

## ABSTRACT

### MOTIVATIONAL ISSUES IN THE STUDY OF GEMARA AMONG AMERICAN HIGH SCHOOL SENIOR BOYS

by  
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In the current curriculum in Modern Orthodox Yeshiva high schools, Talmud is the one subject which is granted far more instructional time than any other. However, there has been virtually no research aimed at discovering the results of such a devotion to one subject area. This study set out to gauge the success of this stress on Talmud through the prism of the motivation of the students to continue studying Talmud once their formal schooling had ended. A total of 115 New York metropolitan area high school senior boys took a survey that measured their motivation towards the study of Talmud. The Patterns of Adaptive Learning Scales (PALS) measured the degree to which the students' parents, peer group, and teachers and classroom environment exerted an influence on them with regard to their desire to study Talmud. The Intrinsic Motivation Inventory (IMI) produced a measure of their motivation to study Talmud, as well as a measure of the affinity that they felt for their rebbe, or Talmud instructor, separate from their affinity or aversion for the subject. Students were also asked to rank all of their subjects in order from most to least favorite. Hierarchical multiple regressions were performed, whereby the students' general academic motivation was removed from the equation, thus allowing the individual impacts of parents, peers, and teachers on motivation to study Talmud specifically above and beyond a student's overall inclination to perform well in school to emerge. The most significant finds of these analyses was that student motivation to study Talmud seems to be most closely linked to his motivation to succeed in school in general,

while the impact of parents, peers, and teachers on motivation was significant only with regard to the relationships that students reported having with their rebbeim. When asked to rank their classes, one-third of the students placed Talmud in the lower one-third of their classes, but almost one-half ranked Talmud in the top one-third of their classes, with one-third ranking it first among their subjects. Analyses of variance were performed to better explain the relationship between the rankings and the actual motivation that students had towards Talmud. In general, student motivation correlated well with the ranking that students gave their Talmud class. The one surprising finding was that many students who ranked Talmud lower among their subjects still reported a positive relationship with their rebbe. These findings bring some focus to the question of what schools are attempting to accomplish by allotting over two hours of instructional time per day to the study of Talmud, and the suggestion is made that it is not the study of Talmud itself which is most important, but rather the increased exposure to the positive religious role model of the rebbe.

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The process of producing a dissertation is a lonely endeavor, a seemingly interminable journey which can be reduced, at one level, to the story of a man and his laptop. However, despite the obvious ways in which modern technology has enabled the researcher to produce while maintaining a hermetic existence, I would be remiss to the highest degree if I did not recognize and thank the many individuals whose efforts brought this paper to its completion.

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While this paper focuses on high school students, my own motivation for researching the study of Gemara has grown out of my own experiences teaching beginner Gemara students over the past decade at Yavneh Academy. Yavneh is that rare school that actually follows through on a mantra of continued intellectual growth and striving for

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My parents, Michael and Debbie Ross, raised me to never be satisfied with myself and to always look for new opportunities for growth and improvement. How else can I explain why it was so natural for me to return to school at age 30 with a full-time job and (at the time) three children? Their gifts to me of intellectual curiosity and a desire to improve the world in which I live are gifts for which I can never truly repay them, and gifts of which this research is just one small manifestation.

If my students found it somewhat humorous that I was myself a student, my children simply accepted it as a fact of life because they never knew it any other way. Shmuel Yehuda, Chaya Tova, and Ahuva Bracha are old enough to ask for detailed progress on my “book.” Shimon Chizkiyahu (born soon after I returned to school) is simply excited for the celebratory meal. Tiferet Chana (born between the literature review and the methodology section) will one day understand what this is all about. They are the reason that I am almost always smiling, and they are as excited as I am that from now on they do not need to ask before a family outing – “Is Abba coming this time?”

The research discussed in this dissertation attempts to understand the forces that motivate high school boys to study Gemara. Understanding the source of my motivation is something that requires no research at all. My wife Tzippy bears as much responsibility for this dissertation as I do. A scholar and master teacher in her own right, she has put her own research on hold to simultaneously work on our five little “dissertations,” and she continuously brings a passion and creativity to her teaching in a fashion that unceasingly serves as a source of inspiration to me. She is what motivates me to strive to constantly improve myself, and I could not have reached this point without her boundless love and encouragement. She is my ultimate proofreader, my confidant, and my best friend, and mere words cannot express the depths of my love for her.

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## CHAPTER 1. INTRODUCTION

In 1989, Professor Mordechai Bar-Lev of the Hebrew University in Jerusalem conducted a study of Israeli religious high school boys (Meir, Amit, and Neuman, 1999). His purpose was to determine the degree to which they enjoyed the study of Talmud, the discipline which occupied the plurality, if not the outright majority, of their school day. Bar-Lev's findings were at once shocking and disheartening to the Israeli educational community. Not only did the boys in the study not profess their profound love for learning Talmud, but many of them, when asked to rank their subjects in order of preference and enjoyment, placed Talmud at or near the bottom of the list (exact numbers do not exist, as Bar-Lev's study was never published).

Bar-Lev's results posed a severe challenge to the entire religious school system. For almost two centuries, since the rise of the great *Yeshivot* in Eastern Europe, Talmud has formed the central part of the curriculum, sometimes to the near exclusion of all other areas of Torah study. The product of several centuries of argumentation, recording, and editing in the academies of the Jewish community in Babylonia (Persia), the Talmud is viewed as the chief repository of the wisdom of the Sages (*Hazal*), containing their analysis of Jewish law in painstaking detail, as well as their philosophical outlook on the world. No serious discussion of any topic within the realm of Judaism, from civil law to dietary law to advice on parenting, can begin without citing its Talmudic source, or without acknowledging that no such source exists.

With the rise of universal education, Talmud maintained its role as the apex of Torah study, and one would be hard pressed today to find any “serious” Yeshiva – day school, high school, or otherwise – that does not give the lion’s share of its learning time to studying the Talmud and its commentaries. To discover that boys who had been immersed in the “Sea of the Talmud” for five years or more, at a rate of as many as twenty-five hours per week, were simply bored by or, even worse, turned off from this vital subject, was to discover a severe and fundamental flaw in the entire religious educational system.

But what to do? To answer that question, the root causes of Bar-Lev’s results must first be discovered, an endeavor that has yet to be systematically and scientifically undertaken. Why is it that Talmud study, which has occupied so many for so long, has suddenly created a generation of disenchanting students?

To some extent, the question is a straw man. Despite the best visions that nostalgia has to offer, Talmud study has never until recently been an endeavor for the masses. The complexities of the work include its multiple and sometimes arcane languages, its elliptical idiomatic structure, its extended stretches of inductive reasoning, and its demand that even its beginning students first amass a wide body of knowledge so that they can understand every passing reference to other *sugyot* (topical discussions) within its nearly 3,000 folios. Clearly, the study of Talmud was never intended for middle school, or even most high school, students. While luminaries such as Rabbi Judah Lowe of Prague railed in the 16<sup>th</sup> century against starting Talmud education too early, there is ample evidence that for most of the past millennium and a half, Talmud study was confined to the elite students. As such, Bar-Lev’s study does not reveal an

aberration in a long and successful history, but rather an initial foray into the ramifications of compelling all students to engage in what is effectively advanced-level material.

Nevertheless, Bar-Lev's findings demand that we search for a solution. A simple approach would be that, for the first time in history, Talmud study has competition. While in the yeshivot in Europe, Torah study was the exclusive endeavor of the students, and Talmud study the main component of this endeavor, modern-day yeshiva day schools and high schools offer a dual curriculum, combining Torah study with the full range of secular topics. Additionally, the leisure opportunities that are available to students in an open society have introduced them to definitions of "excitement" that go far beyond deciphering a difficult text or fully comprehending both opinions in a Talmudic argument. By contrast, the *Haredi* (so-called Ultra-Orthodox) world, which shuns most secular studies and has created cloistered communities that strive to keep out much of the influence of modernity, has largely succeeded in developing an education system where virtually all of its young men begin the study of Talmud at a young age, and continue to do so well into their twenties and thirties, if not beyond. Even when *Haredi* men leave the Yeshiva, their commitment to Talmud study continues at a rate that the Modern Orthodox community can only dream about.

Yet such an answer will not and cannot be acceptable to the Modern Orthodox community. The spiritual heirs of Rabbi Samson Raphael Hirsch and Rabbi Joseph Soloveitchik believe firmly in a religious existence infused with a deep devotion to the principles of the Torah while at the same time encountering and confronting the best that the world has to offer. To claim that Talmud study can exist only in isolation from the

world would be to deny its place in the fabric of an integrated and whole Jewish life. While Rabbi Aharon Lichtenstein, perhaps the most respected Modern Orthodox authority today, has proposed a partial retreat from the over-reliance on Talmud (Lichtenstein, 2001a), few of his adherents have adopted his suggestions, and have turned instead towards seeking to develop methods that will improve the state of Talmud education.

A more nuanced approach to the problem put forth by Bar-Lev would suggest that Talmud education has encountered this “crisis” because it has yet to be adapted to the realities of the modern educational system. While other fields of study have been the beneficiaries of advances in both curricular development as well as pedagogy and instructional methodology, Talmud continues to be taught in much the same way that it was always taught – a heavy emphasis on frontal teaching at all levels, with increased opportunities for individual or paired (*chavruta*) preparation time as students get older and, presumably, develop their abilities to approach the text on their own. Innovations such as differentiated instruction, use of alternative assessments, and even structured curricula with clear goals and skills spirals have only come to Talmud education recently, and it is too early to accurately ascertain to what degree they have caught on.

And yet, despite these supposed handicaps, it is obvious to even a passive observer that there has been some measure of success in inspiring Modern Orthodox teenagers to study Talmud. The increase in opportunities for Talmud study outside of the classroom and the explosion of the year-in-Israel phenomenon (and, more importantly, the increase in the number of boys who remain in Israel for a second year) are but two indicators that Talmud education is finding fertile ground among the youth of America.

Given the difficult issues that are faced religiously, culturally, and educationally, how can we account for these positive developments? At the same time, it is clear that not every student is inspired to devote a portion of his free time to the study of Talmud. And thus, the question that emerges is how successful is the current Modern Orthodox educational system in developing in its students a desire to learn Talmud, and what are the major factors that contribute to those results?

This paper represents the first scientific attempt to understand the attitudes that students develop towards the study of Talmud – how, when, and why such attitudes are formed. The rich literature concerning student motivation will provide some insights into factors that often serve as motivators or de-motivators in the classroom, and my interest will be to discover the extent to which certain known factors play a role and the extent to which Talmud is different due to its importance to Jewish religious life in general. It is my intent that the results of this study will provide material for serious consideration by Jewish educators on all levels, as well as for the Modern Orthodox community at large. Perhaps of even greater importance, as this study is a limited one, it is my hope that the questions raised throughout this paper will be picked up and pursued by future researchers of Jewish education.

## CHAPTER 2. REVIEW OF LITERATURE

### *Introduction*

There are two bodies of literature that are relevant to our study, and the differences between them are vast. The study of human motivation, and in particular the study of the motivation of children and students, has occupied the field of psychology since Freud first put forth his drive theories. By contrast, virtually no research has been conducted on Talmud education in particular. Instead, the literature on that subject is composed mainly of ideas and suggestions, forums and discussions which aim to solve the “problems” present in Talmud education, at times without formally defining those problems and without showing that the proposed solutions have proven successful for anyone other than the individuals suggesting them. However, the views of seasoned educators, while not research-based, are not to be taken lightly. It is they who have witnessed the daily attitudes of their students to the study of Talmud and it is they who have raised the issue to the level of public debate and discussion, a place to which it has rarely before been admitted. As such, the writings of these educators will be useful in understanding the perceived problems with Talmud education, in particular as they relate to the ability of teachers and schools to sufficiently motivate their students to see Talmud as a lifelong endeavor.

*Talmud Study in American Orthodox Day Schools*

Professor Ephraim Urbach (1959) identified three major weaknesses in the teaching of Talmud in the Yeshiva High School system. First, he claimed that the specific selections from the Talmud that were being taught were not seen as relevant to the students. Arcane discussions about wild oxen and property rights were fairly meaningless to the average twelve-year old, and perhaps should be replaced by a focus on the sections that concern themselves with the holidays and prayers. Second, he noted that 20th-century schools were utilizing a 19<sup>th</sup>-century approach to education, assuming that the students would “learn to swim by swimming,” an approach that may have worked (although often it did not) in the small-town *heder* of Eastern Europe, but was ill-suited to the faster-paced and multivariate style of education that exists in today’s schools. Finally, Urbach noted the problem of the teachers, that Talmud teachers often lack the necessary pedagogical and didactic skills that are necessary to command a class of anywhere from twenty to forty students. Not mentioned by Urbach, but obvious to anyone considering the problem of teaching Talmud, are the linguistic, idiomatic, and intellectual difficulties inherent in the text itself.

Urbach’s first concern is with regard to the content being taught in schools, an area that has received significant attention since Urbach’s article appeared. A variety of thinkers and educators have identified the main deficiency of Talmud education as resting within the specific topics and materials that have been traditionally chosen to be the focus of study. Some, like Urbach, have suggested that rather than pick a tractate and proceed page by page until the school year ends, a more organized and selective syllabus is necessary, with an eye towards identifying topics that will be of interest to the students

(Levy, 1998; Kramer, 1999). Others have proposed that the content is not as crucial as are the skills. Since the study of Talmud involves the acquisition of a wide range of complex skills all at once, it is easy for even advanced students to quickly find themselves lost and confused if they are expected to plow through the text without first receiving an appropriate grounding in all of the necessary skills. That being the case, some have proposed, if not a return to basic skills, then at least a renewed focus on them at the high school (Berman, 1994; Brovender, Finkelman, Segal, and Speter, 2004) and even post-high school (Finkelman, 2003) levels. While educators at the high school level and above have tended to assume that basic skills were being acquired in the Middle School years, when Talmud study generally begins, these writers have encouraged the idea that many students enter high school still deficient in these areas, and thus efforts are necessary to improve basic skills before diving into the deeper intellectual challenges that Talmud presents.

Others have suggested that the text of the Talmud is not sufficient for its own instruction, and that in order to excite and motivate students it is necessary to go beyond the page and seek out new materials and perspectives. Some have proposed that Talmud be used as a springboard for Jewish values education, a seemingly natural fit as the Talmud is not only the main source for the Jewish legal tradition, but for its ethical tradition as well. Hammer-Kossoy has postulated that the study of Talmud should result in a religious transformation for the student (Lichtenstein, 2003), and observed three teachers of young adults to understand the way in which each one brought the Talmud from being a mere legal text to being a guidebook for life for its students (Hammer-Kossoy, 2001). Berman has suggested that Talmud lessons would be greatly enhanced

by seizing upon the ethical and moral principles contained, implicitly or explicitly, in the Talmud discussion and thereby present students with challenges and issues that are pertinent to them on a regular basis (Berman, 1990, 1994, 1997). Others oppose this approach (Kahn, 2005), claiming that it dilutes the study of Talmud into the study of ethics. The question raised by the opponents to Talmud-as-values-education is a good one – if values education is to be the main goal, then why bother with such a difficult text?

There has recently been a movement to make greater use of the tools of Academic Talmud study in the traditional classrooms. Whereas tradition Yeshiva study of Talmud focuses on legal principles and following the arguments of the Sages, Academic Talmud study has included in its purview intense attention to textual variants, historical layering and development of the text, and the social and cultural contexts within which the Talmud was created. While traditionalists generally oppose extensive (or any) use of such methods, Beverly Gribetz (Gribetz, 1995) and others (Carney, 1991) have proposed that the world of Academic Talmud offers a range of tools that can be potentially useful for students who are both distracted by an untold number of other pursuits and who have learned modern methodology in their other subjects. If, when studying literature, students employ a diverse range of tools and tactics in analyzing and deconstructing the text, it is likely that the lack of similar tools for the text of the Talmud will make its study seem banal by comparison.

Well aware of the opposition that is raised by traditionalists to the attempted encroachment of Academic Talmud into the Beit Midrash, Pinchas Hayman (Hayman, 1997, 2002, 2005) has sought to integrate the modern tools into the traditional model.

Claiming that his historical methodology accurately represents the approach utilized by the Medieval scholars, Hayman has developed a curricular program for Talmud instruction that pays particular focus to issues of the historical layering and development of the text. His contention is that this approach will ease the transition for students from lower-level to higher-level thinking and analytical skills, and will thus make the study of Talmud both easier and more enjoyable. While there has been some traditionalist backlash concerning this program (Frumen, 2005; Gottlieb, 2005; Gutel, 2004), the program is too recent for there to be research to substantiate or refute Hayman's approach from a motivational perspective.

A final suggestion, shocking because of its source, has been the aforementioned call by Rabbi Aharon Lichtenstein to seriously cut back on the study of Talmud in favor of both Mishna and Maimonides' Code (Lichtenstein, 2001a). Coming as it does from the head of one of the foremost Yeshivot in the world, the son-in-law and primary student of Rabbi Joseph Soloveitchik, and one of the foremost proponents of the study of Talmud (Lichtenstein 1989, 2003), this is a radical suggestion indeed, and it is one that is painstakingly put forth. Rabbi Lichtenstein's approach seems to be to keep students involved in the main process of *halachic* development, while avoiding the problematic text that is causing so many problems. Rather than switch entirely to other areas of Torah study, Rabbi Lichtenstein encourages the study of the two works most intimately connected to the Talmud itself. Despite claims that Rabbi Lichtenstein's approach seems too narrow-minded, in that he refuses to consider alternative approaches to the study of Talmud (Brandes, 2001), and despite Rabbi Lichtenstein's contention that pedagogical innovations are not the problem (Lichtenstein, 2001b), the fact is that this proposal has

yet to gain any traction within the Modern Orthodox world and thus cannot be evaluated in any practical sense.

*Talmud Teachers and Pedagogy*

Urbach's second and third critiques focused on issues of pedagogy and teacher preparedness. Jack Bieler has more recently echoed this theme, noting that old-school Talmud teachers were exceedingly knowledgeable about the material that they were teaching, and that often made up for their lack of formal educational training (Bieler, 1988). By contrast, today's teachers are often not as knowledgeable as their predecessors, but are also no better prepared in pedagogy and didactics, and thus they come to the classroom with a paucity of tools necessary to get them through class, much less present an inspiring lesson.

A more constant theme has been the inappropriate nature of beginning Talmud instruction at relatively young ages (often as young as nine or ten), and the detrimental and negative results that come about from expecting students to engage in developmentally inappropriate material. For some, Talmud is viewed as merely one misstep among many, the last in a series of curricular errors that has forced students to encounter new subjects and texts on a yearly basis beginning in first grade, with the result that no subject is ever mastered or given the time and attention necessary to allow students to develop a love for the subject (Rothstein, 2003). For others, the rush to begin Talmud early is an inversion of what is proper, as Talmud should be presented once students have mastered, or at least been sufficiently exposed to, those books which precede it both chronologically as well as in the development of Jewish law (Be'eri, n.d.).

