**Characteristics of Argumentative and Epistemic Thought among Ultra-Orthodox University Students in Israel**

Recent years have seen a sharp increase in the number of ultra-Orthodox Jews in Israel seeking higher education, which raises the question: what characteristics of thought and tools do *yeshiva* graduates bring with them to the academic world? In what way do these characteristics differ from those of graduates of the general educational system? The purpose of the present study is to investigate the characteristics of argumentative and epistemic thought among ultra-Orthodox university students in Israel.

Students in academia are asked to contend with a wide range of textual challenges – they must understand complex texts, integrate and confront ideas presented in different texts, and produce texts themselves, whether answering examination questions or composing seminar papers. Argumentative texts are among the most common in academia. Researchers and students engage in argumentation as part of their effort to ground theories, draw conclusions from available evidence, and accept or reject various interpretations and explanations.

Engagement with argumentative texts is also central to the course of study in the *yeshiva*. To engage in Talmudic discourse, one must understand the argumentative processes (*shakla ve-tarya*) of the Talmud – how it offers conjectures and supports them, raises objections, and refutes claims. However, learning Talmud is freighted with cultural, linguistic, and methodological baggage quite distinct from that found within the state educational system, which leads to the question of how *yeshiva* graduates contend with the reading and writing of argumentative texts in academia.

The characteristics of argumentative thought are also related to the student’s epistemological conceptions, meaning his beliefs on knowledge generally: on how knowledge is constituted, on its nature, its sources and limitations, and the ways in which it can be verified. Therefore, it is reasonable to assume that someone with complex conceptions of knowledge will, in specific contexts, examine and argue claims in a more complex manner.

In order to examine whether these characteristics of argumentative and epistemic thought are unique to the male ultra-Orthodox population, I shall present a comparative study of two groups: graduates of the state educational system, and ultra-Orthodox students.

Beyond investigating ultra-Orthodox students’ characteristics of thought at the outset of their journey through academia, this research will also examine the change undergone by these characteristics in the wake of an integration program intended to develop these students’ skills in argumentative reading and writing. The program will include training and explicit instruction in the components of argumentation, as well as strategies for argumentative reading and writing.

This study will focus on the following questions:

1. Characteristics of Argumentative Thought: what are the characteristics of argumentative thought among ultra-Orthodox students? Which of these characteristics’ aspects are unique to male ultra-Orthodox students when compared to both graduates of the state educational system and female ultra-Orthodox students?
2. Characteristics of Epistemological Thought: what are the characteristics of epistemic thought among ultra-Orthodox students? How are these characteristics expressed differently when compared to the other groups under study?
3. Integration Program: in what ways will the integration program change (and improve) ultra-Orthodox students’ characteristics of argumentative thought? Which aspects of argumentative thought will be improved, and in what way? In what ways will the intervention program change ultra-Orthodox students’ characteristics of epistemological thought?

**The Potential Contribution of the Study**

The present study is among the first to deal with the learning capabilities and characteristics of thought among ultra-Orthodox students within Israeli academia, and among the only to examine these aspects through quantitative tools and relatively large sample sizes. In recent years, the ultra-Orthodox student population, once marginal in Israel, has become increasingly central, with the number of students continuously growing. Therefore, there emerges a question of which “tools of thought” these students bring with them as they move from the *yeshiva* to academia, and of their characteristics of thought. The present study does not solely focus on ultra-Orthodox students at the outset of their time in the academy, but rather seeks to also examine whether the integration program and pre-academic preparatory studies lead to increased achievement and changes in characteristics of thought. The present study also has a practical purpose: the development of a course of academic study that will foster students’ ability to read and write argumentative texts.

An additional contribution of this study is a deeper investigation and presentation of new findings related to, the connection between the characteristics of argumentative thought and those of epistemic thought. The study examines argumentative and epistemic elements in the context of groups with different cultural backgrounds, and is likely to cast further light on the relationship between cultural background and characteristics of thought and epistemic conceptions. One of the most important questions of research today is the change in epistemic conceptions following long-term integration programs, and I am confident that this study will serve to present new findings in this field.

**Sample Population and Research Methods**

This study focuses on a population of students at the beginning of their time in academia – either in a pre-academic preparatory program or in their first year of study. We have chosen to compare male ultra-Orthodox students to two other central groups: graduates of the state educational system, and female ultra-Orthodox students. This comparison is intended to examine which characteristics of argumentative and epistemic thought are unique to ultra-Orthodox men, and which are shared by other groups.

