The role of social networks on the progress of English attainment: a study of Year 10 EAL boarding pupils

دور الشبكات الاجتماعية و تأثيرها على التقدم و التحصيل: دراسة لطلبة الصف العاشر بالمدرسة الداخلية من غير الناطقين باللغة الانجليزية

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ABSTRACT

The UAE is a country that boasts over 200 different nationalities according to the Dubai Culture & Arts Authority (2014), located in a region most recently associated with vision, rapid growth, and mass development. The English language has become a critical necessity to bring this diverse market together under a "lingua franca." This study explores the effects of social networks on English progress in a UAE international British curriculum boarding school. The observed population consisted of a case study of 11 boarding pupils, three female and eight male, who completed their first year of International General Certificate of Secondary Education (IGCSE) curriculum in Year 10. All subjects were permanent residents within the school's boarding facilities and under the school's visa sponsorship.

Social network data was collected through the administration of a customized questionnaire, in addition to feedback/interview questionnaire responses provided by their English as an additional language (EAL) instructor. English progress was measured by examining the increase in attainment levels of English language skills (reading, writing, listening, speaking and overall) from their entrance tests to their most recent English examination. Social network results were plot against language progress scores, and a regression or trendline was drawn to determine the directionality and strength of the relationship between the variables.

The results indicated that the plexity (or density) of social ties and the number of relations who used the target language had the highest positive relationship to the pupils' English progress across most skills. An increased frequency of 'non school friends' in the social network had the strongest negative impact on language progress. This study proved that there may be various significant links between social relationships and language acquisition, and can pave the way to more sociolinguistic studies in the UAE's mobile and transient education market.

نبذة

دولة الإمارات العربية المتحدة تزخر بأكثر من 200 جنسية مختلفة في منطقة ارتبط اسمها مؤخراً بالرؤية والنمو السريع والتنمية على مستوى واسع وذلك بحسب ما ورد من هيئة دبي للثقافة والفنون (2014). وأصبحت اللغة الإنجليزية تتخذ أهمية حيوية كونها اللغة المتداولة التي تقرّب بين أطياف السوق المختلفة. وتنظر هذه الدراسة في دور الشبكات الاجتماعية وتأثيرها على تقدم اللغة الإنجليزية في المناهج البريطانية الدولية في المدرسة داخلية في الدولة. وطالت الدراسة 11 تلميذاً في مدرسة داخلية، 3 فتيات و8 فتيان أنجزوا السنة الأولى من الشهادة العامة الدولية للتعليم الثانوي (IGCSE) في الصف العاشر. وكلهم كانوا يقيمون في المدرسة بشكل دائم وهم مكفولين من قبل المدرسة.

تم جمع بيانات الشبكات الاجتماعية من خلال استبيان موحد، إضافة إلى التغذية الرجعية والمقابلات التي أجريت مع مدرس اللغة الإنجليزية كلغة أجنبية (EAL). وتم قياس تقدّم اللغة الإنجليزية من خلال النظر في التحسن في مستويات التحصيل في مهارات اللغة الإنجليزية (القراءة والكتابة والاستماع والحديث واللغة بشكل عام) خلال الفترة من اختبارات القبول بالمدرسة و حتى آخر الاختبارات التي قاموا بأدائها. وتم وضع البيانات في رسم بياني يوضح اتجاه و قوة العلاقة التي تم الكشف عنها بين المتغيرات.

وأوضحت الدراسة وجود علاقة إيجابية قوية ما بين عدد العلاقات و كثافة الروابط الاجتماعية مع أطراف تستخدم اللغة المستهدفة من جهة و تقدم الطلاب في معظم مهارات اللغة من جهة أخرى. أما عدد "الأصدقاء من خارج المدرسة" فكان له تأثيرا سلبيا على تقدّم اللغة. وأثبتت الدراسة أنه قد يكون هناك روابط متعددة و مهمة ما بين العلاقات الاجتماعية والاكتساب اللغوي... وقد يمهد ذلك إلى المزيد من الدراسات اللغوية الاجتماعية في سوق التعليم المتنقل والمتبدل في الدولة.

DEDICATION

This dissertation is dedicated to Khaled and Jameela Al Muheiri who always recognize my potential and refused to let me fail. Without their support, sponsorship and care I would not have achieved many of my personal and professional accomplishments.

I would also like to dedicate this publication to my remarkable wife, Shaikha. Her love, sacrifice, patience and faith in God are the most significant pillars to my existence. May I one day be given the opportunity to reciprocate all that she has done for me Inshallah.

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Table of Contents

Abstract……...……...…….……..…..i

Dedication……...…….....iii

Acknowledgement …..……...…….…..…iv

Tables of Contents.……...……..……...v

List of Tables and Figures ……...……..…… vii

Chapter 1: Introduction

1.1. The research question.....1
1.2. Research hypothesis.....3
1.3. Topic origin and background overview.....4
1.4. Research gaps and statement of problem 5

Chapter 2: Literature Review

2.1 Social Network Theory and language acquisition.....8
2.2.Capturing social networks: Social Network Analyses.....10
2.3.Learner motivation in the social context.....11
2.4.Personality and language acquisition.....12
2.5.Globalisation language teaching.....13
2.6.Influences of socialisation in boarding school and study abroad settings.....15
2.7.Previous studies.....17
2.7.1. The influences social networks on L1.....17
2.7.2. The effects of social variables on L2 learning.....18
2.7.3. Language selection in multilingual communities.....20

Chapter 3: The Study

3.1 The population.....21
3.2 Setting.....24
3.2.1 The site.....24
3.2.1.1 Classroom environment.....25
3.2.1.2 Boarding house environment.....25
3.3 Instruments.....26
3.3.1 Instrument 1: The social network questionnaire.....26
3.3.2 Instrument 2: CEFR English attainment results.....28
3.3.3 Instrument 3: Teacher feedback questionnaire.....28
3.4 Data collection and analyses procedure.....29
3.5 Ethical considerations and challenges.....32

Chapter 4: Results and Discussion
4.1.Social network analyses results.....34
4.2.Question responses.....45
4.3.Teacher interview responses and individual profiles.....52
4.3.1. Individual profiles of low-level language progress subjects.....54
4.3.2. Individual profiles of mid-level language progress subjects.....55
4.3.3. Individual profiles of high-level language progress subjects.....56
4.3.4. Summary of profiles and interview results.....57

Chapter 5: Conclusion
5.1 Summary of the primary findings.....58
5.2 Pedagogical implications.....59
5.3 Limitations of the study.....60
5.4 Areas for future research.....62
5.5 Finale.....63

References 64

Appendices......67

Appendix A: Weekday Morning House Routine.....67
Appendix B: Weekday Afternoon/Evening House Routine.....68
Appendix C: Thursday Afternoon/Evening House Routine.....69
Appendix D: Friday Morning/Evening House Routine.....70
Appendix E: Saturday Morning/Evening House Routing.....71
Appendix F: The Social Network Questionnaire.....72
Appendix G: Attainment Equivalency Chart.....73
Appendix H: Reading Progress vs. Social Variables.....74
Appendix I: Writing Progress vs. Social Variables.....85
Appendix J: Listening Progress vs. Social Variables.....96
Appendix K: Speaking Progress vs. Social Variables.....107
Appendix L: Overall Progress vs. Social Variables.....118

List of Tables and Figures

Table/Figure Number	Title of Table	Page Number
Table 1	Subject profiles	23
Table 2	Data collection and analyses	32
Table 3	Progress in reading	35
Table 4	Progress in writing	37
Table 5	Progress in listening	39
Table 6	Progress in speaking	41
Table 7	Overall progress	43
Table 8	Question one responses	45
Table 9	Question two responses	46
Table 10	Question three responses	47
Table 11	Question four responses	48
Table 12	Question five responses	49
Table 13	Question six responses	50
Table 14	Questions seven and eight responses	51
Table 15	Teacher responses	53
Figure 1	Research focus	3
Figure 2	Social network diagram	8

CHAPTER 1: INTRODUCTION

1. Introduction

The continued presence of English language as the world's "lingua franca" has contributed to pressure of understanding, analysing, and improving language acquisition for the millions of language learners worldwide. There are a multitude of causal influences and variables that act as contributing agents to this field of study, ranging from academic to psychological, and cognitive to social.

Cradled in the highly regulated environment of a United Arab Emirates (UAE) based British curriculum private school, this study will argue the dominant influences of social variables on language acquisition for Year 10 boarding pupils receiving EAL. Social Theory is the primary framework and foundation for the analyses and investigation of said social effects on language learning.

1.1. The research question

Is there a relationship between internal and external social factors of an EAL boarding pupil against their English language progress?

This research question intends to incorporate results of social network analyses data, and measure it against the dependent variable of progress in English attainment. A study of this design will allow for quantitative records to be included in the findings, providing a statistical and objective comparison for relation. The research question may be broken into four components:

Part 1: The subjects

The subjects of this study are Year 10 EAL boarding pupils. This population consisted of 11 boarding pupils, three female and eight male, who recently completed their first year of International General Certificate of Secondary Education (IGCSE) curriculum in Year 10 at the time of the study. The selection criteria for this population will be further discussed in Chapter 3.

Part 2: The Dependant variable

The dependant variable is used as a reference point or indication of significance when measuring the social variables. The obvious indicators for success of EAL pupils are the attainment scores, or in this case more specifically the progress of English attainment, which was chosen as the dependant variable. English progress was captured at an overall level, as well as by skill level (reading, writing, speaking and listening skills). Common European Framework of Reference (CEFR) scores were recorded, and then converted for analyses using international equivalencies (see appendix G). The advantage of using CEFR results as the elicitation tool for the dependant variable is its easiness to be measured, and the ability to standardise results for comparison across the study's participants as well as any other EAL pupils worldwide. The resulting data analyses and research opportunities are limitless.

Part 3: Internal social factors (independent variables)

There are two categories of social factors in this study; internal and external. All will be addressed and considered when reviewing the social effects against language attainment, positioning them as the study's independent variables. Internal factors are the generally similar across most studies. These comprise of characteristics and traits of the subjects that are inherited or pre-existing. The four internal social variables considered in this research are nationality, first language (L1), gender, and age of the participants.

Part 4: External social variables

The researcher wields the most influence in selecting the external social variables when using Social Network Theory (SNT) as a framework for analyses. There are a plethora of various potential external factors that may be measured in a language learner. Narrowing these down and formulating the best method of capturing the variables is the critical and daunting challenge of the task.

In this study, a social network analyses (SNA) was conducted via a questionnaire, capturing six different aspects of the participants' social networks. The general categories observed were:

1. Number of years in attendance at the current boarding school
2. Percentage of target (English) language use in their social network
3. Percentage of same/opposite gender in their social network

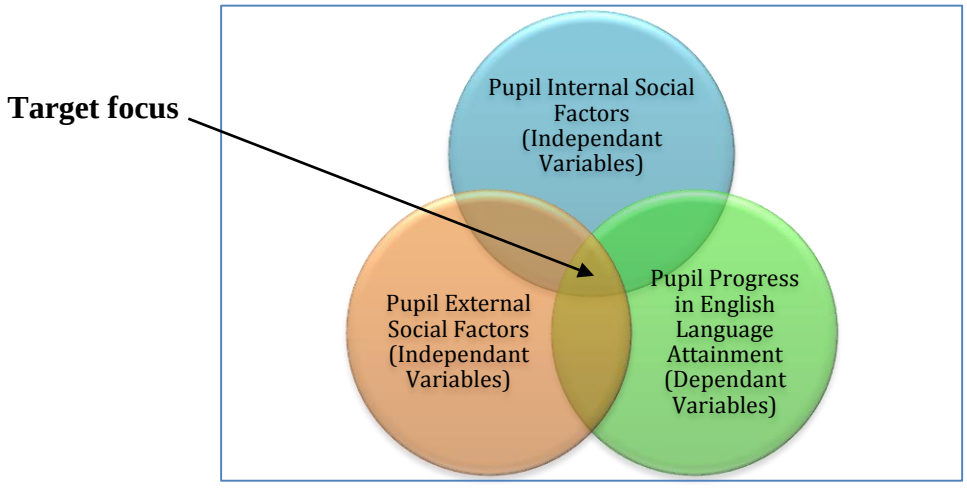
4. Method of communication with their social network
5. Plexity of the subjects' social network relations
6. Type of relation with their social network relations

The description of these categories will be reviewed in 'The Study' chapter of this dissertation, detailing both a description of the methodology used in obtaining data and the underlying reasoning for their selection as external independent variables.

Summary

The research question guides the process of identifying what variables need measuring, and demonstrates a broad picture of areas that overlap. These overlapping regions could prove to be significant factors that affect the language development of the subjects, and help identify pedagogical and learning outcomes. Figure 1 below is a visual representation of the target focus for this research question:

Figure 1: Research focus



1.2. Research hypothesis

The hypothesis of this dissertation is that the subjects who surround themselves in highly dense multiplex relationships using the target language will demonstrate the steepest rate of progress in English language attainment. Additionally, it is hypothesised that higher levels of integration in the school ethos will also lead to higher progress results among the participants. The integration may be measured in the form of representation of boarding house mates, day school friends and instructor relations in the social networks, versus external friends or family relations.

1.3. Topic origin and background overview

The researcher has been involved in pupil recruitment with the selected school for five years up to the time of the study. The school was the only non-tertiary institution in the UAE offering boarding provisions to its pupils, rendering it unique. Considering the expatriate nature of the UAE population, there are certain trends in pupil recruitment and retention that can be seen across all schools. The boarding admissions trends contradicted the market pattern (discussed in the following section), sparking an interest and necessity for the researcher to better understand and look for ways to improve the boarding experience for the sustainability of the provision in the school.

Dubai, UAE admissions trends

There were approximately 141 private schools representing over 14 varying curricula inspected by the Emirate of Dubai according to the published 2013-2014 Key Findings Report (Knowledge and Human Development Authority (KHDA), 2014). Most of these private institutes are for-profit organisations, backed by major capital investors coming from all over the world, creating an extremely competitive environment. With the announcement of Dubai's successful Expo 2020 bid, the increase in the school-aged population was predicted to exponentially increase over the forthcoming years from the time of the study, adding further pressure on schools to increase capacity and their quality of provision to capture the market.

Pupil recruitment has increased year on year in this study's school since its inception, yet the boarding school segment numbers have been predominantly stagnant. There are almost 250,000 pupils currently in Dubai schools, with more than 80 percent hailing from non-native English speaking nationalities (KHDA, 2014). In addition to this, there has been regional instability in nearby nations brought on by the recent "Arab spring" and conflicts in other countries such as Afghanistan, Iran, Russia and Pakistan. These factors would typically justify a demand in the requirement for boarding school in the popular, safe, and emerging market of the UAE. This study could shed some light on why this has not been the case.

EAL Provision in Dubai, UAE

There is no hard data in the region for EAL provision among the various schools. Considering the demographic makeup of the pupil-body, most schools do have some form of support, however almost always at an additional expense to the parents. This is semi-

regulated by the educational authorities, however due to the "extra-curricular" nature of the support; it does not come under the inspection criteria or tuition fee regulations of the KHDA.

EAL boarding pupil profile

The researcher has noted a significant dichotomy in the type of boarding pupil. A majority of the boarding pupils may be categorised in the polar classifications as high achievers and pastoral leaders of the school, or problem students that neither perform academically nor integrate socially into the school's ethos.

The price of the boarding school is significant; therefore most of the pupils were coming from similar socioeconomic backgrounds. The structure and schedule of classes and activities for this population were identical as administered by the academic and boarding heads. These factors lead the researcher to believe that the composition, density, and type of social networks kept by the pupils most heavily influenced their success or demise in English language learning more so than economic, academic or environment based factors.

Kamile: A Case study

Following the quest to understand the effects of social network dynamics on English attainment, the researcher initially conducted a case study in 2014 on a Russian teenage girl who had shifted from boarding school to day school due to a change in personal circumstances (Sabawi, 2014). The results of the case study showed a significant decrease in the subject's use of target language, and a slowdown or in some instances stagnation in her attainment in English as a result of the drastic change in her social network between boarding school and day school (Sabawi, 2014). These findings highlighted social advantages to boarding while learning English which segued into this in-depth study of other boarders' social behaviours.

1.4. Research gaps and statement of problem

Sociolinguistics is essentially a marriage of the study of linguistics and sociology. William Labov opened the doors to sociolinguistic research by conducting research in the early 1960's on variations in speech communities across the United States (Milroy & Gordon, 2003). Although considered one of the newer fields for language acquisition research, a healthy artillery can now be found consisting of studies relating to this area of focus. The researcher

acknowledges this development, however has highlighted an exclusive gap in research sparking the following study.

Research gap

There are a number of previous studies that will be discussed in this dissertation's literature review chapter relating to the impact of social networks on language acquisition. However, several factors such as the age and background of the subjects, as well as the location of this study have yet to be addressed in the SNT field.

UAE youth demographics

There is no research on social networks for school age children to date in the UAE leaving a huge research opportunity. There are over 200 nationalities in the country, and dozens of various languages spoken and curricula taught. The dominating presence of English almost conflicts with the adoption of Arabic as the national language. All of these factors are impacting the language learning of children within this region and context, both positively with the ability to interact daily with native speakers, and negatively considering the inconsistency of EAL provision among schools and a larger range of language skills among the student population. Although one can draw on similarities of studies conducted in other regions, there was definitely a need to analyse the effects specifically in the distinctive UAE context.

K-12 school boarding provision

Considering the selected school was the sole boarding facility in the region, this also justified additional research on significance of its social variables on English language learning. No other school in the UAE has boarding as an option, so the environment and social structure of the subjects were completely unique to those of other students in the rest of the region. There have been a few studies on Study Abroad programmes in the Gulf at a tertiary (University) level (referenced in the literature review), however none in the K-12 school range. This study aimed to be the first attempt to understand the social consequences of boarding in younger age groups in the region.

Capturing social networks of underage subjects

Collecting social data from the subjects was in itself a difficult task for the researcher. Since there has been no identical study on the population in question, there was a need to develop a

customised questionnaire that accurately and effectively captured the social networks of the boarding pupils. There were several ethical considerations accounted for as subjects were under the age of 18, and their parents were living abroad. Limited examples of data collection methods in previous studies for such a distinct population were an additional gap identified.

Statement of problem

This study seeks to identify if there is a significant relationship between internal and external social factors of Year 10 EAL boarding pupils and their progress in English language. If significance is identified, the researcher can better understand how to encourage or discourage certain social behaviours that influence English attainment, increasing the potential of growth and retention for the niche boarding market.

CHAPTER 2: LITERATURE REVIEW

2. Literature Review

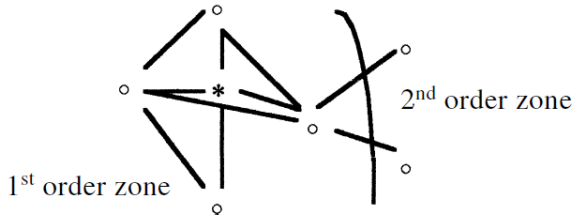
This chapter will outline the theoretical framework serving as the backbone to the study. First, a history of Social Network Theory will be presented, followed by examples demonstrating impacts of social variables on education and language attainment. The literature review will conclude by citing former studies and their findings in relation to the topic of this dissertation.

2.1 Social Network Theory and language acquisition

Social Network Theory: a definition

Social network theory has been selected as the underlying theoretical framework to this study. A social network is defined more specifically by Milroy & Gordon (2003) as a web of relations tying individuals together geographically and socially. There are multiple layers to these ties, with the first-order consisting of direct contact relations, while second-order referring primarily to indirect links that are located in the heart of an individual's social network (Milroy & Gordon, 2003). There is quite a rich history leading to the development of Network theory. The roots of this framework come from a blend of varying disciplines such as anthropology, linguistics and other social sciences (Sarhimaa, 2009). Social network theory allows a researcher to investigate micro-level aspects of a person's social network in relation to their peers and then apply the findings to a macro-group (such as gender or nationality). In the education context, networks consist of students as the primary interacting entities, and the relationships between/among them as the social ties or links. Bergs (2000, p. 240) best demonstrated social networks in the form of a mathematical based graphical form depicted below in Figure 2:

Figure 2: Social network diagram



The basic 'dots-and-lines' network model.

Types of networks:

There are several classifications of the "ties" between individuals in their web-like networks. Categorised predominantly by strength, stronger ties include first-order or close associates relations, while weaker ties refer to more distant associates (Lanza & Svendsen, 2007).

There is yet a further breakdown network types as identified by Li Wei (1994). One such category is interactive networks. These consist of contacts who are frequently or regularly in touch with an individual, but would not be approached by them in times of need (Lanza & Svendsen, 2007). A relation of this kind in a school context may be for example the library assistant.

The second and stronger network category is exchange networks. Exchange networks involve relations who an individual would specifically seek out for advice or support (Lanza & Svendsen, 2007). The most common example of this would be a family relative or best friend.

A final network category is passive connections. These social connections are not made on a regular basis, yet could have a strong influence on the individual. A minister or spiritual leader typically fills the role of an individual's network for this type of social link.

Plexity and density:

Plexity and density are terms also associated with social network relations. Multiplex relationships consist of high density ties bearing multiple forms of support (Whitten, 2007). Uniplex relationships on the other hand are low density links with a unilateral form of support (Whitten, 2007). The plexity and density of relationships will be taken into account in this study as independent variables as discussed in a later chapter.

Language acquisition and Social Network Theory

Studies of language acquisition have brought on heightened focus to social network theory with the hopes to understand how students are obtaining and sharing knowledge among each other, both in the formal and informal social contexts (Rientes & Nolan, 2014). William Labov, who studied sound change in the context of community life, best encompasses the idea of language development and change in the social context (Milroy & Gordon, 2003). Labov (1972) claimed that "social pressures are continually operating upon language, not from some remote point in the past, but as an immanent social force acting in the living

present (p. 3).” Other researchers such as Rientes & Nolan (2014) have stated that social networks are the primary determinant to academic learning and performance. Li Wei (1994) further supported this notion by observing that the makeup of a person’s social network (particularly the ethnic composition) had a far greater impact on their language selection than other social variables such as gender or age. Peter Trudgill outlined a myriad of his past sociolinguistics studies in a recent publication, and postulated that language is a product of various social networks and structures, rather than a random occurrence (Trudgill, 2011).

Kurata (2010) valued informal social relations established by a subject as a chief agent for Second Language (L2) learning thus further signifying the relationship between individual social networks and language acquisition. The language learner may capitalise on language socialisation by latching onto a native speaker socially and developing a master-apprentice type of relationship, thereby enhancing their experience and increasing language proficiency (Dewey et al., 2013). Evidence revealing that social networks are not isolated social factors, but active influencers of language development best summarises the relevance of SNT when investigating language usage (Chambers, 2009).

2.2 Capturing social networks: Social Network Analyses

With the theoretical framework for this study established, the next step would be to look at methods for testing and experimenting the research question to determine significance. The methodology selected in this study for capturing social networks and measuring their impact on language attainment is Social Network Analyses.

The history of Social Network Analyses

As highlighted in the introduction, there is no set gospel for methods of collecting social data, and therefore it is important to review various types of Social Network Analyses (SNA) studies to develop the right model for capturing the data this study seeks to elicit. SNA was derived from social anthropologists starting in the early 1960’s (Milroy, 2008). Milroy was a forerunner in systematic usage of sociolinguistic SNA while conducting her Belfast vernacular studies in the 1970’s (Sarhimaa, 2009). The primary advantage of using SNA is its ability to be case-specific and flexible according to the requirement(s) of the research question (Bergs, 2006). Milroy (2008) pointed out that there was no conflict with regards to broader macro-social influences on language variation such as social class verses SNA

findings, once again proving SNA's adaptability as a strong measurement tool within the social theory field of study.

Social Network Analyses and language learning

Individual language learning factors may be identified using SNA and utilised for predictive, qualitative, or quantitative analyses. The critical component of a successful SNA lies in the strength of the question-stem (Rientes & Nolan, 2014). This impacts what types of networks and desired linguistic phenomena a researcher can explore. Considering most language learners are bilingual or multilingual, the strength of social network analyses in predicting language selection for such a community of people adds to the validity of the framework in this study (Lanza & Svendsen, 2007).

SNA is also considered as a useful tool for investigating language maintenance and shifts in expatriate and immigrant communities (Valazquez, 2012). This social measurement tool provides a means to compare specific differences in relationships resulting from pressures of social behaviours. Examples of findings supporting this claim will be discussed further in the 'previous studies' section of the literature review. Bergs (2000) supports Labov's approval of using adjusted or modified SNA for analysing languages and their variation since there has been little change with the laws of language over history.

2.3 Learner motivation in the social context

Spolsky (1989) delved into L2 learning conditions or parameters, distinguishing between "essential" and "typical" learning influences in both internal and external contexts. The influences affecting English language acquisition are intellect, the propensity to learn (aptitude), age, personalities of pupils, and last but not least, motivation (Skehan, 1989). Motivation is particularly a strong factor in academic achievement. Research by Bass (2007) outlined that even in the highly structured social and learning environment of a quality boarding school, the absence of motivation will prevent a pupil's academic achievement. The following section will focus on the social implications of motivation on English language acquisition.

Peer influences on motivation

A classroom is inherently a social environment. Motivation in an educational context is linked to all social variables of an individual learner. For example, a language learner may be more inclined or motivated to use the target language with someone of the same gender, a similar age, akin in ethnic background etc. (Dewey et al., 2013). Dewey et al (2013) highlighted the findings of a 2006 study by Isabelli-Garcia demonstrating that learners with the highest registers of motivation developed the most extensive social networks, allowing them to use the L2 at more advanced levels. Clearly, peer groups are a significant element for adolescent aged children's L2 improvement, although there is still limited knowledge and research on the impact of peers on achievement and motivation (Ryan, 2001).

Motivation as a learning strategy

Activity theory is a type of strategy that uses motives (common learner motivation) in a social context to drive socialisation while promoting interpersonal interactions and cross-cultural communication (Kurata, 2010). The relationship between the motivation to learn English and the desire to socialise works bilaterally. The motivation to learn a language leads to increased socialisation with the host population, and increased socialisation provides an incentive to learn the language to further develop strengthen these social bonds. It has been discovered that achievement indicators such as GPA, time spent on studies, and university aspirations can be attributed to homophily (Ryan 2001). The components of homophily are socialisation (the tendency for friends to influence each other over time) and selection (individuals choosing relationships with those who have similar characteristics). By motivating the learners to interact with driven and social host members of the target language community, one could influence their language capacity.

2.4 Personality and language acquisition

An additional potential influencer on linguistic performance is the personality of a subject. Most individuals are classified as possessing either introverted or extroverted personalities. Simply defined, an introverted person is more prone to being quiet, reserved and seldom aggressive in demeanour, while an extrovert demonstrates sociability and a need for excitement with an accompanying appetite for risk (Gan, 2011).

The relative ethnocentricity of a learner impacts their motivation to spend the precious time with the L2 culture and hosts (Dewey et al, 2013). This is one example of what degree

personality has on influencing language attainment. As seen in the previous section, this motivation leads to positive effects on the linguistic development and academic achievement. Dewey et al. (2013) observed that next to the amount of *time* spent with locals in a social setting, the second strongest factor to building relationships in their Study Abroad research was *personality*. Subjects noted that their strongest and weakest relations were determined by how well their personalities matched or contrasted with an individual. Notwithstanding this, in academic and professional settings alike, top performers may be identified from both introverted and extroverted backgrounds, both exhibiting receptive and productive personality traits. Despite the widespread belief that extroverts are stronger performers in L2, Gan (2011) has stated that there is insignificant empirical data to support this, and an inconsistency of findings.

Subsequently, this study did not place a heavy emphasis on the personality of the subjects as a consequence of the limited findings or relevant empirical support.

2.5 Globalisation and language teaching

Globalisation is inherently a world-wide dominating force; however it has a particularly strong presence on both society and industry in the Arabian-Gulf (Clarke et al., 2007). A study by Clarke et al. (2007) found that there were polar reactions of Emirati Education students towards globalisation following their country's adoption of a dualistic language system (English representing business and modernity, and Arabic representing religion and traditions). One view deemed the increasing presence of the English language in their nation as progressive, while the other extreme feared the loss of local culture and viewed the movement in a negative light. Below is a review of some world-wide educational and linguistic findings, fears, and innovations resulting from the globalisation phenomena.

Language advances resulting from globalisation

Globalisation has completely changed the visage of language development. The internet in particular has made "languaging" much easier with the speed of access and ease or freedom of sharing knowledge (Coupland, 2003). Linguists are witnessing an ontogenesis of new language categories resulting from recent increases in multinational populations emerging due to technological advancements and the propensity to network on an international level. For example, urban networks now consist of multinational children, and have demonstrated a complete evolution of social and linguistic development in comparison to the former mono-

cultural communities (Sarhimaa, 2009). Varghese & Park (2010) saw opportunity for globalisation to improve the provision to students in the new multilingual world. Now multicultural resources can be a greater influence on social and economic functions at a global stage versus a local stage (Varghese & Park, 2010).

Unfavourable effects of globalisation on education policy and language

There has also been a regression of language development in the face of globalisation. Communication tools such as email, telephone, and text messaging give migrants an inexpensive and effective means to keep in frequent contact with their native connections such as family and friends. Globalisation has removed provincial restrictions to social relations (Lanza & Svendsen, 2007). There is no longer pressure to speak the host country's language and make local relations, impacting the progress of the learners. A greater presence of "junk culture" has also spawned as a result of the transfer of propaganda and ethnocentric exchanges over the web (Coupland, 2003).

Another worrisome development resulting from globalisation in the eyes of many educationalists is the neoliberalism push for a privatization of schools (Varghese & Park, 2010). This movement strikes fear into the minds of traditionalists who view education as a social project. Opportunity for disenfranchisement presents itself when trying to blend cultures into one homogenous social and linguistic classification (Varghese & Park, 2010). It would only be a matter of time before one segment of the student population gets left behind.

The movement towards communicative approaches

The impact of having English as a common business language throughout the world has lead to an increase in the communicative style of language teaching. Social characteristics have become even more crucial in this communicative focused learning environment (Wakamoto, 2000). Communicative and linguistic competence is proving to be increasingly related to a learner's social competence. As a result, both processes of socialisation and language development are more so integrated (Schieffelin & Ochs, 1986). Sarhimaa (2009) was able to construct social categories and identities derived from discourse and communicative approaches identified in a study population. The movement towards the usage and application of communicative approaches resulting from social pressures brought on by globalisation is evident

2.6 Influences of socialisation in boarding school and study abroad settings

The boarding school social environment

Boarding school is an educational provision that can be found all around the world and across various social classes and curricula. There are certain difficulties linked with boarding education such as psychological, logistical or financial concerns. However, there are positive values that have been identified for adolescents that cannot be underestimated (Ayer & Stone, 2006). The curriculum in a boarding school does not merely consist of the academic subjects offered, but also the requirement for a pupil to work for their basic needs through self-reliance and independence (Ayer & Stone, 2006). The opportunity to form a diverse variety of social networks is one of the most significant facets of the boarding provision (Ayer & Stone, 2006). All social actions have *significant* consequences in a boarding school; you live where you work (study), where you eat, and where you socialise. It places pressure on the students to maintain positive relations and improve their overall social environment.

Understanding social networks in SA and its impact on SLA

There is a vast difference between learning a target language in a foreign classroom setting, versus among host people while being immersed in their language and culture. There are a number of advantages and opportunities to learning English in a study abroad (SA) or boarding school environment. Geeraert et al (2014) claimed that although initially a close proximity to co-nationals has a stress reducing effect, long term it can be cancerous to adjustment and understanding of the target culture. Research literature on immigrant adjustment outlines several beneficial effects when it comes to intercultural interaction between the hosts and the visiting learners (Rientes & Nolan, 2014). There is a strong facilitation of assimilation in SA environments as well as improved performance due to reduced uncertainty in such settings (Rientes & Nolan, 2014). By providing a vehicle for language socialisation, social networks in a second language SA class become pivotal to language acquisition (Dewey et al., 2013). A deeper understanding of SLA could result from the research of social theory and networking in SA settings.

Programme management in SA

Another advantage of SA is the opportunity for intervention to cross-cultural socialising, allowing language programme managers to ensure randomised grouping of students working on authentic activities, thus developing stronger learning links and cross-cultural friendships

in each division (Rientes & Nolan, 2014). If guidelines are given to L2 learners on methods to interact, many social obstacles can be avoided (Kurata, 2010). The social benefits of SA and boarding are at risk if programmes rely purely on indiscriminate chance meetings of students. It is therefore critical to facilitate the opportunity for socialising in an organised fashion to benefit the pupils (Dewey et al., 2013). Kurata (2010) discovered concerns when a contradiction was noted between the language learning activity and socialising activity of three L2 students. The inconsistencies in the programme lead to further issues with the social interactions eventually impeding some of the benefits and desired learning outcomes. Something as simple as suggesting suitable subtopics to groups could go a long way for learners (Kurata, 2010).

Location

The location of a study abroad programme can also play a significant role in the language acquisition quest of its students. Dewey et al. (2013) found significant differences in the progress of Arabic learners who spent time in Jordan versus Egypt. The contrast came down to the ability to access the local population for informal conversations, which proved much more difficult, in particular for female learners, in Egypt than the more open and relaxed encounters documented in Jordon (Dewey et al., 2013).

Family and social capital

For younger learners, the fact that they are not situated with their parents may also have a social consequence. Velazquez (2012) identified that there are increased instances of socialisation in immigrant children coming from households with a high frequency of parental interaction. There is a degree of family capital that can be transmitted onto the children that is lost in the boarding context. Separation from family is a major element of boarding or SA programmes, and for many this is a viable (and successful) option; however it may not work for all households (Ayer & Stone 2006). Despite the social advantages of immersion into the target language culture, there are clearly a few limitations of SA and boarding programmes for young language learners when one factors the loss of family capital.

Depending on the structure and context of the study environment, social capital may be lost or gained as a result of SA. Many pupils form lifelong connections and friendships while they are studying abroad. These connections continue to pay off long term as their colleagues

enter the work force following their studies. In other instances, social capital may also be impeded in SA settings. In a mixed day and boarding school, Bass (2007) observed that boarders were isolated from their family and home communities, as well as from their day school peers, limiting the overall social exposure. This may not always bear a negative consequence, however. There are boarding schools across Africa for underprivileged children whose home environments are plagued with instability, poverty, and a lack of the basic needs required to learn (Bass, 2007). In such environments, a separation from the family and home life is considered as an advantage for the social and academic development of the child.

2.7 Previous studies

Listed below are previous studies relating to social network theory, pupil motivation, and personality as a variable of language learning. The studies span over a very broad time period, commencing in the early 1970's when social network theory truly came alive, until present day. The findings demonstrate the evolution of network theory research over the years, signifying the relevance of this framework in the linguistic and sociolinguistic community.

2.7.1 The influences social networks on L1

Labov (1972) conducted a network study on young African Americans from poor education backgrounds who were associated with two street gangs in Harlem, New York City. The rules of gang life prevented their members from crossing certain boundaries, which socially isolated the subjects at times. However, it was found that despite this segregation, there was a stronger similarity among gang members in different communities both linguistically and socially resulting from a shared set of values, activities and creeds more so than "lames" (those un-associated with a gang) hailing from the same neighbourhoods (Labov, 1972).

Eckert's (1989) study of the social differences between the "Jocks" and "Burnout" networks in Detroit suburb high schools rendered some evidence in relation to social class and a child's network affiliation. The parents' social class was found to correlate to the social group that their child associated with. This gave evidence that networks and class are actually independent, although overlapping, social units.

Both macro and micro level correlations were discovered in Edward's (1992) study of the linguistic choices of 66 African American inhabitants in Detroit. The observed area was known for its high unemployment rate (over 60 percent) resulting in a large number of welfare recipients. The most significant social factors effecting language choice were age of the resident (macro level) and their connection or involvement in the neighbourhood culture (micro-level).

Young adolescent motivation in a peer group setting was investigated by Ryan (2001). Middle school groups were analysed using social network analyses. The results showed a significant influence of peer groups on a student's attitude and achievements over the school year. The study did not demonstrate any correlation with peer groups and a pupil's value in the importance of success or education in general however.

Chambers (2009) reviewed the Belfast working class neighbourhood study conducted by Milroy and Milroy in 1978. The study found a link to gender and working habits, where men were isolated to their local factories so as to avoid the conflicts of crossing into other neighbourhoods, while the women had a greater freedom to socialise and work out of their local zones. These unofficial social boundaries brought about obvious sociolinguistic consequences to the observed population (Chambers, 2009).

2.7.2 The effects of social variables on L2 learning

Fathman (1976) administered oral examinations at the commencement and end of the school year to approximately 500 elementary and high school second language pupils in the Washington D.C. area. Several independent variables such as the time spent in ESL class, methodology of teaching, class size, and number of foreigners in a class were considered. Fathman found that all groups made significant progress, however those that were in settings encouraging greater usage of English for communication had a more marked improvement.

Dewaele and Furnham (2000) researched personality and French oral inter-language scores. They related the oral inter-language skill measures of their Flemish university student

subjects against their extroversion results. It was found that the extroverts had a higher level of fluency than the introverts. Extroversion was not necessarily considered a predictor for L2 language performance however.

Wakamoto (2000) measured the tendency of Japanese language learners to be extroverted or introverted, and used these statistics to attempt and determine the most common used language learning strategy (LLS) according to each personality type. There was a significant correlation found with preference of utilising social-affective strategies among extroverts, while introverts displayed no significant preference.

Kurata (2010) conducted a case study on a Japanese learner's interactions with two native Japanese speakers residing in Australia. Their results found that exposure to the foreign language as both a speaker and a listener, increased the overall learning opportunities. L2 opportunities are constructed socially, and thus there is a need to understand how to provide an environment for learners to interact.

Inspired by Dewaele and Furnham's work, Gan (2011) conducted a study in a similar vein examining the impact of an L2 learner's personality features on their oral second language performance in a group assessment setting. The study yielded no significant correlations between the level of extroversion and assessment scores, nor with the level of extroversion and discourse-based measures of the subjects.

Dewey et al. (2013) sought to shine light on the events leading to social network formation in language learners. A similar curriculum and language provision was offered to two groups of University students in two different locations (Egypt and Jordan). The dominating influences discovered by the group were the location of the programme, and the type of programme interventions offered to aid the learners in socialising with the host population. The study could not identify a significant difference between the benefits of interacting with Native speaking peers (local Arabic students) versus extended network interactions (shop keepers, custodians etc.).