Finally, others have suggested that it is not Talmud per se that is developmentally inappropriate, but rather the particular topics within Talmud that are chosen to be studied are those that younger students are as yet unable to fully grasp (Berman, 1994).

The need for new pedagogical approaches to teaching Talmud has received some attention over the past decade, as new technology and better understanding of the different ways in which students learn has led to the creation of a variety of new materials for the instruction of Talmud. Kanarek's work on cognitive maps (Kanarek, 1999; see also Amid, 2002) and the development of supplementary materials such as Sabato's *HaTalmud HaChazuti* speak to the need to present Talmud in a more visual manner for a generation that is increasingly brought up on visual stimuli. The Gemara Berura program (Monheit, 2004) has sought to integrate the visual and organizational strengths of the computer to help students to follow the flow of the text. More recently, the introduction of SmartBoard technology into schools has provided the potential for adding a more interactive aspect to this visual approach to Talmud education.

Others have argued that the very structure of the Talmud classroom is ill-suited for the teaching of Talmud. Similar in principle to the ideas of differentiated education that have flourished over the past decade (Tomlinson, 1999), the notion of making use of a *Beit Midrash* (study hall) structure at the high school level has been put forth by several writers in recent years (Brovender, Finkelman, Segal, and Speter, 2004; Kahn, 2005). In a typical *Beit Midrash*, normally found at the post-high school level, students of various ages and abilities learn side-by-side, with different groups occasionally leaving the main study hall to attend classes on their level and of their choosing. By applying this approach to the high school level, its supporters claim that the compulsory, and thus de-

motivating, nature of classroom-centered Talmud study will be alleviated, and students will be able to discover for themselves their proper niche in Talmud study and thus will feel a greater sense of ownership of the material and a greater sense of attachment to it as well.

A variety of additional issues that lie beyond the walls of the classroom have been raised as well. The common teacher complaint that student apathy stems from parental apathy is certainly one that has been mentioned as a possible explanation as to why students are not enthusiastic about the learning of Talmud. Changing cultural norms, and particularly the western ethic on individualism, are often seen as being inimical to the study of a book that has a heavy focus on responsibilities beyond the self, as well as inimical to the notion that a student must spend an excessive amount of time studying something that he does not want to study. On the other hand, there are certain cultural trends that would seem to indicate that Talmud study is somewhat of a desirable endeavor. Witness the massive growth of the numbers of people who study a folio of the Talmud on a daily basis (*daf yomi*), the enrollment in summer programs for high school students where the focus is on learning, and specifically the learning of Talmud, and the ever-growing percentage of Yeshiva high school graduates who choose to spend at least one year before college studying (mostly Talmud) in Yeshivot and seminaries in Israel.

When all is said and done, this literature has done little to help solve the problems that it purports to address, and even to demonstrate that problems in fact exist. The different proposals reviewed here may reflect approaches developed over time by individual educators, and may have worked for those educators in their classrooms, but there is no evidence to show that these ideas have succeeded on any larger scale.

Additionally, virtually all of the writings reviewed above focus on the study of Talmud at the high school level, with virtually no attention given to the first three or four years when Talmud is studied at the middle school level. It is worth asking what these writers feel should be accomplished at the middle school level, and how high school Talmud study is meant to build off of those early accomplishments. Furthermore, a vast majority of these suggestions have not been based on any research regarding issues of student learning or motivation, and seem to mainly represent the particular impressions and approaches of the individuals suggesting them. Even Bar-Lev's study, shocking as it was, has yet to be replicated, and focused only on Israeli high school students, whose experiences and milieu are vastly different from those of their American counterparts.

In order to better understand the motivation, or lack thereof, that students possess with regard to the learning of Talmud, it is imperative to understand the factors that have been found to contribute to increased or decreased motivation in students in general. While the study of Talmud may be found to have some factors pertaining to it which have not been related to in the extant literature, there is nevertheless much to be learned from this literature that will apply to the study of Talmud in Yeshiva day schools and high schools. My goal in the next section of this review will be to survey the various ways in which motivation, and specifically academic motivation, has been studied in a general context. Based on that research, the two-pronged goal of the present research will be to gauge the level of motivation that American high school seniors have towards the learning of Talmud, and to specifically investigate how several factors that have emerged from the general literature play a role in this motivation.

### *Short-Term Motivation*

Teachers are concerned with student motivation on two levels. In the narrowest sense, teachers desire that students be motivated to learn when they enter class each day, as motivated students are likely to be engaged and participatory students. The more motivated students there are in a class, the fewer issues of classroom management and discipline will exist, and the more the teacher will be able to teach. At the same time, teachers are often concerned that the students should develop a longer-term sense of motivation towards the subject matter being studied. Some teachers may hold this view because they themselves are passionately dedicated to their field of expertise, and they would like to raise a cohort of similarly interested students. Other teachers may feel that rather than try to motivate students anew each day, it is far easier for students to be generally motivated and interested in a subject and thus for those students to bring their own sense of motivation to each class, without having to rely on the teacher to provide a new and innovating motivating factor every day.

A number of factors have been shown to help motivate students in the short term. In discussing short term motivation, I am referring to a sense of motivation that is more external to the student and will last as long as the specific motivating factor is present. While there may be some residual motivation that results from the student performing the task demanded of him, and while the student may simply need something to get him to engage in the task in the first place so that he can later discover that he is, in fact, interested in the task, the main goal of these motivators is to encourage the student to participate fully in the classroom activities, with no real thought towards developing a deeper and more lasting sense of motivation toward those activities.

One factor that has been found to work with children is the personalization of tasks (Cordova and Lepper, 1996). When students were presented with on-screen tasks that addressed them by name and referred to items that the students liked, the children were more likely to be more engaged in the task and to perform better. Similarly, when children were given choices within their tasks, even choices as incidental and irrelevant to the task as the color of some object in the activity, they were more motivated to be involved in the task and were more likely to do well on such tasks (Cordova and Lepper, 1996). Seemingly, the smallest of personal connections is sufficient to make some degree of difference.

#### *Grades and Extrinsic Rewards*

Undoubtedly the most common motivators used in schools are grades. While grades can serve many purposes, most notably feedback for both students and teachers, there is no way around the fact that grades are often seen by the students (with encouragement from both parents and teachers) as being the true goal in school. Good grades are rewarded, at various levels of education, with praise, special treatment, college admission, scholarships, and a variety of other “goodies,” most of which rarely look beyond the raw letters or numbers that the student received on his report card. Given such a system, it is not surprising that many students will push themselves to learn to the extent that it helps them to achieve the grades that are deemed necessary for success, but will stop short of learning more than fulfills those requirements.

It should be noted at first that there are several possibilities as to the place of grades in the process of student motivation. Howard and Maxwell have put forth three

possible models to explain how students deal with their grades. Under the grading leniency bias model, students perform better for teachers who give better grades. Thus, if a teacher is seen as an “easy A,” or if a student has succeeded with a particular teacher in the past, it is likely that said student will be motivated to continue performing well for that teacher in the future. The second model is referred to as the teaching effectiveness model. This model sees grades as an effect instead of a cause, and posits that teacher effectiveness influences student performance, and student performance influences both grades as well as student evaluation of teachers. Finally, the student characteristics model suggests that student motivation influences performance, which influences both grades and student evaluation of teachers (Howard and Maxwell, 1980). While limited studies have supported the student characteristics model, this still leaves open the question of what is causing the motivation within the students, and whether or not the knowledge that grades will be given plays any role in the development of that motivation.

In its broadest treatment, the issue of grades and motivation has fallen under the rubric of the discussion concerning intrinsic and extrinsic motivators. The overjustification hypothesis states that providing grades or other external rewards for an activity for which a person is already intrinsically motivated will cause that person’s motivation level to decrease (Lepper, Greene, and Nisbett, 1973; Kruglanski, Friedman, and Zeevi, 1971). The underlying principle to this hypothesis seems to be that the individual will look at his actions as being motivated by the reward, instead of by his own internal proclivity towards the activity, and will conclude that he was acting only to receive the prize presented to him. While some have suggested limitations on this hypothesis (Hughes, Sullivan, and Beaird, 1986) and others have claimed that there are

alternative explanations for the phenomena observed (Reiss and Sushinsky, 1975; see also Lepper and Greene, 1976), this theory has been demonstrated outside of laboratory settings (Greene, Sternberg, and Lepper, 1976) and has become the basis for many subsequent studies that have sought to better define how overjustification develops and how its effects can be limited.

Edward Deci (1972) suggested that one limitation on the negative effects of extrinsic rewards would be whether or not those rewards were tangible. He felt that more tangible rewards, such as prizes, would decrease motivation, while less tangible rewards, such as verbal praise, would not only not decrease motivation, but might even increase it. He further suggested that money might be viewed as its own category, as it may serve as a more severe de-motivator, in light of the special status that it has in society (Deci, 1971). Following Deci's lead, Dollinger and Thelen (1978) claimed four categories of extrinsic rewards, adding symbolic and self-reward to the tangible and verbal categories. In a similar vein, Lepper and Hodell (1989) proffered three categories of extrinsic rewards, grouping them not by external attributes, but rather by purpose. They labeled their categories as functional, which refers to rewards that are basically bribes, evaluative, which are meant to provide feedback, and social control. For both of these systems of classification, the researchers agree that there will be a negative impact if the reward is seen as trying to control the behavior of the recipient, and will have a more positive impact if the purpose of the reward is to provide some form of information to the recipient.

Harackiewicz (1979) has suggested that the reasons behind the giving of the rewards make a difference for the motivation of the student. She cites Karniol and Ross's

(1977) view that rewards that were performance contingent would increase motivation, as opposed to rewards that were task contingent (given for merely engaging in the task, regardless of results), which they felt would decrease motivation. By contrast, she notes that Deci (1975) took the opposite approach, claiming that performance contingent rewards would lead to a decrease in motivation, as the reward would be seen as more controlling. Harackiewicz's findings supported the view of Deci, which seems to further support the overjustification hypothesis.

Others have suggested that the type of reward itself does not tell the entire story in terms of its impact on motivation. It has been proposed that the timing of the giving of the rewards may play a role, in that motivation may not drop so severely if the rewards are given after a certain delay (Deci, 1972). Still others have claimed that the salience of the rewards makes a difference (Ross, 1975). This theory is based on a study where children were divided into groups and presented with a task to perform. Some children were told about a reward, some were shown the reward, some were told to think about getting a reward, and some were not told about any reward at all. The results showed that motivation decreased as the potential reward became more salient in the minds of the children. Finally, it has been noted that the reward is likely not the only factor that is affecting the child at the time of his engagement in the task, and it is possible that other issues will play a role in determining his level of motivation (Deci and Ryan, 1985).

Within the classroom, the specific impact of grades can be moderated by the student's, and perhaps the teacher's, approach to the learning at hand. Ames and Archer (1988) have found that grades mean different things for students with mastery orientations than they do for students with performance orientations. As such, the grades

themselves might not be the key factor in providing motivation for the student, as much as the student himself and his attitudes towards learning and grades serves as an important factor.

This finding leads us to what has become known as cognitive evaluation theory. Simply stated, this theory claims that the impact of external events will be mediated by the implications of those events for the individual's experience or sense of competence (Deci, 1975; Deci and Ryan, 1985). Thus, how the individual views the presentation of grades or other rewards will be crucial for predicting and understanding the impact that those rewards will have. Whether those rewards are seen as being controlling or informative will therefore help to explain whether or not they have a positive effect on motivation (Enzle and Ross, 1978), and rewards that are less controlling in general, such as verbal rewards and performance contingent rewards (according to some) will likely have the desired positive influence on student motivation (Pittman, Boggiano, and Ruble, 1983).

It should be noted that even when something is extrinsically motivated, it does not have to remain that way forever. The self-determination approach to motivation states that it is possible for an activity to pass from being extrinsically motivated to being intrinsically motivated over time (Deci, 1992). If the activity is deemed to be inherently interesting, it will pass through four stages – internalization, introjection, identification, and integration - culminating with intrinsic interest.

Finally, the writings of Alfie Kohn (1993) should be noted, if only because of their popular nature and thus increased currency among educators relative to other research. The very subtitle of Kohn's book *Punished by Rewards* sums up his stance on

extrinsic motivators: “The Trouble with Gold Stars, Incentive Plans, A’s, Praise, and Other Bribes.” For Kohn, there is virtually no form of reward which is acceptable, in a classroom setting or anywhere else, and there is little difference between different types of rewards. While Kohn is aware of and cites much of the literature that I have already reviewed, he seems impervious to those conclusions which do not fit into his no-rewards vision for the world. One of the most pervasive failings of his approach is his view that motivation theory is largely Skinnerian in nature, and thus is based on the notion that humans will respond in certain ways to certain stimuli. Of course, this in no way represents the current research into motivation, and in fact operant theory has been criticized by motivational researchers (Deci and Ryan, 1985). Thus, while Kohn’s book is more accessible than much of the research that he refers to, it is too dogmatic to be considered a truly reasoned analysis of the issues and thus will receive no further attention in this study.

*Early theories of motivation and the move towards an affective approach*

While grades and other rewards are often sufficient to motivate students to perform a task once, both teachers and researchers have a greater focus on stimulating a more lasting form of motivation in their students. With regard to the study of Talmud, this desire is heightened by the religious nature of the subject matter, in that the lifelong study of Talmud is a desideratum not only as part of creating an educated community, but also as part of developing the religious personality of the individual and an attachment to God.

Early approaches to intrinsic motivation were physiological in nature. Freud spoke of psychodynamic drives, whereby sexual urges would be neutralized and transformed into motivation for other forms of activities. Hull (1943) also referred to drives, although, unlike Freud, he listed four basic drives (hunger, thirst, sex, avoidance of pain) that he felt motivated all of human behavior. Both of these theories encountered difficulties when forced to explain human behavior that seemed not to conform to the drives, such as choosing to explore novel spaces instead of eating. Maslow (1954) took the opposite approach, focusing on “the ‘pulls’ rather than the ‘pushes’”, and thus delineated a hierarchy of needs that humans strive to fulfill. White (1959) spoke of effectance motivation, which he claimed to be an internal energy source which motivated a wide variety of behaviors, and which placed a focus on the notion of competence as a motivating factor. Berlyne (1960) felt that intrinsically motivated behaviors were those that provided internal conditions that were rewarding for the organism and that would offer optimal arousal potential. Skinner’s operant theory offered a behavioristic model for human behavior and motivation.

Modern research into motivation has largely abandoned approaches that look at the individual as some form of a reactive automaton and have focused instead on the reflective and introspective nature of humans. The way in which students view their surroundings, the impressions that they have of themselves, and the values and priorities that they bring to the classroom have all been shown to have an impact on their motivational patterns.

One recent trend in the literature on motivation is the role that caring can play in helping to motivate students. In her work with adolescents, Wentzel (1997) has found a

positive correlation between the degree to which students perceive their teachers to be caring and their success in achieving prosocial and academic goals. The Motivational Systems Theory, which is concerned with direction, energization, and regulation of behavior patterns, sees motivation as a function of goals, emotions, and personal agency beliefs. Within this model, caring is thought to be a factor that can help facilitate further motivation (Ford, 1996). Even when the teacher has unquestioned power within the classroom, her ability to assume the role of a simultaneously strong and caring figure has been found to have a positive impact on the students (Noblit, 1993).

A related strain in the research is the work done on the concept of student self-efficacy and its relationship to motivation. Bandura and Schunk (1981) found that students who had higher levels of self-efficacy were more likely to persevere on unsolvable tasks. Even further, they found that interest in an activity could be increased by providing students with small, solvable subtasks to accomplish, as those small tasks, once completed, contributed to the students' overall sense of self-efficacy and competence.

Given this finding, it would be of obvious interest to educators to know how a student develops a sense of self-efficacy. Does a student's self-efficacy increase every time he succeeds? Does it decrease every time he encounters failure? To some degree, there is a bit of a snowball effect. Schunk (1989) found that self-efficacy is based on aptitude as well as on prior experiences. Those factors combine to shape self-efficacy, which in turn helps to guide future task choices, which then provide further evidence of a student's abilities. On the other hand, Carol Dweck has warned against trying to falsely increase students' sense of self-efficacy. When students are praised for not doing

anything, or when the praise is excessive given their accomplishments, they tend to be aware of that discrepancy and their motivation actually tends to decrease (Dweck, 1986). When students are praised too often for doing good work, they sometimes develop a sense of “contingent self-worth,” that they are only worthwhile so long as they continue to accomplish, but that they lack any intrinsic value as individuals (Kamins and Dweck, 1999). Students who are praised for being smart often become somewhat gun-shy in class, not wanting to risk that which is valuable about themselves (their intelligence) by offering an incorrect answer (Mueller and Dweck, 1998). Thus, maintaining a sense of self-efficacy can be a delicate balance for both students as well as for the teachers who try, with all good intentions, to build up a student’s sense of self-worth. The warning from this research is that student motivation is not necessarily increased by their feeling good about themselves and their abilities. In fact, for some students, the more that they are told that they are capable, the more dangerous it will become for them to exert effort in class, as effort could reflect the fact that they lack ability, and thus their overall sense of self-worth may be threatened (Covington and Omelich, 1979).

#### *The role of parents, peers, and teachers in student motivation*

Moving beyond the self, there has been discussion concerning the role of significant others in the students’ world in the development and maintenance of motivation. Connell and Wellborn (1991) have discussed the role of self-system processes, whereby a student’s abilities, strategies for success, and self-regulatory style is viewed with the framework of the environment in which he operates, particularly with regard to the support given to his sense of autonomy and the overall structured nature of

his environment. While their main focus is on the school environment, they feel that parents also play a role, insofar as the relationships that children have with their parents have an impact on the nature of the relationships that they develop with their peers and teachers, which ultimately translates into an impact on academic achievement (Wentzel, 1996). Epstein (1989) has suggested that there are six structures that have been found helpful to teachers in the classroom that are found in the family environment as well, and that parents can aid their children's motivation by insuring that these factors are handled properly and consistently. The six factors, known as TARGET structures, are task structure (what is done), authority structure (who is in charge), reward structure (how are accomplishments recognized), grouping structure (guidance toward certain social groups), evaluation structure (standards for learning and behavior and methods of monitoring those standards), and time-management structure. By contrast, various research studies have suggested that a student's relationship with his parents has no meaningful or measurable impact on his sense of belonging, on his prosocial goals, or on his interest in school (Deci, 1975; Ames, 1992). It will be of interest to this research to test which of these divergent hypotheses holds true in the context of Talmud education. Do parental expectations with regard to the learning of Talmud have an impact on their sons' increased or decreased motivation to learn? If so, is this impact disproportionate to the impact that parents have in influencing their sons to excel in other academic subjects? Can the effect of parents be seen within the same classroom, i.e. do we see that students in the same class with the same teacher and the same peers have different levels of motivation toward learning Talmud, and can this difference be connected to the influence of their parents?