The sample population in this study includes 320 students: 160 ultra-Orthodox men, 80 state educational system graduates, and 80 ultra-Orthodox women. The chief means for integrating ultra-Orthodox men into academia are the pre-academic preparatory programs, and the study will focus on groups of ultra-Orthodox students, men and women, from two central academic institutions in Jerusalem. Additionally, a comparison will be made with students from the general population in both pre-academic preparatory courses and in first-year academic reading and writing courses.

Over the course of the study, I shall make use of four central tools: a) a personal questionnaire; b) argumentative writing assignments; c) argumentative reading comprehension assignments; and d) an epistemic questionnaire.

The questionnaire will collect data on additional details with potential relevance, such as age, place of residence, prior academic experience (preparatory courses for state examinations and other topics), parents’ academic and *yeshiva* education, identification with religious stream (Lithuanian, Chasidic, or Sephardic), whether parents grew up Orthodox, and names of educational institutions for elementary, middle, and high school instruction.

The second tool is the assignment of argumentative writing assignments. Argumentative writing assignments are one of the most common methods of determining argumentative aptitude. In the framework of the assignment, students are presented with a social issue and asked to write an argumentative essay presenting and supporting their stance on it. This model is widely used in Israeli matriculation examinations, as well as in the United States and throughout the world. In the present study, students will be given forty-five minutes to write their essays, a reasonable amount of time that will allow writers to formulate, write, and edit their essays without undue pressure.

Essays will be gauged according to accepted criteria in research for assessing argumentative writing: complexity of reasoning; contention with opposing viewpoints; clarity of argument and supporting evidence; relevance of reasoning; objections and resolutions; and the holistic composition of the essay. Aside from evaluation according to this gauge, a “bottom-up” evaluation will also be conducted, meaning an attempt to investigate patterns beyond the gauge’s scope, or those whose descriptions necessitate qualitative analysis. In every essay, evaluators will attempt to identify previously undefined phenomena, and investigate whether these phenomena constitute a unique, repeating pattern among ultra-Orthodox students or graduates of the state educational system.

The third tool is the assignment of argumentative reading tasks, in which the examinee will be asked to consider an argumentative text and respond to questions. The studies make use of various types of questions in order to evaluate argumentative analytical ability: identification of the text as argumentative (“What is the writer of the text’s purpose?”); location of parts of the argument in a specific passage; investigation of the entire text’s central claim; identification of relationships within supporting arguments (for example, cause and effect); identification of opposing viewpoints in the text and the ways in which they are addressed; and investigation of the different relationships between ideas presented in the text (opposition, extension, and reservation). One issue likely to present difficulties in organizing the study is the subjects’ lack of familiarity with the terms relevant to argumentation (for example, argument and supporting evidence), and it is therefore important to assess multiple ways of phrasing questions, or, alternately, to explain terms to study participants at the outset.

In order to evaluate epistemic conceptions, I will make use of both an epistemic questionnaire and a tool for analyzing epistemic aspects in writing assignments. To characterize epistemological concepts I will first use an epistemic questionnaire, selected from one of those in use at the present time. The questionnaire will constitute a continuation of a reading assignment, and will thus be adapted to the specific area of study and context. The second tool I will employ for gathering data on the characteristics of epistemic thought is the assignment of argumentative writing tasks. The written argument includes aspects likely to reflect epistemic conceptions. These epistemic aspects of argumentative writing will be examined at length, and in the present study I shall make use of three central criteria for evaluating these aspects: contention with opposing viewpoints, positive epistemic indicators, and epistemic restrictions.

**Integration Program**

The study’s second portion includes a relatively lengthy integration program, lasting a number of months, in an ultra-Orthodox pre-academic preparatory course. The integration program will be conducted over two and a half months, and include a series of ten weekly double classes focusing on gaining experience in the writing and reading of argumentative texts, teaching argumentation with a metacognitive method. The program will feature a pre-post arrangement, with an initial examination and a similar final examination at the end of the period.

The goal of the program is to examine if, and how, students’ characteristics of argumentative thought develop after the integration program, and to examine which aspects change and which remain the same. In addition, the program will examine if instruction focusing on argumentation brings about any change in the students’ epistemic patterns.

**State of Research**

The research proposal will be sent in January 2017 to an authorizing committee. The plan is to begin the first stages of the study in 2017, and to complete it and assemble the bulk of its findings by mid-2018.