The study exploring the development of friendships and learning working relations between international students and host, multinational, and co-national students was conducted by Rientes et al. (2014). Using recent developments in SNT, they believed there was scope to find a new perspective on learning links and development of relations of international students. The results uncovered that contrary to their expectations, there was an increased degree of segregation over time between international and host students as they advanced in their Bachelor's degree programmes. In summary, student's social networks failed to become more integrated as they progressed in their studies.

2.7.3 Language selection in multilingual communities

Multi-lingual communities were the focus of Lanza's (2007) study to review the social language selection and maintenance of Filipinos in Oslo, Norway. The results were true to expectations; the social networks were a strong predictive tool for the language choice among the sample population of Filipino migrants. However, a few discrepancies were noted, and Lanza (2007) attributed them to underlying concerns of identity in the complex multicultural setting.

CHAPTER 3: THE STUDY

3. The study

This study seeks to determine if there is a relationship between Year 10 EAL boarding pupils' social networks, and their English language attainment. There are multiple variables comprising a child's social network. The researcher endeavours to plot each social characteristic of the subjects against their English attainment progress to establish if there are any parallels between certain social tendencies and language achievement.

The results will be summarised both with quantitative data analyses of linear regression (using an R-squared value calculated by a trendline), in addition to a qualitative analyses of responses provided from the subjects and their instructor. Therefore, an overall **mixed-method** approach will be used to relate the findings of this study.

3.1 The population

The population of this study consisted of all Year 10 *full* boarding pupils who were receiving English language support in a UAE based British curriculum school. This comprised of a total of 11 pupils hailing from different nationalities, genders and ages. Full boarding implies that the children were residing in the school throughout the entire term, only leaving for major holidays such as winter, spring and summer breaks. There were also *weekly* boarders within the school who are only residents during the school week, and return home for the weekends. These subjects were excluded from the population.

The curriculum

Year 10 pupils in the 13 year English National Curriculum system are typically 14 years of age. Year 10 is also the first year of the IGCSE programme in the British system, a two year course consisting of a minimum of six subjects (languages, sciences, arts, maths, sport, humanities etc.) The school attended by the subjects allowed pupils to take a maximum of 12 IGCSE subjects, although in the case of the EAL pupils, this was usually limited due to their English language proficiency. Each IGCSE subject had a final external test after the second year of the programme, under either Cambridge or Edexcel examination boards. In addition to exams, several of the subjects also had a coursework component.

Age and year group

One major factor considered in this study was the age of the sample population. Adolescence is the commencement of a downward spiral in academic achievement and motivation for young learners (Ryan, 2001). As such it was imperative that motivation was considered when measuring social effects on English language attainment. This study additionally required a certain level of comprehension and maturity to elicit the required data on the participants' social networks.

The UAE is a highly transient and expatriate dominated country, and therefore one witnesses less consistencies in ages of children transferring from various countries and curricula across the world into international British schools. It is important to note that although most "day pupils" (non-boarding pupils at the school) were within the expected age of the English National Curriculum (14 years as of September); the boarding students had a wider age range. Due to their weaker English levels upon entry, all of the participants needed to repeat a minimum of one year to cope with and access the IGCSE curriculum.

Year 10 was specifically selected because the age range of 15-17 demonstrated the necessary developmental capacity to complete the questionnaire prepared by the Researcher. Additionally, this sample group were going through adolescence, presenting a unique opportunity to examine a critical period of growth and development that would undoubtedly render interesting social network results. Finally, this specific group of subjects were recommended by the school's Head of EAL as a strong representation of the various academic levels, behaviours, and ethnic backgrounds of the boarding school.

The actual ages of each participant at the time of the study is provided in Table 1, along with their gender and nationality.

Nationality, gender and first languages (L1) of the participants

There was a healthy representation of genders and nationalities among the 11 subjects of this population. Most of the participants were male, representing eight out of the 11 pupils. The reason attributing the dominance of males in the school's boarding will be further discussed in section 3.2. There were an impressive six different nationalities represented among only 11 pupils. The largest denomination came from Russia (four pupils), followed closely by the Kingdom of Saudi Arabia (KSA) representing three of the subjects. It should also be noted that two additional subjects in the study came from Russian speaking countries, further

signifying the dominance of this demographic in the boarding house population. Arabic, Korean and Farsi L1s were also documented among the sample. Most of the subjects had little exposure to English prior to joining the UAE boarding school.

Table 1 below comprehensively outlines all of the sample populations' independent variables.

Table 1: Subject profiles

Pseudo Name	Year Group	Nationality	L1/Primary Language	Gender	Number of years in the boarding school	Age in years at time of the study
SUBJECT 1	10	Iran	Farsi (Persian)	Male	2	16
SUBJECT 2	10	Russian	Russian	Male	2	16
SUBJECT 3	10	Russian	Russian	Female	1	16
SUBJECT 4	10	S. Korean	Korean	Male	2	15
SUBJECT 5	10	KSA	Arabic	Male	2	16
SUBJECT 6	10	Russian	Russian	Male	1	17
SUBJECT 7	10	KSA	Arabic	Male	2	16
SUBJECT 8	10	Russian	Russian	Female	1	16
SUBJECT 9	10	KSA	Arabic	Male	1	16
SUBJECT 10	10	Kazakhstan	Russian	Male	1	16
SUBJECT 11	10	Turkmenistan	Russian	Female	1	16

3.2 Setting

The setting of this study was so unique from a sociolinguistic perspective that it allowed the researcher to observe and consider a myriad of factors affecting the population's language attainment. The study consisted of an extremely diverse population, who were part of a high standard English Independent School curriculum, living on a boarding campus in a country that boasts over 200 different nationalities. The subjects' socioeconomic backgrounds, restricted mobility, and minority status in an overwhelmingly English dominant institution alone provided a Petri dish of social factors to process and interpret.

3.2.1 The site

The site of this study takes place in a boarding and day school located in the UAE. The school offers a British curriculum, more specifically in line with that of independent (non government) schools in the UK, both in educational standard as well as ethos and culture. True to this, it incorporated a traditional house system that was applied to both the boarding pupils and the day pupils attending the school. It is an all-through school, starting with the Early Years Foundation, and ending with the Sixth Form qualification of the International Baccalaureate Diploma (IBDP) in year 13. The age range of the pupil body is from three to 18 years old. Weekly or full boarding provisions are eligible only to pupils in Year 7 and above, approximately 11 to 18 years of age. Only 12% of eligible pupils are attending boarding, with a majority of the children attending as day students. The school boasts one of the highest annual tuition fees in the country, and has a plot size of over one million square feet. Some of the distinct features of the school other than its unique boarding offering are the world class sport, academic, arts, and music facilities. The school also prides itself on a rigorous academic standard, with very rigid entrance requirements for all of its pupils. This is one of the primary contributing factors to the low boarding numbers, as English language proficiency often times prevents entry into the school without intensive and costly additional support. The number of pupils in the school at the time of the study was approximately 2320 across, with only 70 children residing in the boarding facilities.

The school was a second branch of another UK based educational institution. The relationship and link between the schools boosted credibility among the various British curriculum competitors in the region. Unlike the UAE branch, the UK school had an overwhelming majority of its pupils in the boarding programme, with very few attending as day pupils. There were also very few international pupils attending the UK branch.

3.2.1.1 Classroom environment

During the school day (from 7:45 am until approximately 3:30pm) both boarding and day students were integrated together. Due to the additional English support requirement of the sample population, most of them were limited to a fewer number of IGCSE subjects than their day school counterparts. There was a maximum class size of 22 pupils per class, a competitive number in the UAE context, although one would see smaller classes in most UK Independent schools. In addition to the subjects and lessons during the day, there were also mandatory extra-curricular activities taking place after school, and supervised prep (homework) sessions.

At the time of the study, there were 65 nationalities in the school, with almost 50% holding a UK passport. The second largest demographic were Emirati nationals with an almost 10% representation, followed by 63 other nationalities with single digit and fraction percentages. A majority of the pupil body were native English speakers, and most of the remaining second language candidates had a strong foundation in the English language. As such, the sample population were a linguistic minority. The population were separated from the mainstream for their English lessons, and placed under the guidance of EAL specialists in smaller class sizes. This structure aimed to improve their English language skills so that they could access the IGCSE curriculum and cope with the high-stakes Cambridge board exams that would take place at the end of Year 11.

3.2.1.2 Boarding house environment

Boarding was offered to both girls and boys in the school selected for this dissertation. The boys resided in an on-campus building, while the girls lived in two offsite villas approximately 15 kilometres away from the school. Both genders followed very similar schedules during the week, as well as over the weekends. The morning routine during the week commenced at 6:30 am with wake up and ended at 7:40 am when they joined their tutor groups. Weekday evening schedules started at 2:30pm when their classes ended, and concluded at 9:00pm which was the year 10 bed time. Weekend schedules varied, including trips to locations such as shopping malls, and leisure activities like go-kart racing, paint-ball, or guided sporting lessons (golf, surfing or kayaking). Buses were also made available over the weekend for children to attend religious services as required (particularly the Friday prayers for Muslim pupils). Appendices A-E lists the detailed schedules of the boarders.

In comparison to the traditional dormitory-style English boarding school structure, the accommodation offered to the subjects was well facilitated. The boy's house had a maximum of two pupils per room, with ensuite bathroom and showering facilities and wifi internet access. There was also access to a computer lab, billiards, table tennis, and a common room with electronic games and satellite television. The boy's house had a total capacity of approximately 110 residents, although there were only 50 boys present at the time of the study.

Two offsite mansions housed the girl boarders, and included a full set of amenities such as cooking facilities, a common area and internet access. Girls were grouped three to a room, although the room size was significantly larger than the boy's accommodation. The total capacity of the two houses was limited to 19 girls, which explained their lack of representation in the study's population.

Pupils resided together according to their year groups as per the boarding house policy. Additionally, to encourage cross-cultural socialisation and the use of English language, pupils of different nationalities were assigned as housemates who were rotated on an annual basis unless there was a need to adjust during the year (new joiners, pupil request etc.)

Chambers (2009) sited increased mobility as a factor to adolescent language development. Once they begin to drive and move about, they have the advantage of greater social exposure than younger learner counterparts. The highly structured and restricted routines of the boarding house lessened the impact of mobility on the subjects' linguistic and language development. In the boarding programme, there was less variance among the pupils for certain variables such as diet, personal time, sleep patterns, and external social opportunities. The fact that the subjects were full boarders provided a highly controlled external environment, limiting the potential for certain lurking variables when analysing relationships and behaviours.

3.3 Instruments

3.3.1 Instrument 1: The social network questionnaire

The first challenge of this study was to come up with the most effective way to capture the social networks of the subjects in a format that could be used to measure the relationships

against language attainment scores. As mentioned in the Literature review, there is no "one size fits all" SNA method, and therefore the Researcher had to customise a comprehensive questionnaire capturing the social networks of the population.

The concept of the questionnaire

It was imperative that the questionnaire was in a format that was easily relatable and understandable by the young subjects. The researcher sought to capture the social network of the subjects by examining their various social ties, measuring the density of them, and their types. The questionnaire was designed in a format that asked the pupils to make a "Top 10" list in a similar fashion to how they see their favourite songs and films listed in the media. This Top 10 list consisted of the relations who the participants communicated with the most on a daily basis. The questionnaire was semi-structured, both capturing the networks using the top 10 list, and fielding open-ended questions from the participants eliciting more details about relationships with their social contacts.

Social variables for the SNA

The following social variables were captured about each of subject's 10 listed relations:

a. Relationship type (i.e. boarding housemate, day school classmate, friend, family member, teacher etc.)
b. Gender of the relation
c. Frequency of communication
d. Nationality of the relation
e. Language most frequently communicated in
f. Most frequent type of communication (i.e. in person, sms, email, social media etc.)
g. Plexity of the relation (i.e. multiplex or uniplex)

Question responses

The data analyses consisted primarily of the SNA results from the variables captured in the Top 10 list; however additional open-ended questions included in the questionnaire were also collected from the subjects to gain a better understanding of the nature of the relationships in their Top 10. The following questions were presented to participants:

1. Who (in the Top 10) would you talk with the most about personal issues or worries?
2. Who (in the Top 10) would you feel most comfortable with asking for a favour?

3. Who (in the Top 10) have you had social activities with (gone to cinema, coffee etc.)?
4. Who (in the Top 10) would you ask to help improve your English?
5. Who (in the Top 10) would you talk to about your hobbies?
6. Do you consider yourself a social person and why/why not?
7. What is your mother's highest education level?
8. What is your father's highest education level?

The final piece of qualitative data collected from the Top 10 questionnaire was pupil feedback towards the boarding school programme and facilities. To ensure the desired feedback was elicited, pupils were asked the following questions:

If you had to tell your friends three things you like about boarding, what would they be?
If you had to tell your friends three things you dislike about boarding, what would they be?

3.3.2 Instrument 2: CEFR English attainment results

English attainment scores were selected as the dependent variable in this study. All pupils were administered CEFR examinations upon entry into the school, and were also re-tested under the same framework at the end of the academic year. Considering the examinations are internationally recognised and standardised, the Researcher found this form of measurement to be reliable and consistent for this study's purpose.

The advantage of CEFR examinations were that they captured attainment of individual language skills (reading, writing, listening, and speaking) as well as an overall attainment result. CEFR results can also be applied across several international standards using a simple equivalency chart (see Appendix G).

Considering data was available for both entry and final results, the Researcher used the progress (movement in levels per skill) for the dependant variable, and not just the most recent scores. All social variables were measured against the change in levels for the four skills and overall marker to determine if there were any inferences that could be made.

3.3.3 Instrument 3: Teacher feedback questionnaire

One risk of administering questionnaires to participants is the prevalence of self-report bias. Considering the age group of the study's population, and the image and identity concerns that accompany this demographic, the Researcher decided to incorporate teacher feedback questionnaires about each child as a means for validation of their responses. If a discrepancy

was identified between the child's views on their own sociability and what the teacher had observed about them, it could give an indication of self-report bias or a weaker reliability of the questionnaire responses.

The following questions emailed to the EAL teacher to answer against each of the participants:

1. **How social is XX? Who does (s)he usually mingle with, inside and outside of the classroom?**
2. **Does XX have a tendency to code-switch between English and their mother tongue? If so where and when?**
3. **How does XX fair in terms of communicative English Skills?**
4. **How does XX fair in terms of their grammatical/lexical Skills?**
5. **What types of assessments (formative and/or summative) does (s)he receive in her EAL class?**
6. **What do you think may be hindering their progress in English?**
7. **What do you think aids their progress in English?**
8. **What are three words you would use to describe XX?**
9. **How would you rate them on a scale of 1 to 10, 1 being delinquent and 10 being model pupil?**

3.4 Data collection and analyses procedure

Data collection

The instruments for data collection were outlined in the section above, and consisted of a student social network questionnaire, teacher interview questions, and progress in English attainment results. The Researcher was employed with the school at the time of the study which facilitated the compilation of data and feedback from the pupils and teachers. The most challenging data to elicit were the social networks of the pupils via the custom Top 10 questionnaire.

A computer lab was booked during a year 10 EAL English lesson, whereby the Researcher was able to upload the questionnaire for the students to complete, using a basic Excel spreadsheet format. The entire class period was allotted to complete the questionnaire. A short introduction was made explaining the main idea of the research, followed by an

overview of the format and requirements. There was also a brief "pre-teach" session on certain vocabulary used in the questionnaire to ensure that the language learners grasped the concept and were able to complete the requested information. Drop lists were provided in the questionnaire wherever possible to save time, and improve the ease and consistency of reporting. Only the open-ended questions required actual text input from the subjects.

Once the subjects were aware of the task, they began the questionnaire while the class teacher and Researcher floated the room answering specific questions or concerns as required. Most of the population were able to complete the questionnaire independently within 15-20 minutes, while a few needed the entire 50 minute class period. Two of the participants could not come up with a complete list of 10 relations; however this was not a result of time constraints or a failure to understand the task. Doughnuts were offered at the end, which had a one hundred percent uptake from the participants. The overall atmosphere and attitude was positive, with most of the participants showing interest in the opportunity to reflect on their social relationships.

The teacher interview questions and attainment results were collected via email from the instructor directly. The teacher returned the results and interview questions in a table format (see table 15 in the results section), which proved very helpful for data analyses.

Analyses procedure

Quantitative data was analysed using the social network results from the Top 10 questionnaire, and plotting them against progress scores of the English language skills to determine a relationship. Relationships were measured using an 'R squared' value from a trend or regression line after plotting points on an XY axis.

The progress from entry to final examination results per skill were used as the dependant variable and plotted on the "Y" axis. Then each social data point collected was plot on the "X" axis against these progress variables across the four language skills and overall progress score to determine if there was a relationship. From this data, a regression line was drawn, and an R squared value was derived to find the strength of relationship. The social variables included from the questionnaire selected for the X axis are summarised below:

1. English language usage: This figure includes the percentage of Top 10 relations whose primary language of communication with the subject was English.

2. Verbal communication: This figure captures the percentage of Top 10 relations whose primary method of contact with the subject was through verbal means (in person, by telephone, or video chat).
3. Written Communication: This figure identifies the percentage of Top 10 relations whose primary method of contact with the subject was through writing communication (email, sms messages, or social media).
4. Multiplex relations: This represents the percentage of Top 10 relations who are multiplex in nature.
5. Uniplex relations: This represents the percentage of Top 10 relations who are uniplex in nature.
6. Boarding house relations: These are the percentage of relations in the Top 10 who are boarding house mates of the subject.
7. Day school relations: This category is the percentage of Top 10 relations who are class mates attending the day school.
8. Non school friends: These are the percentage of Top 10 relations who are friends not currently attending the subject's school.
9. Family relations: This figure represents the percentage of Top 10 relations who are blood relatives of the subject.
10. Instructor relations: These figures are the percentage of Top 10 relations who are teachers or tutors at the subject's school.
11. Multi-relations: This data includes the percentage of Top 10 relations who are classified in more than one relationship category.

All R squared inference values were placed into tables, and were used to compare the relationship directionality (positive or negative) and strength between certain social behaviours and English language progress. This enabled the Researcher to make assumptions on potential causalities between social networks and behaviours and English language progress.

Qualitative data

Qualitative data was collected from both the participant responses in the Top 10 questionnaire and the teacher interview questions. All results were placed into tables, and a descriptive analyses was conducted on the findings. These outcomes provided the Researcher with a deeper understanding of the subjects, and helped support and validate the SNA results

and regression observations. Table 2 below summarises the data collection and analyses of this study:

Table 2: Data collection and analyses

Research Question	Instruments	Data Collection Procedure	Data Analyses Procedure
Is there a relationship with internal and external social factors of an EAL boarding pupil against their English language attainment?	1. SNA Questionnaire	Individual administration onsite. Teacher participation	Qualitative analyses Quantitative analyses (regression lines and R squared values) Descriptive Statistics
	2. English Skills Progress Results (Validity)	Completed by Instructor	Thematically analysed Qualitative
	3. Teacher Interview Questions (Validity)	Research administration	Quantitative: Excel

3.5 Ethical Considerations and challenges

Ethical considerations

A major concern and ethical consideration of this study was the age of the subjects. The entire population were under the legal age of consent (18 years), and therefore needed parental permission to participate in the study. All parents of the pupils were living abroad, however the Heads of Girl's and Boy's boarding were assigned "loco parentis" authority according to the school's terms and conditions. As such, the boarding Heads provided the required written consent for the children to participate in the administration of the social network questionnaire.

Challenges

The primary challenge to conducting a study of this nature is access to the participants in the administration of the questionnaires, in addition to obtaining detailed teacher feedback and attainment/examination results. The Researcher's position as a Director in the managing

company of the school provided him with the necessary privileges and cooperation required for this study's purpose.

Another challenge was managing the planning of this dissertation. The school's academic year commenced in September and ended in late June, providing a limited window to conduct questionnaires and access the pupils and school staff for data. The Researcher was keen to use progress as the dependant variable which consisted of recording entry CEFR levels and then corresponding results at a future time after experiencing the boarding programme. As such the plan was linked to the end of year assessments to overcome this challenge.

CHAPTER 4: RESULTS AND DISCUSSION

4. Results and Discussion

This study measured and captured three different result segments to determine if there are aspects of a learner's social network that influence their progress in the English Language. The three segments consisted of the social network analyses results of a Top 10 questionnaire, pupil responses to open-ended questions, and teacher interview feedback about each individual subject. The following sections of this chapter will reveal the findings, followed by a brief discussion and explanation.

4.1 Social network analyses results

Many social variables were captured from the pupil questionnaire. The researcher chose to measure these results against the internal independent variables of gender and number of years in the boarding school, in addition to the dependant variable of English progress skills. Considering the modest size of the sample, there were no statistically significant correlations determined. However, these results will ascertain whether there are certain trends or social behaviours that encourage a steeper rate of progress and attainment in the English language. The results were determined by plotting social data (percentage of English Usage in top 10, percentage of Multiplex relations in top 10 etc.) from the questionnaire of each subject against their attainment progress in the five language skills. There were three social categories of comparison; grouping the entire population together, grouping by gender, and grouping by number of years in boarding. Trend or regression lines were added to these charts, and an R squared value was calculated to measure the predicted variance of progress resulting from each of the social behaviours. **Appendices H-L** contains the regression models with the accompanying trendlines for all of the results, however following section summarises them using tables with R squared values across the five reading skills.

*SNA regression (R squared) results for progress in **Reading**:*

Table 3: Progress in Reading

Reading Rsq					
Social Variable:	**Overall Population:**	**Girl Boarders:**	**Boy Boarders:**	**1st Yr Boarders:**	**2nd Yr Boarders:**
English Usage	8.23%	66.76%	6.61%	11.79%	3.18%
Verbal Coms	4.81%	94.23%	31.28%	0.76%	11.11%
Written Coms	4.81%	94.23%	31.37%	0.76%	3.91%
Multiplex Rel	29.56%	9.19%	59.90%	32.55%	10.31%
Uniplex Rel	29.56%	9.19%	59.90%	32.55%	10.31%
Boarding Rel	3.73%	5.77%	5.19%	19.11%	3.98%
Day School Rel	0.28%	75.00%	3.64%	13.64%	13.74%
Non School Fnd	51.62%	75.00%	53.48%	65.58%	33.33%
Family Rel	0.38%	75.00%	0.84%	33.79%	2.34%
Instructor Rel	0.07%	75.00%	0.81%	4.36%	15.63%
Multi-relations	6.94%	3.57%	5.63%	41.32%	6.18%

**Red demarks a negative relation between the independent and dependant variables.*

There was a mix of positive and negative impacts of the social variables against the reading progress results. Most trendlines had low R squared figures, indicating a fairly weak inference, although there were a few stronger readings noted.

Negative impacts on reading progress

'Non school friends' represented the strongest negative impact on the reading progress results, having an overall R squared of approximately 52%, with a negative relation across all five social categories. Girls and first year boarders demonstrated the highest percentage of R squared out of the social categories examined.

Uniplex and written communication relations were two other negative influencers of reading progress. The R squared readings for uniplex relations were just shy of 30%, leaving it in the mid-range of significance for a hindrance on reading progress. Written communication was much lower having a mere 5% regression result. Girl boarders were the only group to record positive progress with an increase in uniplex relations, while both girls and first year boarders

showed an improvement with written communications. All remaining categories were negative thus affecting the overall R squared reading.

The negative influence with the lowest significance in terms of R squared values on reading progress was boarding house relations. This category demonstrated a negative relation with progress results across all categories except for second year boarders. The overall R squared was under 4%, rendering it a very weak negative relationship for progress in reading.

Positive impacts on reading progress

Multiplex relations had the greatest positive impact on reading progress across the social categories. The overall R squared result was almost 30%, with girl boarders being the sole social category seeing a drop in reading progress with an increase in multiplex relationships.

English usage had the second highest overall R squared result with an 8% overall regression score. First year boarders were the exception, seeing a 12% negative relation for English usage in their social networks.

The remaining social relations with positive, albeit weak, regression readings were verbal communication, family, instructor, and multi-relations. Family and instructor relations had an overall reading of less than 1% showing virtually no effect on the progress in reading, while multi-relations had a humble 7% strength.

Discussion of reading progress results

The results of the SNA for reading progress against the social variables have highlighted a few behaviours that could be focused on for further research. Association with friends not currently attending the school (most likely from their co-national backgrounds) seems to have a negative influence on reading progress. Dense, multiplex relationships and relations hailing from English speaking backgrounds render the most significance in steeper reading progress across all categories. This was also supported by the higher negative correlation between the uniplex relations and reading progress. It is apparent that there could be some benefit to integrate the boarders more so with English speaking members of the local community to see a positive impact in their English reading progress.

*SNA regression (R squared) results for progress in **Writing***

Table 4: Progress in Writing

Writing R squared results					
Social Variable:	**Overall Population:**	**Girl Boarders:**	**Boy Boarders:**	**1st Yr Boarders:**	**2nd Yr Boarders:**
English Usage	17.11%	66.76%	15.06%	2.18%	2.46%
Verbal Coms	4.92%	94.23%	39.78%	5.05%	2.46%
Written Coms	5.53%	94.23%	42.41%	5.05%	1.79%
Multiplex Rel	24.97%	9.19%	62.38%	26.37%	52.91%
Uniplex Rel	24.97%	9.19%	62.38%	26.37%	52.91%
Boarding Rel	0.66%	5.77%	1.97%	0.68%	1.56%
Day School Rel	0.14%	75.00%	2.17%	22.59%	1.34%
Non School Fnd	51.62%	75.00%	48.18%	73.48%	23.81%
Family Rel	0.08%	75.00%	2.35%	3.87%	64.29%
Instructor Rel	0.00%	75.00%	2.35%	3.87%	64.29%
Multi-relations	8.32%	3.57%	4.76%	21.97%	0.31%

**Red demarks a negative relation between the independent and dependant variables.*

Negative impacts on writing progress

Similar to the reading progress results, the two highest negative influences for writing progress in terms of R squared readings were non school friends (52%) and uniplex relations (25%). Non school friends once again had negative inferences across all social categories, while girl boarders were the only classification who saw a slight positive relationship to for uniplex relations.

The only midrange negative social variable for writing was written communication, showing a 6% R squared value. Girl boarders and first year boarders showed a positive relationship with writing progress with an increase in written communication relationships, but the remaining categories, particularly boy boarders, had stronger negative relations bringing down the overall regression line.

The remaining negative trendlines were for boarding relations, day school relations, and family relations. All of these were under one percent however, thus having no apparent effect on the writing progress in the subjects.

Positive impacts on writing progress

The top two positive influences on writing progress were smaller in significance than the negative counterparts. Multiplex relations once again lead for improved progress, with a representation of 25% R squared value. The English usage social variable also showed consistency with the previous skill, having a 17% result reported against writing progress with positive directionality.

Multi-relations (8%) and verbal communication (5%) showed the next strongest relationship to improved writing progress. These single digit percentages are not very significant, although once again it could be more noteworthy when looking at a larger population in the future. Girls and first year boarders went against the overall trend, both having negative regression readings.

Discussion of writing progress results

The picture of what social behaviours lead to improved English writing has taken a form with these results. Pupils who are, once again, involved in dense, English dominated relationships have the greatest chance of improving their writing progress. It was also found that pupils who are surrounding themselves with non school friends and uniplex relations saw the greatest impediment in their writing development.

These findings thus far support the hypothesis as outlined in the introduction with an exception to a few instances. Pupils keeping dense network are presented with more opportunities to engage and use the target language that are naturally followed by positive influences of their written progress. External friendships and weaker relations lead to increased use of the L1, removing the learner from the desired social environment and culture of the host language.

*SNA regression (R squared) results for progress in **Listening***

Table 5: Progress in Listening

Listening R squared					
Social Variable:	**Overall Population:**	**Girl Boarders:**	**Boy Boarders:**	**1st Yr Boarders:**	**2nd Yr Boarders:**
English Usage	5.74%	33.24%	5.04%	2.02%	18.84%
Verbal Coms	4.02%	5.77%	10.61%	5.03%	27.78%
Written Coms	0.91%	5.77%	3.92%	5.03%	16.50%
Multiplex Rel	18.11%	90.81%	14.96%	26.37%	35.90%
Uniplex Rel	18.11%	90.81%	14.96%	26.37%	35.90%
Boarding Rel	0.30%	94.23%	0.92%	0.45%	0.67%
Day School Rel	1.83%	25.00%	2.08%	11.53%	0.58%
Non School Fnd	24.02%	25.00%	31.02%	14.20%	46.89%
Family Rel	8.55%	25.00%	12.00%	20.00%	14.63%
Instructor Rel	0.78%	25.00%	14.52%	31.61%	31.64%
Multi-relations	11.02%	96.43%	8.06%	16.01%	12.52%

**Red demarks a negative relation between the independent and dependant variables.*

Negative impacts on listening progress

The regression line analyses for listening progress demonstrated similar trends of the other English language skills. The top two negative variables on progress were the prevalence of non school friends and uniplex relations in the participants' Top 10 networks. Non school friends had an inference reading of 24%, while uniplex relations had an outcome of 18%. Girl boarders had the only positive record for non school friends, and there were no exceptions to the uniplex lines across all social categories.

One new influence was found in the presence of family relations as a milder negative factor on listening progress. Family relations had an R squared value of 8% against listening progress, with girls and first year boarders standing out as exceptions to this trend. This was the first appearance of family relations as an influencing factor in this study, although in a negative context in this circumstance.

The less significant negative factors found were boarding and day school relations, in addition to written communication relations. Day school reported 2%, written communication 1%, and boarding relations achieved only a fraction of a percentage. There was a slightly stronger negative influence in second year boarders for written communication, and once again exceptions shown from the first year boarder and girl boarder categories. Girl boarders also had a very strong negative inference result against listening skills progress (94%), but considering there are only three in the population, it had a small effect on the overall value.

Positive impacts on listening progress

Multiplex relations with an R squared of 18%, and multi-relations with an 11% reading were the leaders of positive influence on listening skills. Both of these variables had a positive inference across all social categories.

Interestingly, English language usage took more of a back seat when it came to listening skills progress. Only a value of 6% was recorded for the regression line of English language usage in this context. First year boarders were the one exception (barely), showing a 2% reading against the positive trend. Verbal communication relations closely followed English language usage with a of 4% R squared result. Girl and first year boarders were once again the exceptions showing opposite regression lines.

The only negligible positive variable for listening skills was instructor relations, receiving a value less than 1% against the skill.

Discussion of listening progress results

A consistent tendency has surfaced after completing the SNA of the third language skill. There seems to be a common occurrence of girl and first year boarders reporting trends against the overall population. A correlation between gender and performance, and boarding school exposure and performance seems to be emerging. This is something that will be discussed further in the conclusion of this study.

Two measures of social network density are now representing the top of the positive influence list, in the multiplex and multi-relational social ties. The lack of need for target language use in English listening progress was also an unexpected result that would need further analyses.

A final point of discussion for these findings are the fact that most R-squared values were lower for this skill than the two previous skills observed. There are less social factors involved in the level progress or regression in listening skills.

*SNA regression (R squared) results for progress in **Speaking***

Table 6: Progress in Speaking

Speaking R squared					
Social Variable:	**Overall Population:**	**Girl Boarders:**	**Boy Boarders:**	**1st Yr Boarders:**	**2nd Yr Boarders:**
English Usage	0.47%	0.00%	2.77%	0.40%	22.92%
Verbal Coms	8.98%	0.00%	3.90%	30.94%	18.52%
Written Coms	6.14%	0.00%	1.96%	30.94%	16.67%
Multiplex Rel	19.17%	0.00%	18.54%	64.37%	31.79%
Uniplex Rel	19.17%	0.00%	18.54%	64.37%	31.79%
Boarding Rel	0.55%	0.00%	0.06%	4.43%	15.34%
Day School Rel	12.14%	0.00%	31.24%	2.31%	36.37%
Non School Fnd	4.02%	0.00%	11.39%	63.13%	13.89%
Family Rel	35.78%	0.00%	41.33%	4.00%	67.62%
Instructor Rel	11.84%	0.00%	3.23%	0.52%	16.67%
Multi-relations	17.80%	0.00%	38.48%	0.30%	80.77%

**Red demarks a negative relation between the independent and dependant variables.*

Negative impacts on speaking progress

The progress in speaking has completely stepped outside of the expected levels of inference, showing an inconsistency from the previous skills as well the Researcher's hypothesis.

The highest recorded negative influences were the prevalence of multiplex and multi-relations, measuring an R squared value of 19% and 18% respectively. These were followed by the representations of instructor relations who scored 11% inference in a negative direction, and verbal communication producing a 9% score against progress in speaking.

The final negative trend variable was English language usage, although this scored a very minimal result of .5%, deeming its effect insignificant. For the first time in this study, there were no exceptions to the inferences across all categories for the negative readings.

Positive impacts on speaking progress

The positive regression lines went across six of the 11 social categories. The leader of this group was family relations, having an R squared value of 36%. This was followed by uniplex relations with a 19% representation, and day school relations showing a 12% inference with speaking progress results. Day school relations had one exception in that the first year boarders had a slightly negative result of approximately 2% in the negative direction.

The lower ends of the regression readings supporting speaking skills progress were written communication (6%) and non school friend (4%) relations. Non school friends made its first appearance as having a positive effect on an English language skill, although the R squared score was fairly low at 4%. Boarding school relations had a negligible impact, with a score of .6%, with exception for the first year boarder readings.

Discussion of speaking progress results

The results of the speaking skills progress values against social behaviours contradicted the other three skill findings completely. All extroverted qualities and social behaviours seemed to impede the progress of English speaking, while more introverted related attributes actually improved this skill's progress. According to these findings, a shallow network and a lower frequency of verbal communication actually lead to improved speaking, which is counterintuitive.

Girl boarders had no regression trends at all, which could be a factor impacting this particular language skill. The lack of exceptions as seen in other figures may also have a hidden impact on the findings. Further investigation of these results is certainly warranted.

It is important to highlight that there was still progress for every pupil in their speaking skills. No single subject scored a zero or less in their progress for speaking. The results merely portrayed a slowdown in their speaking progress when exuding extroverted social tendencies.

*SNA regression (R squared) results for **Overall** progress*

Table 7: Overall Progress

Overall R squared					
Social Variable:	**Overall Population:**	**Girl Boarders:**	**Boy Boarders:**	**1st Yr Boarders:**	**2nd Yr Boarders:**
English Usage	9.40%	83.05%	7.60%	6.62%	2.46%
Verbal Coms	0.88%	99.73%	30.82%	11.85%	7.94%
Written Coms	0.70%	99.73%	30.40%	11.85%	1.79%
Multiplex Rel	25.94%	1.38%	67.83%	17.88%	52.91%
Uniplex Rel	25.94%	1.38%	67.83%	17.88%	52.91%
Boarding Rel	4.27%	17.58%	5.94%	16.45%	1.56%
Day School Rel	0.57%	57.14%	0.79%	21.90%	1.34%
Non School Fnd	42.18%	57.14%	48.47%	46.48%	23.81%
Family Rel	0.32%	57.14%	0.34%	29.09%	1.95%
Instructor Rel	1.14%	57.14%	2.00%	3.75%	64.29%
Multi-relations	11.04%	13.78%	8.98%	38.30%	0.31%

**Red demarks a negative relation between the independent and dependant variables.*

Negative impacts on overall progress

The results for the overall progress in English against social variables followed some familiar trends as the individual language skills. The top two negative influencers of overall English progress were non school friends and uniplex relationships. They reported overall R squared values of 42% and 25% respectively. Non school friends had negative readings across all categories, while girl boarders were an exception with a 1.38% positive relation for uniplex relationships.

The only other slightly significant social variable with a negative trendline was boarding house relations showing an inference result of 4 %. This also carried a single exception of 1.5% positive regression for 2nd year boarders.

The remaining negative inferences were insignificant, reading under 1% for their R squared values. These variables were written communication, day school, and family relations.

Written communication relations had fairly strong exceptions from girl boarders (99%) and first year boarders (12%). The other variables were consistent across all categories.

Positive impacts on overall progress

Overall progress showed positive trendlines for three categories. The multiplex relationships dominated the top with a 26% R squared value, with a slight exception for girl boarders. Multi-relations finished in second at 11 %, with English usage taking the last place with a 9% reading. There were a few exceptions for these variables; however they were both under 1%, having virtually no effect on the results.

Instructor relations and verbal communication trailed with 1.14 % and .88% results in their regression lines. Girl and first year boarders went against the trend for verbal communication relations, but only marginally impacted the overall significance of this variable.

Discussion of overall progress results

Having reviewed the impact of certain social variables on the overall progress in English, it is evident that there is a relationship with the density of social ties and English language usage among relations and increased progress results. The encouraging plexity results contradict Labov's 2001 findings that showed a derivation from native speech patterns when learners were part of close knit networks. Benefits of using the target language on the other hand were supported by Kurata (2010), who demonstrated the benefits of social exposure to the target language when it came to learning opportunities.

There was also a clear negative impact of non school friend relations and weaker uniplex relationships on the rate of overall English progress in this study. These social relations both have fairly strong negative relationships with the achievement in English skills.

Interestingly, family, boarding house, and day school relations had a very low impact on the rate of progress in results. Perhaps there is a lack of opportunity for significant interaction and socialisation with these relations, preventing them from adding or subtracting value to the language learning experience.

Another conclusion drawn from this study was the minimal impact of verbal and written communication on results. This demonstrated that there is little significance in *how* the subjects are communicating versus *who* they are communicating to.

The consistent appearances of girl and first year boarders going against the overall trendlines in most graphs should be investigated further. There may be some aspects of girl and first year boarders that cause them to present such opposing effects on a frequent basis. It is critical to note that there were only three girls represented in this study, so their results could be heavily influenced by a single extreme reading. It should also be noted that all girl boarders were also first year boarders, representing half of this social category. Nationality and culture could also be a contributing factor to the discrepancies noted, as all girl boarders and five of the six first year boarders hailed from Eastern Europe and had Russian language for their L1.

Potential future research opportunities encouraged by the results of this study will be discussed in a later section.

4.2 Question responses

The results of the survey questions are displayed in tables below. A discussion is provided after each table of results over-viewing some of the findings and their implications.