While there is some debate over the role of parents in student motivation, it is virtually taken as a given that peers can influence each other with regard to their attitudes towards school work. Wentzel (1991) has found that there is a correlation between social competence and academic achievement. Berndt and Keefe (1996) have suggested that there are four motives that explain this influence that friends have. The first is the need for social approval, as students, and particularly teenagers, want to engage in those activities that are seen as “the thing to do.” The second motive is the notion of identification, that teenagers tend to try to be like their friends, both in looks as well as in behavior. The third motive is self-enhancement, which refers to the tendency to judge one’s own competence by comparing oneself to those who are near. Finally, there is the motive of validity seeking, which is the basic need and desire to be correct. It is not surprising that students tend to seek out peers who are similar to themselves, and that who they consider to be their peers tend to have an impact on their overall motivation (Kindermann, McCollam, Gibson, 1996). The impact of peers has been shown to play a role as well in the reasoning given by those students who drop out of school, a point at which their motivation has plummeted to a level where they no longer see a reason to engage in academic pursuits (Hymel, Comfort, Schonert-Reichl, and McDougall, 1996).

The final group that may have an impact on student motivation is the teachers with whom a student interacts. Wentzel (1998) found that when sixth grade students perceive that their teachers support them, they are likely to see an increase in almost all areas of motivation, other than their basic performance goal orientations. Similar results have been found with older students (Skinner and Belmont, 1993). The relationship between student and teacher can have an impact on student acclimation to the school

environment, and thus set the stage for greater motivation and success down the road. The key components of these relationships are closeness, dependency (as distinguished from attachment) and how they handle conflict (Birch and Ladd, 1996). In light of this research, the question of the impact of a dynamic “rebbe” on a student becomes a very salient issue, and the degree to which a student identifies with or feels a sense of closeness to his rebbe can perhaps be distinguished as a factor in student motivation to learn Talmud.

Crucial to what has been learned about the interactions that students have with different groups of people and how those interactions can affect their performance is the idea that the same behaviors can be viewed differently by different groups, and thus can be both a positive and a negative factor at the same time (Birch and Ladd, 1996). For example, a student who cracks jokes in class may earn a stern look of disapproval from the teacher, but may simultaneously be given the thumbs-up from his classmates who appreciated the humor. According to the idea of the self-worth motive (Covington, 1984), students will behave in a manner that will promote self-identity in order to gain approval from others and will avoid behaviors that will be deemed negative. As a classroom setting is actually a combination of systems, a student’s motivation will be linked to his ability to successfully navigate through the differing and sometimes competing pressures to perform in a manner that will be seen as positive by all of those around him.

*The impact of teachers – decontextualization and self-fulfilling prophecies*

Dewey and Bruner proposed that one factor that caused student motivation to decrease was the decontextualization of instruction (Cordova and Lepper, 1996). This concept has two aspects that have been discussed in the literature. The more basic one is the idea that, over time, the subject matter that is taught in school is either inherently something that seems distant from the students, or is taught in a manner that fails to emphasize its relevance to the students. Eccles and Midgely (1989) have added a developmental feature to this concept, noting that the overall environment of the school does not always fit with the developmental stage of the children, and that has the potential to serve as a demotivating factor, as students feel more out of place in the classroom. Malone and Lepper have delineated four sources of intrinsic motivation which can be used to counteract the effects of decontextualized instruction – providing meaningful challenges to students, stimulating curiosity through incongruity, empowering students by giving them some degree of control, and encouraging fantasy, which can often provide a sense of meaning for students (Lepper and Hodell, 1989).

While teachers can do a great deal to offset the effects of the decontextualization of instruction, the behavior of teachers in the classroom has also been found to play a crucial role in developing student motivation. Teachers and students can motivate each other and thus can play off of each others' motivation in a homeostatic cycle. A negative aspect of this phenomenon is that teachers at times will give more attention to students who are highly motivated and participate more in class, while giving less attention to those students who lack motivation and thus shrink back in the classroom (Skinner and

Belmont, 1993). As a result, a Matthew Effect is created (Stanovich, 1986), wherein the strong students get even more attention and the weak ones actually get less.

Well-prepared teachers will generally know their students before the first day of school, as they will make sure to avail themselves of any information about potential classroom issues that they can obtain. While this drive to be prepared is certainly part of doing a good job, it opens the door to the potential for perceptual biases, where the teacher will develop a certain mental perception about each student and try to fit subsequent behaviors into that perception. Research has found that such biases have a limited degree of accuracy, generally in the short term and with that particular teacher (Jussim, 1989).

A more studied type of bias is the self-fulfilling prophecy, or what has become known as the Pygmalion Effect. Rosenthal and Jacobson's (1968) Oak School experiment showed that students who were expected in advance to be "spurters" did indeed experience better-than-average growth and development in the classroom. In this experiment, the students in a K-6 school were administered a standardized test, the "Harvard Test of Inflected Acquisition," which was claimed to be a predictor of academic blooming. The administration of the test was performed to set up a plausible background for the actual experiment. Before the first day of classes the fall after the tests were administered, the teachers in the school were given lists of their students, with a varying number of students in each class being listed as potential "spurters," based on their results on the standardized tests. Teachers were told that this information was confidential, but that they might like to have it for their own knowledge. Toward the end of the school year, students were once again tested, and the key variable that the experimenters focused

on was the difference between the students' pre-test and post-test IQ. It was found that in first and second grade, students who had been labeled as "spurters" saw significant increases in their IQ's at a rate three times that of the other students. Rosenthal and Jacobson concluded that, while a number of factors, such as age, sex, and minority-group status (many students in the school were Mexican) may have played a role, the fact that the teachers expected certain students to succeed can perhaps be fingered as explaining this significant improvement among those students who had been randomly selected to be portrayed as strong. More recent research has shown that, unlike regular perceptual biases, these prophecies can have longer-lasting impacts on student achievement (Jussim, 1989).

While the initial research on self-fulfilling prophecies is impressive, and while there is something logically compelling about the notion that teachers will give preferential treatment to those students whom they expect to be their top performers, there are other factors that may complicate the simplicity of this idea. Self-fulfilling prophecies are often based on erroneous expectations, and for those teachers who are reactive in nature, they may take knowledge of a student's previous performance to form an ideal for the student to live up to (Brophy and Good, 1974; Jussim, 1989; Peterson and Barger, 1985).

How self-fulfilling prophecies come to be fulfilled is unclear. Some have suggested that it relates to basic differences in teacher personalities, such as flexibility, bias, and general level of reactivity (Brophy, 1983b). Others have claimed that it is a function of the way in which teachers view ability. Those teachers who view ability as stable as opposed to malleable are more likely to focus their efforts, however subtly, on

those students who they perceive to have ability and thus have a chance to succeed.

Teachers who fail to realize that expectations and interventions need to be grade-level appropriate are also unlikely to try to help those students who have difficulties (Eccles and Wigfield, 1985).

Brophy (1983b) has also identified a number of limitations on the effects of self-fulfilling prophecies. First, there is the ever-present cautionary note that lab studies do not necessarily accurately reflect the real world. While the original Pygmalion study did find the presence of self-fulfilling prophecies, in a regular and uncontrolled classroom there are other factors, such as student achievement, which may limit the impact of these prophecies (West and Anderson, 1976). Dusek (1975) pointed out the differences between bias effects, which tend to be based on false information, and expectancy effects, which are more genuine. Cooper and Good (1983) have pointed out that there are different types of teacher behavior, some of which simply maintains the pre-existing differences between students and some of which enhances it.

Further research has shown that Pygmalion effects are not completely teacher-driven. The student is obviously one half of the equation, and not every student reacts in the same way to the same stimulus. Thus, negative feedback that causes one student to become discouraged with his work could motivate another to work harder (Brophy, 1983b). Additional factors, such as grade level, class size, curriculum pacing, content of instruction, and time of year may play a role as well (Brophy, 1983b).

Student perception of self-fulfilling prophecies can have a hand in minimizing their effects. When students detect that teachers are favoring certain students, something that students are fairly capable of doing, that perception alone can moderate any possible

Pygmalion effects (Brattesani, Weinstein, and Marshall, 1984; Weinstein, 1989).

Towards this end, there is some evidence that students become more aware of differential treatment of students as they get older, and thus Pygmalion effects may decrease in higher grades (Weinstein, Marshall, Sharp, and Botkin, 1987). Alternatively, it could be that younger children simply do not care as much about differential treatment or that classroom climate matters more at younger grades than at older ones (Harter, 1996).

Shifting the focus back to the teachers, the teachers' own level of motivation can play a role in the motivation of the students (Ames and Ames, 1984). Interactions between teacher self-perceptions and student self-perceptions can begin a cycle that will ultimately culminate in the creation of Galatea and Golem effects. Similarly, how teachers respond to feedback can play a crucial role in guiding their behavior in class. When feedback comes in the form of student failure, does a teacher shoulder the blame or place it on the students? The approach that he takes will be indicative of his expectations and his view of the teacher-student relationship that plays out in his classroom every day (Ames, 1983). In a related vein, overall class morale and utility of content have been found to be significant factors in student motivation for science, although overly controlling teachers can have a counterbalancing effect (Pascarella, Wahlberg, Junker, Haertel, 1981). Ultimately, while it is difficult to state conclusively that there is one approach to understanding the impact that teachers have on their students' motivation, the literature certainly makes clear that teachers play a significant role in this realm, either unilaterally or as part of an ongoing give-and-take with their students. It will be of interest to understand how the students' perceptions of their teachers' expectations and

attitudes, as well as the teachers' own perceptions of their attitudes, contribute to the motivation that students develop towards the study of Talmud.

### *Goals and motivation*

Perhaps motivation is practical in nature. Winne and Marx (1989) have put forth a utilitarian approach, suggesting that students will be motivated to do whatever activities are seen as being the best way to accomplish a certain goal. Czikzentmihalyi (1975) adopts the opposite position. He posits the idea of flow, which occurs when people match their challenges to their skills. He claims that some people have "metaskills" which help to guide them to situations that will maximize these feelings of flow (Czikzentmihalyi and Nakamura, 1989). While the utilitarian theory has a possible narrow application to the classroom setting, the flow theory helps to explain why people undertake activities that are non-utilitarian in nature, such as play and adventure-seeking, and may be applied as well to student behavior in the classroom.

The idea of goals and their connection to student motivation has received significant focus and attention. Ames and Ames (Ames and Ames, 1981; Ames and Ames, 1984, Ames, 1984) have noted three types of goal structures that are apparent in classrooms. In competitive goal structures there are many possible types of ratings systems, such as groupings, grading, and recognition of successful students. Students tend to focus on these ratings and their motivation and success is often tied closely to them. At the same time, students will develop perceptions and opinions of the accomplishments of others, and will use those perceptions in thinking about their own achievements (Ames, Ames, and Felker, 1977). In individualistic structures, every

student has a chance for success, and thus every student has the opportunity to focus on his own work and to develop a mastery orientation. In cooperative goal structures, success is based on the cumulative efforts of the entire group, and thus effort is likely to be stressed, as effort by the individual is seen as contributing to the success of the whole.

In general, it is clear that competitive classrooms tend to make students focus more on performance goals, and noncompetitive classrooms tend to produce a greater focus on mastery goals (Ames, 1984). However, the elements that make up each type of classroom are not exclusive to their type of environment. While grades are often thought of as belonging to more competitive classrooms, the reality is that most teachers give grades, even if they foster an atmosphere of cooperation or of noncompetitiveness in the classroom. By stressing the importance of a mastery orientation, it is possible for teachers to minimize the negative impact of grades (Ames and Archer, 1988), and intrinsic motivation has been found to thrive best in classrooms that support student self-determination, positive self-esteem, and student competence (Deci and Ryan, 1985).

While Ames and Ames focused on the overall classroom environment and the broad approaches to goals that were developed within them, Maehr (1984) focused on different types of goals. He identified four types of goals that students might have – task-related goals, ego-related goals, which focus on social comparison, social solidarity goals, which aim to please others, and extrinsic rewards, where students strive to complete a task in order to obtain some prize or reward that is not inherently related to the task itself. Beyond the mere setting of goals, a student's motivation will be linked as well to how well he can manage his goals, and particularly when his goals come into

conflict with one another or with the situation that he finds himself in (Dodge, Asher, and Parkhurst, 1989)

Carol Dweck and her colleagues have focused on two types of goals as related to two different types of orientation found in children. Students who view ability as being a malleable trait will develop mastery goals, as they will expend greater effort after failing to try to mold their abilities up to the level that they desire. By contrast, students who see ability as being fixed and stable will pursue performance goals, and will respond to failure by developing feelings of helplessness (Dweck and Leggett, 1988). These two types of children will tend to view the same event in opposite ways, as mastery oriented children will tend to become more focused when faced with a difficult situation, while performance oriented children will lose their focus and make random and often thoughtless attempts to solve the problem, and sometimes will simply give up (Diener and Dweck, 1978). Helpless children will generally shun difficult tasks, while mastery-oriented children will welcome them (Dweck and Bempechat, 1983). Further research has found that these traits are not inborn, but rather are developed over time. The nature of the feedback that children receive can impact the type of approach that they utilize (Kamins and Dweck, 1999). Specifically, generic praise of a child can lead to him developing a trait (stable) theory of intelligence and ability, while more specific praise can help a child to assume a mastery approach (Cimpian, Arce, Markman, and Dweck, 2007).

A notion related to the concept of mastery and performance goals is the dichotomy between students who have an ego orientation and those who have a task orientation. Those who adopt an ego approach will try to complete a task for the purpose

of completing it, but will not attend to it on a deeper level and thus will learn only a small amount. By contrast, those students who have a task orientation will be more concerned with completing the task correctly and will thus pay greater attention to their work and will learn the material to a deeper level. Since they make the task important to themselves, they tend to be more resilient in the face of failure (Graham and Golan, 1991). Of course, orientation alone does not tell the entire story, as the innate ability that a student possesses will interact with his orientation in producing particular outcomes (Elliot and Dweck, 1988). In general, this phenomenon is related to the idea of achievement motivation (Atkinson, 1964), which states that individuals desire success to the extent that it indicates high ability, and seek to avoid failure to the extent that it indicates low ability (Nicholls 1984a, 1984b). A task-involved child will strive for achievement with an eye on his own abilities, while a more ego-involved child will have an eye on what others are doing as well, as his own behavior is spurred by what he perceives to be the behavior and competencies of others. Wentzel and her colleagues (Wentzel, Weinberger, Ford, and Feldman, 1990) have discussed the role that social factors play in the development of these orientations, and Stipek (1984) has postulated as well that ego and task orientations, and achievement motivation in general, develop as the result of interactions between children and their environment.

One interesting aspect of the concept of intrinsic motivation is the issue of gender differences. Research has shown that boys and girls focus on different aspects of their work, react to feedback in different ways, and expect different things from themselves. Boys have been found to focus more on effort than ability, and thus will return more to a task after failure, figuring that they only need to try harder in order to succeed. By

contrast, girls place a greater emphasis on ability, and thus look at failure more as a statement about their competence and thus are more easily discouraged (Hughes, Sullivan, and Beard, 1986). Consistent with that finding, Deci and Ryan (1985) have found that boys see feedback as being informational, and thus welcome feedback as a form of guidance as to how they can improve their performance. On the other hand, girls see feedback as an attempt to be controlling, and thus are more likely to resist it. Also flowing from these findings is Nicholls' (1975) research on gender expectations. He found that boys tended to have higher expectations for success and felt better about their future prospects, while girls had lower expectations and tended to feel worse about impending future tasks.

One twist on the notion of gender differences with regard to motivation is that there seems to be some tasks that are thought of as being more "masculine" and some tasks that are considered more "feminine." When presented with a variety of tasks, including some that were appropriate for each gender, both boys and girls tended to be more motivated for their gender-appropriate tasks (Montemayor, 1974; Stein, 1973). Interestingly, boys were more motivated for "feminine" tasks than girls were for "masculine" ones, perhaps again reflecting boys' overall greater sense of confidence in their abilities to succeed. These results are potentially very informative for studying student motivation for studying Talmud, as women have been studying Talmud seriously for only a few decades, and the numbers of women who do study Talmud pale in comparison to the number of men who do so. As such, Talmud can most assuredly be seen as a "masculine" task. What would be of interest in this vein is whether those women who study Talmud are less motivated to do so than their male counterparts or

whether, unlike the girls in these studies, they represent a self-selected group venturing out into previously uncharted waters and thus will display higher levels of motivation than the boys.

### *Attribution theory of motivation*

In his research over the past three decades, Bernard Weiner has introduced the concept of attribution theory. He claims that motivation is the product of a three-part equation – locus of control  $\times$  constancy/stability  $\times$  responsibility (Weiner, 1984). For every event that occurs, a person determines whether he controlled the situation or whether it was being controlled by someone or something else, how stable the events or the factors leading up to the event were, and to what degree the outcome could have been controlled. This final factor has also been stated as referring to the globality or specificity of the cause – the more global the impact of an external cause, the more likely it is to lead to a more general feeling of helplessness (Abramson, Seligman, and Teasdale, 1978). According to Weiner, unexpected events cause people to seek attributions to which to ascribe those events, and the way in which they attribute the events and how they explain their behavior and performance feeds into their general motivation for the future (Weiner, 1984).

Within the ideas of attribution theory, Nicholls (1979) has sought to explain not only how motivational patterns are developed, but also how they are maintained. He distinguishes between three types of attributional patterns that potentially contribute to achievement motivation. The first is causal attributions, whereby successful students attribute their success to their abilities and thus are motivated to continue engaging in

those tasks. Such an approach almost guarantees inequality in motivation, as successful individuals will become more motivated and unsuccessful ones will become less so. The second approach identified by Nicholls is that of behavioral attributions, where students seek to explain their actions, which he refers to as endogenous attribution, without regard for the results, which would be exogenous attribution. Finally, he claims that some students engage in task involvement, where they are motivated by the task itself, without concern for their ability.

Some criticism has been leveled at attribution theory as being inadequate for the mission that it purports to fulfill. Brophy (1983a) has noted that the research that led to the development of attribution theory asked people for their attributions after they had completed a task, which is not comparable to the way in which people think in real time. Furthermore, Brophy noted that many of the attributions that have been studied are not relevant for younger subjects. Finally, Brophy has been critical of attribution theorists' overemphasis on effort and lack of emphasis on the role that ability plays in motivation.

### *Expectancy and control*

One final approach that has been taken to understanding motivation is known as the expectancy  $\times$  value theory, which suggests that the effort that people expend on a task is a function of the degree to which they expect to be able to perform the task and the value that they place on the task (Brophy, 1987). The value that people place on a task can be the result of several factors. Attainment value refers to the importance that people give to a task, either for inherent purposes or relative to other tasks (Battelle, 1965, 1966; Stein, 1973). Different people are responsive to different stimuli, and those responses

translate into people being interested in and valuing different activities (Hidi, 1990).

Additionally, people can come to be interested in or to value a task as a result of having a choice with regard to performing the task or how to perform the task (Deci and Ryan, 1985), or can be attracted by inherently interesting material (Ross, 1983; Anand and Ross, 1987).

