the candidate Ylber Aliu for the dissertation titled "The role of the employment and professional training policies in Kosovo" has the following formulation<sup>282</sup>

# **Hypothesis**

The main research hypotheses are:

- 1. There are employment policies in Kosovo, but these policies are not sufficient compared to the number of job applicants registered in the public employment service (hereinafter: PES).
- 2. There are proffessional training policies in Kosovo, but these policies are not dynamic in line with labor market needs.
- 3. PES operate in a competitive environment in relation to non-public employment services, and their success depends on the quality of service delivery.
- 4. PES should focus on building a cooperative relationship with the business community.

## Variables

The first three hypothesis contain two variables: the dependent and the independent variable, while the fourth hypothesis<sup>283</sup>

<sup>&</sup>lt;sup>280</sup> .J.V.D..Zanden,The social experience : An introduction to sociology / James W. Vander Zanden. Vander Bookmark 990 , English, Book, Illustrated edition: <a href="http://trove.nla.gov.au/version/51768778">http://trove.nla.gov.au/version/51768778</a>, New York : McGraw-Hill, c1990.

<sup>281 .</sup>https://www.seeu.edu.mk/files/phd/giudlines-phd-en.pdf 2017, page 2

<sup>&</sup>lt;sup>282</sup>. Y. Aliu "The role of the employment and professional training policies in Kosovo" SEEU, Library, Tetove.2 016, pp. 17-18

<sup>&</sup>lt;sup>283</sup> Aliu, Y., 2016, page 17-18

Table no. 1. Analysis of doctoral dissertations and the construction of the hypothesis, South East European University, Tetove, 2009-2015

Research questions and hypotheses in dissertation	There are %	There are not %	Number of analyzed disertations (finished with their public defense) Altogether
Research question	38 56%	29 43%	67
Hipothesis	45 67%	22 32%	67
Basic hypothesis and 2-3 auxiliary hypothesis	35 52%	32 47%	67
Questtionaire and hypothesis	41 61%	26 38%	67
Variables and their analyses	17 25%	50 74%	67

The analysis of 67 doctoral theses in SEEU shows that the largest number of PhDs have raised research questions and their work in the dissertation has been based on a hypothesis, so 38 of them or 56%. A number of them has also done research questions and specific questions in the form of hypotheses, so they have done research by combining their research activities (35 or 52%). However, a large number of candidates (41 or 61%), Basic Hypothesis and 2-3 Auxiliary Hypothesis have done 35 (52%) of the total number of analyzed PhDs and were deposited in May 2015 at the SEEU Library. The vast number of young researchers does not deepen in the analysis of variables (74%)

If we compare the University "St. Kliment Ohridski" - Bitola in its rule it is clearly defined (2011) the procedure for application, evaluation and defense of the doctoral dissertation Article 48: claims for the student that fulfill the conditions for the presentation of the proposal thesis for its approval in the application: title of the topic, definition of the problem of research, clearly stated working hypothesis (elaborated proposal on the topic and the theses of the doctoral thesis.<sup>284</sup>

## 8. CONCLUSIONS

- There is no work, ideal solution of one or more hypotheses; there are many factors that complicate the process of their formulation.
- Different authors have different approaches to the importance and testing of the hypothesis.
- Scientific and higher education institutions usually provide doctorate students with some tightening frameworks for defining hypothetical attitudes in researching and collecting data on dissertation needs. It is a fact that it is a help to a certain group but also the overthrow of the creativity of another group of researchers.
- A number of respectful PhD candidates approach seriously both to the formulation of research questions and the particular questions in their dissertation
- A small number of conscripts have shortages or may not be willing to hypothese testing.
- Most PhD candidates do not deepen in their empiric research in the analysis of variables.

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