Table 8: Question one responses

1. Who do you talk with the most about personal issues or worries?						
Name	**Gender**	**Yrs in boarding**	**Language**	**Relation type**	**Communication type**	**Plexity**
SUBJECT 1	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 2	Male	2	Russian	Family	Telephone	Multiplex
SUBJECT 3	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 4	Male	2	English	Boarding House Mate	In person	Multiplex
SUBJECT 5	Male	2	English	Multi-relation	Instant Messaging	Multiplex
SUBJECT 6	Male	1	Russian	Non School Friend	Instant Messaging	Multiplex
SUBJECT 7	Male	2	Arabic	Family	Telephone	Uniplex
SUBJECT 8	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 9	Male	1	Arabic	Family	Telephone	Multiplex
TA	Male	1	Russian	Family	Email	Multiplex
SUBJECT 11	Female	1	Russian	Multi-relation	In person	Multiplex

Results and discussion of table 8 responses

Table 8 asked the subjects which of their social relations they would turn to for personal issues. Most subjects selected relations who came from similar L1 backgrounds for their response, with only three of the 11 citing a relation from the target language. The relationship type was fairly diverse across most responses, with boarding house mates and family relations representing the highest frequency of responses. A majority of the communication types were verbal in nature, both in person and on the telephone, while only three subjects cited written communication as a type for these contacts. All selections were multiplex relations save one response.

There is an evident need for someone coming from a similar culture when it comes to such personal interactions. The importance of clarity and conciseness when communicating in these circumstances all warrant the need for multiplex relationships from similar backgrounds.

Table 9: Question two responses

2. Who would you feel most comfortable with asking for a favour?						
Name	**Gender**	**Yrs in boarding**	**Language**	**Relation type**	**Communication type**	**Plexity**
SUBJECT 1	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 2	Male	2	Russian	Family	Instant Messaging	Multiplex
SUBJECT 3	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 4	Male	2	Korean	Family	In person	Multiplex
SUBJECT 5	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 6	Male	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 7	Male	2	Arabic	Multi-relation	In person	Multiplex
SUBJECT 8	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 9	Male	1	Arabic	Multi-relation	In person	Multiplex
SUBJECT 10	Male	1	Russian	Multi-relation	Social Media	Uniplex
SUBJECT 11	Female	1	English	Non School Friend	Instant Messaging	Multiplex

Results and discussion of table 9 responses

Table 9 once again involves the subjects selecting a relation who they may turn to for more personal devices. The profile is consistent with the first table, demonstrating a dominance of L1 dense relationships, mostly in personal contact with the subjects. The only variance seen in this table was the lower representation of family members as a preferred relation when asking for a favour.

Table 10: Question three responses

3. Who have you had social activities with (gone to cinema, coffee etc.)?						
Name	**Gender**	**Yrs in boarding**	**Language**	**Relation type**	**Communication type**	**Plexity**
SUBJECT 1	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 2	Male	2	Russian	Family	Telephone	Multiplex
SUBJECT 3	Female	1	Russian	Non School Friend	Telephone	Multiplex
SUBJECT 4	Male	2	English	Boarding House Mate	In person	Multiplex
SUBJECT 5	Male	2	Arabic	Multi-relation	In person	Multiplex
SUBJECT 6	Male	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 7	Male	2	Arabic	Non School Friend	Instant Messaging	Multiplex
SUBJECT 8	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 9	Male	1	Arabic	Multi-relation	Instant Messaging	Multiplex
SUBJECT 10	Male	1	Russian	Non School Friend	Social Media	Uniplex
SUBJECT 11	Female	1	Russian	Multi-relation	Instant Messaging	Multiplex

Results and discussion of table 10 responses

Table 10 also presents a distinctly social criterion to the subjects, although slightly less personal in nature than the previous questions. This table analyses more casual social activities with the relations of the participants. Despite the mildness of the activity, the results are still mirroring the profile of first two tables.

Table 11: Question four responses

4. Who would you ask to help improve your English?						
Name	**Gender**	**Yrs in boarding**	**Language**	**Relation type**	**Communication type**	**Plexity**
SUBJECT 1	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 2	Male	2	English	Instructor	In person	Uniplex
SUBJECT 3	Female	1	English	Instructor	In person	Uniplex
SUBJECT 4	Male	2	English	Day School Friend	In person	Multiplex
SUBJECT 5	Male	2	English	Instructor	In person	Multiplex
SUBJECT 6	Male	1	English	Instructor	In person	Uniplex
SUBJECT 7	Male	2	English	Instructor	In person	Uniplex
SUBJECT 8	Female	1	English	Instructor	In person	Multiplex
SUBJECT 9	Male	1	English	Instructor	In person	Uniplex
SUBJECT 10	Male	1	English	Instructor	Video Chat	Uniplex
SUBJECT 11	Female	1	English	Instructor	In person	Multiplex

Results and discussion of table 11 responses

Table 11 elicits a very different type of contact. It asked subjects who they would turn to for assistance in English support. Unsurprisingly, nine out of the 11 responses were instructor or tutor relations, with 100% of the relations having an English language basis. One subject sited video chat, implying that they may be receiving online tutoring from abroad, while the rest were in-person relations. Plexity was less of a factor for these relations, with a slight dominance of uniplex relations in the selected person. The participants rely heavily on the teaching staff for support in their language development, which demonstrates a significant level of trust with the school's academic staff.

Table 12: Question five responses

5. Who would you talk to about your hobbies?						
Name	**Gender**	**Yrs in boarding**	**Language**	**Relation type**	**Communication type**	**Plexity**
SUBECT 1	Male	2	English	Multi-relation	In person	Multiplex
SUBJECT 2	Male	2	Russian	Day School Friend	In person	Multiplex
SUBJECT 3	Female	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 4	Male	2	English	Day School Friend	Instant Messaging	Uniplex
SUBJECT 5	Male	2	English	Non School Friend	Instant Messaging	Multiplex
SUBJECT 6	Male	1	Russian	Boarding House Mate	In person	Multiplex
SUBJECT 7	Male	2	Arabic	Multi-relation	In person	Multiplex
SUBJECT 8	Female	1	English	Day School Friend	In person	Uniplex
SUBJECT 9	Male	1	Arabic	Multi-relation	Instant Messaging	Multiplex
SUBJECT 10	Male	1	Russian	Non School Friend	Instant Messaging	Uniplex
SUBJECT 11	Female	1	No Response	No Response	No Response	No Response

Results and discussion of table 12 responses

Table 12 asked for the most superficial relationship out of all of the tables. As there was noted decrease in the presence of L1 relations as a criterion, with 40% of the responses having English as the language of communication. No family relations were cited in this category unlike most of the other tables. There was also a greater representation of written communication, with 40% of the communications coming from instant messaging. Most of the relations were multiplex, although it was not as dominant as in the first three tables. The profiles of relationships changed as the intensity of the social criterion fluctuated.

Table 13: Question six responses

6. Do you consider yourself a social person?			
Name	**Gender**	**Yrs in boarding**	**Response**
SUBJECT 1	Male	2	Yes
SUBJECT 2	Male	2	Yes
SUBJECT 3	Female	1	Yes
SUBJECT 4	Male	2	Yes
SUBJECT 5	Male	2	No in school, Yes outside.
SUBJECT 6	Male	1	Yes
SUBJECT 7	Male	2	Yes
SUBJECT 8	Female	1	Yes
SUBJECT 9	Male	1	No
SUBJECT 10	Male	1	No
SUBJECT 11	Female	1	Yes

Results and discussion of table 13 responses

Table 13 addresses the perceived sociability of the subjects. Most of the population considered themselves social, although one differentiated their degree of social competence in the school setting versus external settings. These responses will be compared against their EAL instructor's perception of how social they appear in section 4.3.

Table 14: Questions seven and eight responses

7. & 8. What are your parents' education levels?				
Name	**Gender**	**Yrs in boarding**	**Mother**	**Father**
SUBJECT 1	Male	2	Post graduate	Masters
SUBJECT 2	Male	2	Bachelors	Masters
SUBJECT 3	Female	1	PHD	Masters
SUBJECT 4	Male	2	Under High School	Bachelors
SUBJECT 5	Male	2	High School	Bachelors
SUBJECT 6	Male	1	Bachelors	Bachelors
SUBJECT 7	Male	2	PHD	Masters
SUBJECT 8	Female	1	High School	High School
SUBJECT 9	Male	1	High School	High School
SUBJECT 10	Male	1	Masters	PHD
SUBJECT 11	Female	1	Post graduate	Post graduate

Results and discussion of table 14 responses

Li's (2007) research of the effects of family capital on language acquisition highlighted the significance of the parent's educational background on their children's learning results. As such this study tried to capture these details to see if there was a significant variation among the participants.

A majority of the population had parents with degrees higher than a Bachelor's qualification. There were only two subjects (SUBJECT 8 and SUBJECT 9) who had neither parent attaining a University level education. Interestingly, these two also had the lowest attempts to communicate in the target language. SUBJECT 8 also recorded the lowest level of progress out of the entire population, reporting only a half a level increase in her overall English attainment from entry. Considering the average for overall progress was approximately 1.5 levels, her weak results were consistent with previous studies on effect of parental education levels on language achievement.

Results regarding boarding school feedback

The feedback collected about the boarding house environment was consistent across most of the subjects. Every pupil reported that friendships were one of the positive aspects of boarding school. Another common value perceived by the participants was the opportunities to use and improve English while residing in the school. Male participants also predominantly sited sporting activities and the school facilities as advantages to living in the boarding house.

Trends were also found in the negative feedback across most responses. Compulsory activities and the heavy discipline were the two most common complaints from students. Among the girl boarders, food was cited as a weakness, while a weak wireless internet connection was a concern across both genders. A number of the pupils also struggled with the early sleep and wake-up times, in addition to a policy enforcing them to give up their personal mobile phones in the evenings. Only two of the participants sighted homesickness as a negative factor.

According to the responses, the overall feedback regarding the boarding house was encouraging. It was clear that social environment was generally healthy, with not a single incident of bullying or abuse reported. Concerns over minor issues such as weak internet, food quality and discipline are common complaints across most boarding schools world-wide, and can predominantly be attributed to the age group and demographic of the population.

Finding ways to keep the participants engaged and interested in the extracurricular activities is one recommendation that can be derived from the responses. This would limit the prevalence of homesickness and the concerns of losing their connectivity with the external world (telephone and internet access) in the evenings.

4.3 Teacher interview responses and individual profiles

The teacher interview questions were collected as a method to validate the information observed in the social network questionnaires. Table 15 below contains the teacher question responses against every subject in the study. The teacher's feedback has been used to generate individual profiles of each of the students, comparing her opinion to some of the earlier results.

Table 15: Teacher responses

Sub:	Are they social?	Do they code-switch?	Communicative skills?	Grammar/lexical skills?	Assessment types?	Language Hindrances	Language Aids	Three adjectives	Overall rating (10 top, 1 lowest)
SUBJECT 1	Very/ Everyone!	Rarely. Only when with other Farsi speakers.	Good	Weak	Past papers Vocab quizzes R/W/L/S tasks	Not enough EAL Support due to timetable	Living in an English speaking community	Charming Organised Diligent	8
SUBJECT 2	Very/ Mostly Russian boarders	All the time with other Russian speakers	Good	Weak	Past papers Vocab quizzes R/W/L/S tasks	Speaks too much Russian!	Living in an English speaking community & supportive brother in Dubai	Polite Considerate Reserved	8
SUBJECT 3	Very/ Everyone! She's a talker...	Mostly with other Russian speakers when in a heated discussion.	Improving	Good	Past papers Vocab quizzes R/W/L/S tasks	Lack of confidence in her ability	Living in an English speaking community and supportive relatives in Dubai	Ambitious Motivated Intelligent	10
SUBJECT 4	Pretty sociable although quiet. Mixes with different nationalities.	Never	Improving	Average	Past papers Vocab quizzes R/W/L/S tasks	Not taking risks with language	Living in an English speaking community	Thoughtful Precise Kind	8
SUBJECT 5	Very/everyone!	When explaining to weaker pupils	Good	Average	Past papers Vocab quizzes R/W/L/S tasks	Writing skills	Living in an English speaking community	Mature Ambitious Focussed	9
SUBJECT 6	More comfortable with Russian speakers	All the time with other Russian speakers	Good	Good	Past papers Vocab quizzes R/W/L/S tasks	His belief that some tasks are beneath him.	Living in an English speaking community	Intelligent Imaginative Proud	8
SUBJECT 7	Very sociable with mostly native Arabic speakers.	Frequently	Good	Weak	Past papers Vocab quizzes R/W/L/S tasks	Lack of focus and immature approach to studies	Living in an English speaking community	Disorganised Immature Extrovert	5
SUBJECT 8	Very sociable with other native Russian speakers	Frequently	Good	Good	Past papers Vocab quizzes R/W/L/S tasks	Not taking risks with language	Living in an English speaking community	Diligent Organised Model pupil	10
SUBJECT 9	Very sociable with mostly native Arabic speakers	Frequently	Improving	Weak	Past papers Vocab quizzes R/W/L/S tasks	Overwhelmed by and unprepared for the demands of school	Living in an English speaking community	Polite Friendly Tries hard	6
SUBJECT 10	A bit of a loner	Mostly with other Russian speakers when in a heated discussion and also when counting or thinking aloud.	Improving	Average	Past papers Vocab quizzes R/W/L/S tasks	Lack of confidence in front of his peers	Living in an English speaking community; studying IGCSE Drama	Intelligent Methodical Introvert	8
SUBJECT 11	Very sociable with other native Russian speakers	Yes – during pair work or group work	Improving	Improving	Past papers Vocab quizzes R/W/L/S tasks	Confidence, confidence, confidence!	Living in an English speaking community; studying IGCSE Drama	Diligent Organised A pleasure to teach	10

4.3.1 Individual profiles of low-level language progress subjects

Individual profile for SUBJECT 6

SUBJECT 6 was very confident and demonstrated a level of pride in his profile. His instructor was concerned with the number of Russian speakers in his peer group and his belief that some tasks were beneath him. His communicative English and grammatical/lexical skills were strong however, and he received an overall rating of 8/10. His Top 10 questionnaire supported the concerns of the teacher, showing a 70% Russian speaking network. However, his communications were predominantly in-person and across a wide range of types of relations. His overall progress was fairly low, only increasing by a single level and recording no progress in his reading levels. He was only in the boarding programme for a single year which may also be attributed to his limited progress.

Individual profile for SUBJECT 8

SUBJECT 8's profile slightly contradicted her English progress results. Both her questionnaire and teacher interview feedback indicated a high level of socialisation, and she scored a 10/10 in her teacher ranking. In contrast, she reported the lowest level of progress, with only a half level increase in overall English (the only skill she recorded improvement was in speaking). She surrounded herself with L1 relations, which was a hindrance according to the teacher. SUBJECT 8 may have limited linguistic or academic aptitude considering her healthy social profile did support her progress in language, as was the case with other participants.

Individual profile for SUBJECT 10

SUBJECT 10's L1 was Russian, and he was on the lower end of attainment with an overall progress of a single level. Unlike his other compatriots, SUBJECT 10 was described as a "loner" by the instructor, consistent with his questionnaire report which claimed he was not social. Although he had a diverse range of relation type, a majority of his relations (70%) were uniplex, demonstrating weak social ties in his network. He was additionally described as introverted, but intelligent and methodical. SUBJECT 10 needed to develop confidence in front of his peers to further benefit from the boarding environment. His results supported the findings of Dewaele and Furnham (2000), where they observed higher levels of fluency in extroverts, although they did mention extroversion did not necessarily predict L2 performance.

4.3.2 Individual profiles of mid-level language progress subjects

Individual profile for SUBJECT 1

SUBJECT 1's profile indicated a high level of social activity and extroversion. The teacher questionnaire and student questionnaire response consistently demonstrated this. The strength of his communicative English language skills supported the percentage of target language and in-person contacts (both 100%). His weaknesses lied in grammatical and lexical skills, attributed to limitations in his timetable cited by the instructor. SUBJECT 1 was the only Iranian National residing in the boarding house. This encouraged him to use his L2 as the primary language for communication.

Individual profile for SUBJECT 3

SUBJECT 3 won the 2013-2014 EAL pupil of the year award in the school. Her interview results demonstrated that she socialised across all groups, and was both ambitious and motivated. One can witness this in her SNA results, as SUBJECT 3 was one of the only boarders having contacts across all categories of relations (family, day school mates, non school friends etc.) She was one of three pupils who received an overall rating of 10/10 from the EAL teacher. A lack of confidence was the only drawback sited, although she still reported a progress of two levels in her overall English progress.

Individual profile for SUBJECT 4

SUBJECT 4 was social, but described as a fairly quiet individual. He mixed across various nationalities, and also being the only South Korean resident made him a unique subject. His teacher appreciated how he valued education, and he also reported a strong progress of two levels in English. A majority of his Top 10 were multiplex, English speaking relations. SUBJECT 4 had the highest percentage of boarding house mate relations, once again encouraging L2 usage on a daily basis.

Individual profile for SUBJECT 7

SUBJECT 7 had the lowest teacher rank among the subjects, receiving a 5/10. Behavioural issues and concerns over maturity dominated the interview feedback. He was considered social, although only with other Arabic speakers, and he frequently code-switched impacting his language fluency. He reported 100% Arabic speakers in his Top 10, which was consistent with the interview results. He was also the only subject to have a decrease attainment of a

skill (listening), which is also consistent with the negative feedback from his instructor. He did have an overall progress of 1.5 levels, so the potential is clearly there.

Individual profile for SUBJECT 9

SUBJECT 9 portrayed signs that he was struggling with the boarding environment. The interview responses noted that he was overwhelmed and unprepared for the school's expectations, despite exerting a high level of effort. SUBJECT 9 was one of only two subjects who did not consider them self social, although his instructor believed that he was fairly social with other Arabic speakers. 100% of his relations were Arabic speakers, supporting the teacher's observation. SUBJECT 9 received a rating of only 6/10 from the instructor, although his overall progress of two levels in just a single year was relatively substantial.

Individual profile for SUBJECT 11

SUBJECT 11 also received a perfect teacher rating score of 10. She was the only boarder to participate in IGCSE drama, which has been observed to have positively affected her English language by the instructor. She identified herself as a social person, which was consistent with the teacher interview feedback. Her SN questionnaire showed half of her contacts were in-person, and all multiplex, further supporting this claim. Her English progress was mediocre, with an overall increase of 1.5 levels.

4.3.3 Individual profiles of high-level language progress subjects

Individual profile for SUBJECT 2

SUBJECT 2 had one of the highest performances in terms of English progress, increasing his overall results by 2.5 levels. His socialisation was predominately in his L1 Russian language, with 80% of his Top 10 coming from this category. He was described as social by the EAL teacher, although she noted that his excessive use of Russian was one of the hindrances to learning English. Most of his contacts were family members; however this had a positive influence according to the instructor, who noted that SUBJECT 2 had a very supportive brother living in the region.

Individual profile for SUBJECT 5

SUBJECT 5 also scored the highest overall progress of 2.5 levels during his two years with the boarding school. He did not identify himself as a social person, however the number of in-person contacts and the balance of percentage of English speaking Top 10 relations showed a healthy and dense social network. This was also supported by the instructor's feedback in the interview questions. SUBJECT 5's maturity was highlighted, and he took an overall teacher rating of 9 out of 10, the highest among the male subjects.

4.3.4 Summary of profiles and interview results

The profiles were categorised and presented according to the dependant variable of English progress results; low-level consisted of .5-1 levels of CEFR overall progress, mid-level boasting 1.5-2 overall progress levels, and high-level consisting of a 2.5 overall progress level increase. The categories formed a bell curve shape, with three subjects falling in the low-level category, the majority (six) holding mid-level classification, and two pupils achieving high-level results.

The feedback from the teacher interview questionnaire gave a strong indication that the questionnaires were answered accurately by the pupils by demonstrating consistencies noted between responses and the instructor's observations. Gender of the subject seemed to have an effect on the teacher ratings. All scores of 10 were assigned to female pupils, despite the fact none of them achieved the highest progress of English attainment, and one of them reporting the weakest progress results. The interview questions emphasised confidence and expectations of the pupil as an influence on their achievement. The results further demonstrated ethnocentric tendencies among the children, with most bonds and relationships being formed with pupils from the same L1 background. The three of the four participants with fewer Top 10 L1 relations had high levels of progress in English skills, hinting that diversity of social networks could be a positive factor to language learning.

CHAPTER 5: CONCLUSION

5 Conclusion

5.1 Summary of the primary findings

This study sought to identify social behaviours and tendencies that could potentially affect the English progress of teenage language learners. There have been a number of social network analyses conducted worldwide on language students; however there is no such research available in the UAE. Another unique aspect of this study was the boarding element of the learners' environment, a facility that is not offered widely in the Arab world, but is rooted in the traditions of many European and Western high class families. By identifying social behaviours in UAE boarding schools that positively or negatively impact language skills, the Researcher could look at ways to increase and improve this provision in an area overwhelmed with the need for English language instruction.

Plexity of relations

The plexity or density of social relations proved to be the most significant social factor in relation to progress in English language skills. Multiplex and multi-relational ties plot against various language skills' progress both had the highest R squared values of any other social variables. These results support the boarding ethos considering one major goal of boarding programmes is to establish life-long bonds among their students that follow them beyond their education. The results demonstrated that constructing higher density relationships may in fact hasten the progress of most English language skills.

L2 language use

L2 language use was also found to have a positive trendline when calculated against English progress. The regression analyses results of this social variable were smaller than anticipated by the Researcher however. Nevertheless, there was enough consistency in the readings across all language skills to warrant a further look into the use of target language to improve the overall English attainment. Findings by researchers such as Dewey et al. (2013) indicate the influential strength of language development when learners are in touch with natives or the target language speakers.

Types of relations and language progress

Types of relationships had either negative influences on language progress according to the results of this study, or little to no influence at all. In particular, non school friends seemed to have an almost toxic effect on language skills, recording the highest rates of R squared (in some cases up to 50%) with a negative directionality. Most non school friends were coming from the L1 background of the subjects', which minimised their target language utilisation time with the increased exposure.

Other types of relationships, such as boarding house mates, day school classmates, families and instructor relations had little to no impact when looking at their R squared values, contradicting the Researcher's hypothesis. The expectation was to observe negative consequences with increased family contact, and positive progress effects from the primarily native English speaking day school friends and English speaking instructors. The lack of impact may be attributed to the restrictive boarding schedule, which at times segregates the subjects from these relations thus minimising any potential positive effects.

The boarding environment

Questionnaire responses from the participants all painted a positive picture of the boarding house's social environment. Pupils identified friendships and the opportunity to make connections as the primary advantage to being a boarder, while their negative feedback usually entailed more administrative concerns such as strict schedules and policies. Additionally, second year boarders reported an average increase in overall English progress of 2.1 levels, versus only 1.3 levels for the first year boarders. One can deduce that the boarding school ethos and facilities generally benefited and fostered progress of English language.

5.2 Pedagogical implications

The benefit of identifying positive and negative social behaviours effecting language progress is that one can derive a number of pedagogical implications to improve the provision of instruction for the young learners.

Knowing that there is an advantage to higher density relationships highlights the need and requirement for teachers to try and increase the opportunities for the boarding students to mingle and bond with their relations. One recommendation would be to provide more social

settings between the day and boarding students. For example, the school could perhaps hold monthly banquets or social events where day pupils are invited to stay on campus throughout the evening and dine or socialise with their boarding peers. Increased involvement of the boarders in the school's extracurricular activities such as art clubs or sports fixtures would also augment the chances of creating these sought after dense social ties. This would also provide the opportunity for the learners to utilise the target language with a greater frequency, which was also shown as advantageous in the study's results.

Implications of the negative findings may also be considered by the school. It was demonstrated that the influence of non school friends had a negative effect on language progress; therefore once again there is pressure to maintain the social focus on the internal relationships such as boarding house or day school mates, as well as instructor bonds. One opportunity to discourage an increased uptake in socialising with non school friends is by forming more structured schedules. There is a significant amount of personal time allotted to the boarders in the evenings, at which many of them tend to access the internet and contact external relations online. By providing alternatives and engaging the boarders in other interests, there would be a natural drop in social interaction with external relations, which would improve their progress rates if the findings of this study are correct.

The advantages attributed to the boarding provision on English language learning could also justify a new strategy for teachers to improve weaker EAL candidates' results. Since there is evidence demonstrating strong progress as a result of the boarding school lifestyle, this provision could be extended to other EAL pupils who are struggling to keep up with the demands of the curriculum in the school. The fact that weekly boarding is an option provides an opportunity even for children whose families are residing within the same city to attend and benefit from the structured and monitored environment. Once again, the practice of boarding is already engrained in the education culture of many English Independent School pupils, but has yet to be embraced by the diverse population in the UAE region.

5.3 Limitations of the study

Sample size

This study had a very ambitious approach to capture and understand the social networks of a population of 11 EAL boarding pupils. The primary limitation identified by the Researcher was the modest size of the group. With only 11 participants, it was difficult to produce

meaningful statistics. Only hints of relationships could be identified and not actual statistically significant correlations.

One of the reasons attributing to such a small sample was the physical limit of number of boarders in the region studied. It would be beneficial if there was a higher representation of UAE boarding in the future, allowing a researcher to compare results across a number of different populations to determine a greater number of significant results. Until this becomes a reality, perhaps it would have been better to narrow the focus of the research, and select a single case study or a smaller number of social variables to measure.

Family capital

Another limitation identified was the lack of access to the parents of the subjects. Although data was collected on the education level of the mother and father, there was little information about the family environment of the subjects available. The influence of family capital on language learning has already been highlighted in several studies, and thus should not be overlooked when trying to understand the social behaviour of a subject against their English progress. Details such as parent's marital status, income levels, religious beliefs etc could all have contributed to the social blueprint that the Researcher attempted to collect on the participants.

Teacher feedback

The population in this study were all attending the same EAL class for language support. The advantage of using that instructor's perspective was that she had the specific insight into their social and language development considering her daily interaction with them. It may have been beneficial to include feedback of other teaching staff members however, to get a broader view on the social and behavioural patterns of each participant. Boarding House Heads and the Head of Pastoral Care in the school could have added valuable contributions about the participants in terms of their behaviour, attitudes, and overall adjustment during their time with the school.

Subject feedback

The Top 10 questionnaire allowed the Researcher to collect a degree of personal information about each participant, particularly from the open-ended questions that were asked as part of the SNA data collection process. One way to enhance this study in the future would be to

include a pupil interview as part of the data collection process. Interviewing candidates would provide better insight into their social profiles, as well as other attributes such as personality and confidence.

5.4 Areas for future research

Longitudinal study

The participants in this study were all Year 10 IGCSE boarders. The IGCSE course concludes with standardised examinations after the second year, providing the potential to follow these subjects in Year 11 and compare their results in IGCSE subjects against the EAL day pupils of the same school, or even other students worldwide. There is definitely a scope to continue to follow this group as they work their way through the remaining years of secondary school education, and the final indicator of success could be measured by the standard of Universities they enter for tertiary education.

Cross-curricular study

The rigour of IGCSE curriculum created a natural barrier of entry for a number of EAL pupils looking to study in the region with a boarding provision. It would be beneficial to try and find other curricula boarding programmes, and compare the progress in English to see if there is an impact of curriculum on achievement. There are bound to be differing social environments across various curricula, producing a new set of results to interpret when it comes to social theory and language acquisition.

Cross-sectional study

The school that was researched has a founding campus in the UK, also offering the boarding provision. There is an opportunity to look into cross-sectional research across the different campuses, comparing the progress and social profiles of pupils in the UK versus the UAE. The incorporation of exchange programmes can open the opportunities to see the impact of location and culture on academic development in a British curriculum school. This study would first seek to capture and understand the networks of pupils in their current educational environments, and then proceed to measure their adjustment when participating in an exchange programme with their foreign counterpart. A new phenomenon of observing reactions and effects to a drastic shift in social network would be added in a cross-sectional study of this nature.

5.5 Finale

The 21st century is an era marked by technological growth, globalisation, and constant pressures for development. This environment has placed an immense amount of stress on language learners to develop ways of understanding and communicating with cultures all over the world. The usual linguistic focus areas of language acquisition research (such as communicative practices, student centred teaching strategies, and lexical and grammatical development) have been exhausted with research and analyses. There needs to be a greater understanding of the social implications on language development, especially considering the sudden and sharp social changes that are witnessed in modern society. This study has demonstrated that there is potential to impact a pupil's language progress by encouraging or avoiding certain social behaviours. A greater understanding of the social networks of young language learners could bring about new teaching strategies to aid them in maintaining the pace of an ever-moving global climate.

REFERENCES

Ayer, D. & Stone, E. (2006). *The School Where the Children Live.* North American Montessori Teacher's Association (NAMATA) Journal, Winter (2006).

Bass, L. (2007). *Boarding schools and capital benefits: A comparative analyses of student experience in United States and South African Schools.* Ph.D. Thesis. The Pennsylvania State University.

Bergs, A. (2000). *Social Networks in Pre-1500 Britain: Problems, Prospects, Examples.* European Journal of English Studies, Vol. 4, No. 3 (2000). P. 230-251.

Bergs, A. (2006). *Analyzing online communication from a social network point of view: questions, problems, perspectives.* Language@Internet SV1-3/2006. http://www.languageatinternet.de 4.1.2008.

Chambers, J.K. (2009). Sociolinguistic Theory. Wiley-Blackwell, West Sussex.

Clarke, M., Ramanathan, V. & Morgan, B. (2007). *Language Policy and Language Teacher Education in the United Arab Emirates.* TESOL Quarterly, Vol. 41, No. 3, Language Policies and TESOL: Perspectives from Practice (Sep., 2007). P. 583-591.

Coupland, N. (2003). *Introduction: Sociolinguistics and globalisation.* Journal of Sociolinguistics 7/4 (2003). P. 465-475.

Dewaele, J-M., and Furnham, A. (2000). *Personality and speech production: A pilot study of second language learners.* Personality and Individual Differences 28 (2000). P. 355 365.

Dewey, D., Ring, S., Gardner, R. & Belnap, K. (2013). *Social network formation and development during study abroad in the Middle East.* System 41 (2013). P. 269-282.

Dubai Culture & Arts Authority (2014). *The Dubai culture and arts authority [online]*. [Accessed 3 June 2014]. Available at: http://www.dubaiculture.ae/en/AboutAuthority/Pages/default.aspx.

Eckert, P. (1989). *Jocks and Burnouts: Social Categories and Identity in High School.* New York & London: Teachers College Press.

Edwards, W. (1992). *Sociolinguistic behaviour in a Detroit inner-city black neighbourhood.* Language in Society, 21 (1992). P. 93-115.

Fathman, A. (1976). *Variables Affecting the Successful Learning of English as a Second Language.* TESOL Quarterly, Vol. 10, No. 4, December 1976. P. 433-441.

Gan, Z. (2011). *An Investigation of Personality and L2 Oral Performance*. Journal of Language Teaching and Research, Vol. 2, No. 6, November (2011). P. 1259-1267.

Geeraert, N., Demoulin, S., & Demes, K. A. (2014). *Choose your (international) contacts wisely: A multilevel analyses on the impact of intergroup contact while living abroad.* International Journal of Intercultural Relations, (2014) http://dx.doi.org/10.1016/j.ijintrel.2013.08.001

Knowledge and Human Development Authority (2014). *Inspection of Private Schools 2013-2014 Key Findings.* Dubai, UAE: Knowledge and Human Development Authority.

Kurata, N. (2010). *Opportunities for Foreign Language Learning and Use within a Learner's Informal Social Networks.* Mind, Culture, and Activity, 17, 2010. P. 382-396.

Labov, W. (1972). *The Social Motivation of a Sound Change.* Sociolinguistic Patterns. Philadelphia: University of Pennsylvania Press. P. 1-43.

Labov, W. (2001). *Principles of Linguistic Change.* Social Factors, Volume 2 (2001). Malden, Mass.: Blackwell.

Lanza, E., & Svendsen, B. (2007). *Tell me who your friends are and I might be able to tell you what language(s) you speak: Social network analyses, multilingualism and identity.* International Journal of Bilingualism. Volume 11, Number 3, 2007. P. 275-300.

Li, G. (2007). *Home environment and second language acquisition: the importance of family capital.* British Journal of Sociology of Education, Vol. 28, No. 3 (May 2007) P. 285-299.

Li Wei (1994). *Three generations, two languages, one family. Language choice and language shift in a Chinese community in Britain.* Clevedon: Multilingual Matters.

Milroy, L. (2008) *Social Networks.* The Handbook of Language Variation and Change, Chapter 22 (2008). P. 549-572.

Milroy, L. & Gordon, M. (2003). *Sociolinguistics: method and interpretation*. Oxford: Blackwell Publishing Ltd.

Rientes, B., & Nolan, E.-M. (2014). *Understanding friendship and learning networks of international and host students using longitudinal Social Network Analyses.* International Journal of Intercultural Relations (2014), http://dx.doi.org/10.1016/j.ijintrel.2013.12.003.

Ryan, A. (2001). *The Peer Group as a Context for the Development of Young Adolescent Motivation and Achievement*. Child Development, July/August (2001), Volume 72, Number 4. P. 1135-1150.

Sabawi, A. (2014). *The role of social networks on second language attainment: a case study of a teenage pupil*. MED research paper. British University in Dubai, UAE.

Sarhimaa, A. (2009) *Social Network Theory as a framework for studying minor Finnic languages with special reference to Karelian.* The Quasquicentennial of the Finno-Ugrian Society. Memoires de la Societe Finno-Ougrienne 258. Helsinki. P. 161–190.

Schieffelin, B. & Ochs, E. (1986). *Language Socialization.* Annu. Rev. Anthropol. 15 (1986). P. 163-191.

Skehan, P. (1989). *Individual Differences in Second Language Learning*. New York: Edward Arnold.

Spolsky, B. (1989). *Conditions for Second Language Learning.* Oxford University Press, Oxford, UK 1989. P. 41-56.

Trudgill, P. (2011). *Sociolinguistic Typology: Social Determinants of Linguistic Complexity*. Oxford University Press, October 2011. P. 98-104

UAE Ministry of Education Website (2014). *The Evolution of Education in UAE [online]*. [Accessed 1 July 2014]. Available at: http://www.moe.gov.ae/English/Pages/UAE/UaeEduH.aspx

Vargehese, M. & Park, C. (2010). *Going Global: Can Dual-Language Programs Save Bilingual Education?* Journal of Latinos and Education, 9 (1) (2010). P. 72-80.

Velazquez, I. (2013). *Mother's Social Network and Family Language Maintenance.* Journal of Multilingual and Multicultural Development (2012), doi: 10.1080/01434632.2012.720984.

Wakamoto, N. (2000). *Language learning strategy and personality variables: Focusing on extroversion and introversion.* IRAL: International Review of Applied Linguistics in Language Teaching. 0019042X, Vol. 38, Issue 1 (2000).

Whitten, K. (2007). *Social Capital Networks of Institutional Agents and the Empowerment of Low-status Youth in a Federally Funded Intervention Program.* Doctorate of Education Dissertation. University of Southern California

APPENDICES

Appendix A: Weekday Morning Routine

Weekday Mornings:	
Routine	**Expectation**
06:30 – First Bells	Pupil to be awake, out of bed and showering by the Early Morning Rise Bells.
06:40 – Second Bells	
06:45 – Early Morning Rise Bells	Pupil to sign in with the duty member of staff (fully dressed, room tidy and bed made) in the dining hall. They may have drinks; however, will wait in their allocated seat until role call is completed.
06:50 – Third Bells	
07:00 – Fourth Bells	
07:10 – Late Bells	Pupil to begin breakfast in the dining hall.
07:35 – Breakfast Ends	Pupil to remain seated until dismissed (Dining Hall will be left immaculately).
07:40 – Tutor Group	Pupil must be at their form room in time for Morning Registration; well-presented and fully prepared.
Pupils do not return to the House during normal school time. **Pupils will have pride in the House and everything they do.**	
C. B. Fry says: **"We will endeavour to be 'in time' for something, not 'on time'..."**	

Appendix B: Weekday Afternoon/Evening Routine

Weekday Afternoon/Evenings:	
Routine	**Expectation**
14:30 – School Lessons End	Pupil is to attend afternoon registration with their form tutor.
15:45 – Session 2 Bells	If a pupil is required to get changed for Session 2 then they can return to the House; however, must be at their activity before 15:50.
17:25 – Supper Bells	Pupil must be in the Dining Hall, before 17:30, for the beginning of Supper. They can have drinks; however, will wait in their allocated seat until invited to go up for food. If a pupil must miss supper then they must inform the duty member of staff and request a packed supper. Pupil is to clear the crockery, listen intently to the notices and return to the House when dismissed.
17:30 – Supper Begins	
18:00 – Fry House Notices	
18:10 – Prep Approaches Bells	Pupil is to ensure they have everything ready to begin prep.
18:15 – Prep Starts	Pupil will work independently, silently, in their own rooms and will their doors open for 1 hour.
19:15 onwards – Prep Ends	Prep will end once 1 hour of independent and silent work has been completed at the discretion of the Duty Tutor.
19:45 – Activities Begins	If a pupil wishes to attend the evening activity then they must be changed and on the ground floor by 19:45.
21:00 onwards – Bed Times	It is the pupil's responsibility to ensure that all laundry, mobile phones and electronic devices have been handed in before their designated bed time.
21:30 – Duty Handover	Duty member of staff hands over to the resident tutor.
Session 1 and Session 2 are only on a Sunday, Monday and Wednesday. **It is the individual pupil's responsibility to be in their room by their bed time.**	
C. B. Fry says: **"He who does the little things well, will enjoy the little rewards..."**	

Appendix C: Thursday Afternoon/Evening Routine

Thursday Afternoon – Thursday Evening:	
Routine	**Expectation**
14:30 – Normal School Routine Ends	Pupil is to return to the Boarding House in an acceptable manner and dressed fully.
15:00 – Pocket Money Bells	If a Pupil requires pocket money they are to request it from the House Office before 15:30.
16:30 – Sandwich Bells	Pupil will ensure they have eaten prior to the mall trip unless they are eating at the mall.
17:25 – Mall Trip Bells	Pupil to ensure they are on the bus before 17:30.
17:30 – Buses depart for the Mall Trip	Pupil will be left behind and receive a sanction if they miss the Mall Trip.
22:00 onwards – Buses return from the Mall Trip	Years 7-9 to go to bed immediately.
22:30 – Year 10-11 Bed Time	Years 10-11 are to be in their rooms and quiet.
23:00 – Sixth Form Bed Time	Sixth Form are to be in their rooms and quiet.
Pupils will be smart and behave with courtesy at all times. **Younger pupils will not be disturbed, after their bed times, by older pupils.**	
C. B. Fry says: **"Character is doing the right thing when nobody is watching..."**	

Appendix D: Friday Morning/Evening Routine

<table>
<tr><th colspan="2">Friday Morning – Friday Evening:</th></tr>
<tr><th>Routine</th><th>Expectation</th></tr>
<tr><td>09:00 – First Bells</td><td rowspan="3">Pupil must attend breakfast and ensure that they have signed in with the duty member of staff from 09:30 onwards. They should ensure that they have finished breakfast and the table is immaculate before 10:00.</td></tr>
<tr><td>09:20 – Second Bells</td></tr>
<tr><td>09:30 – Late Bells</td></tr>
<tr><td>12:15 – Mosque Run Bells</td><td>If a pupil wishes to attend the Friday Mosque Service then they need to have performed the appropriate ablutions before the bus departs at 12:30.</td></tr>
<tr><td>14:25 – Lunch Bells</td><td>Pupil must be in the Dining Hall, before 14:30, for the beginning of Lunch.</td></tr>
<tr><td>15:00 – Friday Activities</td><td>Pupil will attend and participate in the Friday "Enforced Fun" Activities.</td></tr>
<tr><td>17:30 – Sandwich Bells</td><td>Pupil will ensure they have eaten unless they are ordering food later.</td></tr>
<tr><td>18:00 – Food Order Bells</td><td>Pupil can order food if required; however, any food must be delivered before 21:30.</td></tr>
<tr><td>22:00 – Year 7-9 Bed Time</td><td rowspan="3">Pupil must check the Kitchen rota to see who is responsible for tidying the kitchen. They may sleep in another room, on their corridor, but they must be settled down and quiet before their respective bed times.</td></tr>
<tr><td>22:30 – Year 10-11 Bed Time</td></tr>
<tr><td>23:00 – Sixth Form Bed Time</td></tr>
<tr><td colspan="2">Pupils will not leave the room they are sleeping in after their bed time.