The idea of people's expectancies of being able to perform a task leads us to two important ideas in motivational research. The first is deCharms' notion of origins and pawns (deCharms, 1968, 1984). An origin is a person who has control over events, while a pawn is an individual who is controlled and guided by others. DeCharms has found that people who perceive themselves as origins feel more in control over the events in their lives and are thus more motivated to act.

By contrast, there are people whose expectancies for success have sunk so low that they do not feel that they are at all capable of succeeding. People who experience this sense of despair are often referred to as experiencing learned helplessness. Someone who has reached the level of learned helplessness tends to suffer motivationally, cognitively, and emotionally. In particular, this sense of helplessness comes about when a person feels that there is a task that others can accomplish, but that he himself is not able to do so (Abramson, Seligman, and Teasdale, 1978). Children who feel helpless tend to get into a rut, where they will even explain their success as being the result of luck, and will judge their performance to be poorer than it truly is and will underestimate the degree of success that they experienced (Diener and Dweck, 1980). Such children will not be helped by simply experiencing success; rather, the key to helping them is to teach them to understand why they failed and to help them to develop strategies to

succeed (Dweck, 1975). In this way, they will no longer see their success as luck, but will be able to point to the reasons for their success. As was seen in the literature on self-efficacy cited earlier, students often base their projections for future success on their previous track record, whether good or bad, and the role of the teacher is to help the student realize that if his track record is negative, he is nevertheless capable of rising above those past experiences. This aspect of the research will be of interest to the study of Talmud instruction insofar as it is simple, as noted earlier, for students to find themselves frustrated as they encounter the text of the Talmud. Thus, the role that teachers play in helping students navigate both the difficulty of the text as well as their own negative feelings about not succeeding at Talmud as quickly as they may succeed in other subjects, can be crucial to their success both in acquiring the ability to study Talmud and developing the lasting motivation to do so.

### CHAPTER 3. RESEARCH QUESTIONS

1. *To what extent are American Yeshiva high school seniors positively or negatively motivated to learn Gemara? If positive, is their motivation limited to the Gemara that they have to learn for school, or does it extend to independent study of Gemara as well? It is hypothesized that, as is likely the case for most subjects, there are some students who are motivated and others who are not. However, for those who are motivated to learn Gemara, their motivation will often extend beyond the compulsory classroom learning into the realm of independent learning. By the same token, it is suggested that for those who lack the motivation to learn Talmud, their lack of motivation is more extreme than their lack of motivation for other core subjects.*
2. *What is the relative ranking of Gemara compared to other academic subjects studies by Yeshiva high school seniors? It is hypothesized that Gemara will tend towards the extremes of such a ranking to a greater degree than other subjects. In other words, for those students with a favorable view of Gemara, they will place it near the top of the list, while for those with a negative view, they will place it near the bottom. This suggestion is based on, among other factors, the fact that most schools allot far more time to the study of Gemara than they do to other subjects. As such, any positive or negative feelings that students have towards the study of Gemara are likely to be heightened by the amount of time that they are mandated*

to spend learning the subject in school. It should be noted that the questionnaire used in this study does not directly address the cause of why students have the view of Gemara that they do, and any correlation between the time spent on Gemara and how students view Gemara will therefore be left for future researchers to investigate.

3. *What factors play a significant role in determining the level of motivation, positive or negative, that the students have towards the study of Gemara?* It is suggested that three factors may play significant roles in determining the overall level of motivation that a student has towards the study of Gemara:
  - a. Family influence – parental support for student learning and parents’ own involvement in learning is predicted to be one variable that helps to predict students’ attitudes toward Gemara. We noted earlier that the role of parents in motivation is the subject of debate (Wentzel, 1996; Deci, 1975; Ames, 1992), and one goal of this research is to add to that research in this specific context.
  - b. Peer influence – the degree to which one’s peers are motivated to learn Gemara and view such learning in a positive light is also suggested to have a significant impact on student motivation. These factors mirror some of those identified by Berndt and Keefe (1996).
  - c. “The *Rebbe* factor” or teacher influence – it is hypothesized that students who currently have or have had a *rebbe* who was particularly dynamic and inspirational to them will show a greater propensity towards more general motivation to learn Gemara. Birch and Ladd (1996) have written about

the roles of dependency and closeness in the student-teacher relationship and how those factors impact student motivation. My research will highlight those aspects in the specific setting of a high school Talmud classroom.

## CHAPTER 4. METHODOLOGY

### *Design*

This study was a non-experimental survey of the subjects. The survey was conducted in the classroom, using a questionnaire format. The questionnaire featured primarily Likert-scale questions, and one question asking students to rank all of their subjects from favorite to least favorite.

In addition, the teacher scale from the PALS survey was distributed to the Talmud teachers in the various schools. This was to be used in determining the teachers' perspective on the attitudes that they bring into the classroom, and thus would have combined with the student perceptions of teacher attitudes to provide a fuller picture of the role of the teacher in influencing motivation. Unfortunately, an insufficient number of these surveys were returned, and this aspect of the study was thus not carried through.

### *Subjects and Procedure*

The subjects were 115 high school senior boys attending Modern Orthodox Yeshiva high schools in North America. All subjects took Talmud as one of their core academic subjects, and had been doing so since at least 9<sup>th</sup> grade.

For the purposes of this study, the term "Modern Orthodox school" refers to a school that professes a dedication to the value of combining a religious education with a meaningful secular education, and encourages its students to seek to integrate the

knowledge and values of both worlds. Contrary to Schick's definition (Schick, 2000), I have included both coeducational as well as boys-only schools in this study. My inclusion of both of these sub-categories in one grouping is based on the reality that many of the students in these schools considered both types of schools when choosing their high school. As such, both single-sex and co-educational schools have to be broad enough and similar enough in their ideologies to compete for students who could feasibly choose either one.

For the purposes of this study, only schools in the New York metropolitan area were used. This was done to obtain a cohort of students who come from similarly religious homes, as schools outside of the New York metropolitan area often have more students whose families are less observant. Furthermore, this allowed for a greater focus on the role and importance of learning within the home, something which tends to differ even in homes that have similar commitments to Orthodoxy and observance of Jewish law.

Individual subjects were recruited through their schools. Principals were contacted by phone by the researcher for their agreement to participate in the study, and sent back a letter on school stationary signed by the principal indicating their consent to take part in the study. Prior to the administration of the questionnaire, parents of students under the age of 18 were sent a letter explaining the procedure, and were asked to return the letter signed only if they did not want their child participating. On the day that the questionnaire was administered, an administrator from each school (other than the principal) or the researcher addressed each class to explain what the study entailed, and explained that any student who did not want to participate had the option to sign the form

indicating his desire to opt out. The administrator or researcher then proceeded to administer the survey in the students' classrooms. There was only one session (40 minutes maximum) required for each subject to fill out the survey. The researcher introduced the session using a set script (Appendix C), and indicated to the students when there were 20 minutes, then 10 minutes, then 5 minutes remaining. No questions were answered by the questionnaire administrator once the students were allowed to begin filling in their answers.

As noted above, this study obtained consent via an opt-out process, where all students participated unless either they or their parents returned a signed opt-out form. As the subjects were high school seniors, the decision to opt out was made by the subjects themselves if they were over 18 years of age (Appendix E), and by the subjects or their parents if they were under 18 (Appendix F). All names will remain confidential, and subjects were assured that their specific and personal responses will not be shared with their administrators, schools, or parents. Students were informed that the surveys are intended to help understand student attitudes about learning Gemara. They were also informed that they had the right to quit at any time during the survey without penalty.

Each student survey was assigned an identification number that was used to identify him on the PALS and SDT scales. Although all information is confidential, complete anonymity could not be guaranteed until after the teachers had filled out their PALS scales. This would have allowed the researcher to link the individual students to their teachers so as to more accurately describe the motivation factors within each classroom. Once all data was collected, it was locked in a cabinet in the principal researcher's office for five years. No known risks beyond daily life are associated with

this project. Aggregated results will be shared with school principals and with participants upon request.

### *Power Analysis*

In order to determine the appropriate sample size for this study, a power analysis was conducted based on the design and methodology of this study. Cohen (1988, p. 56) suggests that “when the investigator has no other basis for setting the desired power value, the value .80 be used.” Further, Cohen (1988, p. 413) defines a small effect size as 2% and a medium effect size as 15%. In educational research, 10% has been an accepted level of effect size.

Given one predictor (independent variable) in the first level of the hierarchical regression and three predictors in the second that I posited would account for .15 ( $=R^2$ ) of the criterion variance in the population, a significance criterion of  $\alpha = .05$ , and a power of .80, then  $N = 77$ . As such, the minimum number of subjects in my desired sample was 77.

### *Independent Variables*

#### General Academic Motivation

The Patterns of Adaptive Learning Scales (PALS) were developed by researchers using goal orientation theory to examine the relation between the learning environment of students on their motivation, affect, and behavior. The fourteen different subscales group into five different categories, assessing items such as student’s personal goal orientations, their perceptions of the teachers’ goals, their perceptions of the goal orientations within

the classroom (i.e. mastery orientation), their general beliefs about achievement, and their perceptions of their parents. There are also teacher scales which assess the perceptions that teachers have about the goal orientation of the school, their own goal-related approaches to teaching, and their sense of their own efficacy in the classroom (Midgley, Maehr, Hruda, Anderman, Anderman, Freeman, et. al., 2000).

The PALS scales are constructed using general terminology. However, they have been adapted for use in Middle School and High School settings, where classes tend to be departmentalized. In those settings, the scales have been slightly modified to name the specific subject that is under scrutiny. In these cases, the alpha coefficients have been similar or higher than those reported for the original version of the scales (Midgely, et. al., 2000). The alpha coefficients reported below are Cronbach's alpha, and are presented as evidence for internal consistency reliability.

The PALS subscale that focuses on personal achievement goal orientation was used unmodified for this study. This subscale breaks down into three smaller divisions (with evidence for internal consistency reliability in parentheses): the Performance-Approach Goal Orientation ( $\alpha = .86$ ), the Performance-Avoid Goal Orientation ( $\alpha = .75$ ), and the Mastery Goal Orientation ( $\alpha = .85$ ). This subscale was used to determine students' intrinsic approaches towards wanting to succeed in school.

#### Parental Impact on Motivation

The PALS scales also include subscales that account for the impact on student motivation that is related to their perceptions of what their parents expect from them as well as what their teachers expect from them. The perceptions of Parents, Home Life,

and Neighborhood subscale contains three smaller divisions that are used in this study. They are the Parent Mastery Goal ( $\alpha = .71$ ), the Parent Performance Goal ( $\alpha = .71$ ), and the Dissonance Between Home and School ( $\alpha = .76$ ). Scores on these scales will be combined to produce a variable referred to as Parental Impact on Motivation.

#### Teacher Impact on Motivation

The Perception of Teacher's Goals subscale includes Teacher Mastery Goals ( $\alpha = .83$ ), Teacher Performance-Approach Goal ( $\alpha = .79$ ), and Teacher Performance-Avoid Goal ( $\alpha = .71$ ). The Perception of Classroom Goal Structures includes Classroom Mastery Goal Structure ( $\alpha = .76$ ), Classroom Performance-Approach Goal Structure ( $\alpha = .70$ ), and Classroom Performance-Avoid Goal Structure ( $\alpha = .83$ ). The subscale known as Academic Press takes into account the student perception that their teacher presses them for understanding ( $\alpha = .79$ ). Scores on these scales will be combined to produce a variable referred to as Teacher and Classroom Impact on Motivation.

#### Peer Impact on Motivation

Finally, the impact of peers on motivation was taken into account. The Self-Presentation of Low Achievement scale ( $\alpha = .78$ ) of the Academic-Related Perceptions, Beliefs, and Strategies subscale was used to gauge the passive impact of peers, insofar as a subject behaves in a certain way in order to present himself in a certain light to his peers. This variable is referred to below as Peer Impact on Motivation.

Teachers were given the five teacher scales of the PALS, which measure Mastery Goal Structure for Students ( $\alpha = .81$ ), Performance Goal Structure for Students ( $\alpha = .70$ ), Mastery Approaches ( $\alpha = .69$ ), Performance Approaches ( $\alpha = .69$ ), and Personal Teaching Efficacy ( $\alpha = .74$ ).

### *Dependent Variables*

The dependent variables are overall Talmud motivation, specific Talmud motivation, rebbe relationship, and Talmud ranking. Overall Talmud motivation was expressed operationally in terms of a student's score on the Scale of Talmud Motivation. This scale is composed of several elements of the Post-Experimental Intrinsic Motivation Inventory (IMI), specifically those sections that measure enjoyment, perceived choice, and value/usefulness of a task. Specific Talmud motivation is expressed operationally in the same way as general Talmud motivation, although the questions from the IMI that focus on one's relationship with his teacher were removed from the scale. Rebbe relationship is expressed operationally in terms of a student's score on the relatedness subscale, which focuses on the student view of and relationship with his teacher. Talmud ranking is operationally defined as the ranking given to Talmud in relation to the other core subjects that a student takes in the course of his schooling.

According to the website of Self-Determination Theory, which developed the original scale, the Intrinsic Motivation Inventory (IMI) is a multidimensional measurement device intended to assess participants' subjective experience related to a target activity in laboratory experiments. The interest/enjoyment subscale is considered the self-report measure of intrinsic motivation. The perceived choice subscale is

theorized to be a positive predictor of both self-report and behavioral measures of intrinsic motivation. The value/usefulness subscale is used in internalization studies (Deci, E., Eghrari, H., Patrick, B., & Leone, D, 1994), the idea being that people internalize and become self-regulating with respect to activities that they experience as useful or valuable for themselves. Finally, the relatedness subscales measures the degree to which the subject feels a personal connection with the person administering the activity, which in this case will refer to the student's affinity, or lack of affinity, towards his Talmud teacher (Rebbe). The wording of those scales was modified to reflect this. The validity of these scales has been found to be highly significant in a number of studies (Deci, Eghari, Patrick, and Leone, 1994; McAuley, Duncan, and Tammen, 1989). For this study, these scales were slightly modified to focus on the study of Talmud (e.g. the introductory statement was "Please answer the following questions as they apply to your Talmud class."; the phrase "this activity" has generally been converted into "learn Gemara"; the tense has been changed from past tense to present tense to reflect the fact that students are commenting on an ongoing process, and not on a one-time activity).

### *Analysis*

The results of the survey were analyzed using a hierarchical multiple regression model, both to determine the degree to which each independent variable has an impact on overall student motivation to learn Talmud, as well as to see which independent variable(s) is the best predictor of student motivation. Summary statistics such as mean, median, and standard deviation were generated to provide the characteristics of the sample, to identify outliers, and to confirm that ceiling and floor effects were not

affecting the data. In order to alleviate issues of normality for each variable, raw scores (transformed into z-scores) for each variable were used in each analysis.

Subsequently, correlational matrices were created to obtain descriptive information concerning the variables. The correlation matrices provided information about multicollinearity. Neither multicollinearity nor singularity is desirable for a multiple regression model. To provide further information concerning the relationship between variables in the study, values ( $r$ ) from the correlation matrix were squared in order to determine the effect size ( $r^2$ ) for each pair of variables. A residual scatterplot was generated for information about normality, linearity (relationship between independent and dependent variables), and homoscedasticity (similarity of variability of dependent variable at all values of independent variables) of the data.

Once the descriptive statistics were generated, the scores reflecting general academic motivation were entered into the regression. Once that was done, the scores reflecting specific motivation with regard to Talmud, including those scores reflecting the role of parents, peers, and teachers, were entered into the regression. The purpose of using this approach is to determine if motivation for the study of Talmud can be in any way distinguished from general academic motivation. In other words, can Talmud motivation be predicted based on what one knows about a student's academic performance and motivation in general (i.e. good students tend to be good students across the board), or are there generally motivated students who are less motivated for Talmud and/or generally unmotivated students who are more motivated for the study of Talmud?

## CHAPTER 5. RESULTS

This study examined the motivation to study Talmud of high school senior boys in Modern Orthodox Yeshiva high schools, and the impact on that motivation of the parents, peers, and teachers of those boys. To answer the study's research questions, multivariate analyses (i.e. hierarchical multiple regressions) as well as analyses of variance using the students' ranking of their Gemara classes were performed using the data collected for this study. Data from the 115 students who returned valid surveys were analyzed. The results of those analyses are presented here in five sections: 1) demographic information; 2) descriptive statistics; 3) multivariate analyses; 4) moderator analyses; and 5) ranking information (analysis of variance).

### *Demographic Information*

The questionnaire was administered to 12<sup>th</sup>-grade boys from four yeshiva high schools in the New York metropolitan area. Of the four schools that participated, three were boys-only and one was coeducational. A total of 121 boys filled out the surveys, with all but 13 of the respondents coming from the boys-only schools. Six (6) surveys had to be completely discounted due to an excessive number of skipped questions, including several surveys where the entire dependent variable section was omitted. Of the remaining 115 surveys, there were three (3) that left a significant number of questions unanswered in one or more subscale, while satisfactorily answering the other subscales. As such, taken listwise N=112, while the total number of surveys used was 115.

Simple demographic data was collected along with the survey to help paint a picture of the research cohort. Over 90 percent of the boys enrolled in Jewish day schools no later than 1<sup>st</sup> grade. Over 40 percent began learning Mishnah, which serves as the immediate prelude to Gemara, in 4<sup>th</sup> grade, and over 88 percent began the study of Mishnah between 3<sup>rd</sup> and 6<sup>th</sup> grades. Over 65 percent began the formal study of Gemara in 6<sup>th</sup> grade, with an additional 18 percent having begun a year earlier, in 5<sup>th</sup> grade. Thus, a vast majority of the students surveyed had been in Jewish schools their entire educational careers, and had been studying Gemara for approximately seven years, and Mishnah a year or two longer than that (students were not asked whether they stopped formal Mishna instruction once they began learning Talmud, something which is often the case in Yeshiva curricula). Most students also expected to continue studying Gemara for at least one more year, as over 90 percent of the students planned to attend a Yeshiva program in Israel after graduation.

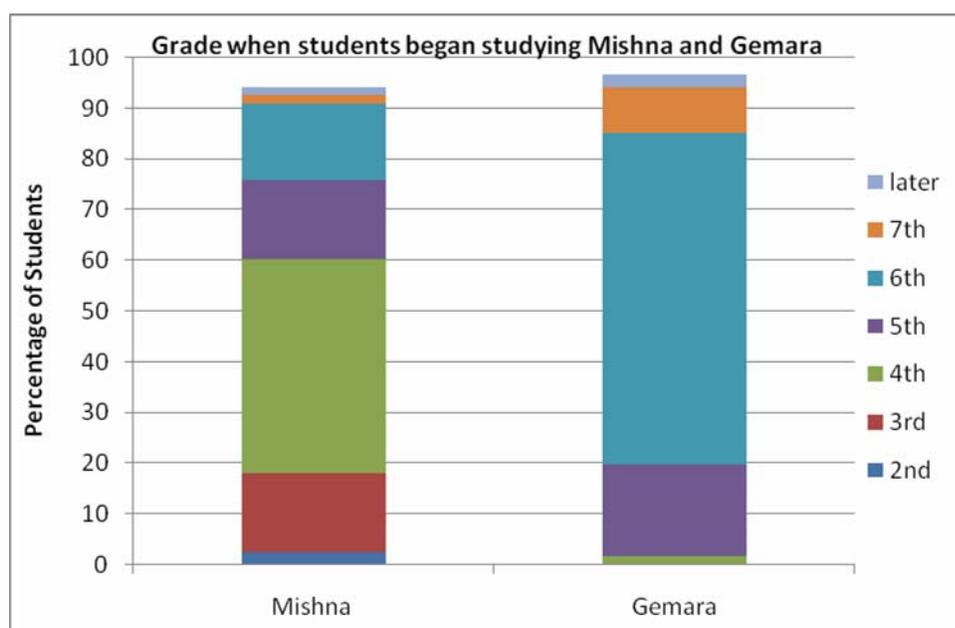


Figure 1. Displays the grade when students began studying Mishna and Gemara.

Going beyond the number of years that students had been engaged in learning Gemara, most students spend more time learning Gemara than any other subject, either Judaic or secular, with close to 69 percent recording that they had 10 or more hours per week of Gemara class, and over 17 percent reporting that 18 or more hours per academic week were devoted to this one subject. While these numbers reflect only their 12<sup>th</sup> grade experiences, a quick glance at the class schedules in these schools makes it clear that these schools did not make a radical shift for this grade alone, and that the students who responded to this study had been receiving many more hours of Gemara instruction than any other topic for at least the past four years.

Students were also asked to report on the Jewish educational history of their families. When asked to indicate their fathers' highest levels of Jewish education, 20 percent reported that their fathers attended Jewish schools only until yeshiva high school, an additional 16 percent wrote that their fathers also went to yeshiva in Israel, an additional 38 percent reported that their fathers continued in either Yeshiva University or some other *yeshiva gevoha* (post-high school yeshiva where Torah studies are the primary, if not the only, area of study), and almost 9 percent had fathers whose Jewish education extended as far as receiving *semicha* (Rabbinic Ordination). The numbers for the mothers were similar, with 31 percent having attended yeshiva through high school, an additional 23 percent through seminary in Israel, an additional 21 percent attending Stern College, and four percent attending some Jewish post-graduate program. While it might be of interest to know the level of secular education received by the parents, particularly with regard to knowing how that might have an impact of their general attitudes towards their children's academic achievements, that information was not

collected. Delving further into the family, almost two-thirds of the students reported that their older siblings attended yeshiva in Israel after high school, a very high number considering that many of those students who did not report siblings having gone to Israel may simply have been themselves the oldest child in their families. As such, this information does not seem to have the potential to be that illuminating within the confines of this study.

Taken as a whole, the majority of the students who participated in this study are the products of at least twelve years of Jewish education, with between eight and ten years of experience in studying *Torah She-Ba'al Peh*. In most cases, Gemara had become the major topic studied, at least as defined by the amount of time devoted to it during school. Most students had parents who were themselves products of the yeshiva day school and high school system, with more than half of all fathers and close to half of all mothers having pursued their Jewish educations beyond high school. Many students also had the examples of their older siblings to follow, a majority of whom spent at least one year studying in Israel after high school.

### *Descriptive Statistics*

In reviewing the raw data, it became apparent that the dependent variable, overall Gemara motivation, was composed of two elements – motivation for Gemara itself, and affinity for one's rebbe. As such, descriptives and analyses were run separately for the scale as a whole as well as for each of the two subscales.

Descriptive statistics were run for all variables, and all produced distributions that were acceptably normal and unimodal. While some variables returned distributions that

were somewhat skewed, the sample size is large enough to ensure that, as per the Central Limit Theorem, skewness will not affect the overall results. Tests were run for outliers as well, and while there were some outliers, the 5% trimmed means did not show that those outliers significantly affected the overall results, and thus those cases were included in the analyses. Since the two instruments that made up the survey used different scales, with the PALS scale having a 5-point Likert scale and the IMI utilizing a 7-point scale, all scores were converted to z-scores, and those z-scores were used for all descriptive statistics as well as for all analyses. Table 1, below, provides the means, standard deviations, and ranges (in z-scores) for all variables.

Table 1  
*Means, Standard Deviations, and Ranges for Standardized (z-scores) Study Variables*

	N	Mean	SD	Min	Max
General Academic Motivation	114	.01	.60	-1.47	1.49
Parent Influence	114	.01	.29	-1.21	1.37
Peer Influence	114	.01	.66	-.97	2.38
Teacher and Classroom Influence	115	.03	.48	-1.39	1.37
Overall Gemara Motivation	115	.00	.63	-1.67	1.14
Specific Gemara Motivation	115	.01	.74	-1.52	1.21
Relationship with Rebbe	115	-.00	.76	-2.39	1.02

Pearson product-moment correlations were calculated to determine the strength and direction of the relationship between the study's independent variables (general academic motivation, parent influence, peer influence, and teacher and classroom

influence) and dependent variables (overall Gemara motivation, specific Gemara motivation, and relationship with rebbe). Preliminary analyses were performed to ascertain whether any violation of the assumptions of normality, linearity, and homoscedasticity was present. Correlations were first calculated for each of the independent variables with the dependent variable of overall Gemara motivation. They were then calculated with all four independent variables and specific Gemara motivation as the dependent variable. Finally, correlations were performed for all four independent variables using rebbe relationship as the dependent variable.

There were statistically significant positive correlations between overall academic motivation and general Gemara motivation ( $r = .340, p < .01$ ) as well as between teacher and classroom influence and general Gemara motivation ( $r = .365, p < .01$ ), with both correlations being of medium strength according to Cohen's (1988) guidelines. Neither of the other two independent variables, parent influence or peer influence, had a statistically significant correlation with overall Gemara motivation.

When motivation to study Gemara was considered apart from the student's relationship with his rebbe, statistically significant positive correlations were found between general academic motivation and specific Gemara motivation ( $r = .42, p < .01$ ), between parent influence and specific Gemara motivation ( $r = .21, p < .05$ ), and between teacher and classroom influence and specific Gemara motivation ( $r = .39, p < .01$ ). No statistically significant correlation was found with peer influence.

When relationship with one's rebbe, a subscale of the IMI which gauges the affinity that students have for their Gemara teacher, was considered independently, a small to medium, negative correlation was found with parental influence ( $r = -.24,$

$p < .05$ ). No statistically significant correlation was found between rebbe relationship and general academic motivation, peer influence, or teacher and classroom influence.

Also notable are the correlations between the various independent variables, all of which are statistically significant and positive. Of the four independent variables, peer influence has a significant correlation with all three of the others, namely with general academic motivation ( $r = .38, p < .01$ ), with parent influence ( $r = .37, p < .01$ ), and with teacher and classroom influence ( $r = .36, p < .01$ ). Although its correlations with other independent variables are the weakest among independent variables, the strength of the correlations would still qualify as medium according to Cohen. Parent influence has a large correlation with both teacher and classroom influence ( $r = .51, p < .01$ ) and with general academic motivation ( $r = .56, p < .01$ ). The strongest correlation among the independent variables is between general academic motivation and teacher and classroom influence ( $r = .64, p < .01$ ).

Simple regressions were run for each of the independent variables to determine the degree to which each one of the independent variables – general academic motivation, parent influence, peer influence, and teacher and classroom influence - explained the variance in the dependent variables. Once again, three sets of regressions were conducted, the first set with overall Gemara motivation as the dependent variable, and the last two with specific Gemara motivation and rebbe relationship as the dependent variables.

Table 2  
*Correlations between all Dependent and all Independent Variables*

	1	2	3	4	5	6	7
1. General Academic Motivation	---	.56*	.38*	.64*	.34*	.42*	-.06
2. Parent Influence		---	.37*	.51*	.10	.21**	-.24**
3. Peer Influence			---	.36*	.14	.18	-.03
4. Teacher and Classroom Influence				---	.37*	.39*	.11
5. Overall Gemara Motivation					---	.95*	.58*
6. Specific Gemara Motivation						---	.30*
7. Rebbe Relationship							---

\*Correlation was significant at the .01 level (1-tailed)

\*\*Correlation was significant at the .05 level (1-tailed)

For overall Gemara motivation, only general academic motivation and teacher and classroom influence had R-squared values of statistical significance, with the former explaining 11.5%,  $T(110) = 3.79, p < .001$  of the variance in overall Gemara motivation, and the latter accounting for 13.3%,  $T(110) = 4.12, p < .001$  of the variance of overall Gemara motivation. When broken down into its component subscales, the numbers became more interesting. For specific Gemara motivation, all independent variables except for peer influence had R-squared values of statistical significance. General academic motivation explained 18%,  $T(110) = 4.91, p < .001$  of the variance of specific Gemara motivation, parental influence explained 4.3%,  $T(110) = 2.23, p < .005$ , and teacher and classroom influence explained 14.8%,  $T(110) = 4.38, p < .001$ . For rebbe relationship, the only independent variable that had an R-squared value of statistical significance was that of parental influence, which accounted for 5.7%,  $T(110) = -2.59, p < .005$  of the variance.

### *Multivariate Analyses*

Multivariate analyses using hierarchical multiple regressions were conducted to determine the degree to which the independent variables (parent influence, peer influence, teacher and classroom influence) accounted for an understanding of the motivation or lack of motivation to learn Gemara specifically, while controlling for overall academic motivation. Preliminary analyses revealed that multicollinearity was not a problem, as correlations among predictors were all reasonably modest, with no correlation higher than  $r = .64$ , and as the highest Variance Inflation Factor (VIF) statistic

found was less than 2. The assumptions of normality, linearity, and homoscedasticity were also not violated.

General academic motivation was entered as the first block in the regression model. This was done in order to control for the effects of this variable and to highlight the role of parents, peers, and the classroom environment on Gemara motivation. Parental influence, peer influence, and teacher and classroom influence were then entered as the second block in the model, and overall Gemara motivation was entered as the dependent variable. General academic motivation accounted for 11.5% of the variance in overall Gemara motivation,  $R^2 = .12$ ,  $F(1, 110) = 14.35$ ,  $p < .01$ , while the other three variables combined to account for an additional 6.3% of the explained variance, as depicted in Table 5 below. Only teacher and classroom influence,  $T(110) = 2.55$ ,  $p < .05$ , made a significant contribution to the prediction equation. The analysis as a whole reached statistical significance,  $R^2$  change = .06,  $F(3, 107) = 2.76$ ,  $p < .05$ , confirming the assumption that the greater factor contributing to student motivation to learn Gemara seems to be their motivation to perform well in school in general.

Table 3  
*Hierarchical Multiple Regression Model for Factors Associated with Overall Gemara Motivation*

	B	SE B	$\beta$
Step 1			
General Academic Motivation	.36**	.09**	.34**
Step 2			
General Academic Motivation	.27*	.13*	.26*
Parental Influence	-.26	.14	-.21
Peer Influence	.01	.09	.01
Teacher and Classroom Influence	.40**	.16**	.30**

Note:  $R^2=.12$  for Step 1;  $\Delta R^2=.06$  for Step 2

\* $p<.05$       \*\* $p<.01$

The impact of general academic motivation on motivation to learn Gemara specifically is highlighted by the second hierarchical multiple regression, which isolated the subscale of the dependent variable that focused solely on motivation to learn Gemara, independent of the relationship that students had with their rebbeim. The independent variables were entered in the same manner that they were entered in the previous regression, with overall academic motivation entered in the first block and parental influence, peer influence, and teacher and classroom influence entered in the second block. This time, specific Gemara motivation was entered as the dependent variable. In this analysis, the three variables in the second block were statistically insignificant, and thus do not appear to have a real impact on motivation to learn Gemara when general academic motivation is controlled for. On the other hand, general academic motivation did return a statistically significant result, and accounted for 18% of the variance in

specific Gemara motivation,  $R^2 = .18$ ,  $F(1, 110) = 24.07$ ,  $p < .01$ , as depicted in Table 6 below. In this regression, none of the independent variables made significant contributions to the prediction equation.

Table 4  
*Hierarchical Multiple Regression Model for Factors Associated with Specific Gemara Motivation*

	B	SE B	$\beta$
Step 1			
General Academic Motivation	.53**	.11**	.42**
Step 2			
General Academic Motivation	.42**	.15**	.36**
Parental Influence	-.14	.17	-.09
Peer Influence	.01	.11	.01
Teacher and Classroom Influence	.33	.18	.21

Note:  $R^2 = .18$  for Step 1;  $\Delta R^2 = .03$  for Step 2  
\* $p < .05$       \*\* $p < .01$

In the third hierarchical multiple regression, the independent variables were entered in the same manner that they were entered in the previous two regressions, with overall academic motivation entered in the first block and parental influence, peer influence, and teacher and classroom influence entered in the second block. Rebbe relationship was entered as the dependent variable. There was no statistical significance attached to the impact of general academic motivation on rebbe relationship. However, the other three independent variables did return a statistically significant result, and accounted for 13.2% of the variance in rebbe relationship,  $R^2$  change = .13,  $F(3, 107) =$

5.47,  $p < .05$ , as depicted in Table 7 below. In this regression, none of the independent variables made significant contributions to the prediction equation.

Table 5  
*Hierarchical Multiple Regression Model for Factors Associated with Rebbe Relationship*

	B	SE B	$\beta$
Step 1			
General Academic Motivation	-.08	.12	-.06
Step 2			
General Academic Motivation	-.10	.16	-.08
Parental Influence	-.59**	.18**	-.38**
Peer Influence	.02	.11	.01
Teacher and Classroom Influence	.57**	.19**	.36**

Note:  $R^2 = .00$  for Step 1;  $\Delta R^2 = .13$  for Step 2

\* $p < .05$

\*\* $p < .01$

### *Moderator Analysis*

Peer influence was not indicated as being a significant predictor of any of the independent variables in any of the models described above. A hierarchical regression analysis was conducted in order to ascertain whether peer influence nevertheless moderates the relationship between teacher and classroom influence and overall Gemara motivation controlling for all the other variables in the model. The interaction between peer influence and teacher and classroom influence was entered as the fifth step in the model, thereby controlling for the variables previously entered in the model. General academic motivation was entered as the first step, parental influence was entered in the second step, teacher and classroom influence was entered in the third step, and peer influence was entered in the fourth step.

The Variance Inflation Factor statistics were checked to determine whether the multicollinearity assumption was violated. For each of the five steps after the variables were entered, the Variance Inflation Factor statistic was under 2.03 and in addition correlations among the predictors were investigated and found to be rather modest. Therefore, no sign of harmful multicollinearity was detected.

As indicated in Table 1, a significant interaction was found between peer influence and teacher and classroom influence,  $F(1,106) = 5.16, \Delta R^2 = .04, p < .05$ . That indicates that peer influence significantly moderates the relationship between teacher and classroom influence and overall Gemara motivation. The interaction accounts for 4% of the variance in the overall Gemara motivation above general academic motivation, parental influences, teacher and classroom influence and peer influence alone. In addition, the Beta coefficient was determined for the interaction term ( $\beta = -.36, p < .05$ ) which indicates that there is a direct relationship between perceived teacher and classroom influence and overall Gemara motivation, with peer influence serving as a moderator.

Table 6  
*Hierarchical Regression Analysis of Overall Gemara Motivation*

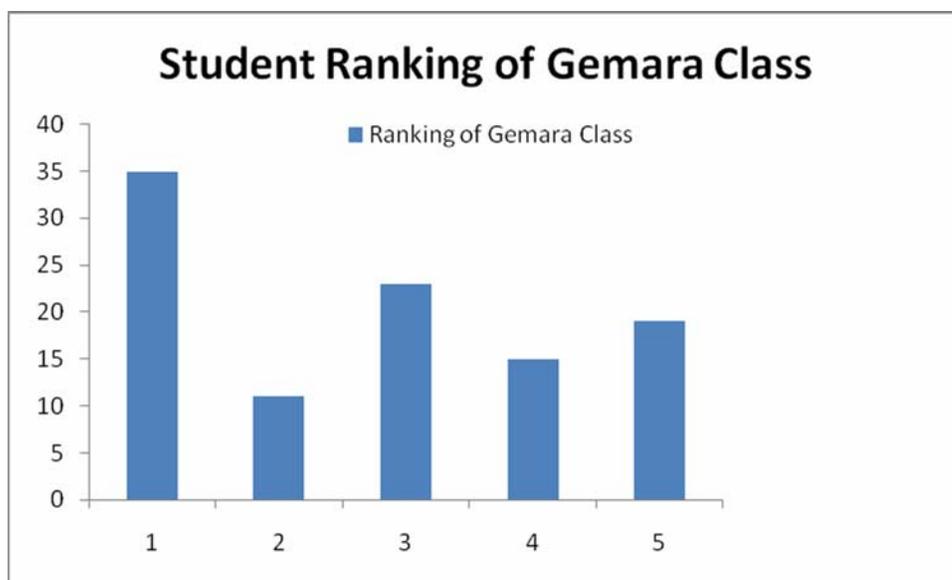
Step-predictor	$\beta$ at final step <sup>1</sup>	$R^2$	$\Delta R^2$
General Academic Motivation	.36 ***	.12	.12***
Parent Influence	-.19	.13	.02
Teacher and classroom influence (zteacavg)	.41**	.18	.05**
Peer influence (zpeeravg)	.01	.18	.00
Zteacvg X zpeeravg	-.36 *	.22	.04*

\*  $p < .05$       \*\*  $p < .01$       \*\*\*  $p < .001$

<sup>1</sup> Unstandardized regression coefficients are reported because standardized coefficients are inappropriate with interaction terms.

### *Ranking of Classes*

As an independent question on the survey, students were asked to rank all of their academic subjects from most to least favorite. It was predicted that Gemara would trend towards the extremes, with students ranking it more often very high or very low than would be predicted by a normal distribution. As students in different schools take different numbers of subjects, the scores were converted into a 1-5 scale, with a score of 1 indicating that Gemara ranked first, a score of 5 indicating that it ranked last, and scores of 2,3, and 4 indicating that it ranked in the top, middle, or bottom thirds of the individual student's ranking. A normal distribution would thus expect that 33.3% of responses would fall into each of the three divisions (top third, middle third, bottom third). As predicted, however, there was a trend towards the extremes, as seen in Figure 1 below.