It is the pupils' responsibility to ensure the kitchen remains tidy; it will be locked if it is hazardous to health.</td></tr>
<tr><td colspan="2">C. B. Fry says:
"Trust is something which is slowly and painfully gained but can be instantly destroyed..."</td></tr>
</table>

Appendix E: Saturday Morning/Evening Routine:

<table>
<tr><th colspan="2">Saturday Morning – Saturday Evening:</th></tr>
<tr><th>Routine</th><th>Expectation</th></tr>
<tr><td>09:00 – First Bells</td><td rowspan="3">Pupil must attend breakfast and ensure that they have signed in with the duty member of staff from 09:30 onwards. They should ensure that they have finished breakfast and the table is immaculate before 10:00.</td></tr>
<tr><td>09:20 – Second Bells</td></tr>
<tr><td>09:30 – Late Bells</td></tr>
<tr><td>10:00 onwards – Saturday Activities</td><td>Pupil will attend and participate in the Saturday Activities Programme.</td></tr>
<tr><td>14:25 – Lunch Bells</td><td>Pupil must be in the Dining Hall, before 14:30, for the beginning of Lunch unless they are still at the Saturday Activity. Packed Lunches will be available for those missing Lunch but must be picked up prior to departure.</td></tr>
<tr><td>17:25 – Supper Bells</td><td rowspan="3">Pupil must be in the Dining Hall, before 17:30, for the beginning of Supper. They can have drinks; however, will wait in their allocated seat until invited to go up for food. They must clear the crockery, listen intently to the notices and return to the House when dismissed.</td></tr>
<tr><td>17:30 – Supper Begins</td></tr>
<tr><td>18:00 – Fry House Notices</td></tr>
<tr><td>21:00 onwards – Bed Times</td><td>It is the pupil's responsibility to ensure that all laundry, mobile phones and laptops have been handed in before their designated bed time.</td></tr>
<tr><td colspan="2">Pupils must ensure that they are completely prepared for the forthcoming week ahead the night before; bags packed, uniform checked and shoes cleaned.

Pupils will ensure that they have had their planner signed by the duty resident staff member.</td></tr>
<tr><td colspan="2">C. B. Fry says:
"He who fails to prepare for the task ahead is simply preparing to fail..."</td></tr>
</table>

Appendix F: The Social Network Questionnaire

What is your social circle's top 10 list?								
Sr No.	Relation's initials	Relationship type	Gender of the relation	Frequency of communication	Nationality of the relation	Language most frequently communicated	Most frequent type of communication	Multiplex or Uniplex
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

	Questions:	Answer (Use the person's initials when necessary)
1	Who do you talk with the most about personal issues or worries?	
2	Who would you feel most comfortable with asking for a favour?	
3	Who have you had social activities with (gone to cinema, coffee etc)?	
4	Who would you ask to help improve your English	
5	Who would you talk to about your hobbies?	
6	Do you consider yourself a social person and **why/why not?**	
7	Do you have a sibling studying with you in your current school?	
8	What is your mother's education level?	
9	What is your father's education level?	

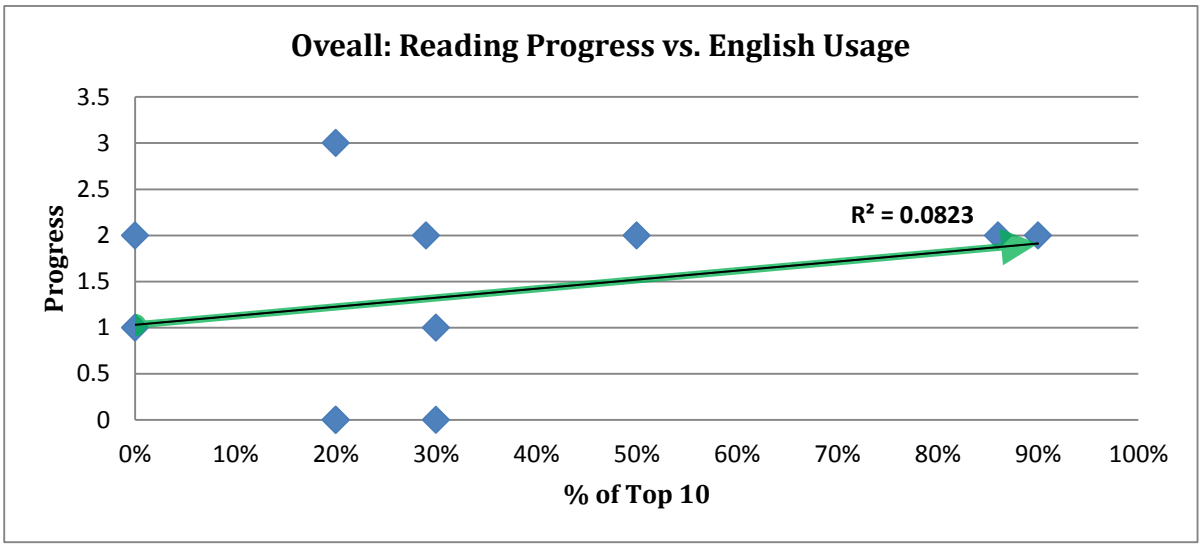
Your Opinion Counts		
	If you had to tell your friends 3 things you like about boarding, what would they be?	
1		
2		
3		
	If you had to tell your friends 3 things you dislike about boarding, what would they be?	
1		
2		
3		

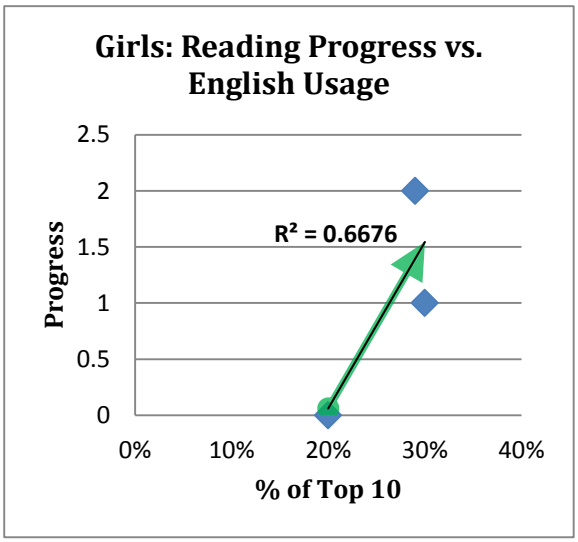
Appendix G: Attainment Equivalency Chart

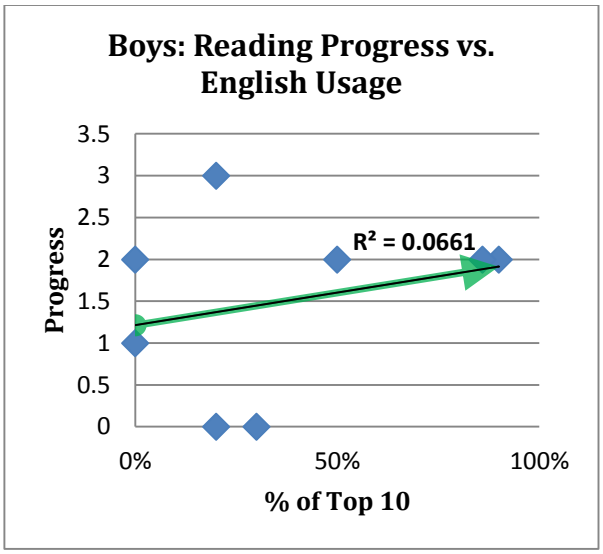
OPT Band	OPT Score	OPT Language level	Common European Framework level	ALTE & QPT	UK NQF level	IELTS	Cambridge ESOL Main Suite	Cambridge BEC	Cambridge CELS	TOEFL	TOEIC
9	198–200	Functionally bilingual									
8	190–197	Professional command – expert user				8 and above					
7	170–189	Highly proficient – very advanced user	C2 Mastery – very good user	5	Level 3	7.5	CPE			670/293 and over	960+
6	150–169	Proficient – advanced user	C1 Effective Operational Proficiency – good user	4	Level 2	6.5	CAE	Higher	Higher	600/250	785–955
5	135–149	Upper Intermediate – competent user	B2 Vantage – independent user (+)	3	Level 1	5.5	FCE	Vantage	Vantage	550/213	525–780
4	120–134	Lower Intermediate – modest user	B1 Threshold – independent user (–)	2	Entry 3	4.0	PET	Preliminary	Preliminary	500/173	405–520
3	105–119	Elementary – limited user	A2 Waystage	1	Entry 2	3.0	KET			450/133	255–400
2	90–104	Basic - extremely limited user	A1 Breakthrough							400/97	130–250
1	80–89	False beginner – minimal user								Below 400/97	10–125
0	Below 75	Beginner									

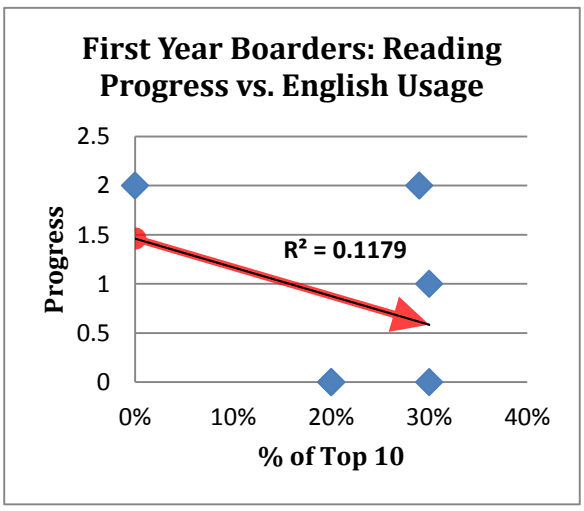
Appendix H: Reading Progress Vs. Social Variables

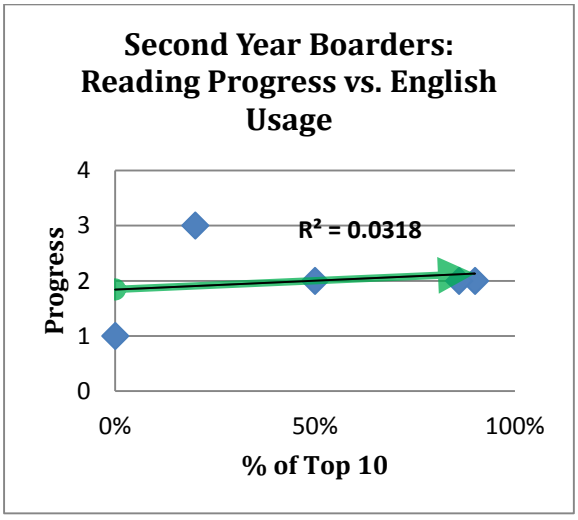
English Usage











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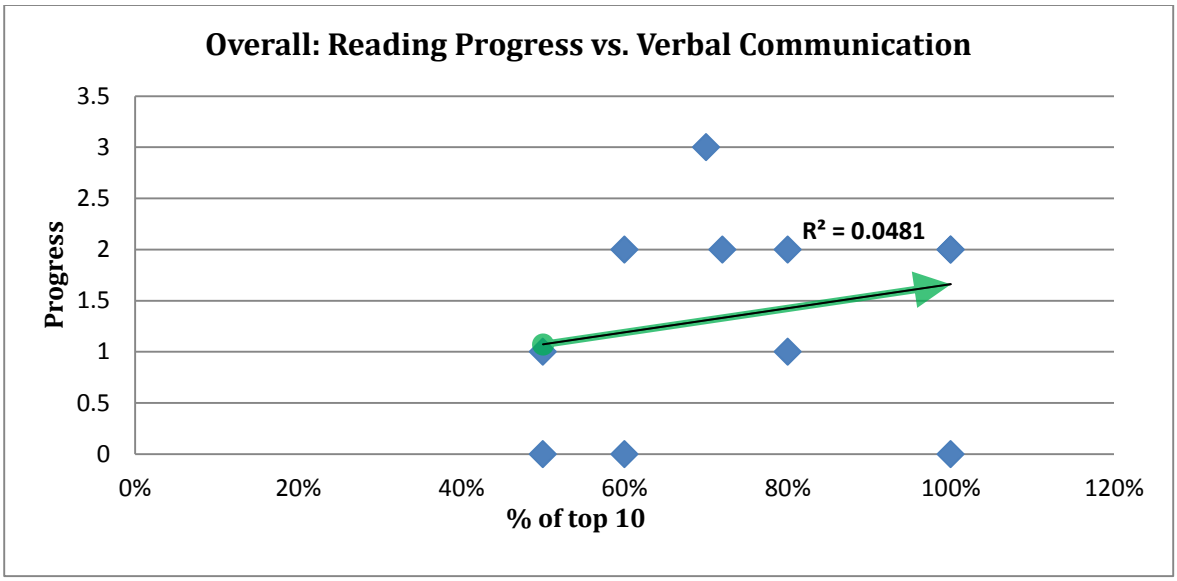

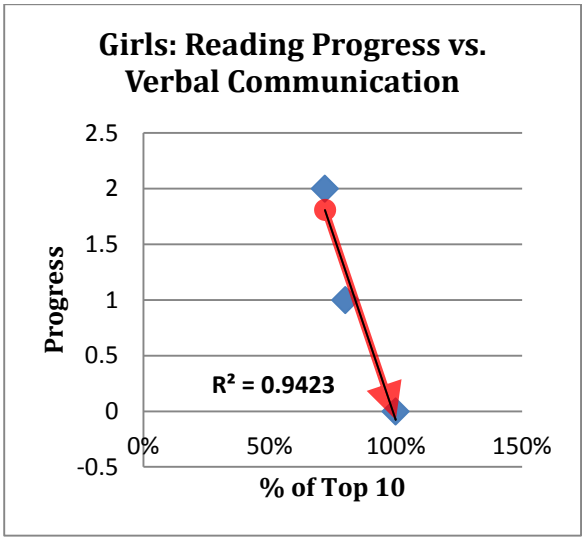

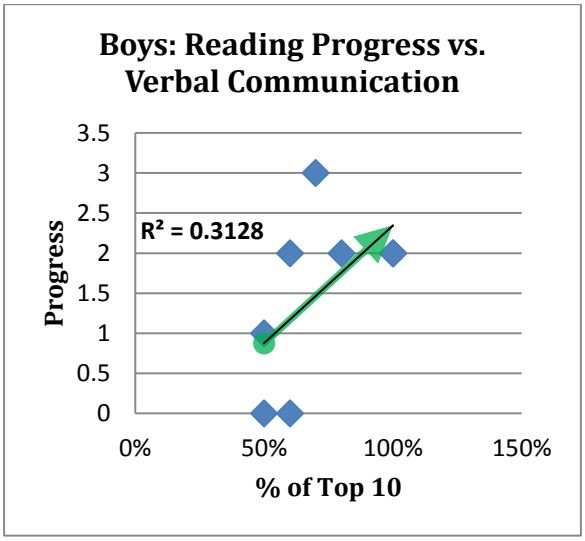

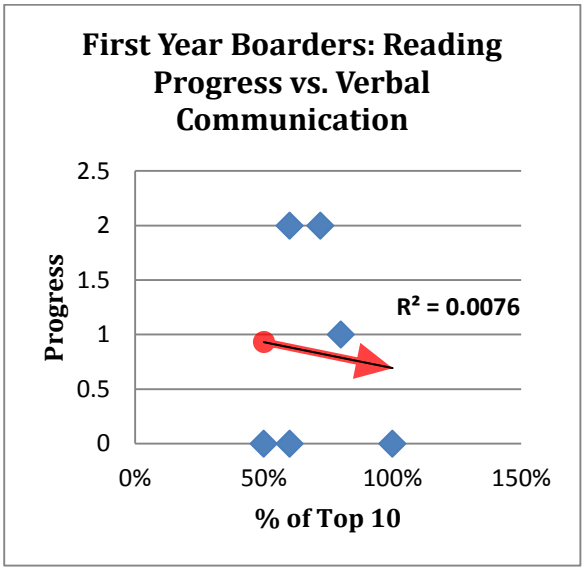

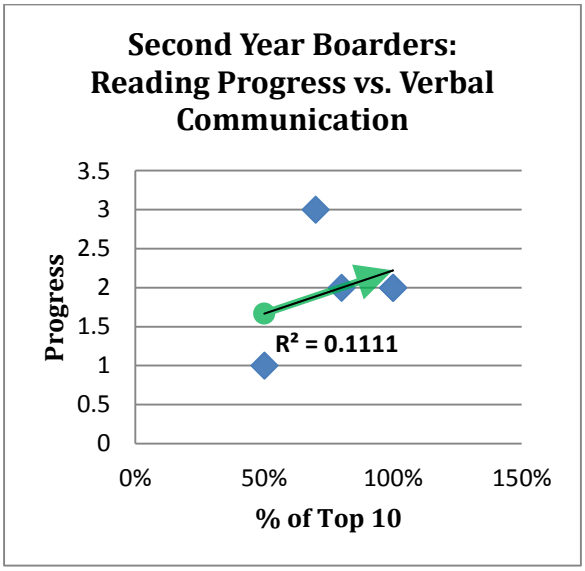

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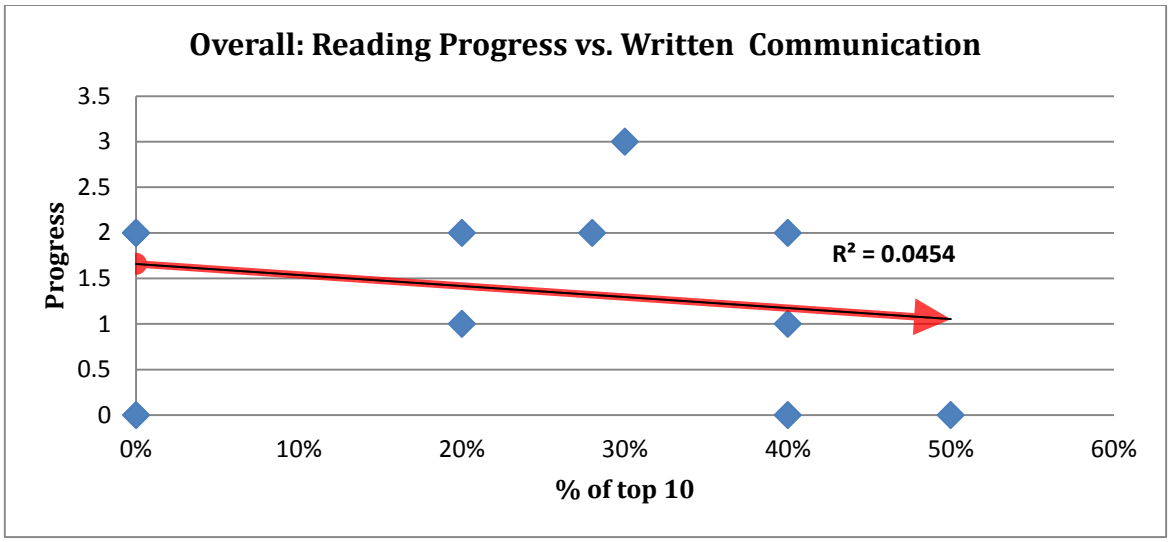

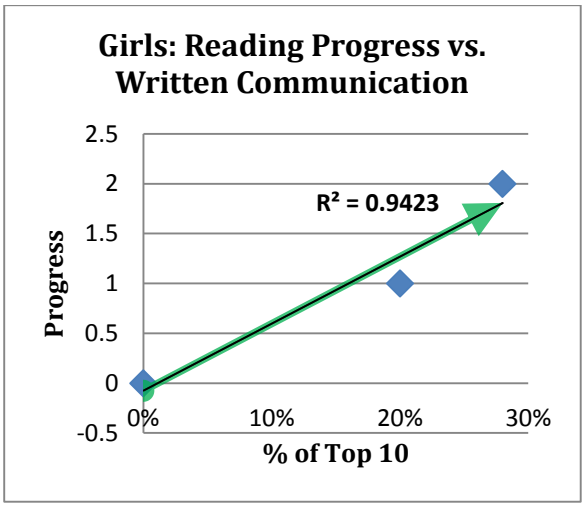

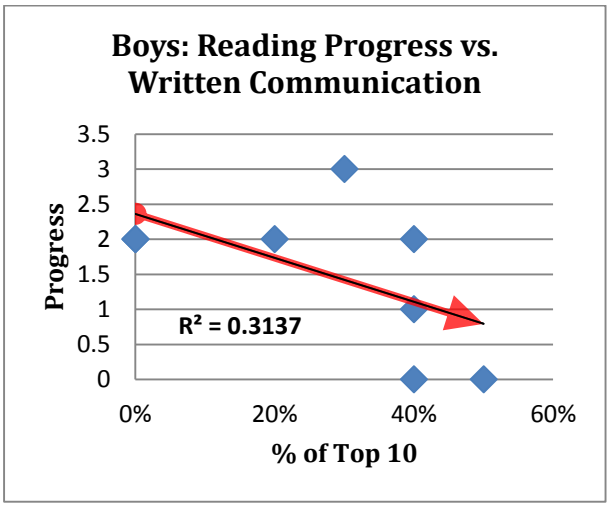

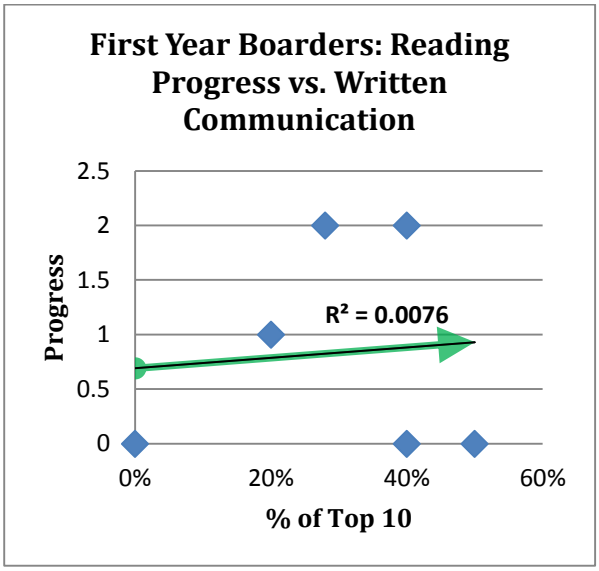

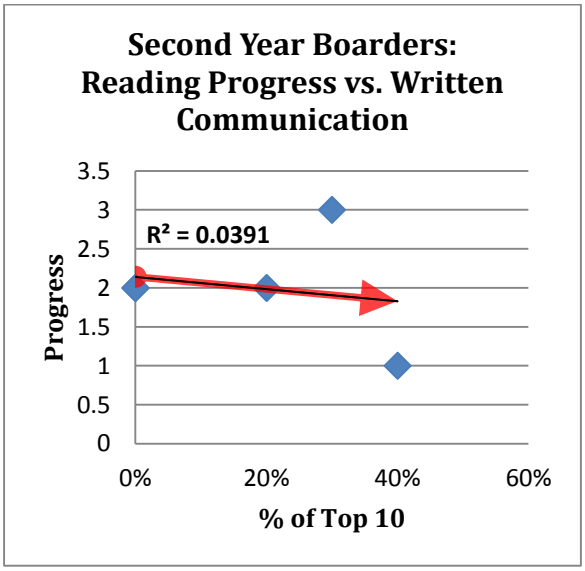

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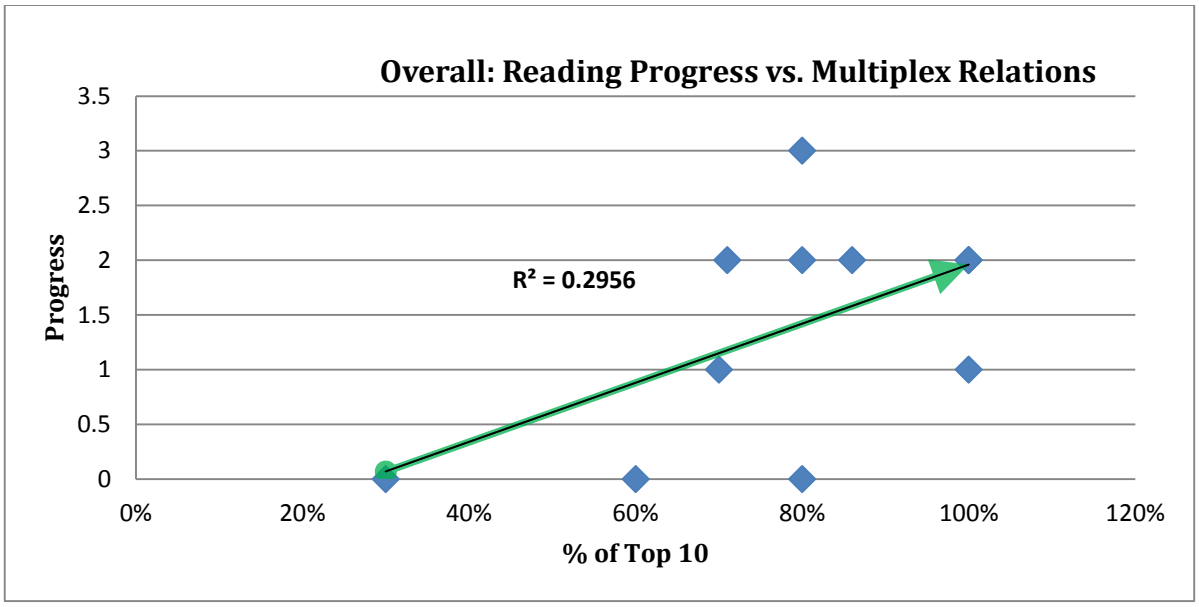

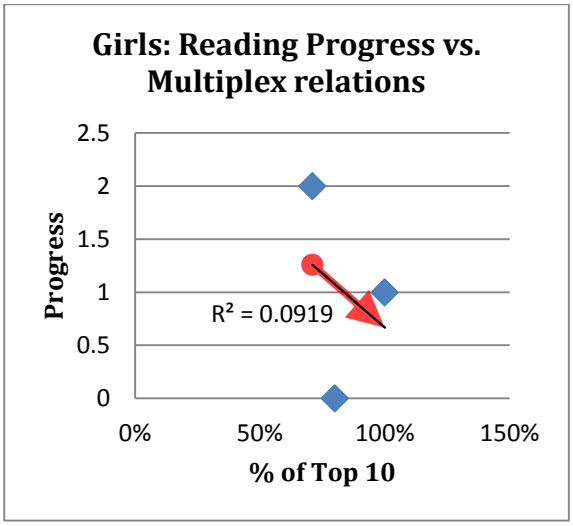

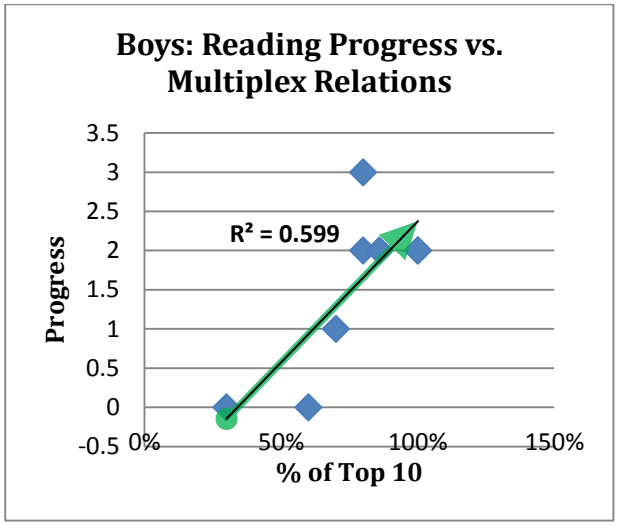

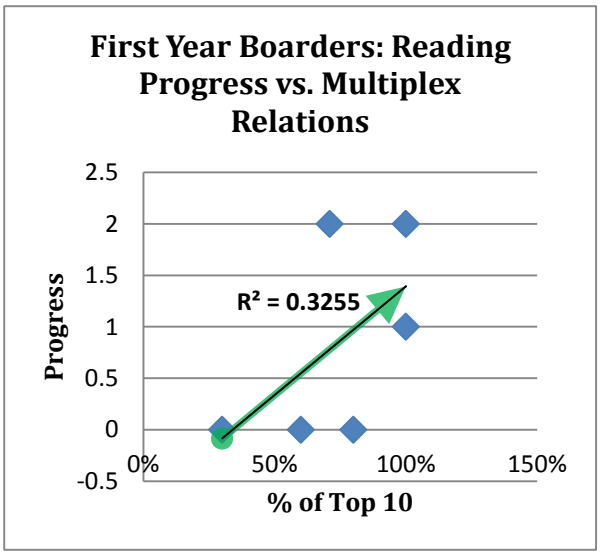

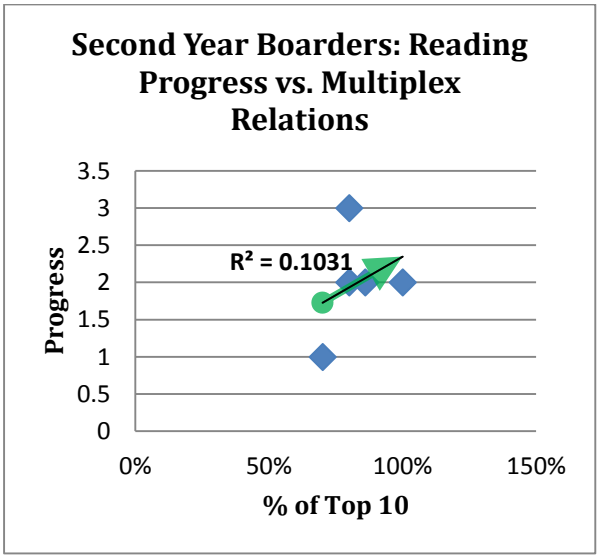

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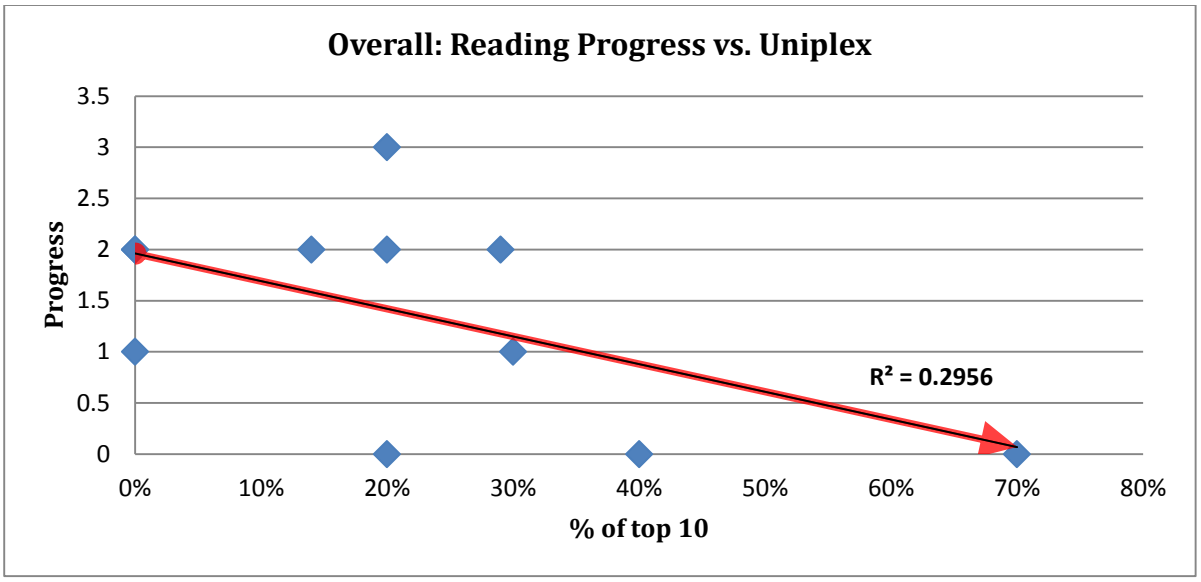
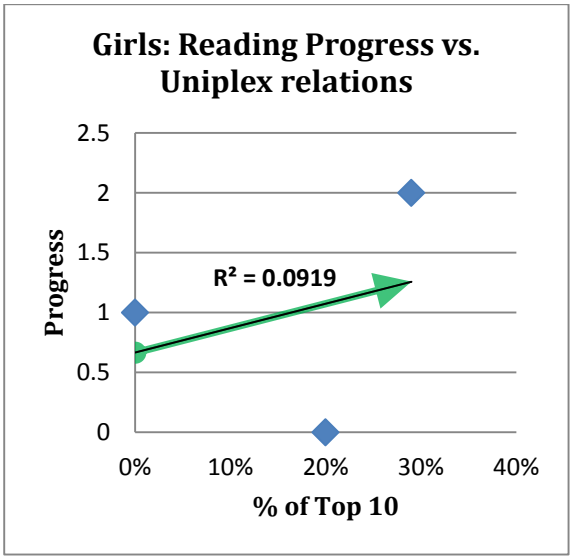
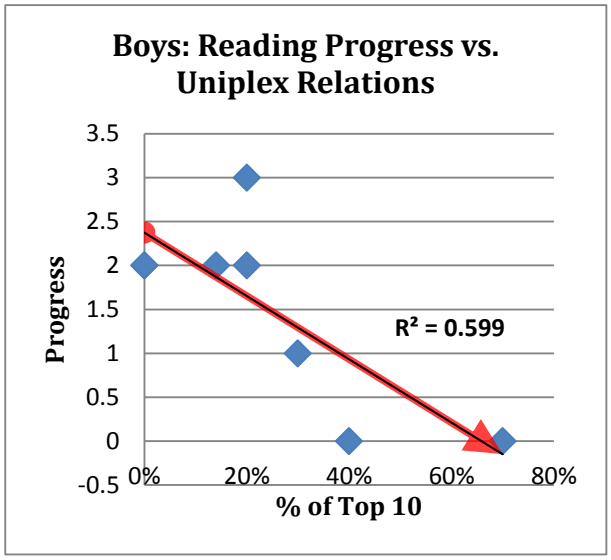
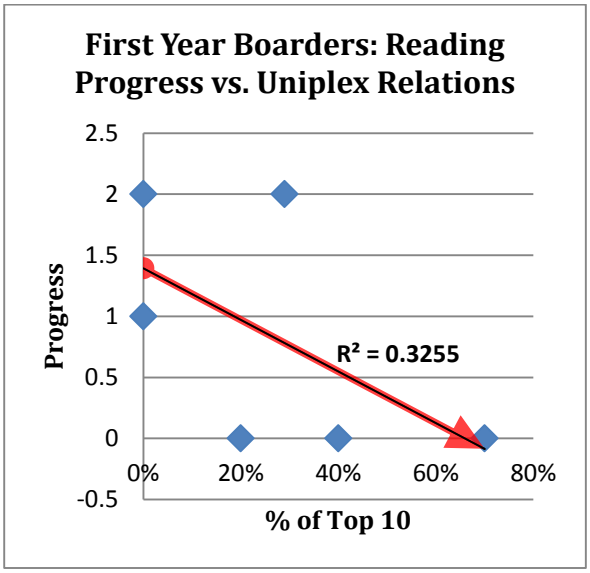
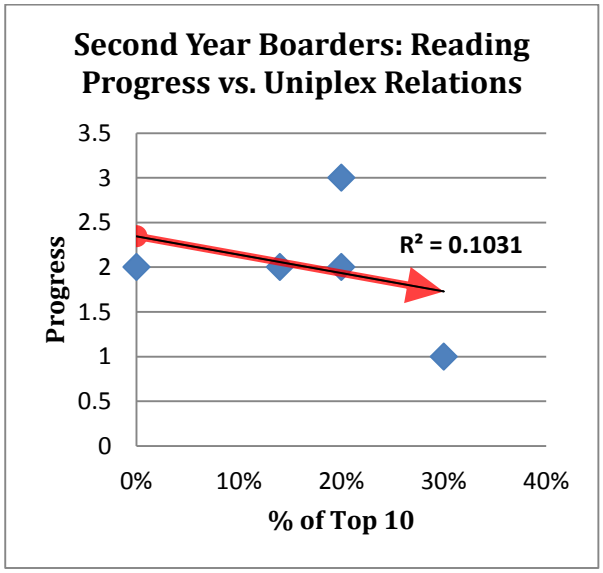