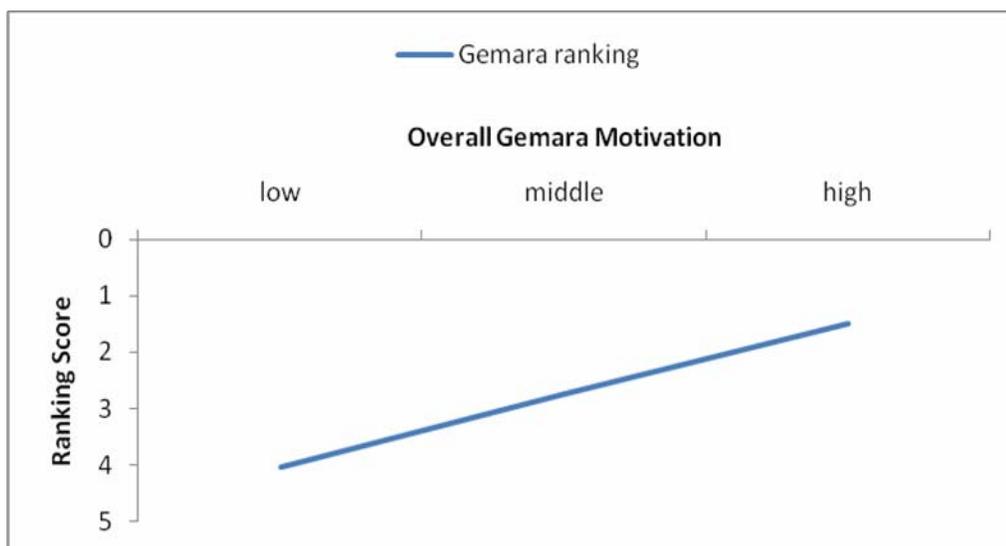


*Figure 2.* Displays the frequency of each ranking of Gemara.

Of the 103 students who provided a ranking, 46 (45%) students put Gemara in the top third of their classes (with 35 [34%] of those placing it first), and 34 (33%) students placed Gemara in the bottom third (with 19 [18%] placing it last). Only 23 (22%)

students listed Gemara somewhere in the middle of the pack. This seems to confirm the prediction that students would have particularly extreme feelings about their Gemara classes.

A one-way between-groups analysis of variance (ANOVA) was conducted between the ranking (dependent variable) and overall Gemara motivation (independent variable). This was done to address the concern that the ranking statistic may be misleading, in that it is relative in nature, unlike the other variables which are absolute. In other words, a low ranking may be given to a class that a student empirically enjoys, yet enjoys less than he does his other classes. The ANOVA was conducted to see to what degree ranking is reflective of actual motivation for the learning of Gemara. For the purpose of this analysis, overall Gemara motivation was split into three groups, indicating high (.38+), medium (-.31 - .37), and low scores ( $\leq$ -.32). There was a statistically significant difference at the  $p < .01$  level in ranking scores for the three Gemara motivation groups [ $F(2, 100) = 44.2, p < .01$ ]. To determine which means were significantly different from one another, post-hoc comparisons using the Tukey HSD test indicated that the mean score for the low ( $M=4.03, SD=1.13$ ) and middle groups ( $M=2.74, SD=1.29$ ) were significantly different, as were the middle and high groups ( $M=1.49, SD=.89$ ) groups, and the low and high groups. In all cases, a smaller ranking score number (1 or 2) indicates that the student ranked the class higher among his classes. The effect size, using eta-squared, was .47, which is extremely high, and thus indicates that overall Gemara motivation accounts for a significant amount of the variance in the ranking of Gemara among students' classes. The means plot, shown in Figure 2 below, demonstrates the relationship between overall Gemara motivation and ranking.



*Figure 3.* Displays the means of each group of Overall Gemara Motivation scores according to how favorably they ranked Gemara.

As was done previously, the overall Gemara motivation score was broken down into its two component parts, specific Gemara motivation and rebbe relationship, for the purpose of trying to understand what component or components of the Gemara class leads students to rank it the way that they do.

As such, a one-way between-groups ANOVA was conducted between the ranking and specific Gemara motivation. For the purpose of this analysis, specific Gemara motivation was split into three groups, indicating high (.44+), medium (-.31 - .43), and low scores ( $\leq -.32$ ). There was a statistically significant difference at the  $p < .01$  level in ranking scores for the three Gemara motivation groups [ $F(2, 100) = 54.2, p < .01$ ]. To determine which means were significantly different from one another, post-hoc comparisons using the Tukey HSD test indicated that the mean score for the low ( $M=4.09, SD=1.06$ ) and middle groups ( $M=2.83, SD=1.29$ ) were significantly different, as were the middle and high groups ( $M=1.42, SD=.77$ ) groups and the low and high

groups. In all cases, a smaller ranking score number (1 or 2) indicates that the student ranked the class higher among his classes. The effect size, using eta-squared, was .52, which is extremely high and thus indicates that specific Gemara motivation accounts for a significant amount of the variance in the ranking of Gemara among students' classes. This would seem to fall roughly in line with the results from the ANOVA conducted on the entire Gemara motivation scale, and could indicate a close relationship between the subject matter itself and the student's overall impression with his Gemara class. The means plot, shown in Figure 3 below, demonstrates the relationship between specific Gemara motivation and ranking.

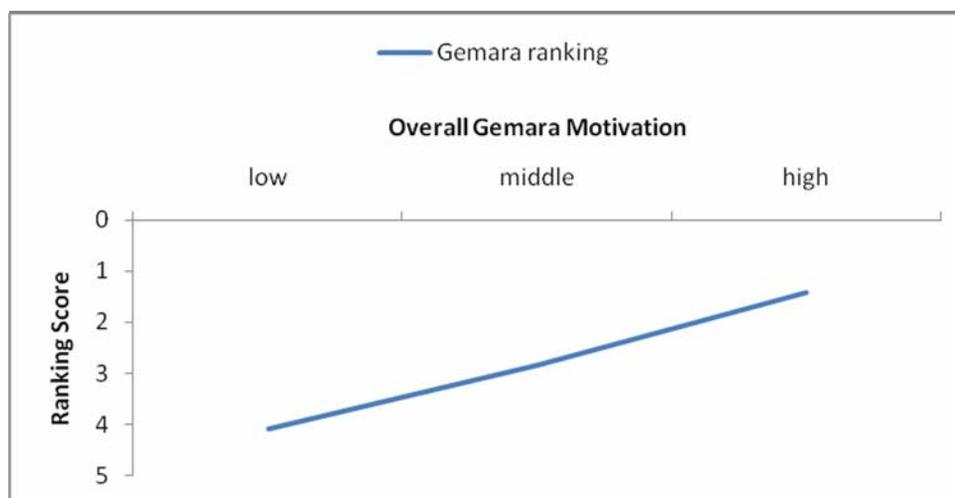
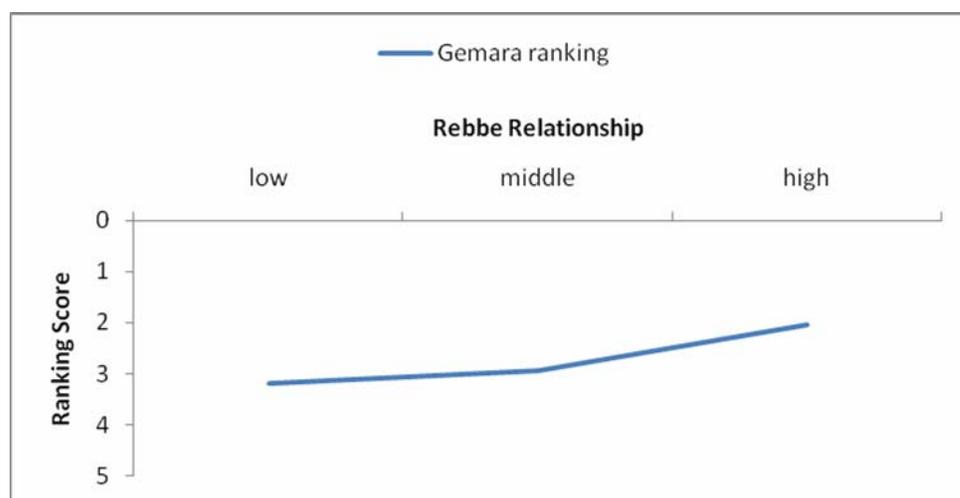


Figure 4. Displays the mean of each group of Specific Gemara Motivation scores according to how favorably they ranked Gemara.

The more interesting result came from the ANOVA conducted with the rebbe relationship subscale. For the purpose of this analysis, rebbe relationship was split into three groups, indicating high (.46+), medium (-.24 - .45), and low scores (<=-.25). There was a statistically significant difference at the  $p < .05$  level in ranking for the three groups of overall Gemara motivation scores [ $F(2, 100) = 1.84, p = .01$ ]. To determine which

means were significantly different from one another, post-hoc comparisons using the Tukey HSD test indicated that the mean score for the low ( $M=3.19$ ,  $SD=1.956$ ) and high groups ( $M=2.03$ ,  $SD=1.267$ ) were significantly differentiated, as were the middle ( $M=2.94$ ,  $SD=1.435$ ) and high groups. The low and middle groups were not significantly different from one another. In all cases, a smaller ranking score number (1 or 2) indicates that the student ranked the class higher among his classes. The effect size, using eta-squared, was .11, which is considered to represent a medium effect, and which indicates that rebbe relationship accounted for a moderate amount of the variance in ranking. The unique nature of the results of this analysis of variance can best be demonstrated by looking at the means plot, seen in Figure 4 below. Unlike the first two analyses of variance, whose means plots were essentially straight diagonal lines, this means plot has a clear skew to it, indicating that higher scores on the rebbe relationship subscale could be found among students who gave lower rankings to their Gemara classes.



*Figure 5.* Displays the mean of each group of Rebbe Relationship scores according to how favorably they ranked Gemara.

## CHAPTER 6. DISCUSSION

### *Goals of the study*

The research described in this paper has set out to open a research-based angle of a highly discussed yet under-researched area of Jewish education, namely the success, or lack thereof, of Modern Orthodox schools' decision to make Talmud the most emphasized part of their curricula. While the broader question of curricular design choices is mainly a policy issue that is far broader than the present research, it certainly forms the backdrop for any research that seeks to measure any aspect of student success in or reaction to the study of Gemara. In the absence of a standardized curriculum, and in the absence of agreed-upon standards and notions of what would constitute success in Talmud learning, this study instead focused on gauging the motivation that students had toward the learning of Talmud. The importance of this factor is underscored by the fact that the students in this study were in their final months of formal compulsory Jewish education, and thus any Talmud learning that they would do in the future would be, at least in part, a function of their inherent desire to do so.

The first variable looked at was simply the degree to which the students were motivated to study Talmud, using a variable referred to as overall Gemara motivation. This measured the affinity that they felt for the subject, with a focus on their willingness to continue learning Talmud outside of the formal classroom setting. This variable also took into account their total experience of learning Talmud, including their perception of and feelings for their teacher (or Rebbe). In order to highlight their motivation to study

Talmud independent of their specific teacher, overall Gemara motivation was broken down into two subscales, one referred to as specific Gemara motivation and one called Rebbe relationship.

The second goal of this study was to distinguish the motivation that students had toward the study of Talmud from the motivation that they had for their academic subjects in general. This was done both for methodological as well as pedagogical purposes. Methodologically, it was important to know whether a student's reported motivation toward Talmud represented his general attitude toward his classes, or whether it stood for an attitude unique among his motivations for his other subjects. Pedagogically, it will be of interest to schools to know the effects on motivation of devoting two or three times as much class time to one subject as they do to all others. Students were thus asked to rank their subjects in order from most favorite to least favorite to determine how Talmud compared to their other subjects. Analyses of variance were then performed between the ranking scores and the overall Gemara motivation scores in order to provide more depth to the significance of the ranking scores. If a student ranked Gemara first among his classes, yet had a low motivation score, that would likely indicate that he does not enjoy any of his classes all that much. Similarly, a student who ranked Gemara last yet had a medium or high motivation score might be said to be a generally academically-inclined student, with the results not contributing much to our understanding of his motivation to study Talmud *per se*.

Finally, this study sought to understand what factors might be identified as predictors for the level of motivation that students had toward the study of Talmud.

While there are many possible factors that can, and in the future should, be looked at, this

study focused on the roles of parents, peers, and teachers in impacting students' desire to study Talmud. As will be detailed below, there are ways in which each of these groups may have an impact on motivation to study Talmud that were not investigated, as the particular focus of this investigation was on the role that each of these groups had insofar as they exerted influence on the student *qua* student. In other words, personal relationships that affected areas beyond the classroom were mainly left unexplored, and the questions posed to students concerned their relationships with parents, peers, and teachers with particular regard to the expectations that they had or the attitudes that they fostered with regard to academic performance. In particular, this study sought to isolate the motivation to learn Gemara from the motivation to learn any other academic subject, and thus a variable referred to as general academic motivation was held as a constant in order to determine the particular influence of parents, peers, and teachers on the students' motivation to study Talmud beyond his motivation to perform scholastically more broadly conceived.

#### *Ranking of Gemara class*

The first clue as to the feelings that students had towards the study of Gemara is reflected by the average (mean) Talmud motivation scores for the students. Out of a seven-point scale, with seven indicating the highest level of motivation, the average score was 4.6, well above the midpoint (median) of the survey. When the portion of that survey that focused specifically on motivation to learn Talmud was considered, independent of the impact of the teacher, the average was still above the median, coming in at 4.3. While the true importance of these numbers will be seen in the discussion of

the analyses conducted, they serve as an initial indicator that the students in this study were generally positively disposed towards the study of Gemara.

The next data that are part of the overall picture of student attitudes toward Talmud learning are the rankings that they were asked to do of their academic subjects. As the ranking scores were converted into top, middle, and bottom third, it would have been expected that a random distribution of scores would see one-third of the students rank Talmud among the top third of their classes, one-third rank it in the middle third, and one-third rank it among the bottom third of their academic courses. While this prediction held true for the bottom third (33% of students), almost half of all students (45%) ranked Talmud among the top third of their classes, a number that was swelled at the expense of those who ranked it among the middle third (22%). This number could be encouraging to educators, in that it may indicate that there is something about the way that Talmud is taught that is reaching those students who are “in the middle” and pushing them to have a greater-than-expected affinity for Talmud study. While the bottom third remained as predicted, those students could be seen as the more difficult ones in this regard, and perhaps those students are those who would thrive with a more diverse curriculum in place of one that is Talmud-centric.

What is unclear is what, exactly, is causing this skew towards the top third. One possibility is that the importance placed on Talmud by Orthodox society, placing it as the crown jewel of the study of Torah, exerts some impact on the students. The ideas that being conversant in Talmud can serve as an entrée to learned Jewish society, and that Torah study (which is generally used to mean Talmud study) “for its own sake” (Lamm,

1989) is one of the highest values in Judaism are certainly possible sources of this skew towards favoring Gemara.

It is also possible that the teachers of Talmud played a role in these results. While this study did not find the influence of teachers to be a significant predictor of motivation to study Talmud, the questions involved in that aspect of the study focused mainly on the teachers as classroom managers. However, as Jewish schools seek to not only provide a Judaic curriculum but also to infuse their students with a stronger affective connection to their Judaism, it has become commonplace that the Rebbeim interact with their students in a variety of ways beyond the classroom. This can range from Rebbeim having more formal tasks within the school such as activities coordinator to harder-to-quantify Rebbe-student interactions such as basketball games, school trips, and involvement in some of the more “ruach” (spirit) -type events run by the school. For students who tend to fall into the middle of the pack academically, both in terms of their achievements as well as their motivations, these extracurricular interactions with their instructors of Talmud may have had a spillover effect into their overall motivation for the subject matter itself, possibly by providing a stronger relationship between teacher and student, which allowed for more meaningful interaction within the classroom. This would accord nicely with the research that has demonstrated a correlation, in both directions, between student motivation and their relationship with their teachers (Patrick, Mantzicopoulos, Samarapungavan, and French, 2008; Wentzel, 2002; Goodenow, 1993). Further research might consider whether a similar effect exists with teachers of non-Judaic studies who have comparable extracurricular interactions with their students. If the results are the same in terms of increased student motivation, that would seemingly indicate that there is

nothing intrinsically motivating about Talmud, but rather that the schools are choosing to privilege Talmud by using its teachers in more expanded roles in order to gain certain desired results.

A third possible factor that may be responsible for the large percentage of students who ranked Talmud in the top third of their classes could be the amount of time spent learning Talmud in school. Virtually all of the students surveyed reported that they had Talmud class for at least ten hours per week, the equivalent of a double period each day, with some students reporting as high as eighteen hours per week – more than three periods worth each day! While one impact of this scheduling preference was undoubtedly to convey the message that the school considered Talmud to be of utmost importance, a more obvious result may have been that more exposure to the subject afforded students the opportunity to involve themselves in the study of Talmud on a deeper level, and thus to appreciate the subject more than they would their other subjects. This could also help explain the migration towards the extremes in the ranking. As predicted, over 50% of students ranked Talmud either first (34%) or last (18%), numbers that may represent a hardening of views. In other words, for students who enjoyed Talmud study, the increased amount of time spent on the subject allowed them to deepen their attachment to and enjoyment of Talmud. On the other extreme, for those students who found Talmud difficult, boring, or outright painful to learn, having to do so for as many as three hours a day was perceived as a torturous experience that they might never want to repeat.

*Factors that influence motivation to study Talmud*

Beyond the rankings, this study looked at four variables that may play a role in determining motivation to study Gemara. Those variables were the student's overall academic motivation, the influence of parents, the influence of peers, and the influence of teachers and the classroom atmosphere that they create. Of the four, general academic motivation most strongly predicted motivation to study Gemara. In other words, those students who tended to be motivated for school in general, also tended to be motivated to study Gemara. While this finding sounds logical and thus not surprising, it does raise the question of whether or not the increased stress on Talmud in the curriculum is having any significant impact in terms of motivation. If motivated Talmud students tend to be those who are already motivated to learn any academic discipline, then apparently there is little motivational value added by the extra time invested in studying Talmud. With the top students, this is likely a positive result – motivated students will have more time to study Talmud, thus increasing their skills and knowledge of the subject deemed to be the most important of all. On the other hand, for those students who are not particularly motivated to study Talmud, if the extra time is not increasing their motivation significantly, then it would be prudent for schools to raise the question of the purpose of having those students spend so much time on one subject, given the potential for boredom and possible negative feelings that may develop. Are the gains from this intense focus on Gemara being outweighed by the potential negative attitudes that may be developing? Further studies might want to dig deeper to discover whether unmotivated students are also poor students – it is possible that those who dislike Talmud are nevertheless gaining valuable skills from their time spent engaging the Talmudic texts.

There are a number of possible interpretations of this result that motivation to study Talmud tends to fall in line with academic motivation in general. One possibility is that students treat Talmud like just any other class, a result that might not be surprising, but also might not be satisfying to Yeshiva administrators and Rebbeim. A second possible explanation relates to the unique nature of Talmud study. The Talmud is not a book that can be read in a linear fashion, but rather it represents the cobbling together of centuries of Rabbinic dialogue and discussion, with commentaries both on the page and in separate volumes that stretch the discourse over four continents and one and a half millennia. Seemingly simple statements are rarely taken at face value, but rather are abstracted into overarching legal and ethical principles that can then be applied to a wide variety of situations. With this in mind, it is perhaps not surprising that those who are more studious are more likely to be drawn to it. While other subjects may require some degree of analysis by students, Talmud study is virtually *all* analysis, and thus is likely to appeal to those who appreciate an intellectual challenge.