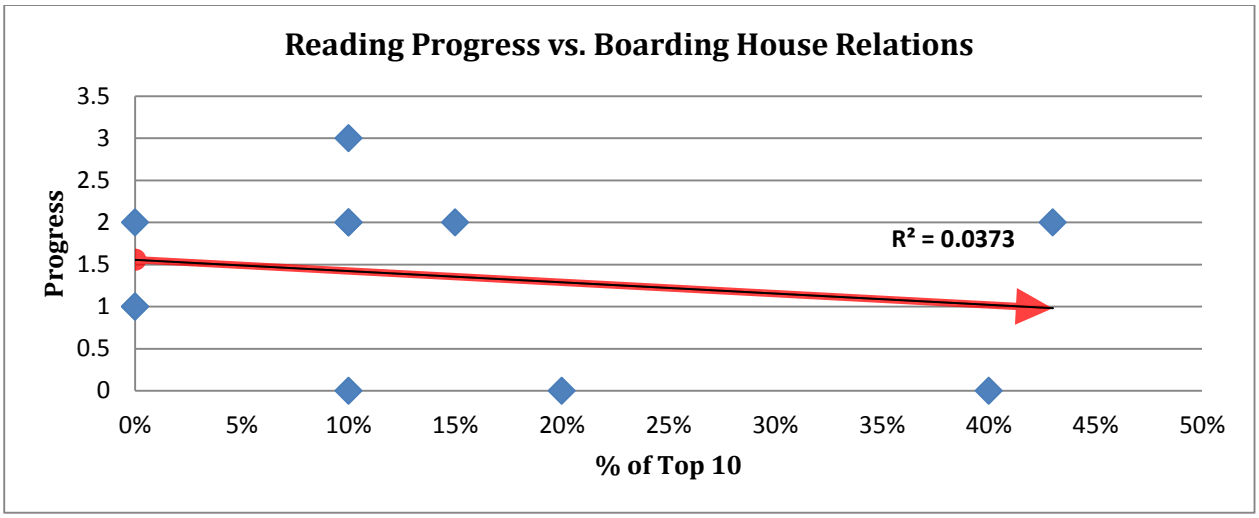


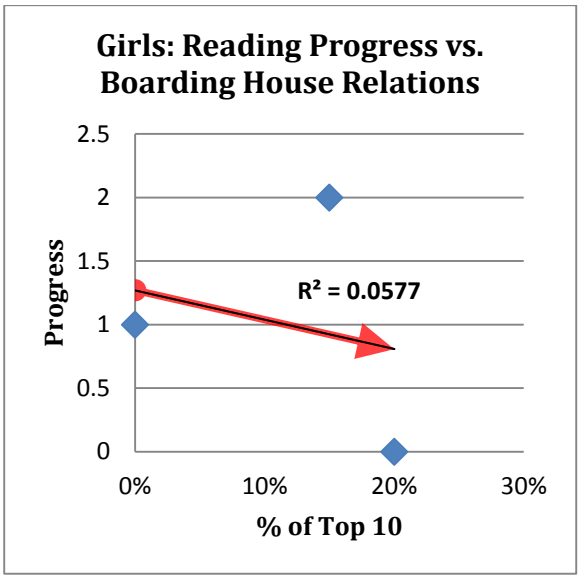


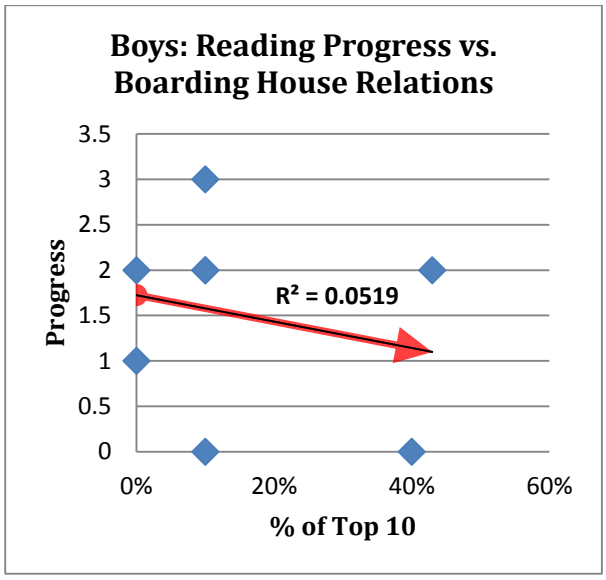


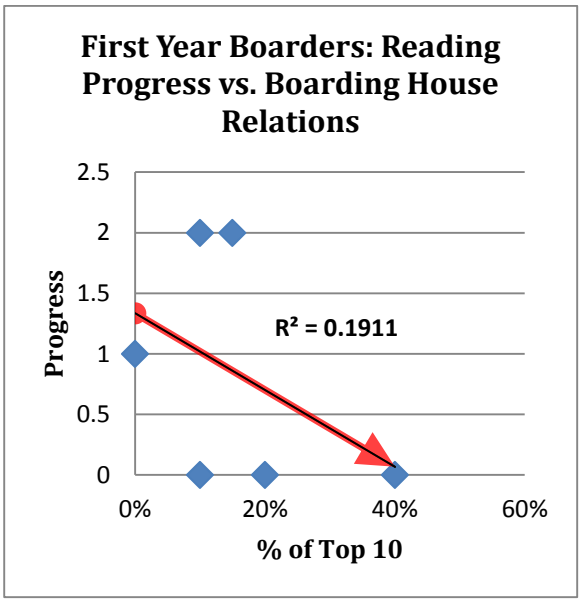


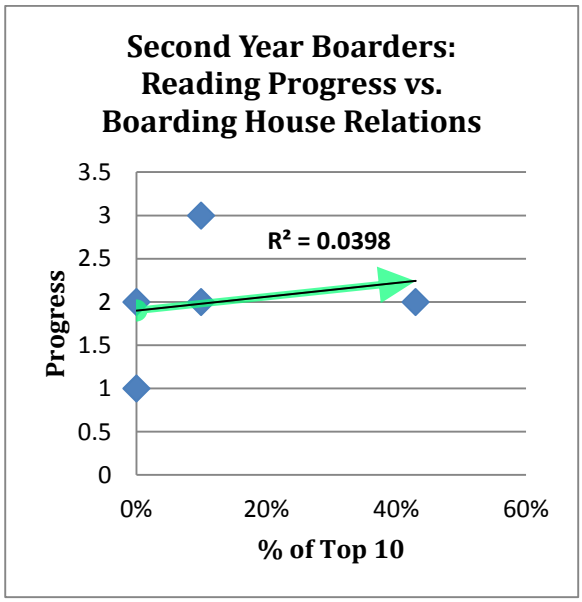
Boarding House Relations:











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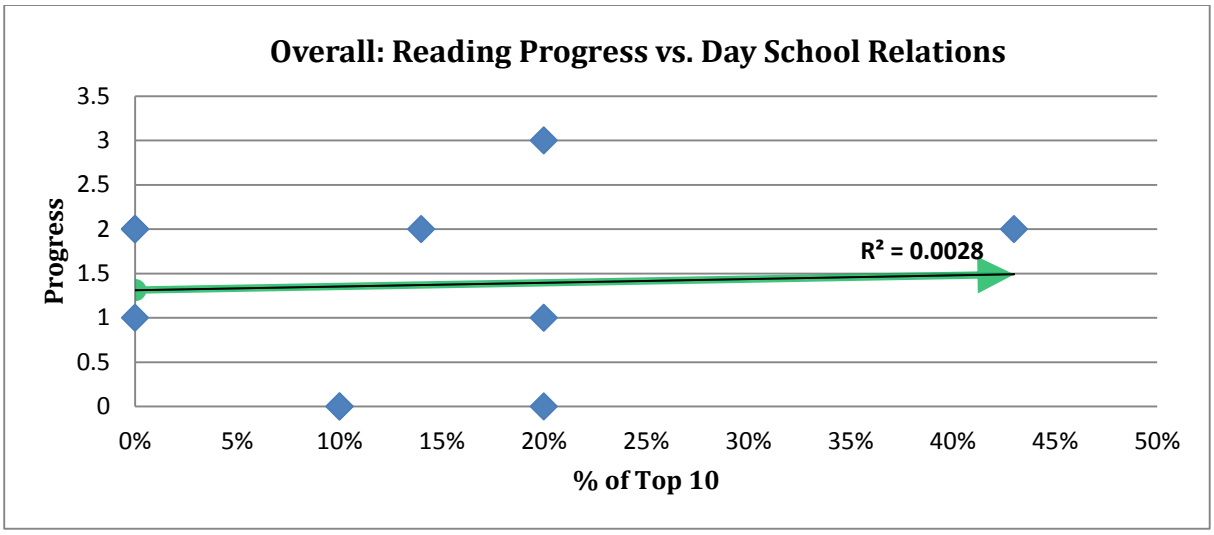
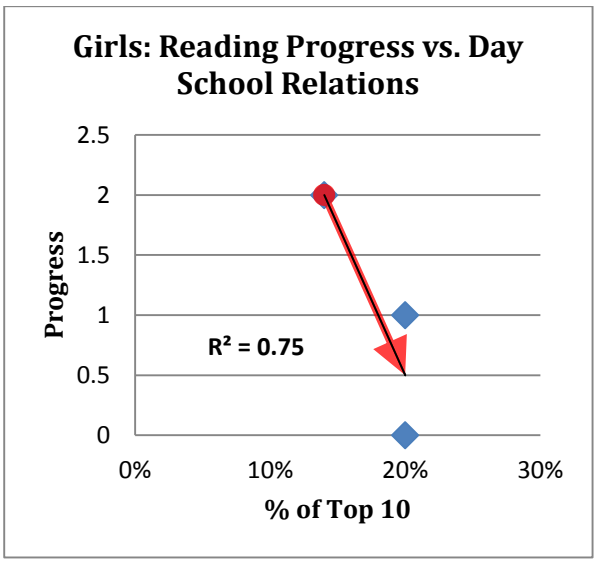
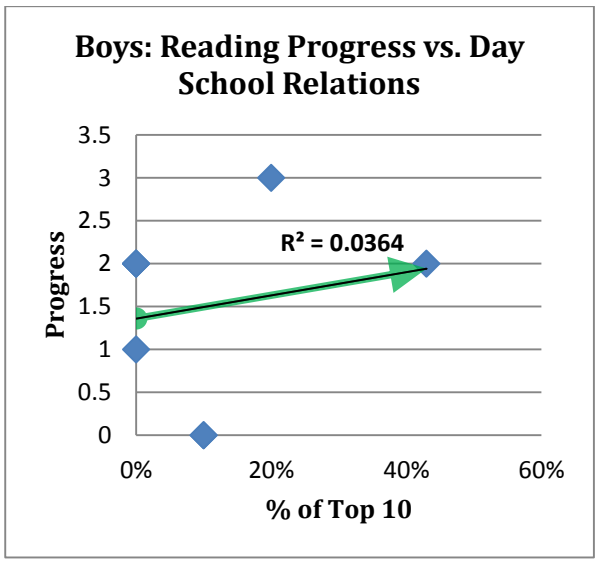
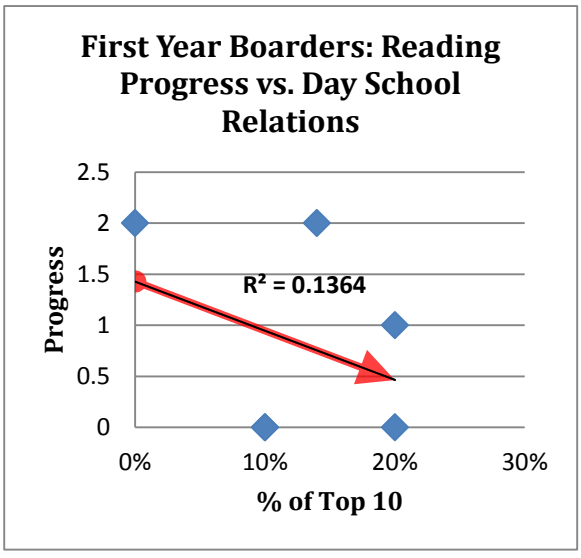
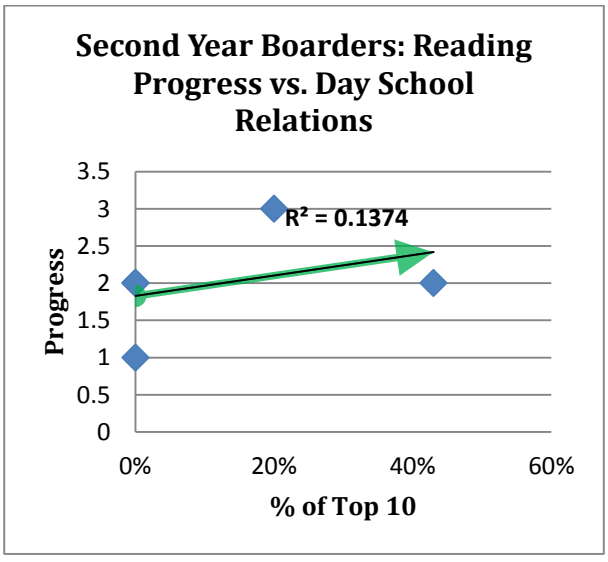


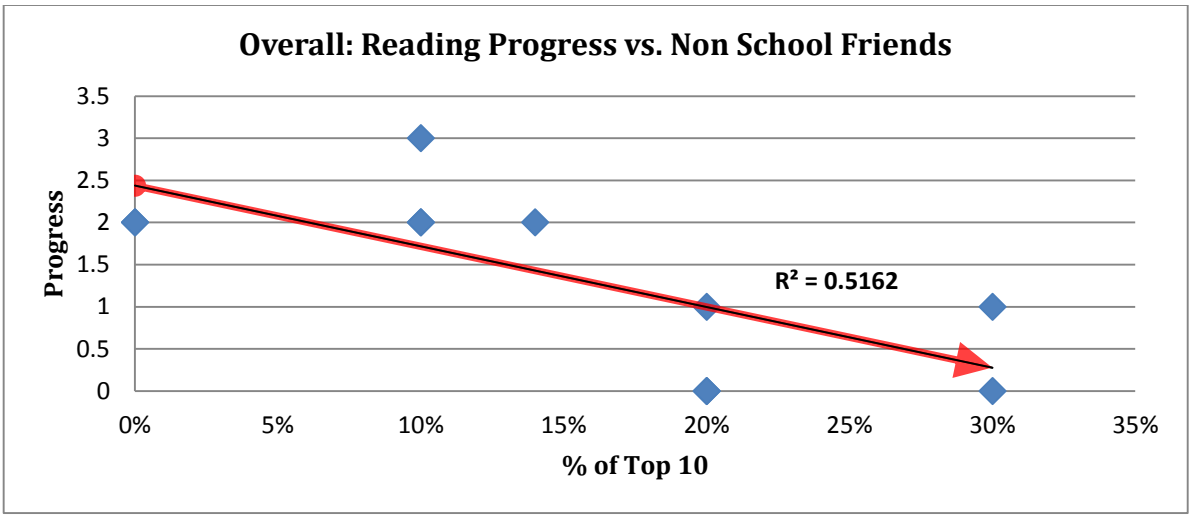


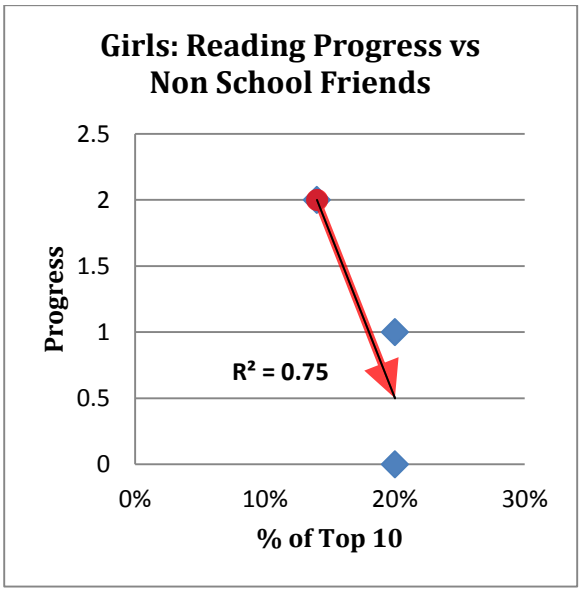


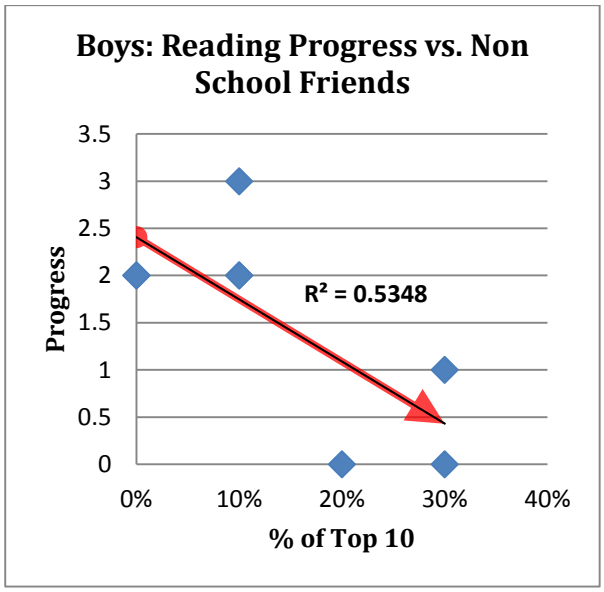


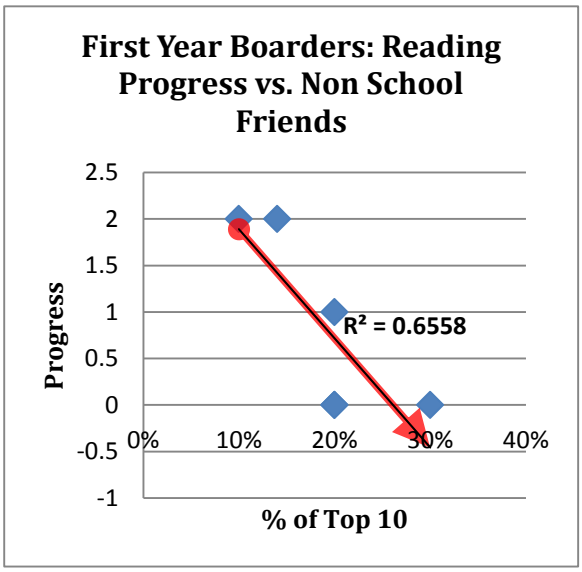


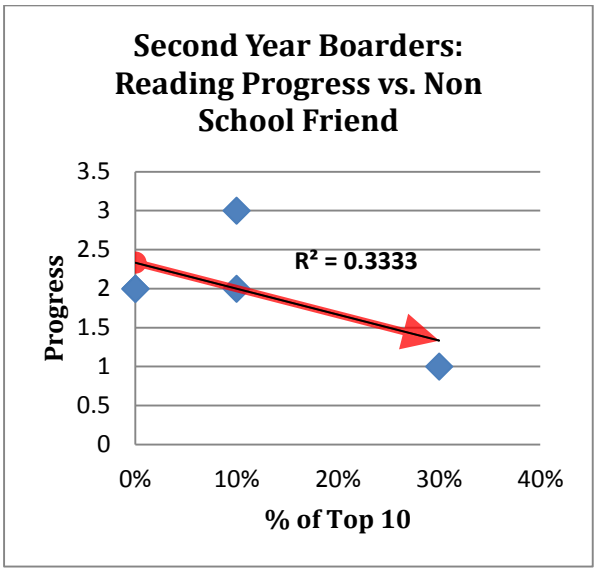
Non School Friends:











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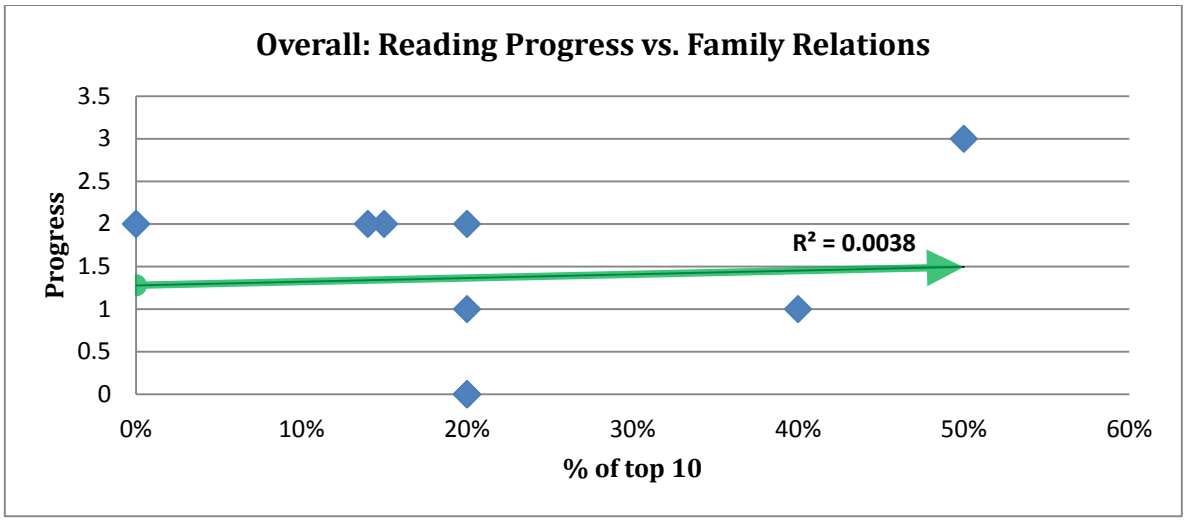

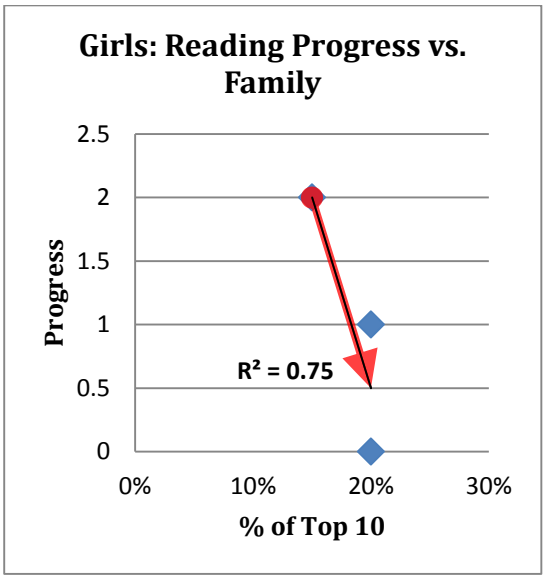

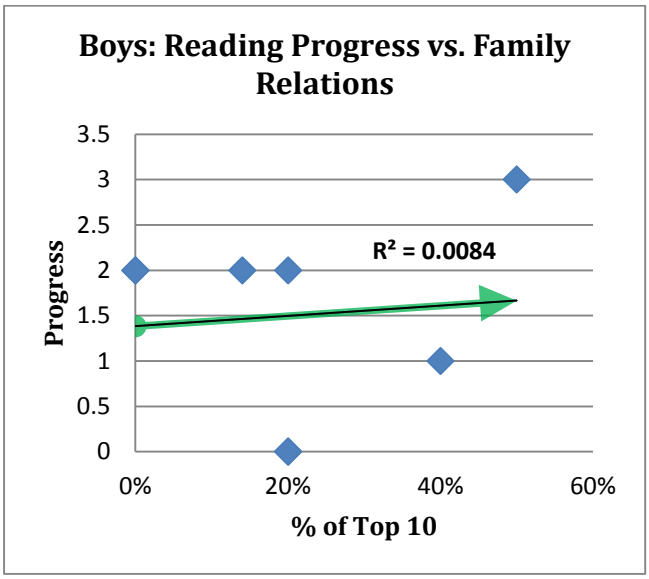

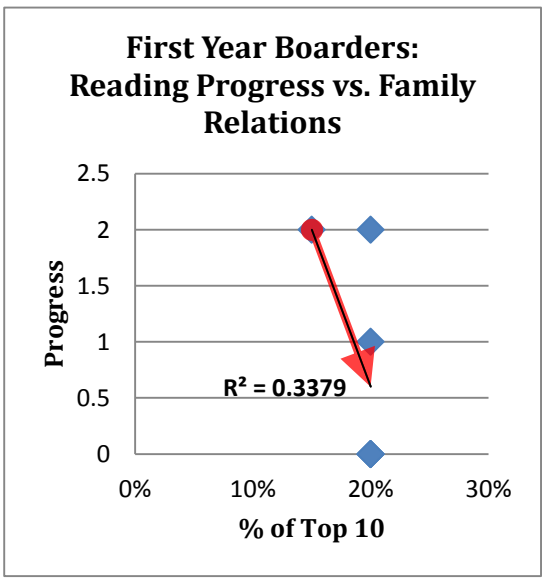

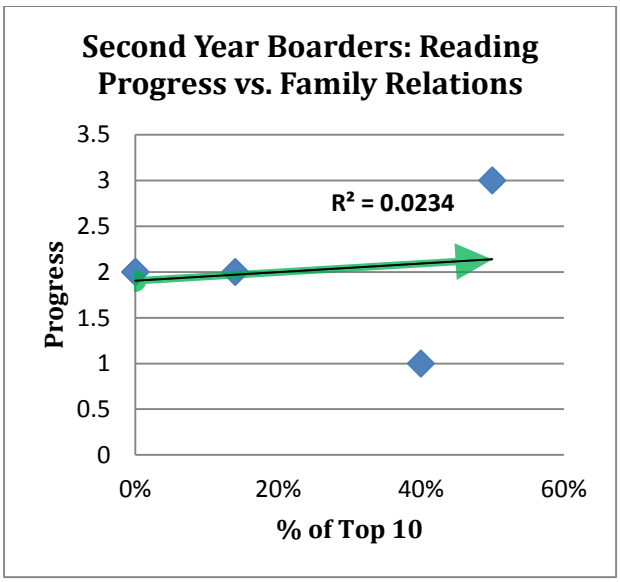

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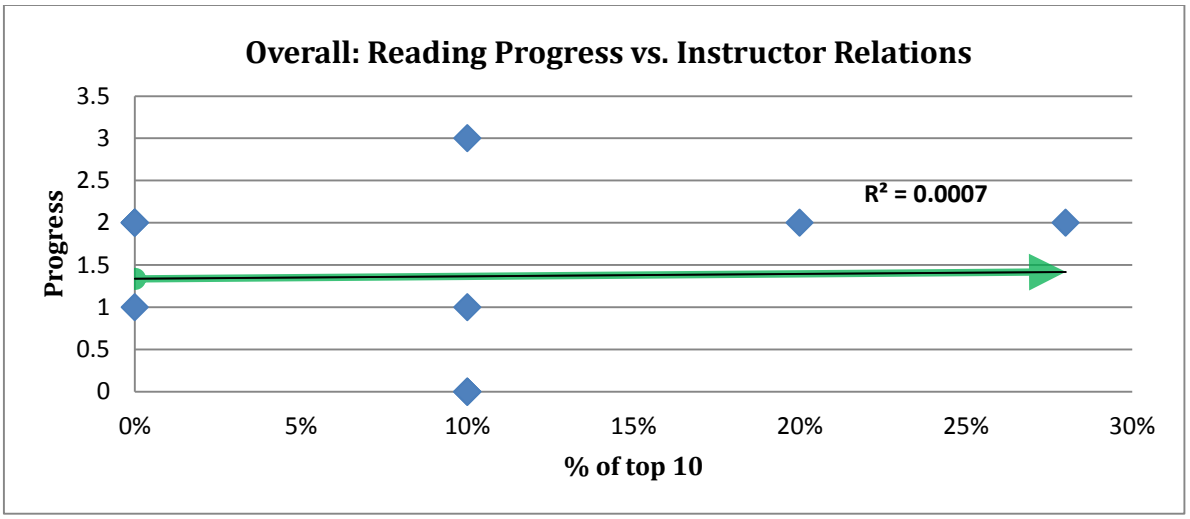

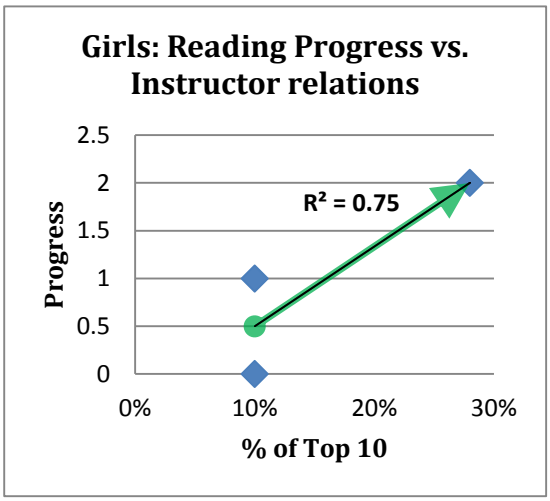

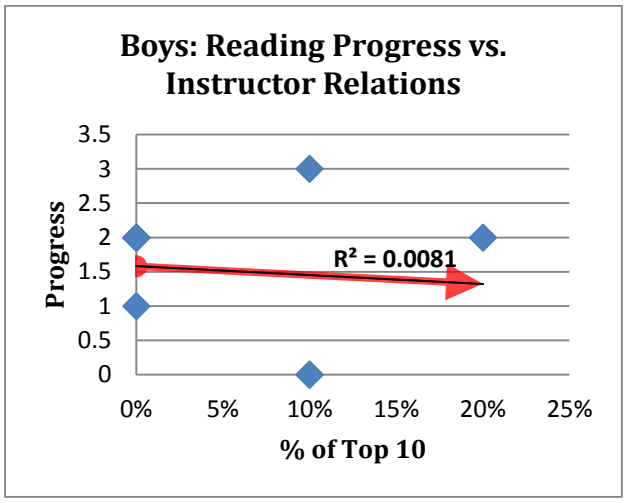

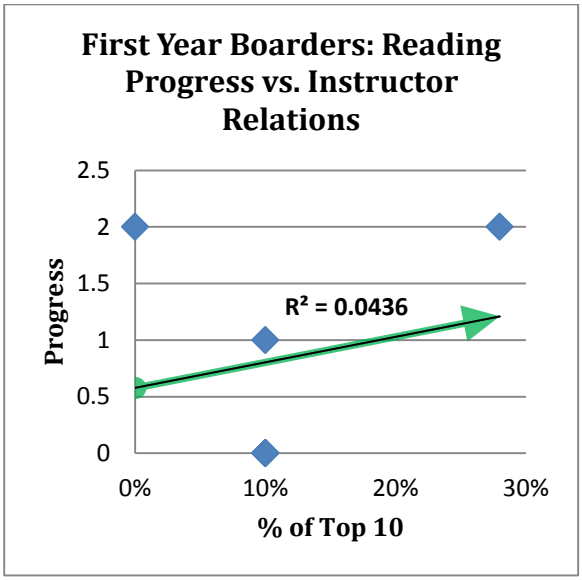

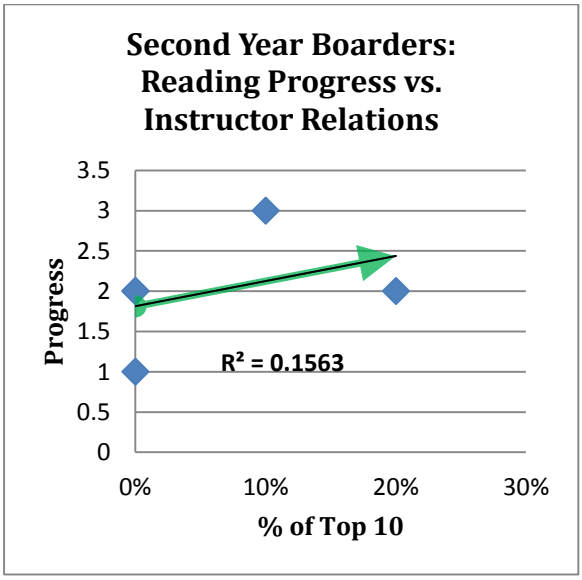

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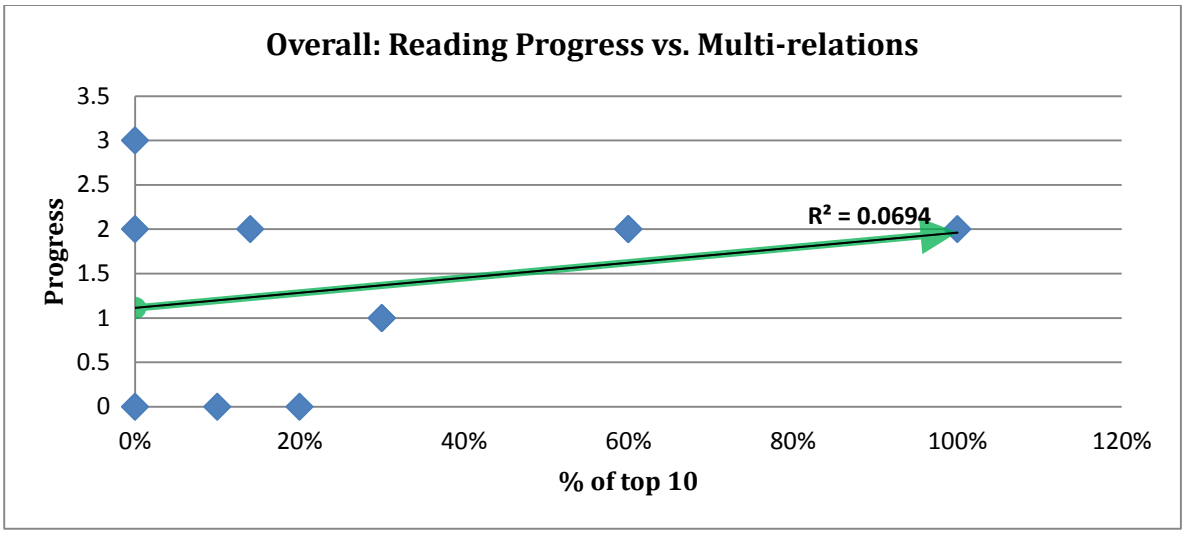
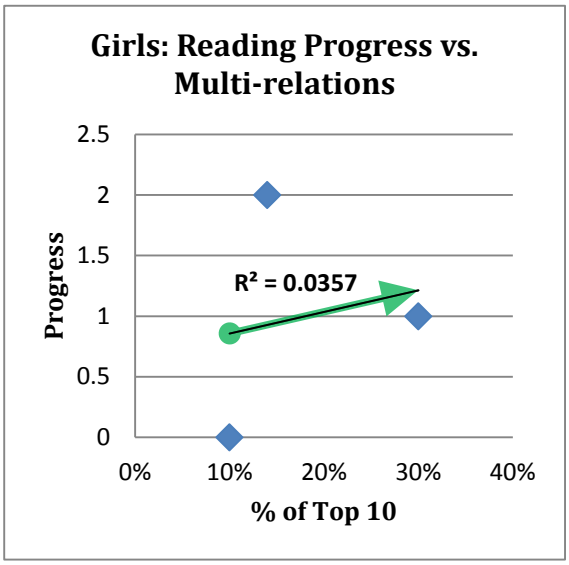
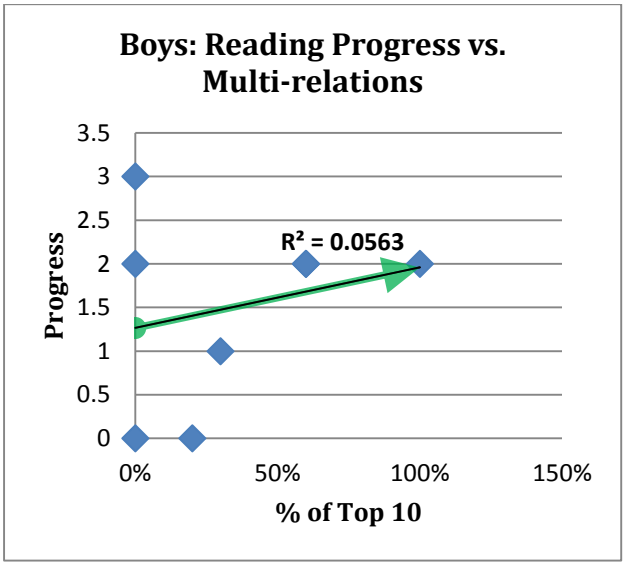
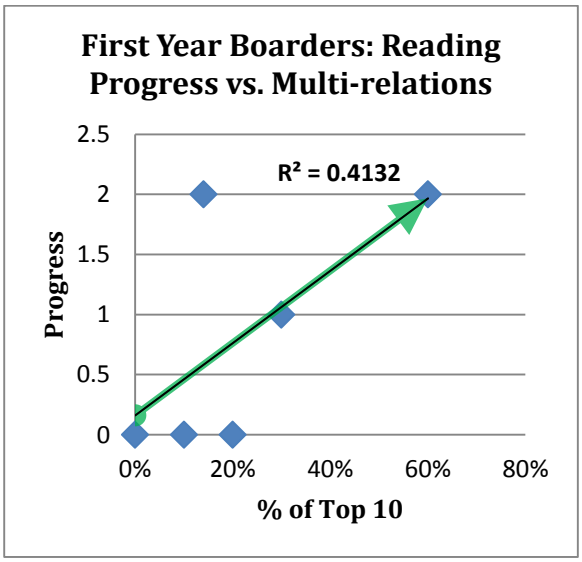
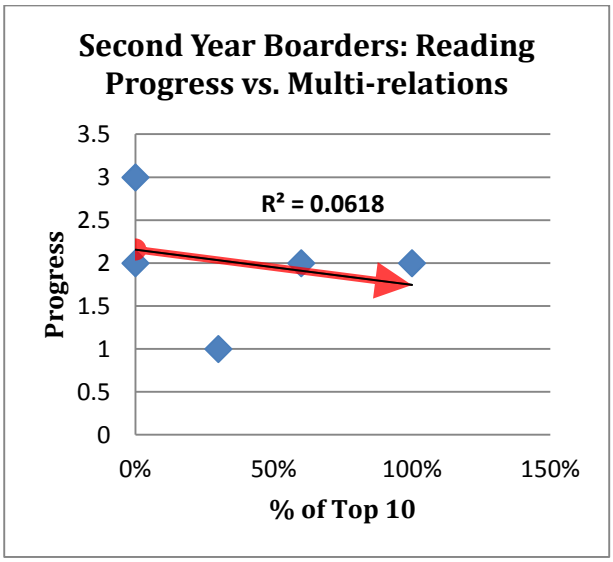