It may be possible to view the relationship between overall academic motivation and motivation to study Talmud from the opposite direction. By definition, overall academic motivation includes a student's motivation to study Talmud. While this study did not ask students about each one of their subjects individually, it is conceivable that their responses about their academic motivation took into account the degree to which they were motivated to study Talmud, and perhaps took it into account to a disproportionate extreme. If that is the case, then it may not be accurate to say that academic motivation predicts Talmud motivation, but rather perhaps the reverse is true,

namely that motivation to study Talmud “pulls up the average” of overall academic motivation.

Once general academic motivation was controlled for, parent influence on Talmud motivation was minimal and not significant. Parental influence, did, however, correlate significantly with both general academic motivation ( $r = .56$ ) and with teacher and classroom motivation ( $r = .51$ ). This seems to indicate that parents help to mold their children as students in general, in terms of their general approach towards school as well as their classroom demeanor and participation (Gottfried, Fleming, Gottfried, 1994), but that this influence does not affect one subject area more than any others.

Peers also did not predict motivation in Talmud once general academic motivation was controlled for. However, the impact of peers did serve as a moderator between teacher and classroom influence and overall Gemara motivation, accounting for 4% of the variance in overall Gemara motivation. This can likely be explained by the fact that teacher and classroom influence reflects a student’s perception of his entire classroom environment, of which peers are a significant part. Thus, while the classroom environment was described in terms of the teacher, the other students in the class were necessarily a part of the overall picture.

Unlike the other two variables that were scrutinized, teacher and classroom influence did have a positive and significant correlation with overall Gemara motivation. This could be seen in the context of general academic motivation, with which teacher and classroom influence was highly correlated ( $r = .64$ ), in that teacher and classroom influence reflects the manner in which the Gemara class is conducted and thus a positive

experience in Gemara class often led students to have a positive outlook on Gemara in general.

### *Factors influencing relationship with Rebbe*

The relationship that students had with their Rebbeim, while included as part of the overall motivation to study Talmud, was also isolated and subjected to the same analyses that overall Talmud motivation was subjected to. Two items stand out from these analyses. First of all, parental influence had a significant and negative ( $r = -.24$ ) relationship with Rebbe relationship, a result that may be indicative of adolescents working to assert their independence from their parents and gravitating toward their teachers as alternative models of authority. Second, the variable called teacher and classroom influence was not significantly correlated with Rebbe relationship. This could reflect what was mentioned before, namely that the relationship that students develop with their Rebbeim do not come as a result of the Rebbeim's classroom management skills, but rather as a result of some other feature of the Rebbe that the students are exposed to, be it his personality in class or the many and varied interactions that the students have with the Rebbe outside of the classroom.

### *Rebbe relationship and Talmud motivation*

In the decades after World War II, Rebbeim in Yeshiva high schools were likely to be of the "old school" model, primarily those who had escaped the Holocaust in Europe and found refuge in the United States. Many of these teachers had learned in some of the premier Yeshivot in Eastern Europe and brought substantial knowledge, if

not pedagogic expertise, to the classroom. Their lives and experiences were different from those of their students, and their approach to the classroom reflected the more rigid and austere style that they were accustomed to from their own educations.

As that generation of teachers has retired and passed on, there has been a pronounced shift in the makeup of the Judaic studies faculties in Yeshiva high schools, both in terms of style as well as in terms of age. Having a staff of “dynamic young Rebbeim” has become a desideratum for many schools, on the assumption that these teachers are closer in age to the students and thus will be able to connect with them and thus influence them in a more significant way than the older and more distant Rebbeim were able to. While it may be the case that these young Rebbeim are capable of significantly influencing their students, that influence is not clearly evident in the realm of motivation to study Gemara. It is possible that this is completely normal – even the most dynamic teachers can perhaps do no better than inspire most of their students to do well in class, without necessarily inspiring them to want to pursue that subject beyond the confines of the academic course. However, once again the data pose a question to schools – do we expect too much from our Rebbeim? Are schools hiring Rebbeim based on their erudition and classroom management skills, or is there a desire as well that these teachers will inspire a love of learning in their students?

An interesting aspect of the research came out when analyses of variance were performed between Rebbe relationship and the ranking scores of Gemara. Unlike the identical analysis run between Gemara motivation and ranking scores, where a linear relationship resulted indicating that students who were more highly motivated to learn Gemara ranked it higher and those who were less motivated ranked it lower, the line

graph for this ANOVA produced a line with a steep incline (see Figure 5 in results section). The difference between the mean ranking score for those who had low Rebbe relationship scores ( $M = 3.19$ ) and those who had high Rebbe relationship scores ( $M = 2.03$ ) was fairly small. By contrast, the mean ranking score for those students who had low specific Gemara motivation scores ( $M = 4.09$ ) and those who had high specific Gemara motivation scores ( $M = 1.42$ ) was much greater. What this indicates is that there is a loose connection between Rebbe relationship and Gemara ranking, and that many students in the study ranked Gemara low while professing a strong relationship with their Rebbe or ranked Gemara high while professing a weak or negative relationship with their Rebbe.

There are several ways to explain this disconnect between Rebbe relationship and Gemara ranking. One is that students are able to differentiate in their heads between their teacher and the subject, and are thus able to like one while disliking the other (although many students doubtless enjoyed both or enjoyed neither). One element of this may be the fact that the students in this study were high school seniors who may have already formed their opinion about Gemara study during their previous six or seven years of Talmud education. As such, they may have decided that they liked the subject and that one bad Rebbe was not going to change that, or they may have formed a more negative view of the subject, but enjoyed this particular Rebbe, the subject matter notwithstanding.

An interesting possibility is that the generally positive scores reported for Rebbe relationship connects with the research on gender of teachers and gender of students. Dee (Dee, 2006) has claimed that male students perform better when taught by male teachers, and female students perform better when taught by female teachers. While

others have questioned this thesis (Marsh, Martin, and Cheng, 2008), there is a certain attraction to the notion that, given the fact that many schools' faculties are female-dominated, the male students would seek out and attach themselves somewhat to the male role models that are available to them in school. While this may not have any definitive impact on achievement or motivation, it may certainly lead to the creation of a bond that will have positive manifestations down the road.

### *Limitations of Study*

As the first scientific study that has looked at motivation to study Talmud, this study has provided an informative, yet necessarily limited, look at some of the factors that may influence students' desire to study Talmud. By and large, the questions posed to the students focused on their attitudes towards academics, and how those around them influenced those attitudes. This section will discuss what was included and, more importantly, what was excluded from the questionnaires.

With regard to the influence of parents, the major focus of the questions posed to students fell into two categories. Students were asked about their parents' desire for them to try hard and to succeed in school ("My parents want me to spend time thinking about concepts.", "My parents would like me to do challenging class work, even if I make mistakes.") and they were asked about possible philosophical differences between their parents and teachers ("I don't like to have my parents come to school because their ideas are very different from my teacher's ideas."). While both of these types of questions are important insofar as they relate to the study of Talmud as an academic subject, they do not include questions that would involve other ways in which parents could influence

their children to want to learn Talmud. No questions were asked about parents' own involvement in learning, or whether or not they spend time learning with their sons. Additionally, no questions were asked about the relationship between parent and child, a factor that can be of crucial importance during the adolescent years, particularly with regard to religious observance and behavior, a category into which independent study of Talmud undoubtedly falls.

The study had similar limitations with regard to the impact of peers on Talmud motivation. The questions asked about peers focused on how one's classroom behavior is modified or affected by the attitudes that he perceives his classmates have about such behaviors ("I would avoid participating in class if it meant that other students would think I know a lot.", "One of my goals in class is to avoid looking smarter than other kids."). To some degree, such questions are capable of indicating whether the student perceives his classroom as being hospitable to high achievers or whether he senses that it is "cool" to be a low achiever in class. However, there are possible social dynamics that stretch beyond the classroom environment that could also help to paint a picture of the pressure to study or not to study Talmud. Information about peer involvement in learning outside of school, whether informally at night or on the weekend, or in formal programs, such as the many summer learning opportunities offered for high school boys (e.g. Morasha Kollel, NCSY Kollel), would help to illuminate whether or not Gemara study *per se* is considered to be an acceptable and desirable activity.

With regard to teachers, two sets of questions were asked in the student surveys. The first portion of the surveys asked about the teachers in roles as classroom managers and academicians, with a focus both on the expectations that the Rebbeim had for their

students (“My Rebbe says that showing others that we are not bad at class work should be our goal.”, “In our class, trying hard is very important.”, “In our class, getting good grades is the main goal.”), as well as how the Rebbeim pushed the students to achieve (“When I’ve figured out the Gemara, my Rebbe gives me more challenging problems to think about.”, “My Rebbe gives us time to really explore and understand new ideas.”). The second portion of the survey asked the students to relate their feelings about their Rebbeim on a more personal level (“I feel really distant from my Rebbe.”, “I’d really prefer not to interact with my Rebbe in the future.”, “I feel close to my Rebbe.”). What seems to be missing from all of these questions is a series of questions about interactions with Rebbeim not within the context of the classroom, or within the context of the classroom but not directly related to the Rebbe’s academic persona. No questions were asked about whether or not the Rebbe seemed to care about the students as individuals, whether he displayed a sense of humor, or whether he took part in extra-curricular activities in a manner that provided the students with a different avenue by which to develop a relationship with him. Furthermore, no questions were asked about pedagogical approaches used by different rebbeim (e.g. frontal teaching, paired learning, differentiated learning), and no questions were asked that focused on the different learning styles of the individual students. As suggested earlier, it is likely these types of questions that could make up for the lack of a significant correlation between the Rebbe and classroom influence scores and the Rebbe relationship scores, and it is likely these types of questions that could have real significance in understanding the contributions that Rebbeim make to the overall religious development of their students, beyond the narrow scope of motivation to learn.

An additional limitation to the potential richness of this study's results came about as the result of lack of response. In addition to the surveys distributed to the students, surveys were also distributed to the Gemara teachers, which asked them to comment on issues such as their ability to have an impact on their students ("Factors beyond my control have a greater influence on my students' achievement than I do", "I am good at helping all the students in my classes make significant improvement"), how they treat successful students ("I display the work of the highest achieving students as an example"), and the academic pressures inherent in their school ("In this school: Students hear a lot about the importance of getting high test scores", "In this school: Students are encouraged to compete with each other academically."). Research has shown that a teacher's own motivation can have an impact on student motivation (Ames and Ames, 1984), and the research on self-fulfilling prophecies (Rosenthal and Jacobson, 1968; Brophy, 1983b; Jussim, 1989) has made it clear that the attitudes that teachers bring into the classrooms about their students can mold the type of educational experience that those students will have.

Unfortunately, fewer than half of the teachers returned these surveys, and thus there was not enough data available to compile meaningful data. Had enough teachers responded, it would have been of interest to analyze how the teachers' own motivation and perceptions of their schools and classes correlated with their students' flipside views of the same environments. It would also have been of interest to discover which type of teacher attitudes correlated with or predicted certain types of student attitudes or motivations. In a broader perspective, it would have been interesting to compare those results with the results of other studies that have used these measurements. One of the

underlying points of interest in this study is whether or not there is something different about the Gemara class, the Gemara teachers, and the relationships that students have with their Gemara teachers as opposed to their teachers of any other academic subject. Having the teacher survey results would have provided an opportunity to compare the responses of Gemara teachers with those of teachers of other subjects and to see if there is indeed something unique about the Rebbe-student dynamic within the classroom.

#### *Future Directions – Broadening the Population*

As noted in the methodology section, this study focused on a very narrow swath of students who study Gemara, namely American high school senior boys in the New York metropolitan area. While there are sound methodological reasons, already discussed in the methodology section, for limiting the study in this way, there is much that could be added by including other groups in future studies.

The omission of female students from this study was driven mainly by the fact that there are very few all-girls schools that teach Talmud with any degree of systematic rigor approaching that which is found in the all-boys institutions. Most likely, the largest group of girls that would have been included in a broader study would be those in coeducational institutions. Those results would likely be very illuminating, particular when the attitudes of those girls would be compared to the attitudes of boys in the same institutions, and then when the attitudes of those boys would be compared to the attitudes and motivations of boys in all-boys schools. Such analyses would provide an opportunity to see if the influence of the school environment or the societal environment was playing a larger role in developing students' attitudes towards Gemara. If all students in coed

schools had similar motivational levels, that finding would lend support to the notion that the school is having a significant impact. However, if the attitudes of all boys were similar to each, regardless of the type of school that they attended, that would then turn the focus to larger societal pressures and expectation of boys, as opposed to girls, to learn Talmud.

Also of potential interest would be the degree to which the responses of girls tended towards the extremes. Since Orthodox society does not place the same pressure on girls to study Talmud as it does on boys, it would stand to reason that those girls who are studying Talmud seriously are a self-selected and highly motivated group, while those girls who are placed in Gemara classes against their will would be more likely to develop more negative attitudes than do the boys, as the girls are less likely to see Talmud as something in which they will need or be expected to engage in the future.

Only one coed school participated in this study (two of the schools that had been approached let their seniors out for the year before the time of the study), and only 13 students from that school took part. Given this small sample, it was not deemed worthwhile to compare the motivation scores between boys from all-boys schools and boys from coed schools. Had this been done, it would have been enlightening to compare the overall educational atmosphere of the schools to see if there are any structural factors that help to shape the attitudes of the students. Many coed Jewish high schools are conceived of as college preparatory programs, where Talmud is more likely to be a class taught by a teacher, while many all-boys schools see themselves more as a “Yeshiva,” where the Gemara *shiur* is given by a Rebbe.

The decision to limit the study to schools in the New York metropolitan area is methodologically sound but precludes several avenues of investigation. In terms of the soundness of this approach, the overwhelming size of the New York area day school population relative to other markets (Schick, 2000), and the fact that every school in the region faces real competition from other similar schools creates an Jewish educational market unlike any other in the United States. Furthermore, the presence of non-Orthodox schooling options, as well as a vibrant non-Orthodox community, means that there is a greater degree of religious homogeneity among the students at New York area schools than there might be in communities with only one Jewish high school option. While this study did not differentiate between the schools, such an analysis could be interesting in that the competition between schools allows each school to tailor itself to meet a specific niche, and significant differences in results could be instructive in seeing the results of those differences.

However, by not including non-New York area schools, this study has not been able to look at several possible influences on students' motivation to study Gemara. One such area is the relationship with a Rebbe who is philosophically and religiously different than the student. In the larger New York area market, schools are often able to find Rebbeim who fit the stated ideological and religious mission of the school. Outside of the New York area, by contrast, schools do not have as large of an indigenous talent pool to draw from, and often hire Rebbeim who are significantly to the right religiously of their students and their families. This last point can perhaps be attributed to the presence in many "out of town" communities of religiously right-wing *kollelim*, whose members are available to fill teaching slots in more Modern Orthodox schools. Does this lead to a

greater disconnect between Rebbe and student, or are these teachers able to overcome the *a priori* gap and still have a significant influence on their students?

The second issue that would be of interest outside of the New York area is the impact of the community as a whole on the student. Are the learning opportunities the same for high school students? Do most students attend Israel for a year after high school? Are there other possible differences in the communal structure that might prove significant in influencing students in their learning of Gemara? In a broader vein, how much importance do the different communities place on a lifelong commitment to Gemara study?

In that vein, it is also important to note that this study was limited to *American* high school students. While one inspiration for this research was the work of Bar-Lev, that study was done with Israeli high school students, and the results of that study and this seem to be trending in opposite directions. The lament of Rabbi Aharon Lichtenstein (2001a) cited earlier and the development of one-year post-high school programs for Israelis as alternatives to the five-year *hesder* programs can perhaps be seen in the light of Bar-Lev's findings that many Israeli high school students were underwhelmed and often turned off to the study of Talmud. Compare those results to the findings in the present study, where almost half of the students ranked Talmud as one of their favorite subjects. A cross-cultural study on this topic would certainly be of interest to educators and interested laymen on both sides of the Atlantic.

Finally, what about the right-wing Orthodox (*haredi*) community? Unlike the Modern Orthodox, who place a value on the learning of secular subjects and spend roughly half of each school day studying them, the *haredi* institutions tend to see no

inherent value in such study, and their students often cease to study anything outside of the purview of Torah by the time they reach high school. Furthermore, their communities tend to be hermetically sealed, or at least intentionally distant, from the intrusions of modern culture, and thus Torah observance and study occupy a far more prominent place in their lives than in the lives of the average Modern Orthodox student. That being said, what type of results would this study produce among a *haredi* population? Is such an intensive focus on Torah study successful? Does total immersion produce devoted and motivated adherents? If the answers to these questions are yes, does that mean that a Modern Orthodox approach to education starts from a disadvantaged position with regard to motivating its students to study Gemara? What would be the comparative results of the two populations?

On the other hand, several recent popular works have documented the phenomenon of *haredim* who go “off the *derech*” (Margolese, 2005; Winston, 2005), who abandon traditional practice in favor of either more modern approaches to Judaism or even a non-religious lifestyle, raising the question of whether the examples cited in those books are reflective and symptomatic of larger societal and cultural phenomena, or whether they are extreme cases whose experiences do not mirror those of most members of their communities. As far as the present research would be concerned, the focus would be on whether there is a negative impact to so total a devotion to Talmud study – not merely as the dominant force in the curriculum, but also as the dominant activity in life - or whether most *haredi* students are in fact motivated, either because of their positive experiences learning Gemara or merely as a result of never having been exposed to substantive alternatives.

*Questions for future consideration*

This study has worked off of the premise that there is something important about knowing whether students are motivated to study Talmud. Intellectual honesty requires a questioning of this premise – does motivation indeed matter? The answer to that question has possible implications that could be very significant for those who teach Gemara, for their schools, and for the community at large.

At one level, studying motivation is significant if only because it is something which can be studied in a quantifiable manner. In the absence of any form of accepted curriculum or standards, either skills-based, content-based, or value-based, for Talmud study, looking at students' motivation provides an objective look at one part of the Talmud experience. This may not be a minor part, either – it is not uncommon to hear Rebbeim claim that what is most important to them is that “the boys like to learn,” regardless of how much they have learned or what skills they have gained from that learning. Presumably, the reason why it is important for the students to enjoy learning is so that they will continue to do so, although that may be presumptuous. Linnenbrink and Pintrich (2002) have noted that there are four families of motivational beliefs that have been identified in the research – intrinsic motivation, goal orientations, attributions, and self-efficacy. This study did not attempt to identify *why* the students might feel motivated to study Gemara independently, simply whether or not they *were* so motivated. Knowing the nature of their motivation would be significant in determining whether the attitude of wanting the “boys” to like learning is justified. Of particular interest is the notion of self-efficacy, which defines motivation as being the result of a feeling of

competence. If an individual is currently excited about a subject, yet lacks the ability to continue engaging in it on his own, self-efficacy theorists would predict that that individual's motivation for that endeavor would gradually wane (Eccles, Wigfield, and Schiefele, 1998). Practically speaking, for those Rebbeim who seek to excite their students while de-emphasizing their skills acquisitions, they may be assuaging themselves in the short term, while producing students who will ultimately not "like to learn."