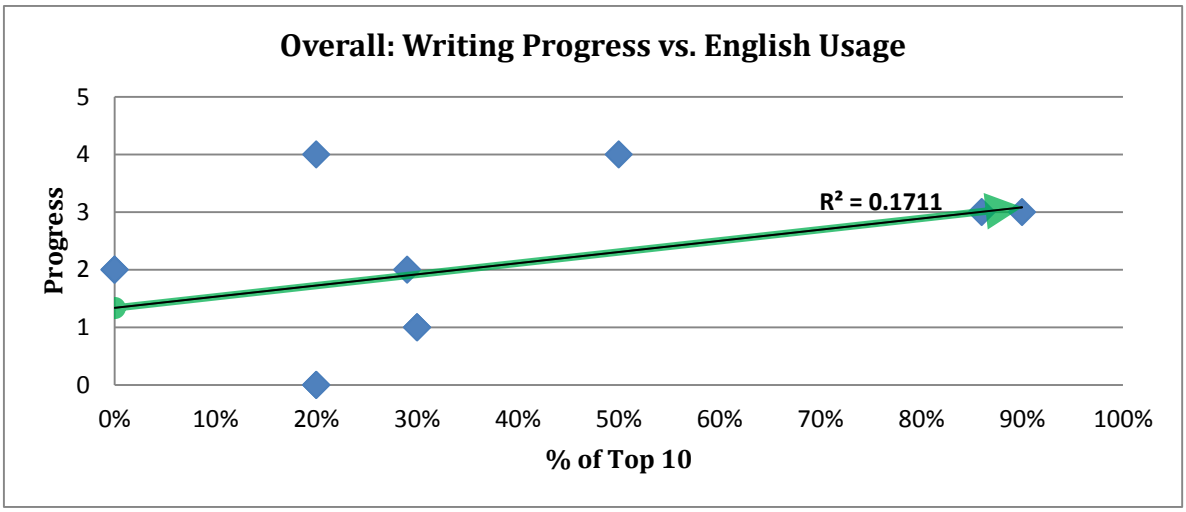


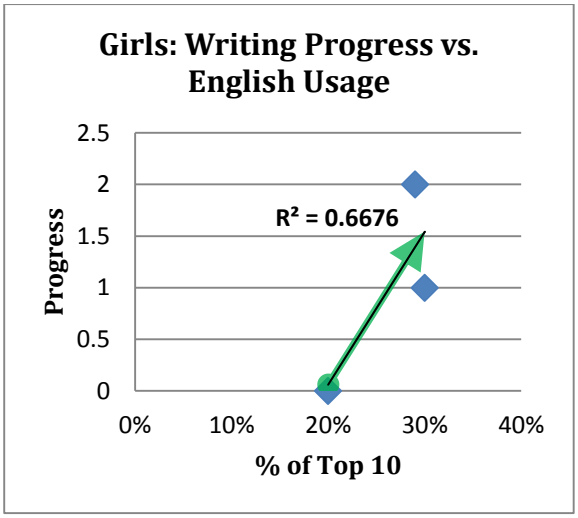


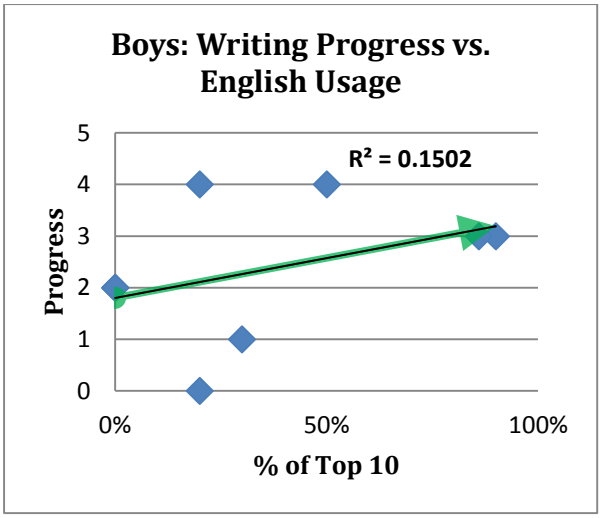


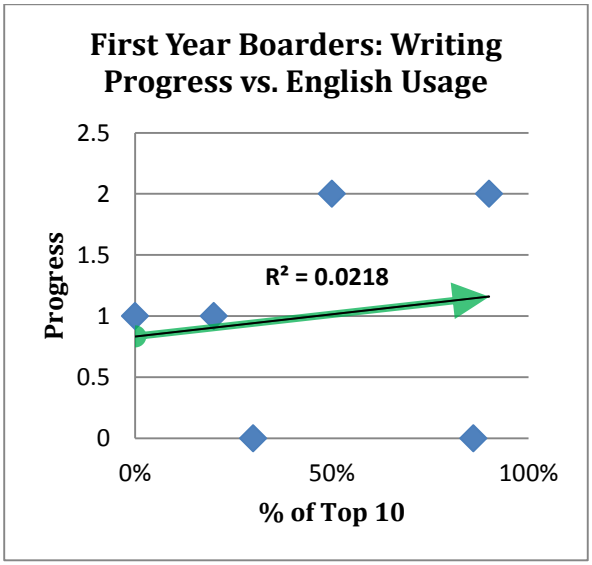
Appendix I: Writing Progress Vs. Social Variables

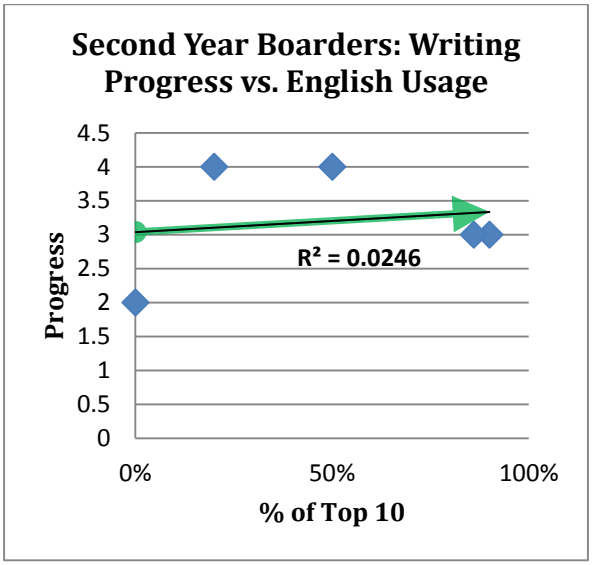
English Usage:



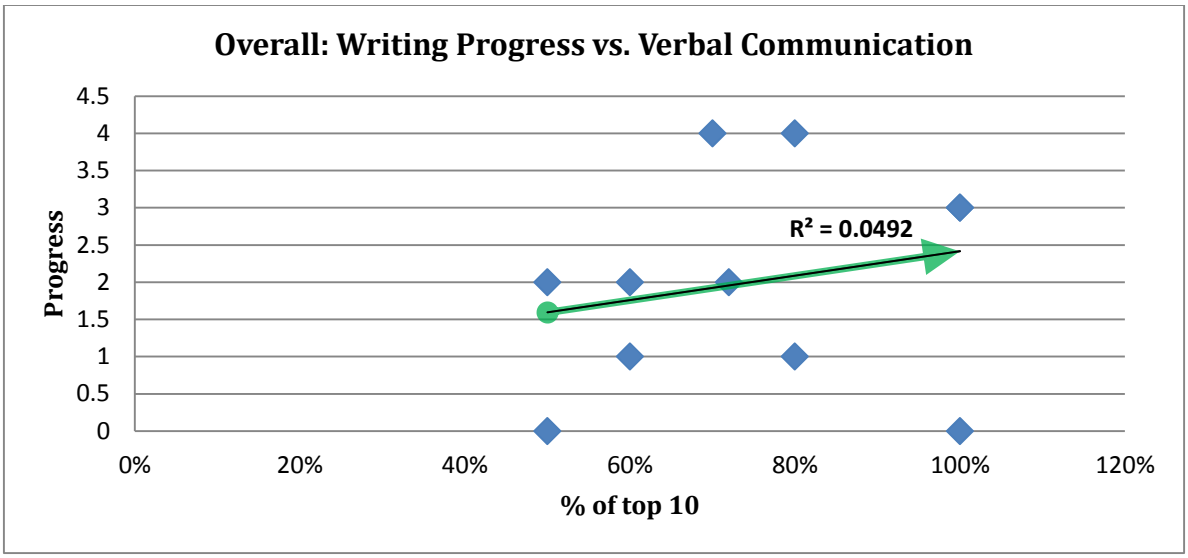


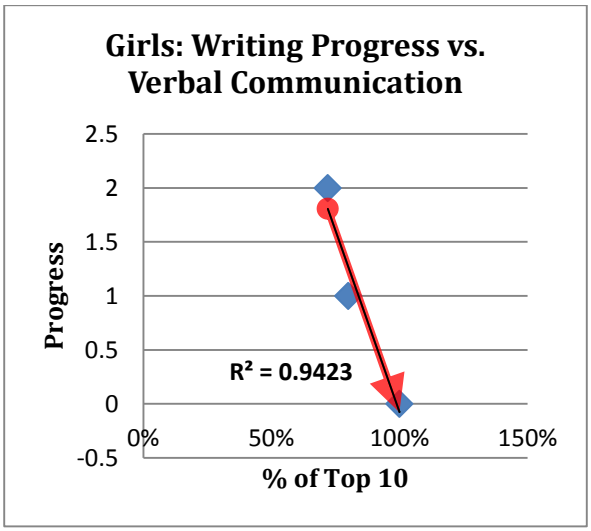


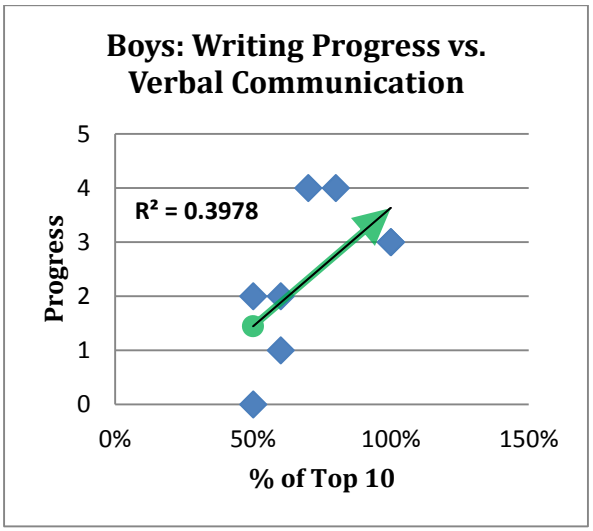


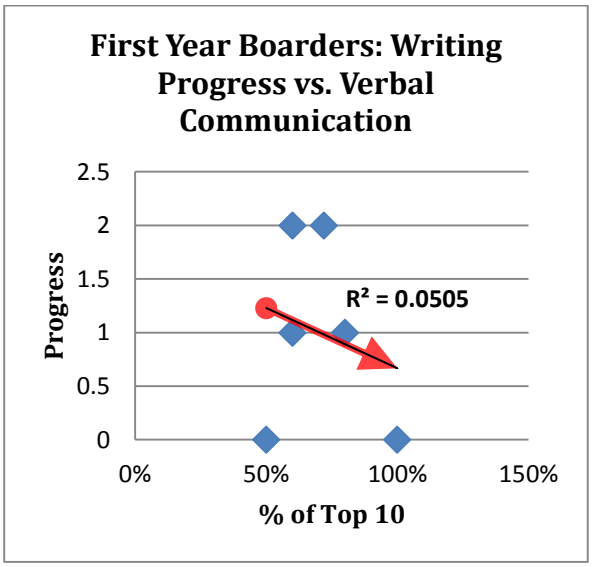


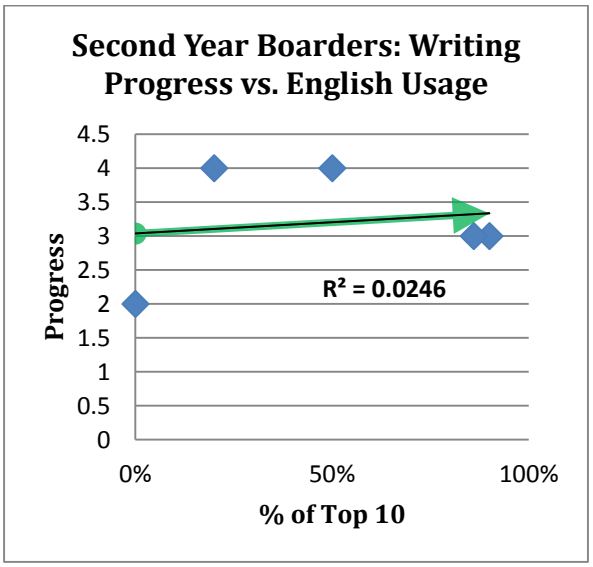
Verbal Communication:











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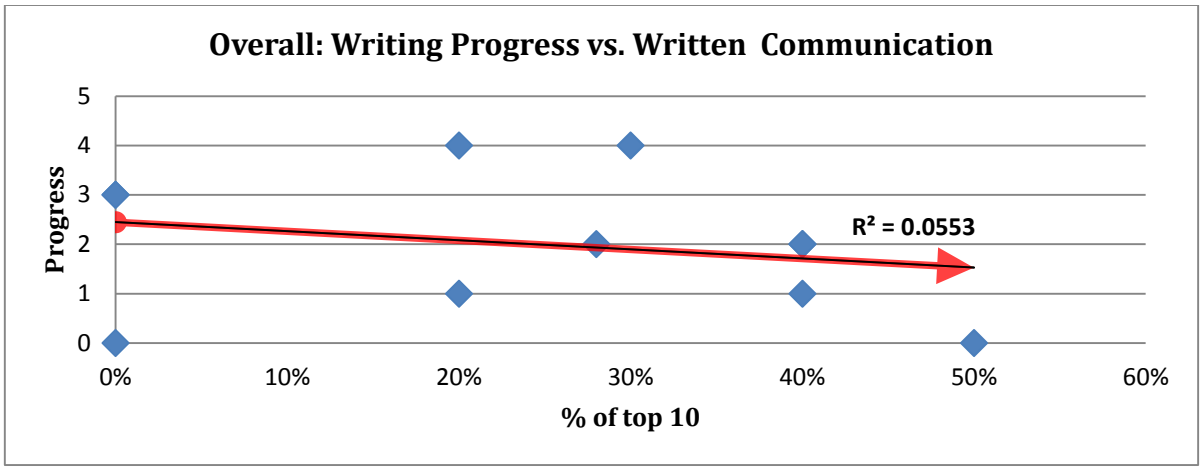

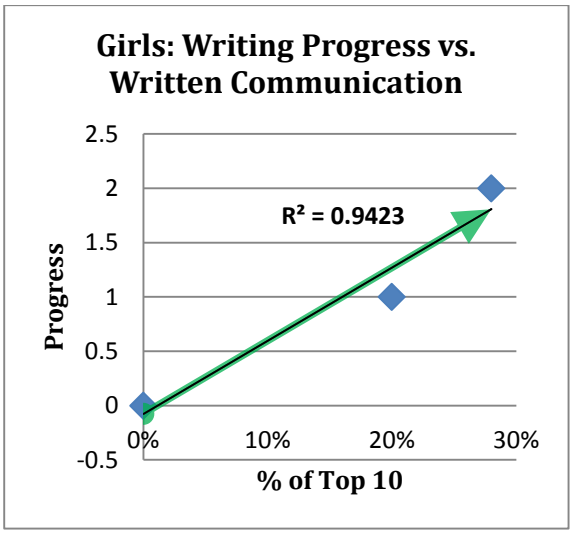

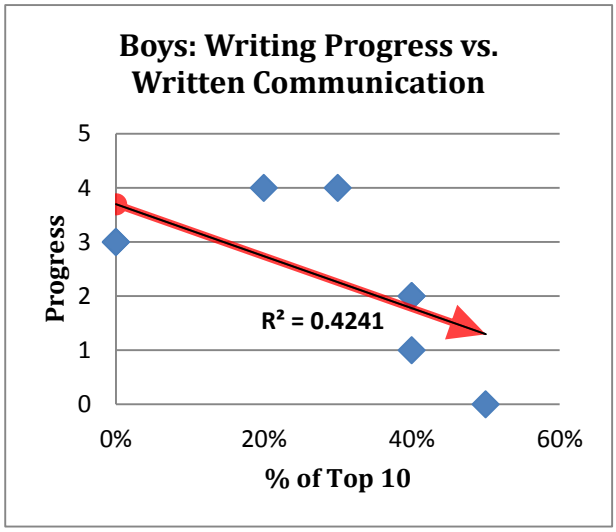

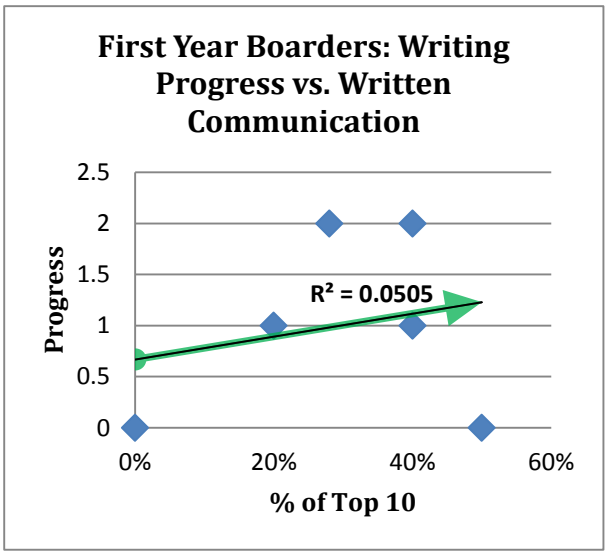

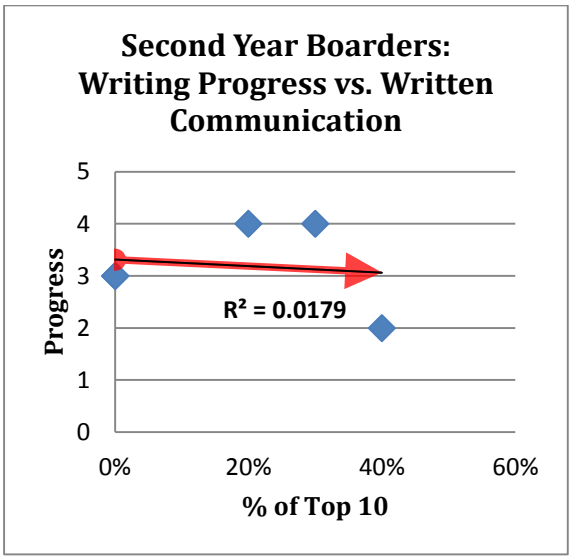

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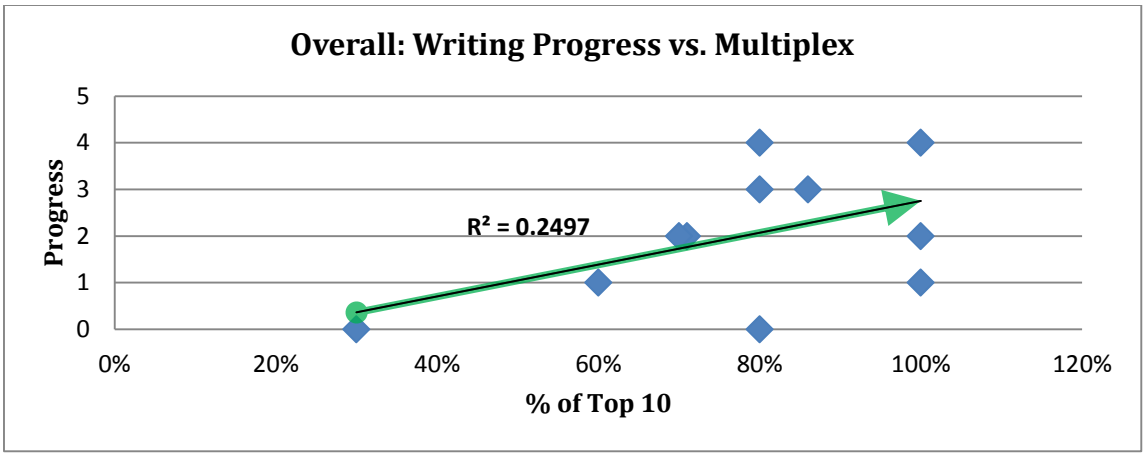

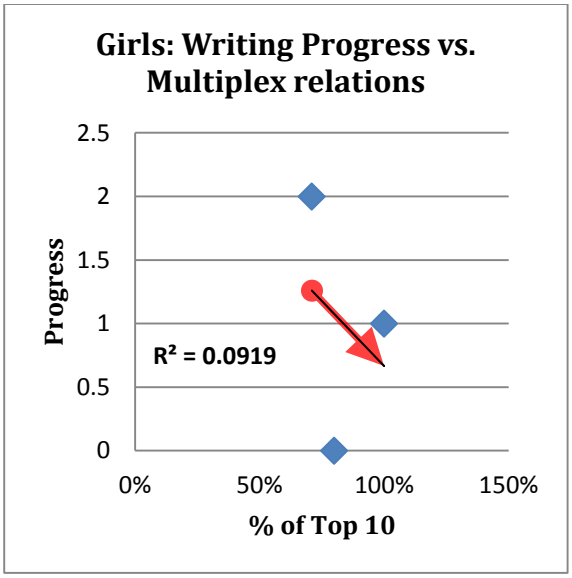

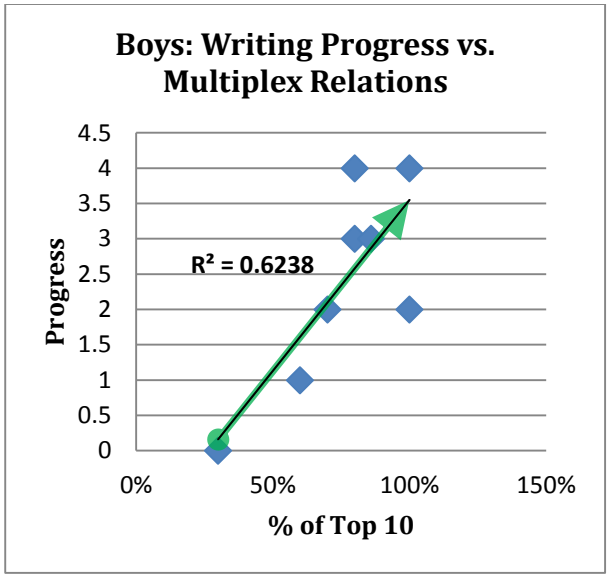

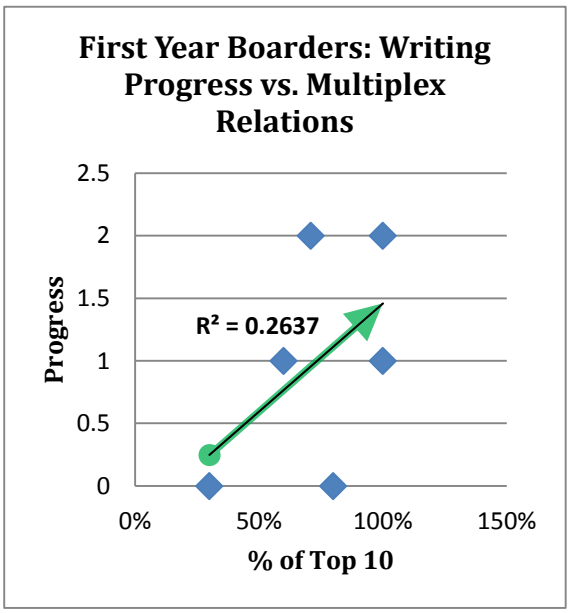

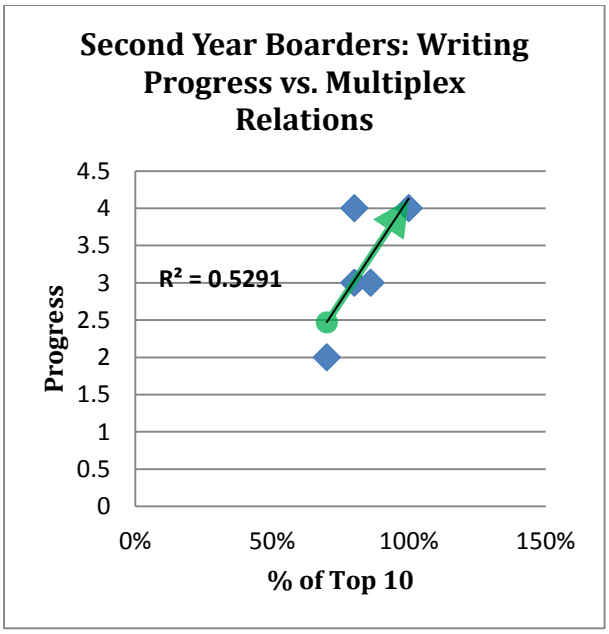

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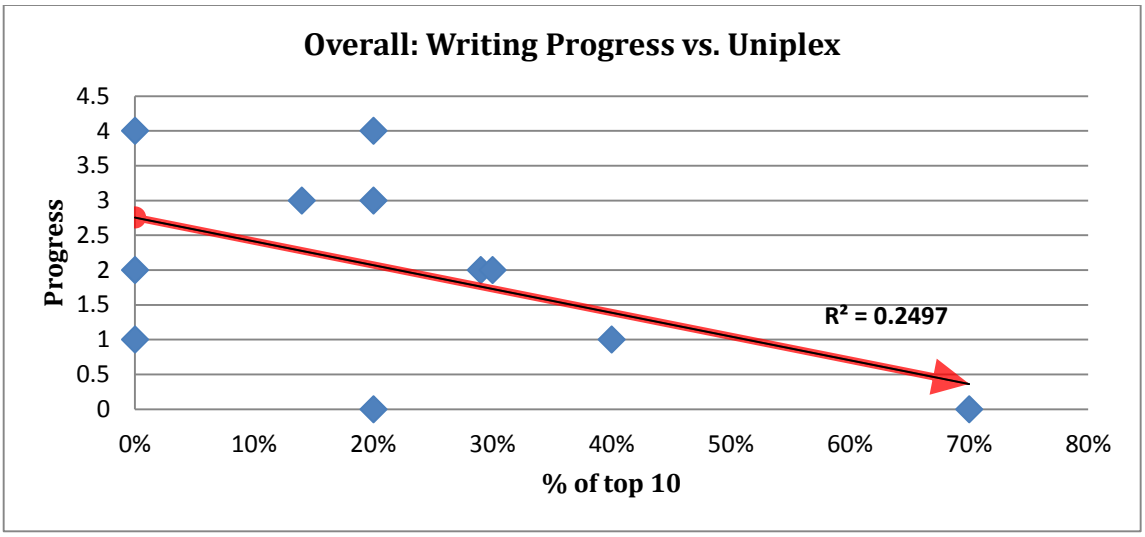

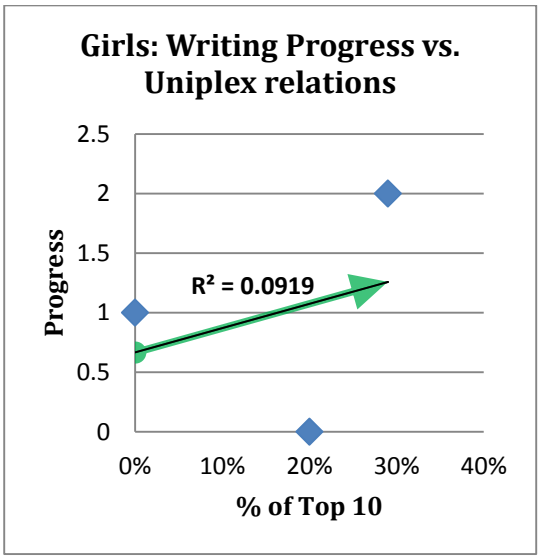

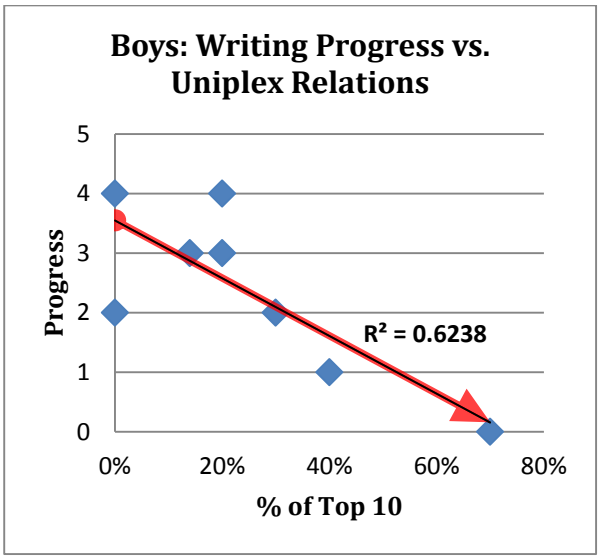

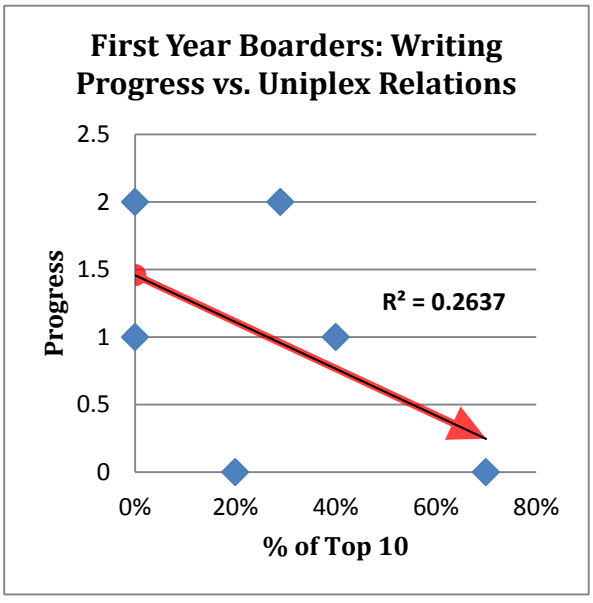

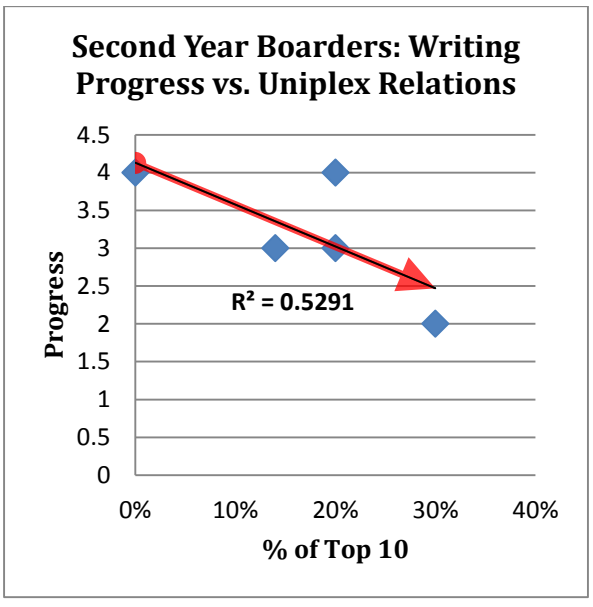

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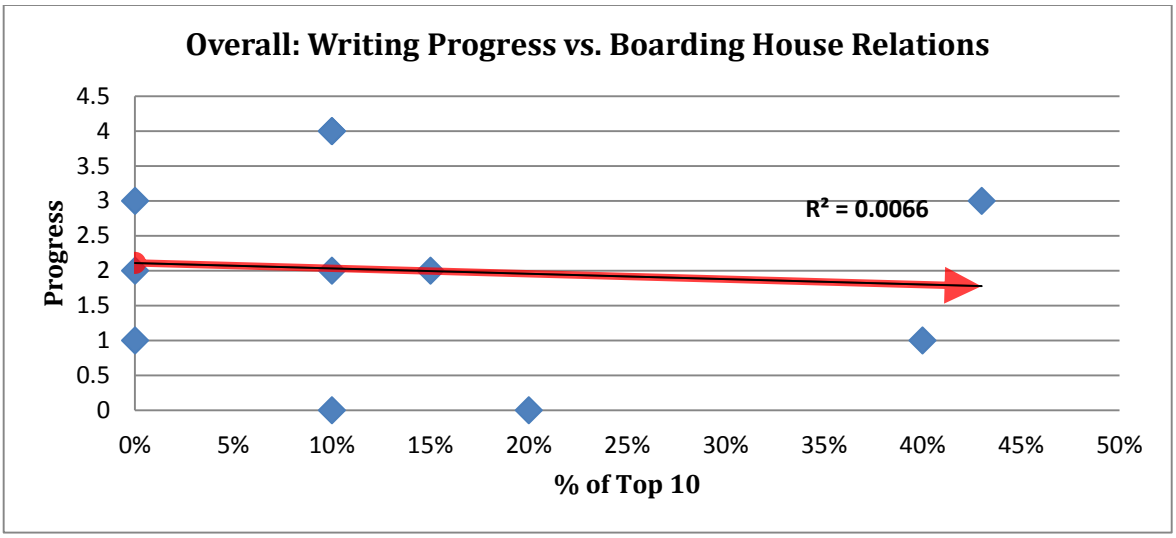
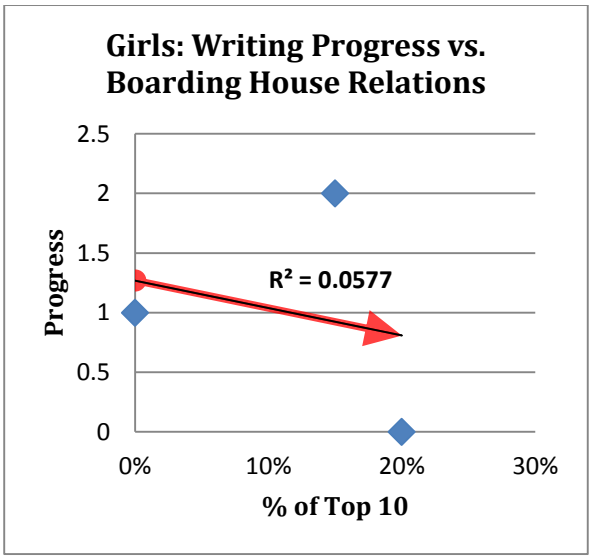
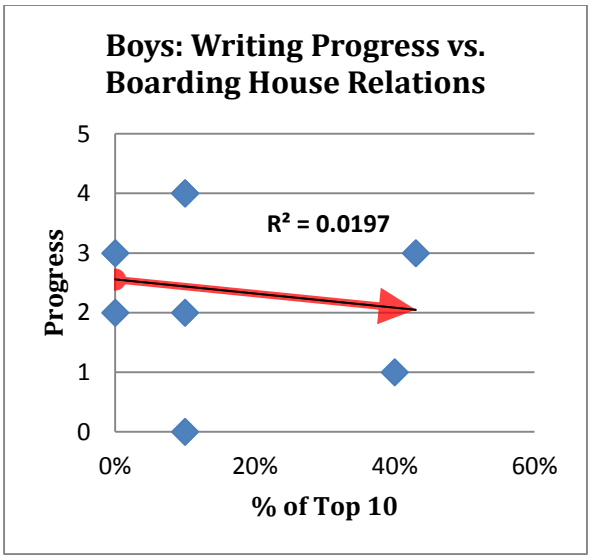
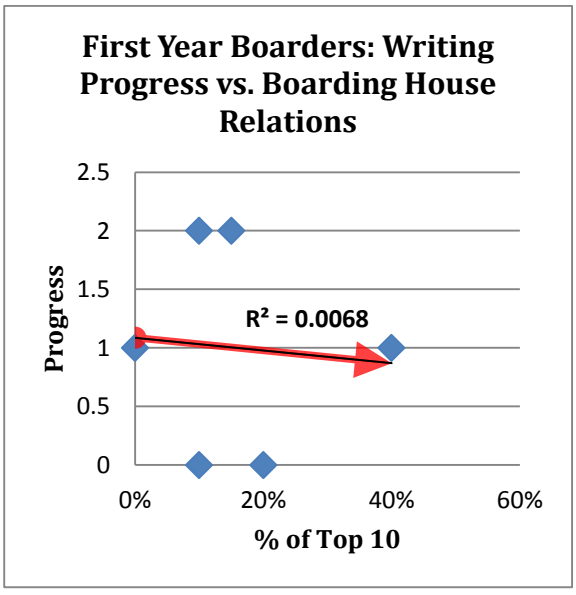
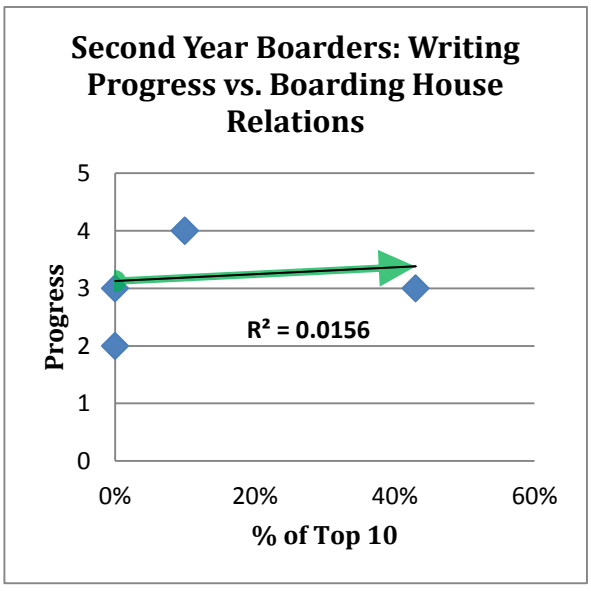