Pursuing this line of inquiry is likely to raise the question that is the elephant in the room – why do Yeshiva high schools spend so much time on Talmud study? The simplest answer is that Talmud has become the main focus of Torah learning in the world of the Yeshiva, and thus the schools are merely reflecting the larger world of Torah learning. It could be that schools take the myopic approach that since Talmud study is the highest manifestation of Torah learning, and that Torah learning is a religious obligation that must occupy as much time as possible, then in the here and now the schools must do all that they can to facilitate their students' opportunities to fulfill this obligation, without regard for more specific or nuanced educational or religious goals.

However, the question can also be posed from an educational perspective. What are the goals of schools that spend so much time on studying Talmud? Are they trying to produce outstanding Torah scholars? Are they trying to produce educated laymen who will forever be engaged in the study of Talmud? Are they attempting to at least inspire and motivate students to study Talmud so that they will want to do so for the rest of their lives? Have most schools thought seriously about these questions? The fact that fully one-third of students ranked Talmud near the bottom of their subjects, with one-fifth

ranking it dead last, should give school administrators pause. If these numbers were to prove consistent over an extended period of time, would schools be justified in continuing to require such intensive Talmud study by everyone? Would Talmud satisfy Bruner's (1960) criteria for inclusion in a curriculum, namely is it worth an adult's knowing, and does knowing it as a child (as opposed to learning it when older) make the person a better adult? Would a Modern Orthodox American high school be willing to offer an intensive Bible track as an alternative to Talmud for those students who, by 10<sup>th</sup> grade, had yet to be inspired to engage in complex legal abstract thought? The Beit Medrash model suggested by Brovender's group (Brovender, Finkelman, Segal, and Speter, 2004) would seem to be a good test case for such a possibility, although it has yet to be attempted in an all-boys school.

The question of whether or not motivation to study Talmud matters may be discussed on a higher plane as well. Perhaps it is not the motivation to study Talmud *per se* which is of utmost importance to schools and teachers, but rather the religious motivation that underlies the motivation to study Talmud which is really the concern. From a quantitative perspective, this idea was explored by Schremer and Bailey (2001) in their survey of teachers' goals in teaching Bible. They found that in both the "Yeshiva Orthodox" and the "Community" schools that a majority of teachers stated that the purpose of teaching Bible was to convey ethics and values, with skills of textual analysis serving as a secondary purpose to the class. In "Modern Orthodox" schools, textual analysis placed first, although close to half of all teachers responded that teaching ethics and values or conveying a sense of Jewish identity was their primary goal in teaching Bible.

Yoel Finkelman (2003) has further elaborated on this idea in his monograph concerning the goals of the Talmud *shiur* in year-in-Israel programs from American students. His claim is that the *shiur* is often presented almost as a magic show, with the Rebbe producing a novel insight that the students could not themselves have come up with, and likely can never hope to be able to come up with. The goal, claims Finkelman, is for the students to feel that they are part of “real learning,” and thus to increase their desire to become more like their teachers religiously. Under this idea, Talmud study becomes, to some extent, a mechanism for the actual goal of increasing exposure to the Rebbe. The reaction of high schools to this study, and any future replications and variations of this study, will be most instructive in this regard. If over 90% of students are planning on spending a year of study at a Yeshiva in Israel, does it matter that one-third of them profess to not enjoying Gemara relative to their other subjects? If specific Gemara motivation lags behind Rebbe relationship, will schools consider that to be a success insofar as it means that increased time learning Gemara, whatever its impact on Gemara learning, has also brought increased time with a Rebbe, that being the true goal from the perspective of encouraging religious growth and development?

There is one other area in which the study of Talmud motivation may prove valuable, and that is in the context of the research literature on motivation. Nisan and Shalif (2006) added one new type of motivation to those listed by Linnenbrink and Pintrich as being the main trends in the literature, and that is motivation based on what they refer to as the “sense of the worthy.” A person motivated by the sense of the worthy is motivated as a result of internalizing the belief that that which he is motivated to do is in itself a worthy and valuable undertaking. Nisan and Shalif’s study focused on *kollel*

students, *haredi* men from high school age and older who spend virtually all of their time devoted to the study of Torah. Their findings demonstrated that one of the dominant factors driving these full-time (often adult) students was the idea that Torah is divine and thus it must be good and worthwhile to devote one's life to. This "sense of the worthy" would seem to be a concatenation of intrinsic motivation (the *kollel* students were internally driven to study) and goal orientation (they studied in order to fulfill religious obligations), yet there is, as yet, insufficient research to allow it to exist as its own sliver of the motivation pie. Further expansions of the present study that would take other variables into account could provide more evidence for the existence of the sense of the worthy as a legitimate and distinct type of motivation.

#### *Final thoughts on future research*

What has been accomplished by this study? At the simplest level, it provides the first "graduation photo" of American Modern Orthodox Talmud education. For the first time, there is now quantitative data that can reflect some aspect of the achievements made in the Modern Orthodox day school and high school system in the realm of Talmud education. Insofar as this study represents a commentary on that system, the first such commentary to be armed with real data, it will hopefully encourage those involved in Talmud education and curriculum decisions to seriously consider the questions of what they are trying to accomplish by teaching Talmud and how they are assessing their success in achieving those goals. As noted in the literature review, much of the literature on Talmud education has been about means, without clarifying what the ends are. One underlying goal of this research is to bring the discussion of goals, which lies latently

under much of the discourse about Talmud education, out into the open with the hope that educators, once clear about their goals, will be better able to design logical and goal-oriented curricula.

The selection of high school seniors was sensible in that it allowed the research to capture an image of the students at the end of their American education, before a majority of them headed off to more intensive Talmud study in Israel. However, this point in time is only one of three (at least) transitional stages of Talmud education that should be studied. It would be instructive to conduct the same study with 8<sup>th</sup> grade students as well as with students who have returned from their Israel experience, both immediately after their return, as well as one year later. Having a picture of where student motivation is at these three points will allow educators to trace the evolution of motivation at different stages of developmental and religious growth and could thus lead to more substantive discussions across the entire field of Talmud education. Without any centralized standards-making body, it would seem obvious for Talmud educators at different levels to confer and strategize as to what is being taught at each stage, and yet such discussions rarely happen. Thus, high schools decide their curricula without considering what the students have learned in middle school, and Yeshivot in Israel plunge into intensive Talmud study with students who are often not ready for such demanding and rigorous engagement with the subject matter. The existence of hard data on the successes and shortcomings of each level of Gemara education will hopefully encourage greater dialogue and cooperation.

Over the past decade, two new curricular programs, Bonayich and Gemara Berura, have been created for the study of Talmud. Unlike previous workbooks that have

been disseminated, these two new programs can actually be called comprehensive curricula, complete with student handbooks, teacher guides, and a wide range of multimedia and technological accoutrements. While both programs have found fertile markets, their real growth, as well as the future development of other competing programs, will be undoubtedly spurred on by data supporting their claims to develop both Talmud skills as well as a deeper love of learning. Both programs are still too new for any research to be relevant, but the growth of research in this field now will certainly be enriched by adding in the use of these programs as variables in future years. Ultimately, the beneficiaries will be the students who are on the receiving end of a more comprehensive and aligned Talmud curriculum.

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APPENDIX A  
STUDENT QUESTIONNAIRE

## Part I

1. I would feel really good if I were the only one who could answer the Rebbe's questions in class.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE

2. It's very important to me that I don't look stupid in my class.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE

3. It's important to me that I learn a lot of new concepts this year.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE

4. My parents want me to spend time thinking about concepts.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE

5. My parents don't like it when I make mistakes in my class work.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE







STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

26. It's important to me that I improve my skills this year.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

27. One of my main goals is to avoid looking like I can't do my work.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

28. I would feel successful in class if I did better than most of the other students.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

29. If I did well on a school assignment, I wouldn't want other students to see my grade.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

30. My Rebbe presses me to do thoughtful work.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE

31. In our class, it's important that you don't make mistakes in front of everyone.

**1**    **2**    **3**    **4**    **5**

STRONGLY DISAGREE                      SOMEWHAT AGREE                      STRONGLY AGREE













71. It's very important to me that I don't look smarter than others in class.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
STRONGLY DISAGREE		SOMEWHAT AGREE		STRONGLY AGREE

## Part II

1. I enjoy learning Gemara very much.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

2. I feel like I have to learn Gemara.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

3. I think learning Gemara is important to do because it can help me later in life.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

4. While I am learning Gemara, I think about how much I enjoy it.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

5. I feel like it is not my own choice to learn Gemara.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

6. I feel really distant from my Rebbe.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

7. I don't really have a choice about learning Gemara.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true

8. I think that learning Gemara is a boring activity.

1	2	3	4	5	6	7
Not true at all			somewhat true			very true







APPENDIX B  
LETTER TO PRINCIPALS

Dear Principal,

I am a doctoral candidate at Yeshiva University's Azrieli Graduate School of Jewish Education and Administration. I am currently conducting the research on my dissertation, entitled "Motivational Factors affecting Student Attitudes in the Study of Talmud." For the purposes of my study, I am surveying 12<sup>th</sup> grade boys in Modern Orthodox high schools across the country, and I would like your permission to administer the survey to your students.

The survey will take no more than one half hour to complete and all specific results will be kept confidential, from the students as well as from the school and from the families. I will be happy to share the general results with you after the study is completed. Consent will be obtained from each student at the time of the survey.

If you are amenable to having your students participate in this study, please reply on official school letterhead. Your response can be faxed to me at (xxx) xxx-xxxx.

Thank you in advance for your help and consideration.

Sincerely,

Aaron S. Ross

APPENDIX C  
SCRIPT FOR ADMINISTERING QUESTIONNAIRE

Good morning. The questionnaire that you are about to fill out is part of a research study that is interested in determining and understanding student attitudes towards the study of Gemara. For each statement, please circle the number that best signifies your agreement with that statement based on your own personal experiences. A reply of one means that you disagree with the statement, while a reply of 5 (or, in some cases, 7) indicates that you strongly agree with the statement. Please do your best to answer as honestly as possible. The final question asks you to make a list of your academic subjects – please write your answers as clearly and as legibly as possible.

Some of the questions may seem similar to one another. That is not a mistake, and they are not intended to trick you. Please answer all questions as honestly as you can.

All of your responses will remain confidential. While the general results may be shared with your school administrators, your personal identity and responses will at all times remain private, and your questionnaire will be seen only by the researchers. Your teachers, principals, and parents will not be allowed to view your questionnaires.

The front page of your questionnaire package is a form that you should sign **ONLY IF** you do not want to participate in this study. A similar form was sent home to your parents – if anyone has that form signed, they should hand it in now. If you do not

sign this form, or if you do not have a form from your parents, it is assumed that you consent to participate in this study.

Are there any questions? If not, please begin. You will have 40 minutes to complete the questionnaire. If you finish before that time, you may hand in your questionnaire.

APPENDIX D  
LETTER TO PARENTS FROM SCHOOLS

Dear 12th Grade Parents,

Your child will be participating in a research study that will be assessing their motivation towards the study of Gemara and will be focusing on some of the factors that may affect that motivation. In particular, there will be questions about your child's general academic motivation, as well as the role and impact of parents, peers, and teachers on his attitudes towards Gemara. This research is being carried out by Rabbi Aaron Ross under the auspices of Yeshiva University's Azrieli Graduate School for Jewish Education and Administration and Dr. Scott Goldberg.

The study will involve your son filling out a questionnaire that should take no more than 40 minutes and will be conducted during school hours. There are no risks involved in this study, and your son's responses will be kept strictly confidential by the researchers. Your son will be able to quit at any time, and will be allowed to skip any question that he does not want to answer. Specific results will not be shared with any individuals involved in the school, although general (anonymous) results may be shared. There are no direct benefits for your son involved in this research. However, the researchers hope is that this study will illuminate the degree to which the American Yeshiva high school system has been successful in inspiring its students to learn Gemara, information that can be very valuable for setting future educational goals and curricula.

As there is no risk of harm to your child involved in this study, your child will be able to participate without explicit consent. If you do not want your child to participate in this study, and if your child is 17 years of age or younger, please sign below and return by the day of the study. If your child is 18 years of age or older, he has the legal right to make his own decision concerning his involvement in this study.

Signed,

(Principal's signature)

APPENDIX E  
OPT-OUT FORM FOR SUBJECTS 18 YEARS OF AGE AND OLDER

**AZRIELI GRADUATE SCHOOL OF JEWISH EDUCATION AND  
ADMINISTRATION  
OF YESHIVA UNIVERSITY  
Individual's Consent for Participation in Research**

**INTRODUCTION:**

By signing this form you have voluntarily agreed to participate in a research study entitled: Motivational Issues in the Study of Gemara, to be carried out under the supervision of:

Principal Investigator: Rabbi Aaron Ross  
School: Azrieli Graduate School of Jewish Education and Administration  
Office Address: 500 West 185<sup>th</sup> Street BH 311 New York, NY 10033  
Office Phone: 212-960-0186

**CONFIDENTIALITY: (Who May See Your Records)**

The study research records will be kept confidential and you will not be identified in any written or verbal reports. The research records will be kept in a secured area and locked in a file cabinet in the research offices of the Principal Investigator. Research personnel authorized by the Principal Investigator will have access to these records.

Your research records may be inspected by members of the research team. They have been requested to maintain confidentiality. Your records may also be inspected by the human research committee(s) of the Albert Einstein College of Medicine Committee on Clinical Investigations (CCI).

**WHOM TO CONTACT FOR QUESTIONS:**

You can call the supervisor of this research study, named at the beginning of this consent document in the **INTRODUCTORY PARAGRAPH**, if:

- You have any questions related to this research project.
- You have any questions about your rights as a research participant.
- You believe you have any injury related to this research study.

You may also call the Administrator of Committee on Clinical Investigations of the Albert Einstein College of Medicine of Yeshiva University at (718) 430-2253, Monday through Friday between 9 AM and 5 PM.

### **STUDY SPECIFICS**

1. **PURPOSE:** The purpose of this study is for the researchers to gain an understanding of student motivation, and specifically what factors influence the motivation to learn Gemara.
2. **PROCEDURES:** In order to gain this understanding, you are being asked to fill out a simple questionnaire. The questionnaire should take you no longer than 60 minutes, and will consist of a variety of questions about your attitudes towards school, your attitudes towards Gemara specifically, and various factors that may influence these attitudes. You have the right to skip any question if you do not want to answer it.
3. **RISKS:** There are no risks involved in filling out this questionnaire. All of your answers will remain strictly confidential, and will not be shared with your teachers, administrators, or parents, or anyone else other than the researchers. General results may be shared with your school, but your individual identity and results will remain confidential at all times.
4. **BENEFITS:** There are no immediate benefits that will accrue to you as a result of your participation in this study. However, it is the goal of this study to provide a broader benefit to the world of Jewish Education by providing a research-based evaluation of the success of Modern Orthodox high schools in the teaching of Gemara. It is hoped that this research will be valuable to schools, both in America as well as in Israel, in structuring their educational goals and curricula.

### 5. **ALTERNATIVES:**

You may choose not to participate in this research study.

### **REASONS FOR TERMINATION:**

**WITHDRAWAL:** Your participation in this research study is voluntary. You may be a participant in it only if you wish, and you may withdraw from the research study at any time. Your relationship with doctors, teachers, administrators, employers and staff at the institution(s) involved in this research study, now and in the future, will not be affected in any way if you refuse to participate or if you enter the program and withdraw later.

**SUMMARY:** The information in this Informed Consent Document has been explained and discussed with you and/or read to you. You have also been given the opportunity to ask questions about this research and have your questions answered. A copy of this consent document has been given to you, whether or not you have agreed to participate in this research study.

APPENDIX F  
OPT-OUT FORM FOR SUBJECTS YOUNGER THAN 18 YEARS OF AGE

**AZRIELI GRADUATE SCHOOL OF JEWISH EDUCATION AND  
ADMINISTRATION  
OF YESHIVA UNIVERSITY  
Young Adult Assent for Participation in Research**

**INTRODUCTION:**

Your school will be participating in a research study entitled: Motivational Issues in the Study of Gemara, to be carried out under the supervision of:

Principal Investigator: Dr. Scott Goldberg  
School: Azrieli Graduate School of Jewish Education and Administration  
Office Address: 500 West 185<sup>th</sup> Street BH 311 New York, NY 10033  
Office Phone: 212-960-0186

**PLEASE SIGN AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO PARTICIPATE IN THE STUDY.**

**CONFIDENTIALITY: (Who May See Your Records)**

The study research records will be kept confidential and you will not be identified in any written or verbal reports. The research records will be kept in a secured area and locked in a file cabinet in the research offices of the Principal Investigator. Research personnel authorized by the Principal Investigator will have access to these records.

Your research records may be inspected by members of the research team. They have been requested to maintain confidentiality. Your records may also be inspected by the human research committee(s) of the Albert Einstein College of Medicine Committee on Clinical Investigations (CCI).

**WHOM TO CONTACT FOR QUESTIONS:**

You can call the supervisor of this research study, named at the beginning of this consent document in the **INTRODUCTORY PARAGRAPH**, if:

- You have any questions related to this research project.

- You have any questions about your rights as a research participant.
- You believe you have any injury related to this research study.

You may also call the Administrator of Committee on Clinical Investigations of the Albert Einstein College of Medicine of Yeshiva University at (718) 430-2253, Monday through Friday between 9 AM and 5 PM.

### **STUDY SPECIFICS**

1. **PURPOSE:** The purpose of this study is for the researchers to gain an understanding of student motivation, and specifically what factors influence the motivation to learn Gemara.
2. **PROCEDURES:** In order to gain this understanding, you are being asked to fill out a simple questionnaire. The questionnaire should take you no longer than 40 minutes, and will consist of a variety of questions about your attitudes towards school, your attitudes towards Gemara specifically, and various factors that may influence these attitudes. You have the right to skip any question if you do not want to answer it.
3. **RISKS:** There are no risks involved in filling out this questionnaire. All of your answers will remain strictly confidential, and will not be shared with your teachers, administrators, or parents, or anyone else other than the researchers. General results may be shared with your school, but your individual identity and results will remain confidential at all times.
4. **BENEFITS:** There are no immediate benefits that will accrue to you as a result of your participation in this study. However, it is the goal of this study to provide a broader benefit to the world of Jewish Education by providing a research-based evaluation of the success of Modern Orthodox high schools in the teaching of Gemara. It is hoped that this research will be valuable to schools, both in America as well as in Israel, in structuring their educational goals and curricula.
5. **ALTERNATIVES:** You may choose not to participate in this research study.

### **REASONS FOR TERMINATION:**

**WITHDRAWAL:** Your participation in this research study is voluntary. You may be a participant in it only if you wish, and you may withdraw from the research study at any time. Your relationship with doctors, teachers, administrators, employers and staff at the institution(s) involved in this research study, now and in the future, will not be affected in any way if you refuse to participate or if you enter the program and withdraw later.

**SUMMARY:** The information in this Informed Consent Document has been explained and discussed with you and/or read to you. You have also been given the opportunity to ask questions about this research and have your questions answered. A copy of this

consent document has been given to you, whether or not you have agreed to participate in this research study.