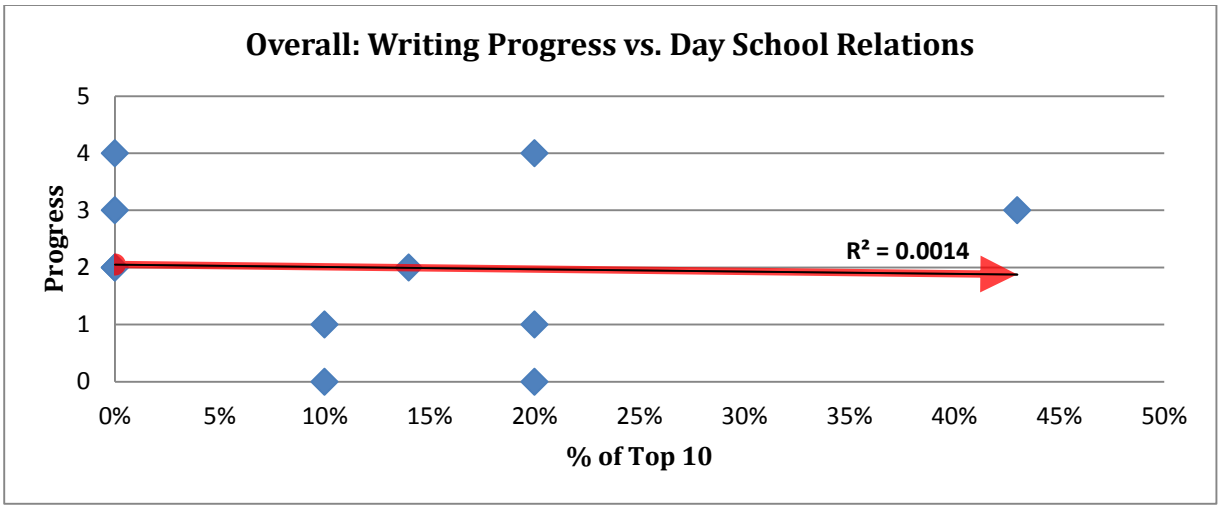


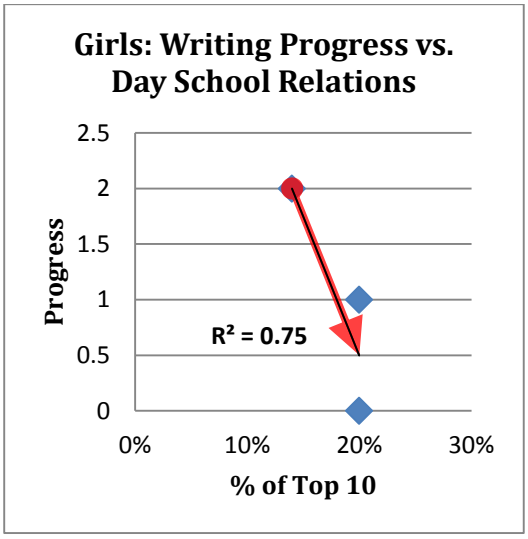


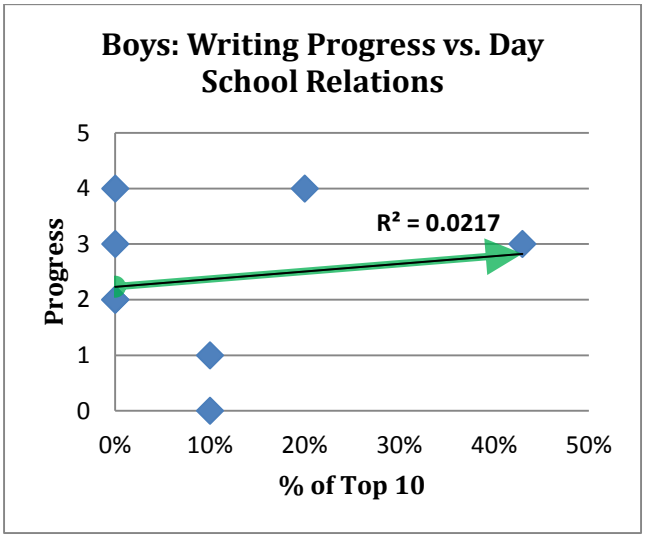


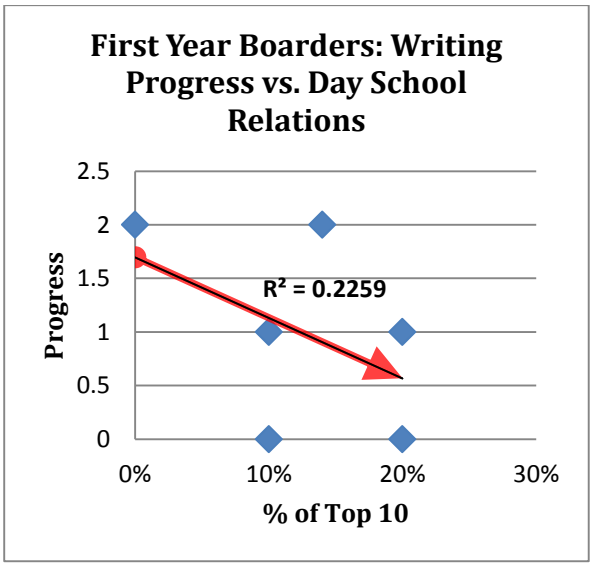


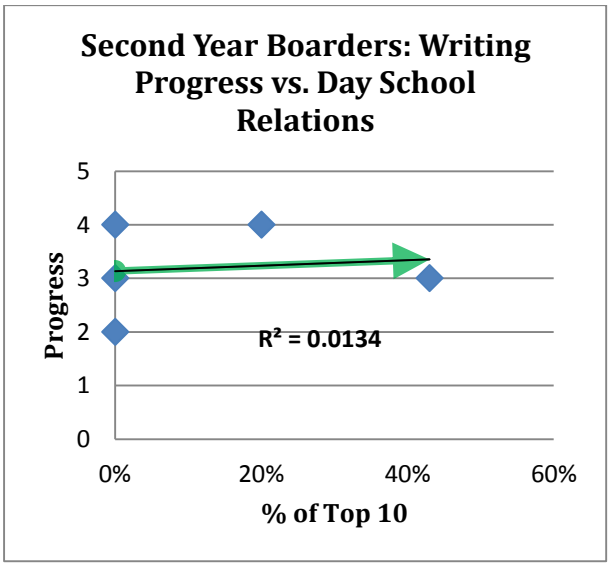
Day School Relations:











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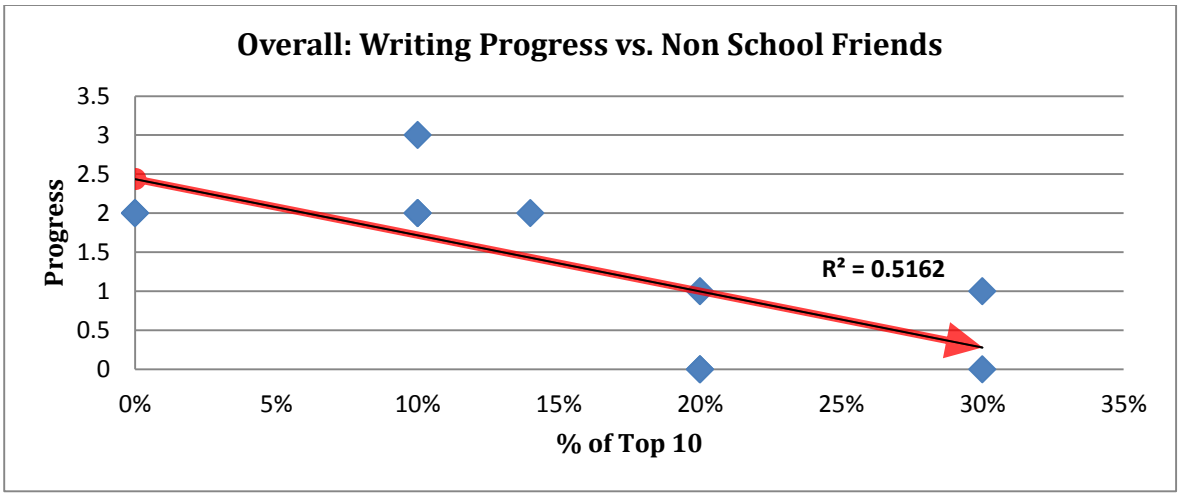

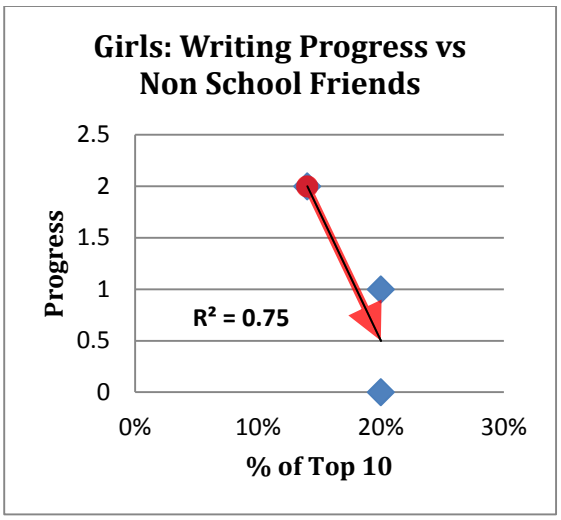

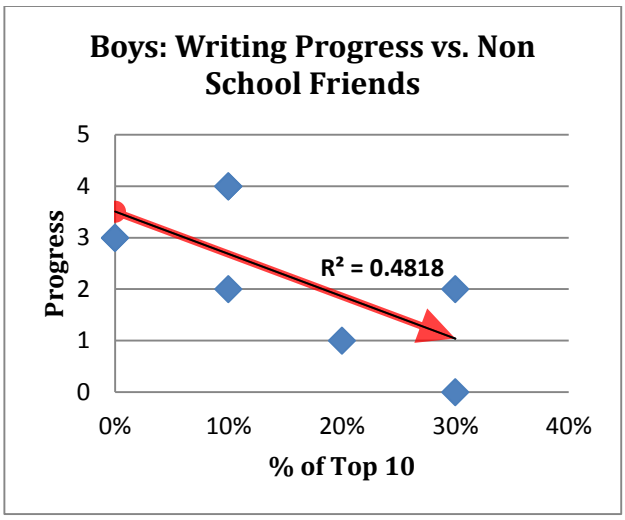

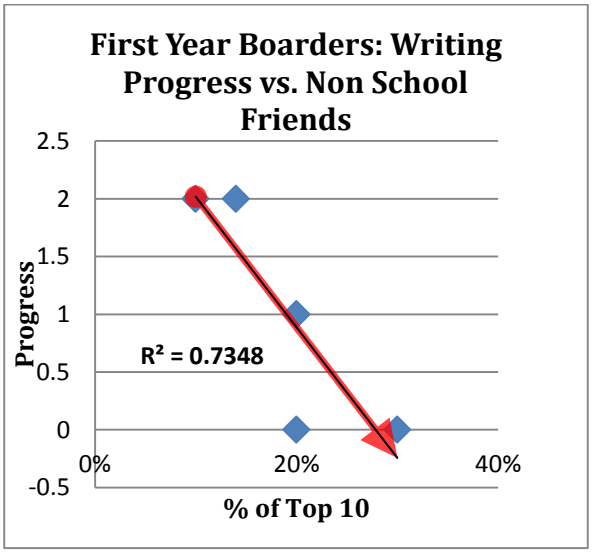

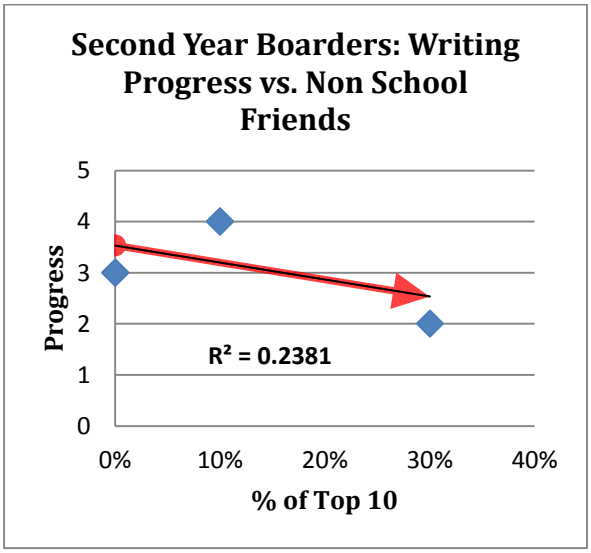

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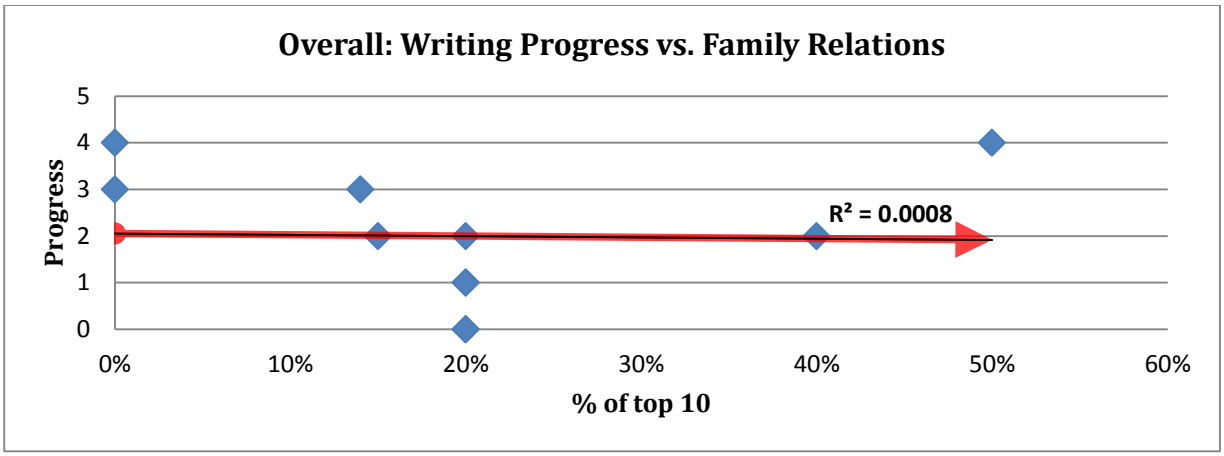

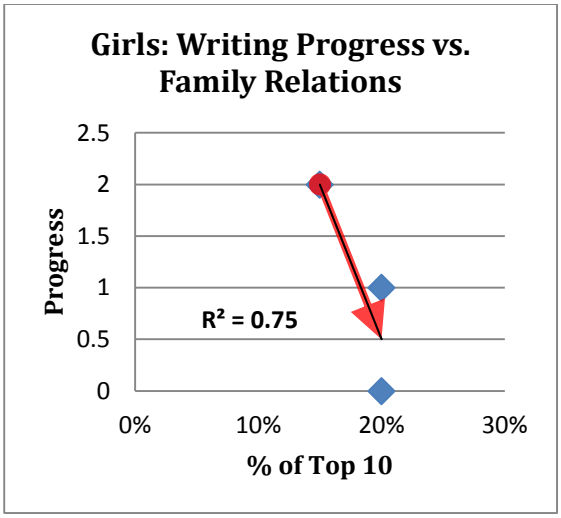

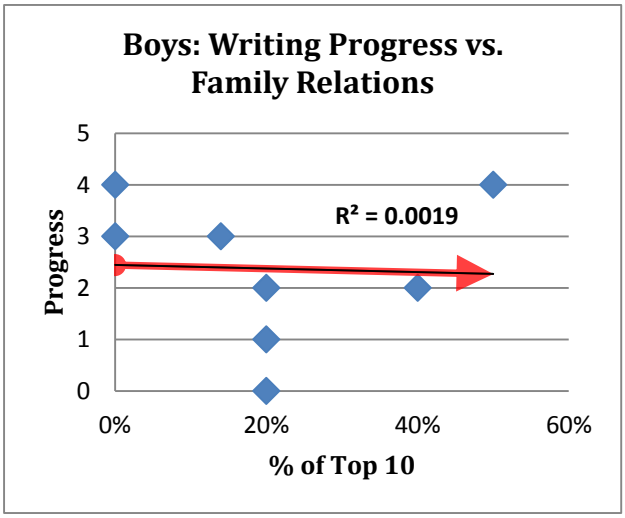

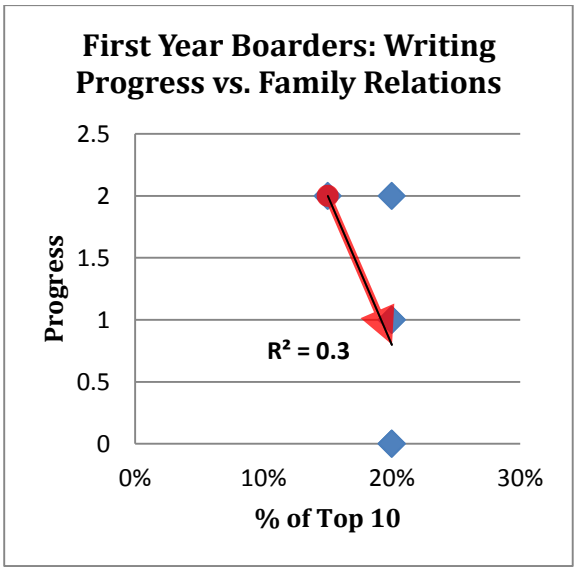

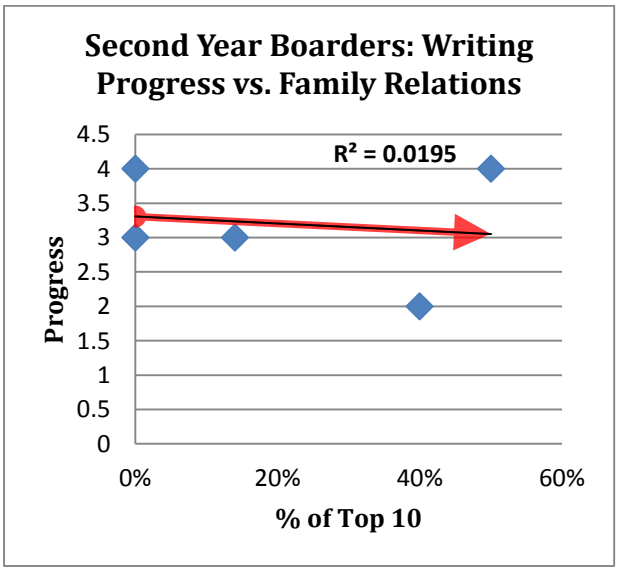

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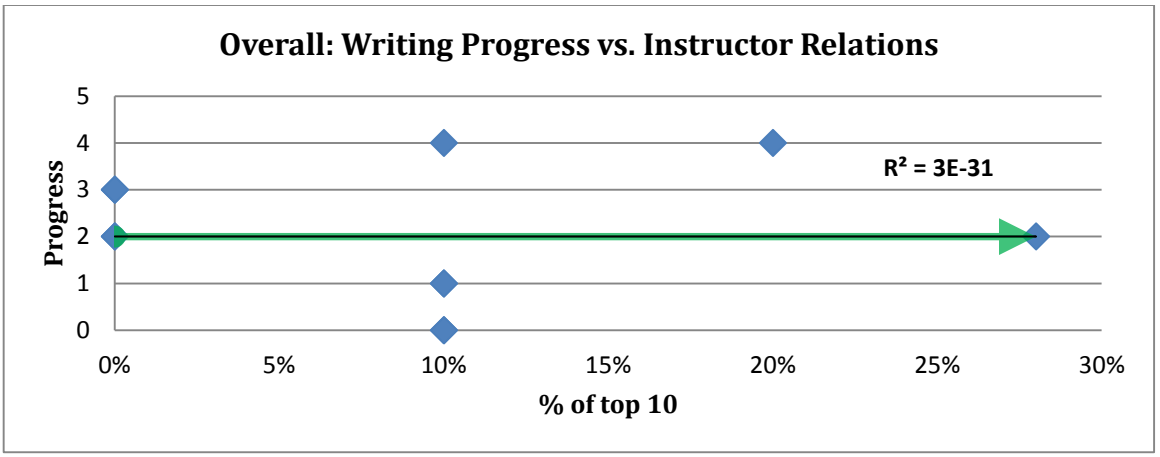

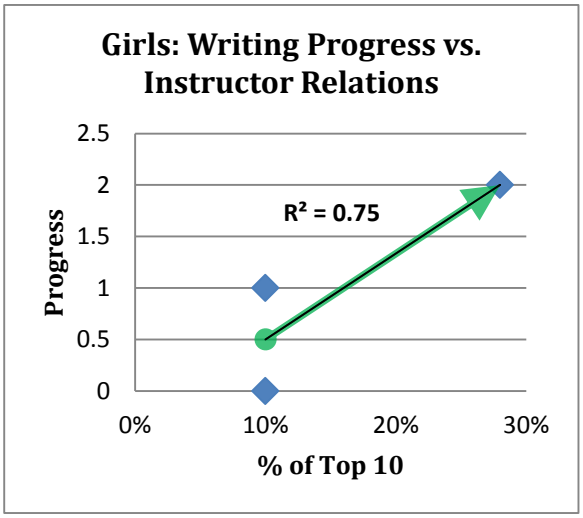

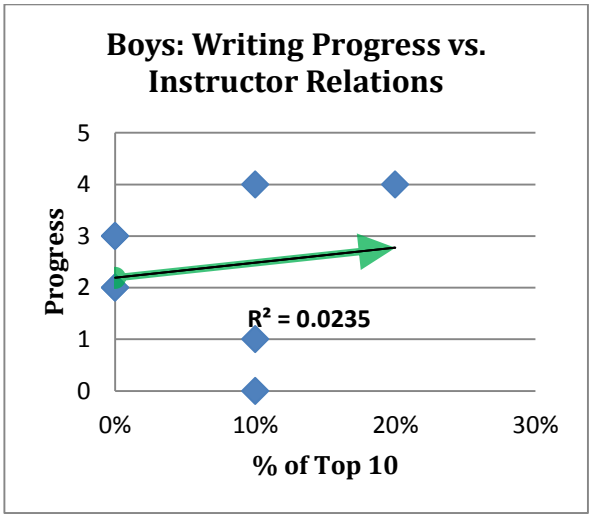

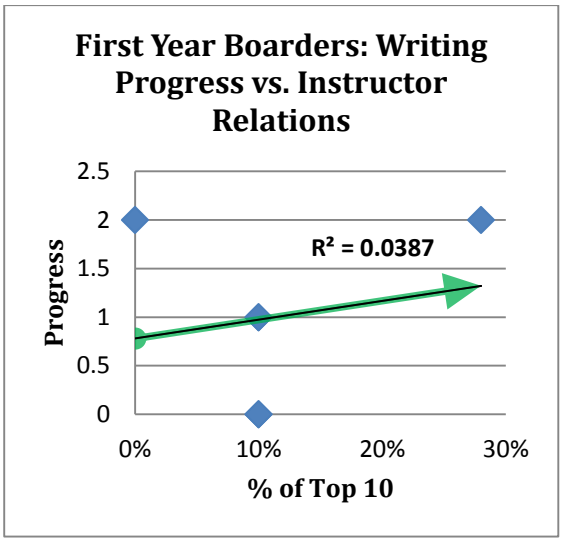

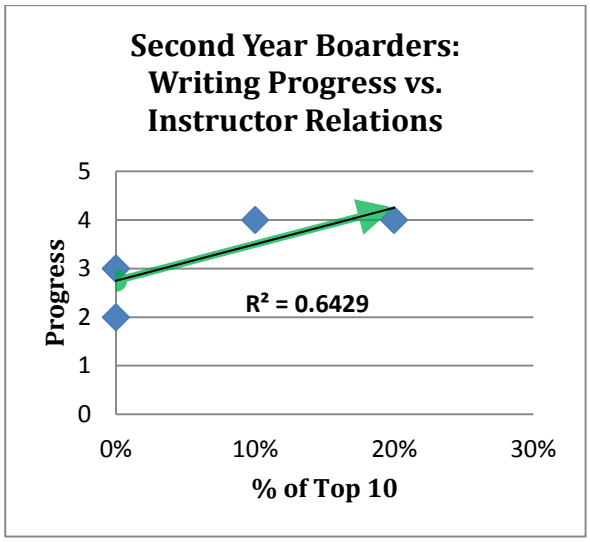

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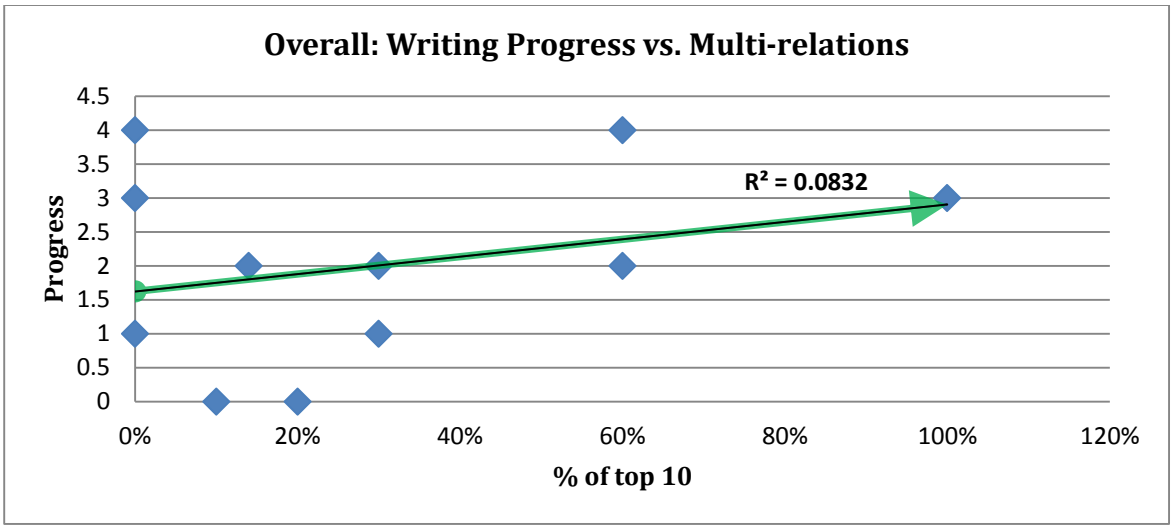
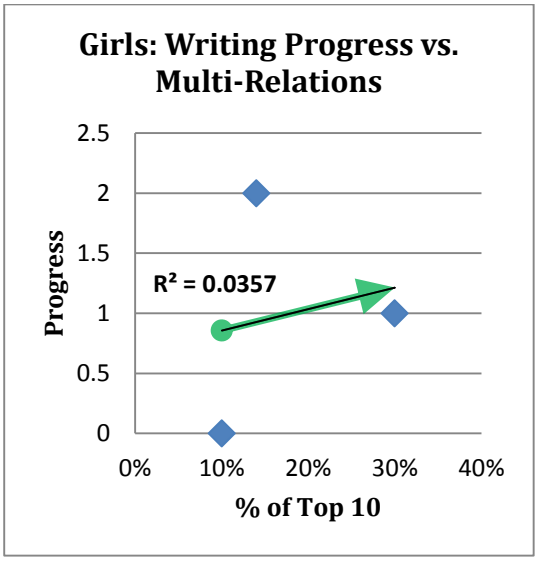
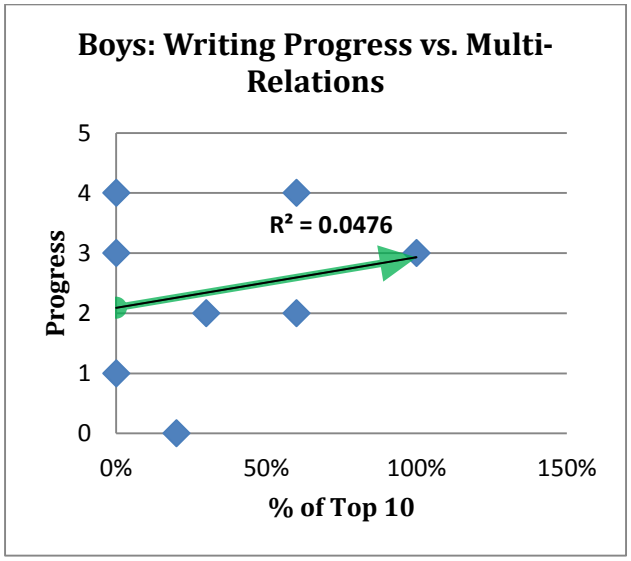
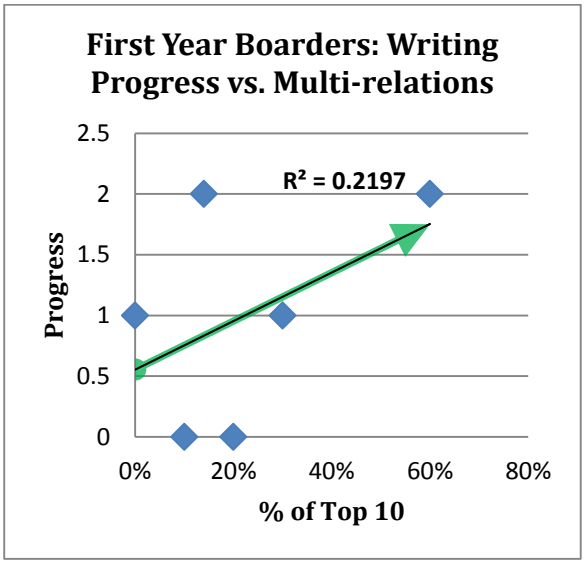
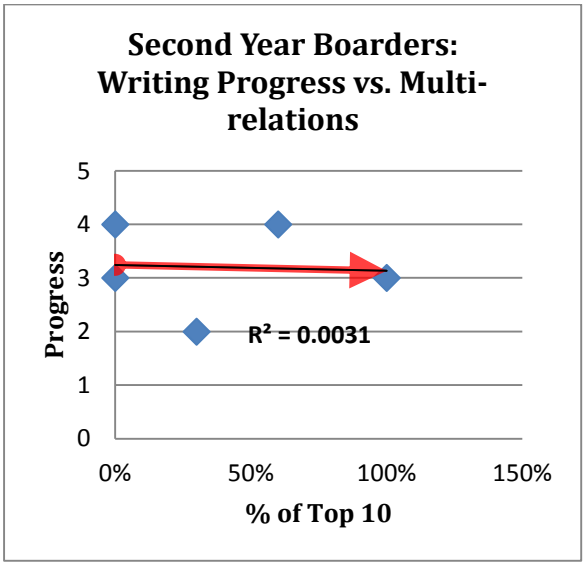




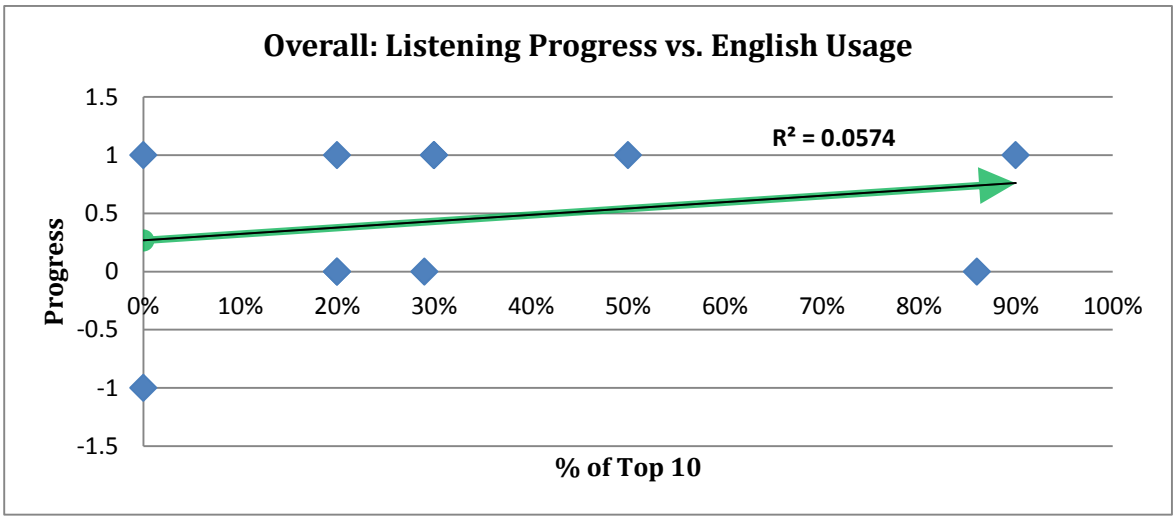


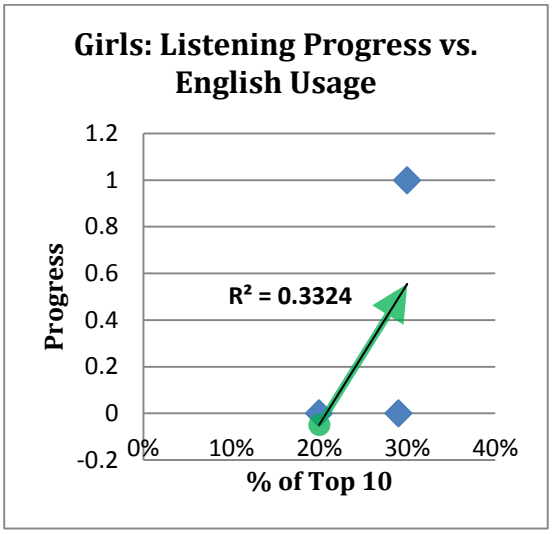


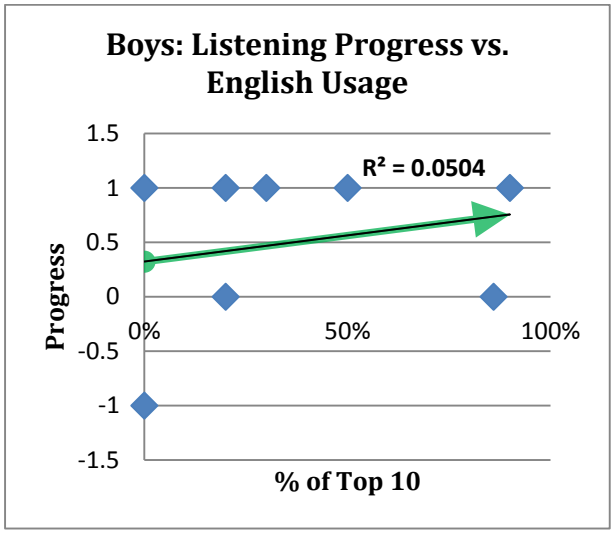


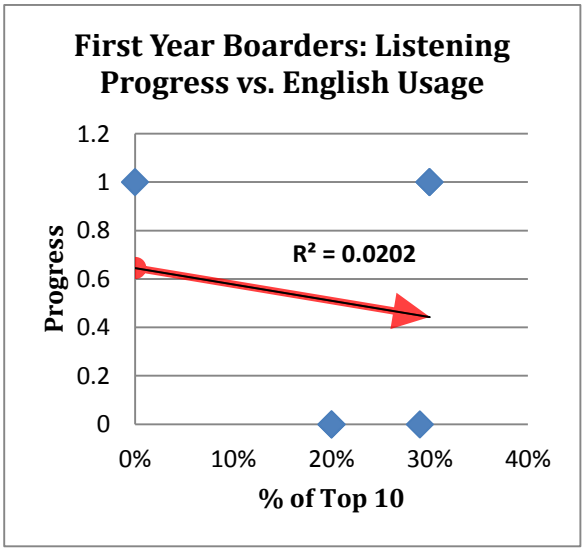
Appendix J: Listening Progress Vs. Social Variables

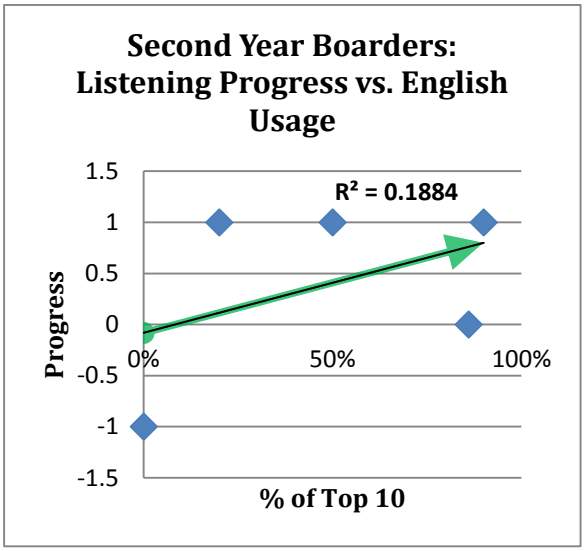
English Usage:



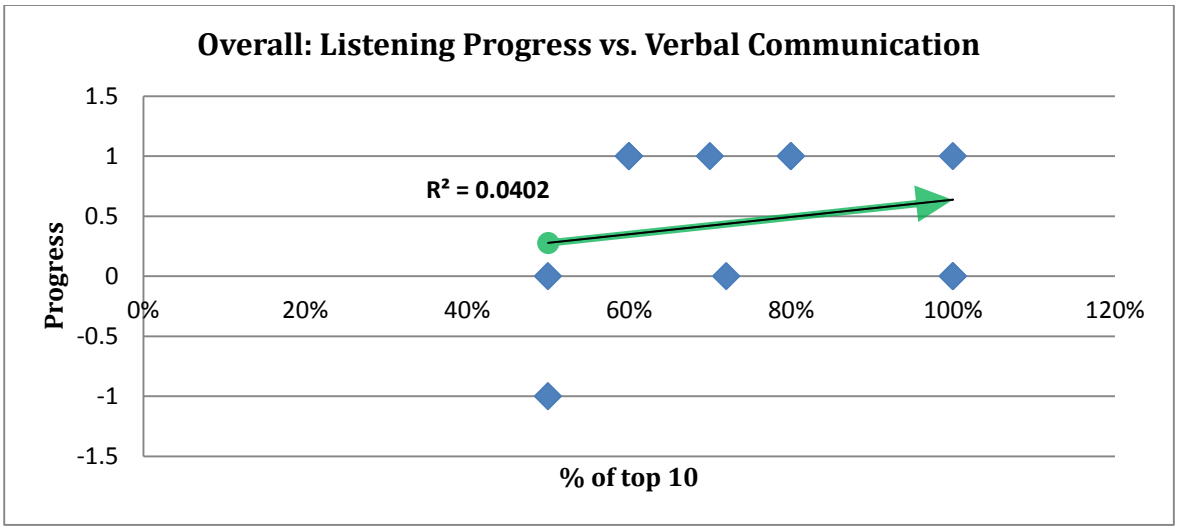


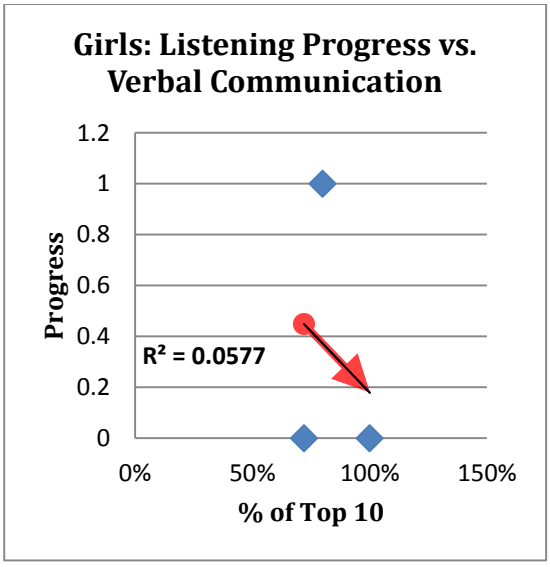


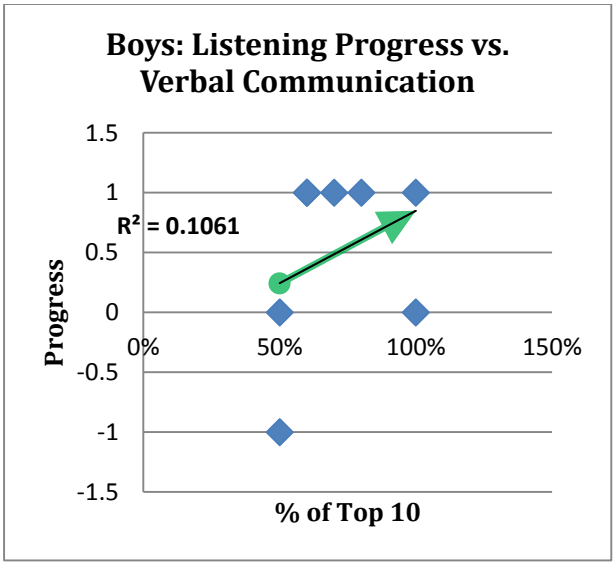


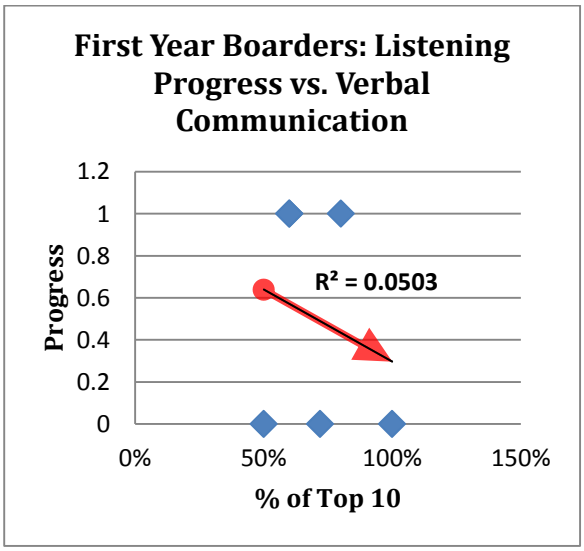


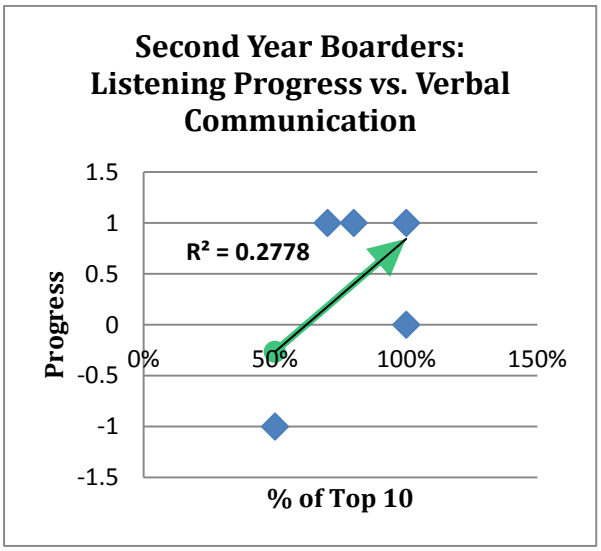
Verbal Communication:











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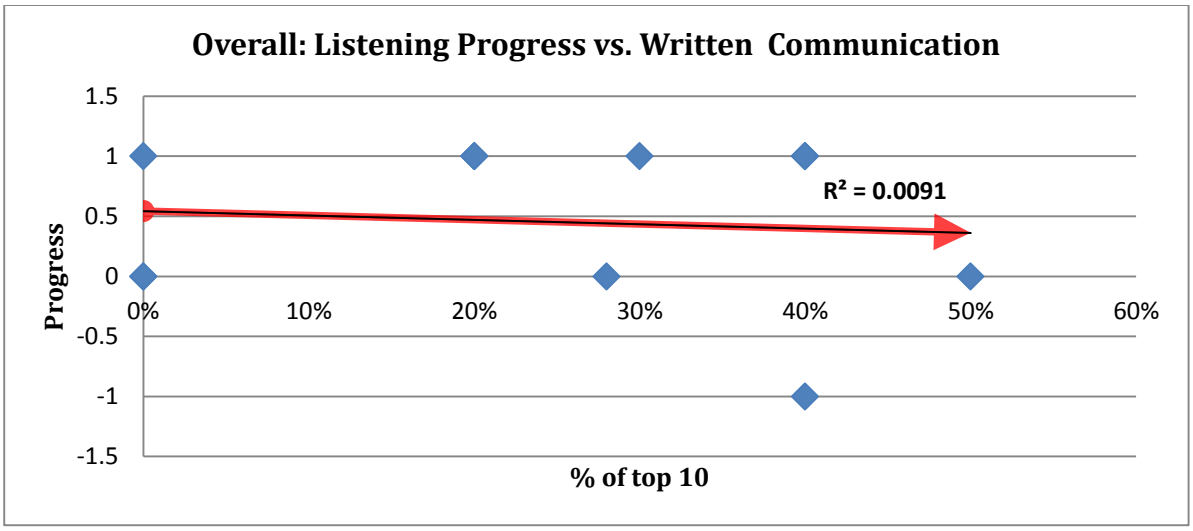

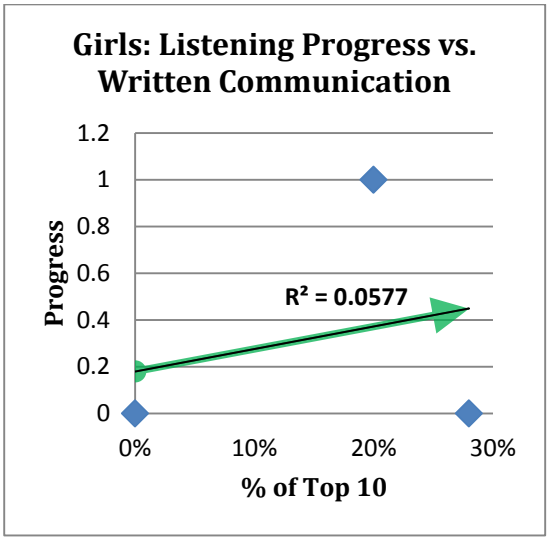

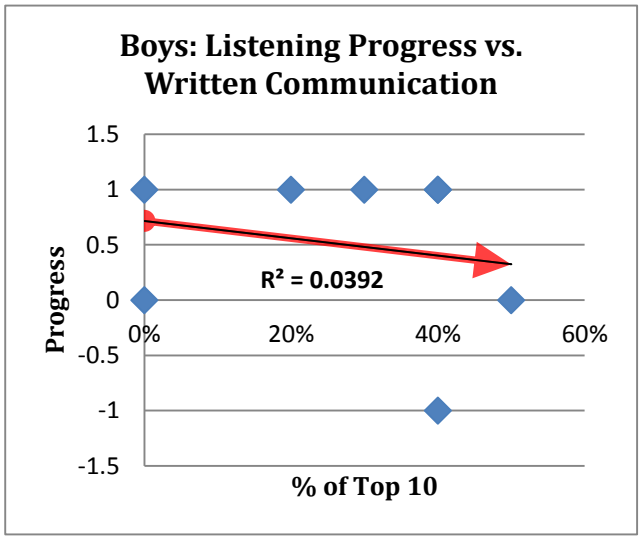

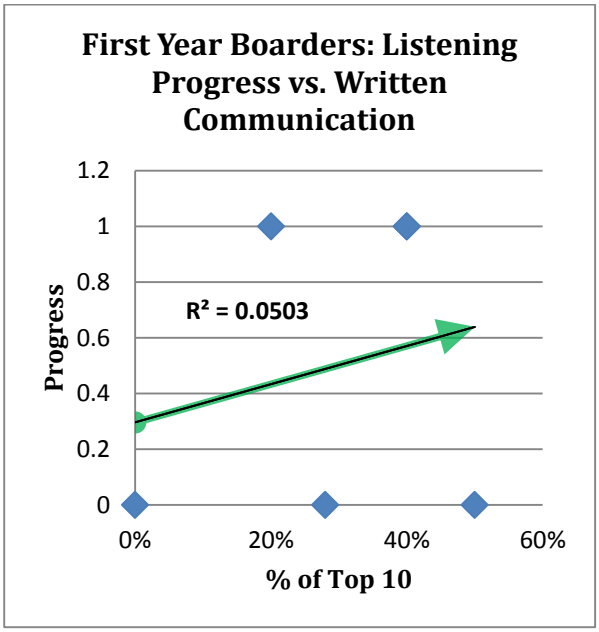

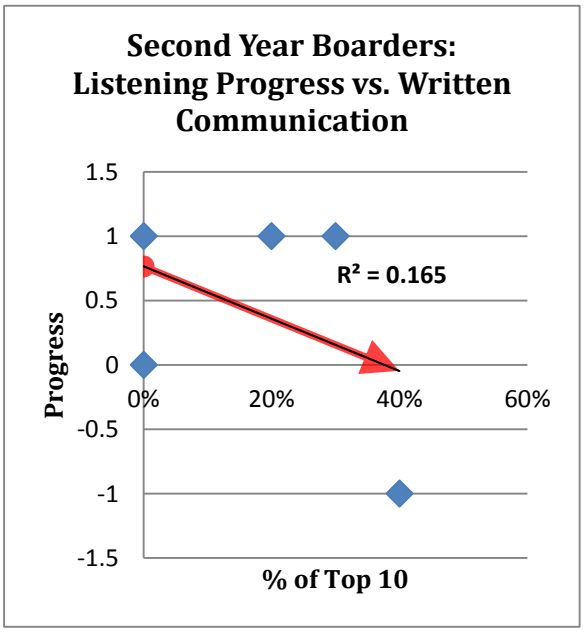

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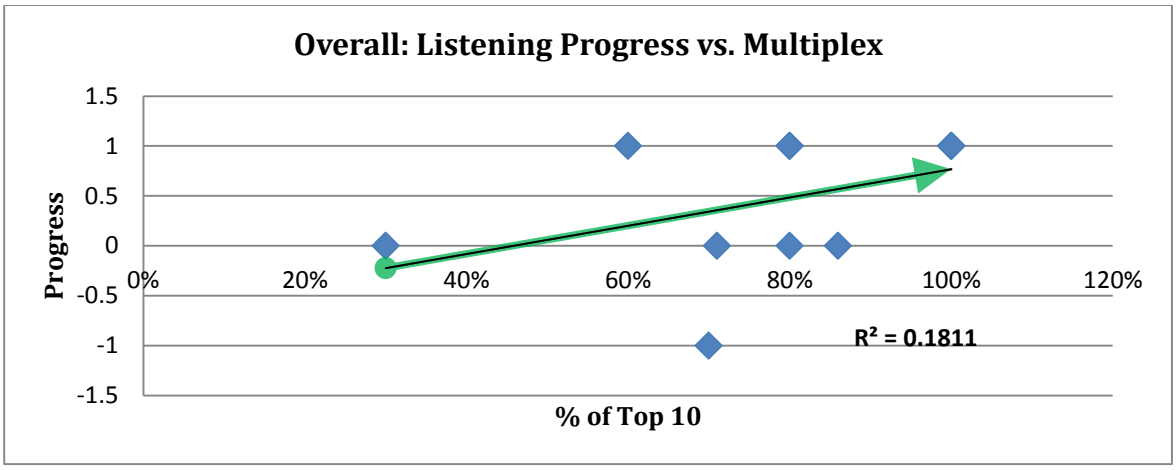

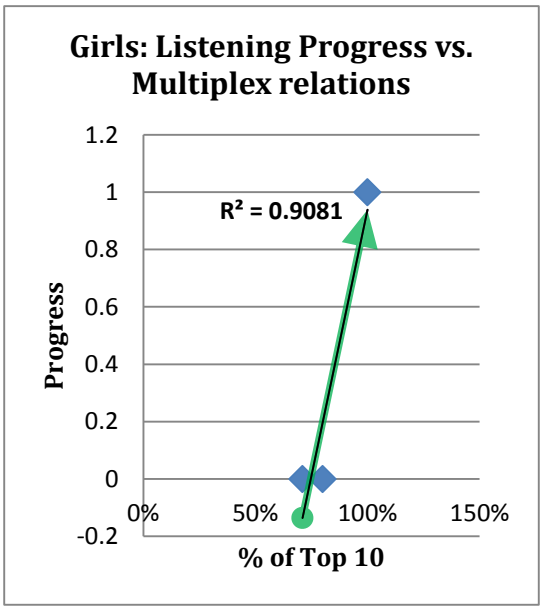

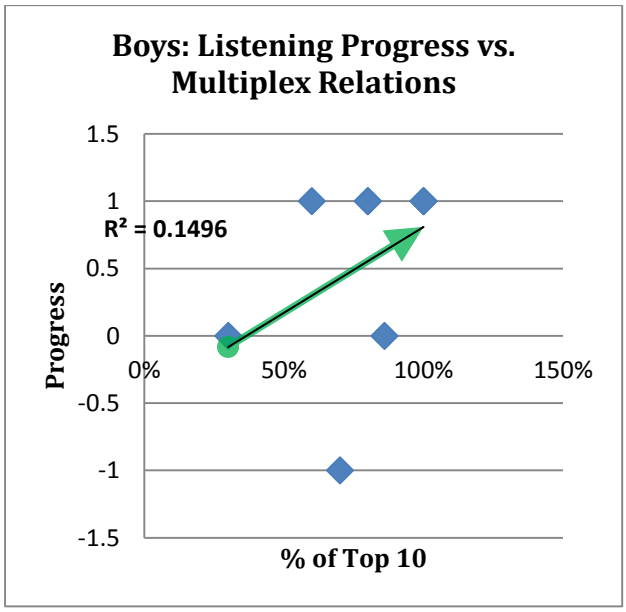

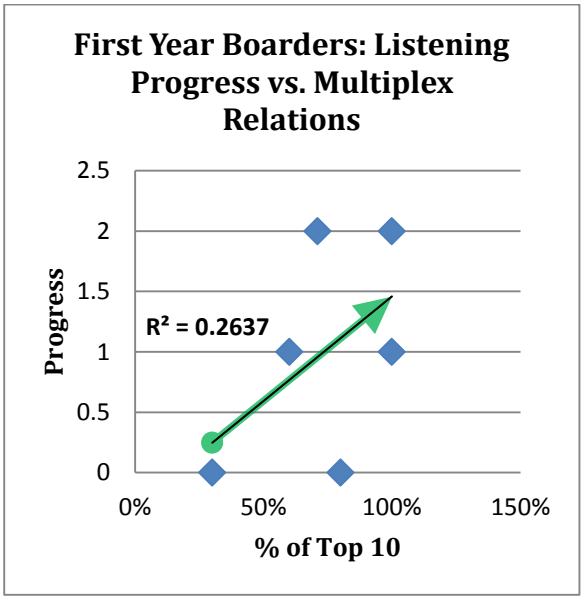

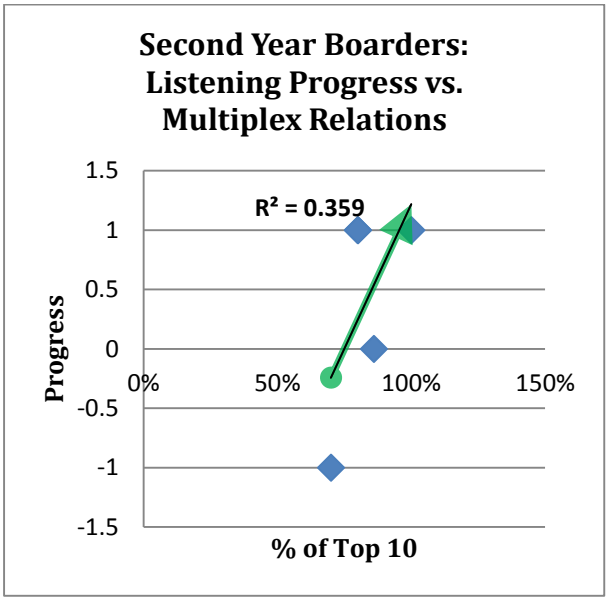

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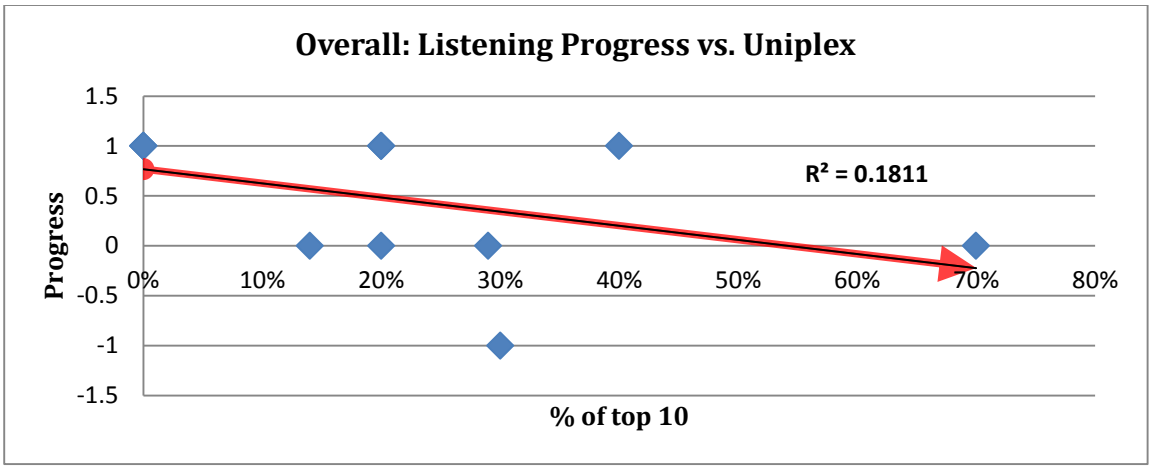

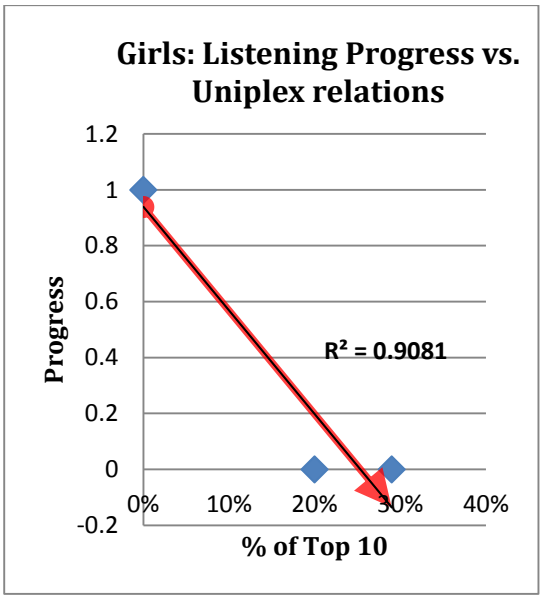

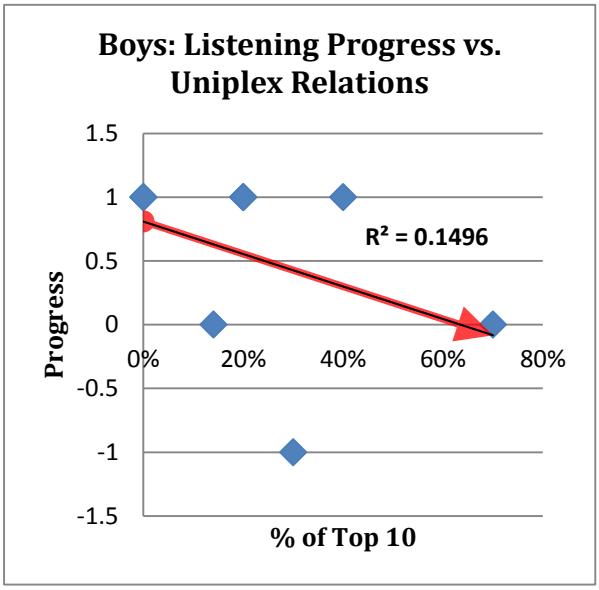

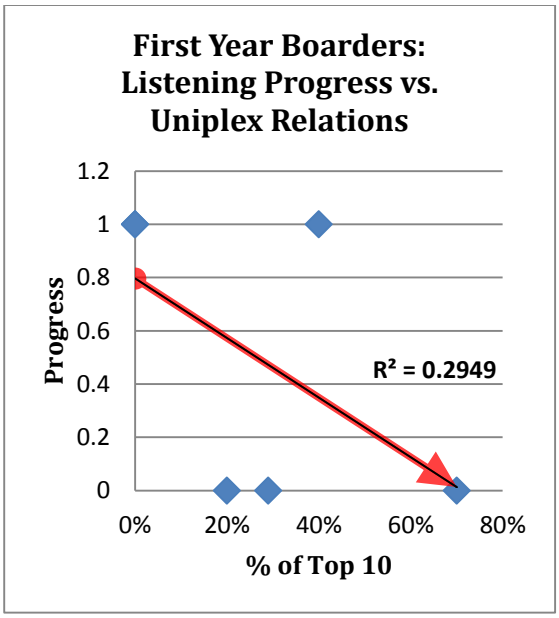

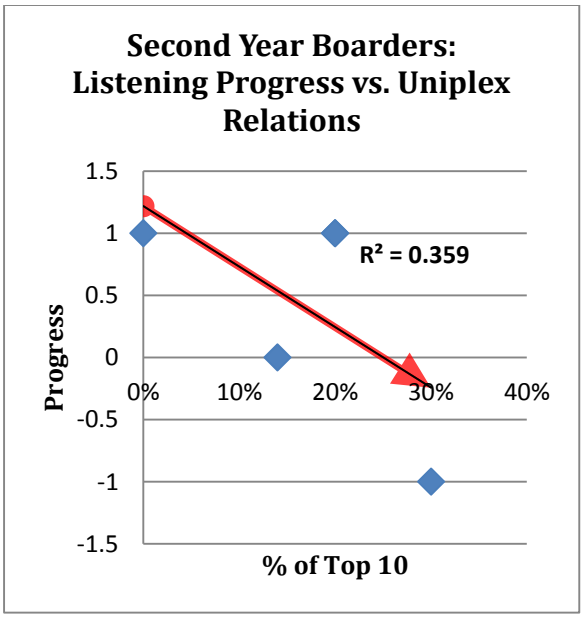

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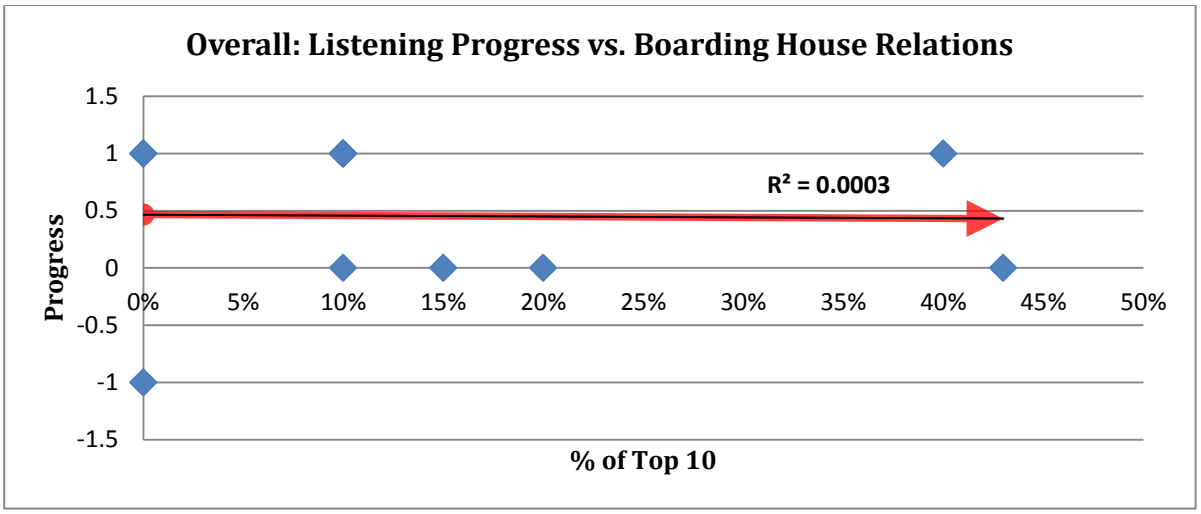
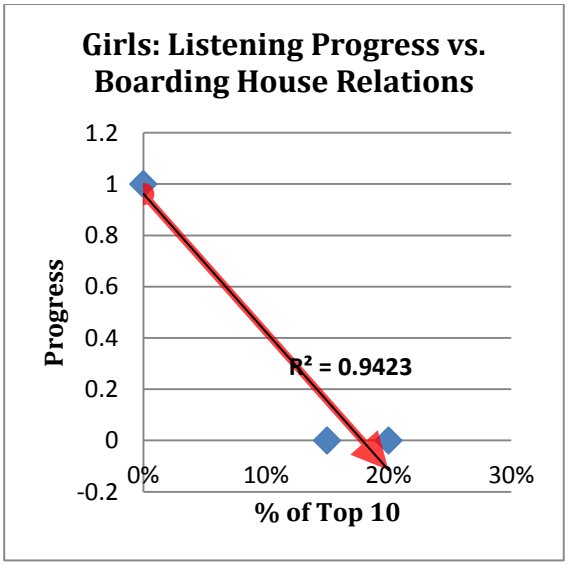
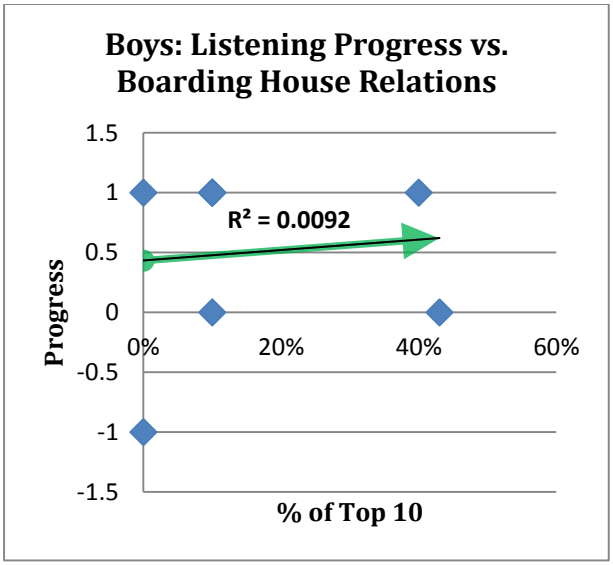
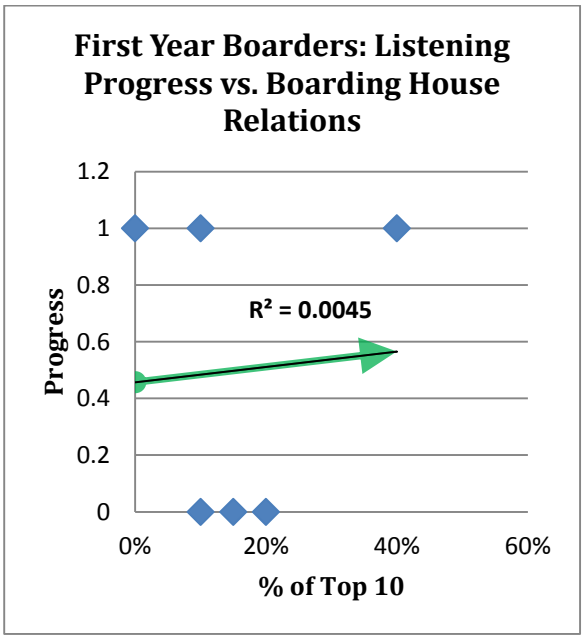
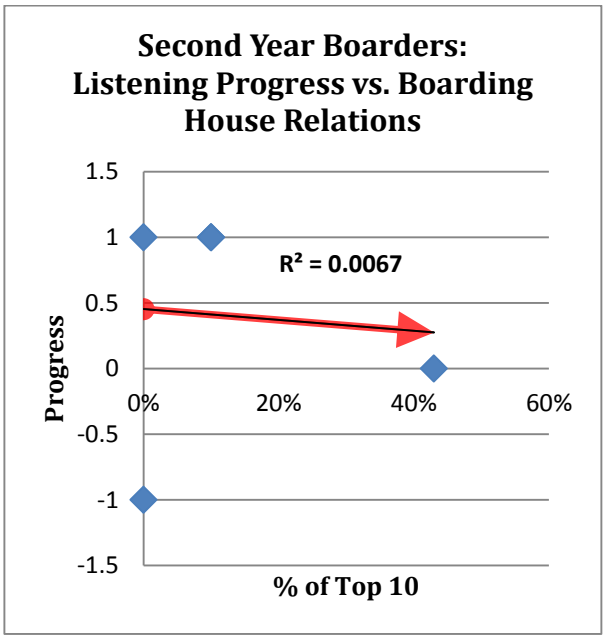


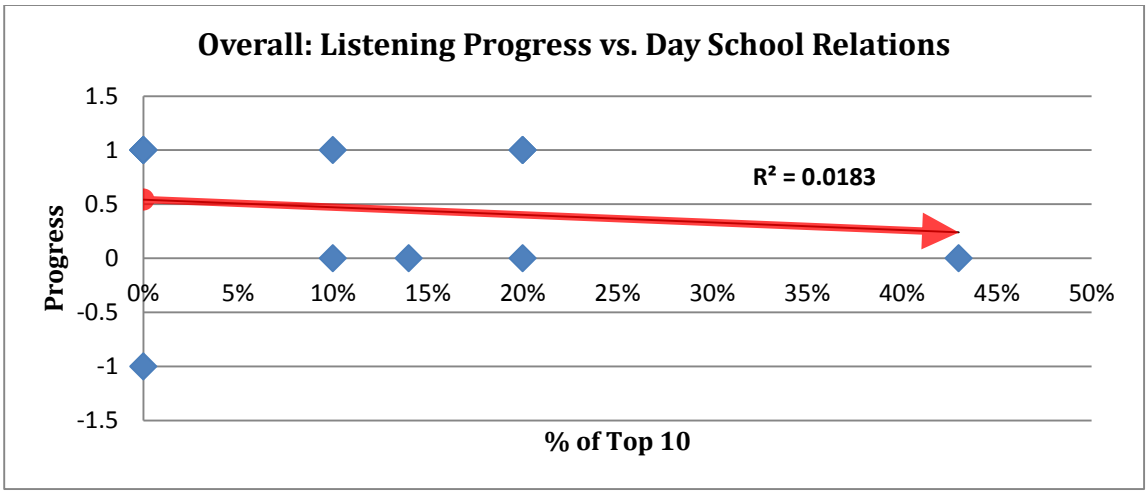


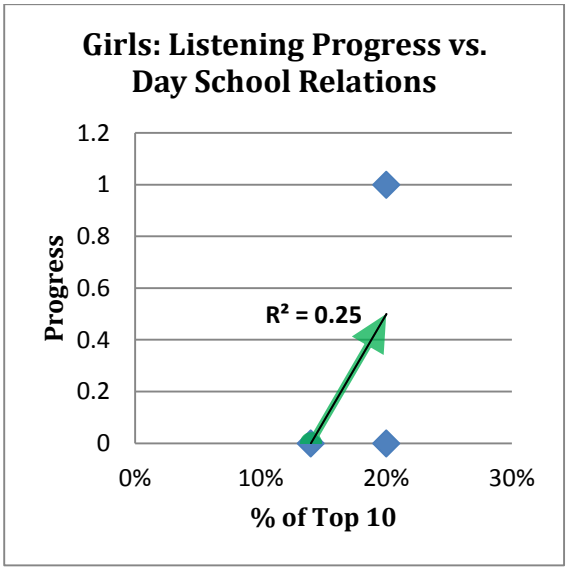


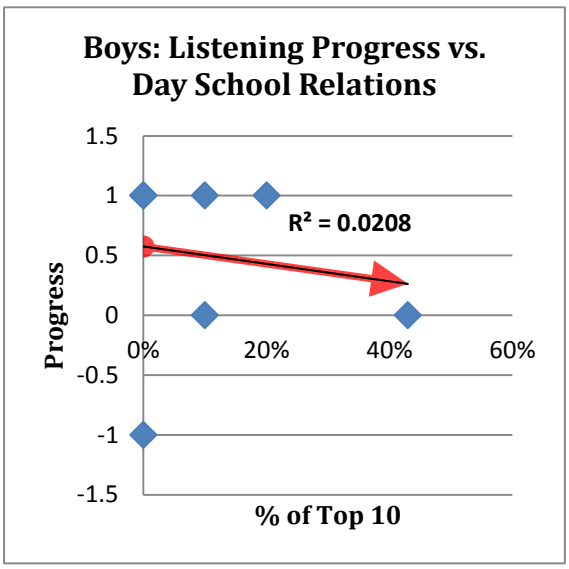


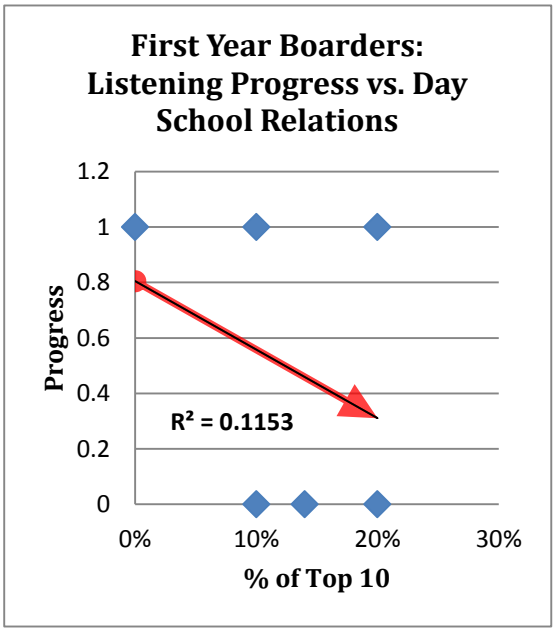


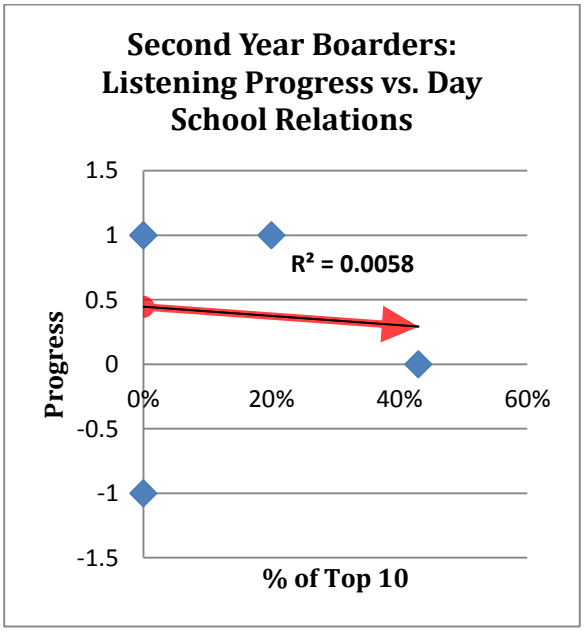
Day School Relations:











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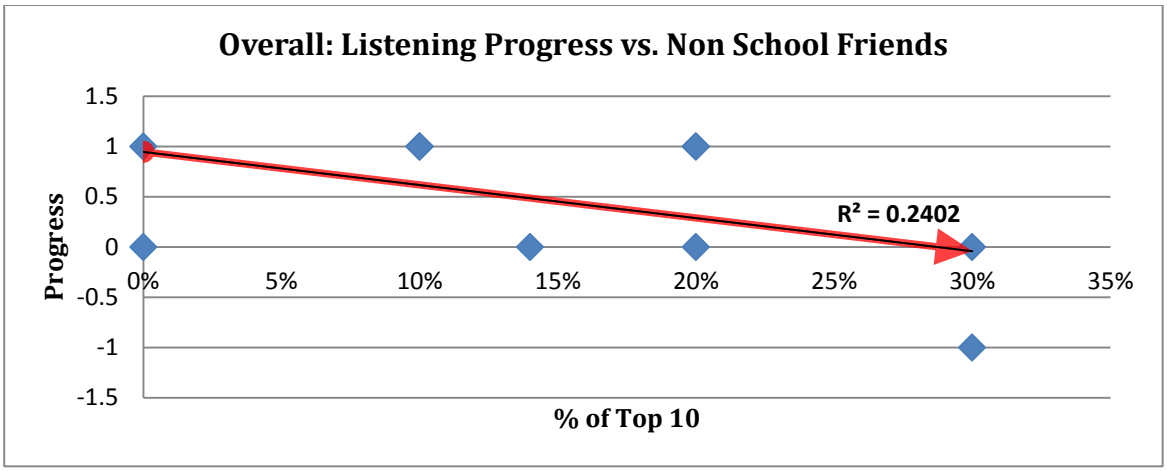

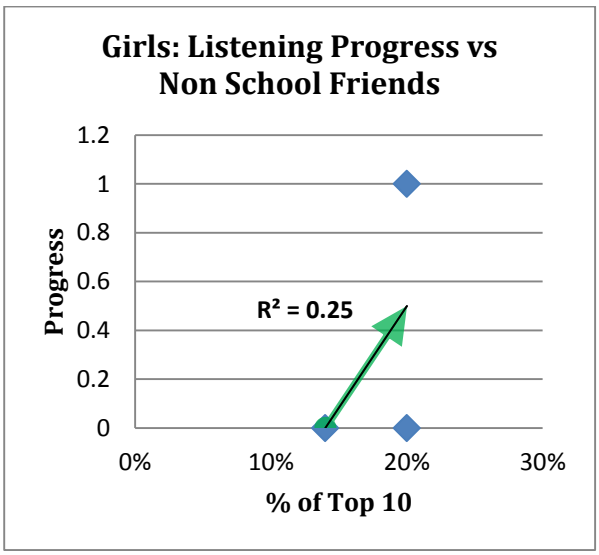

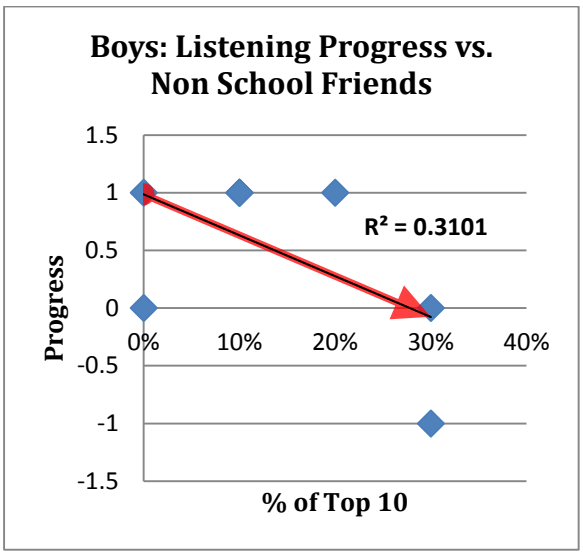

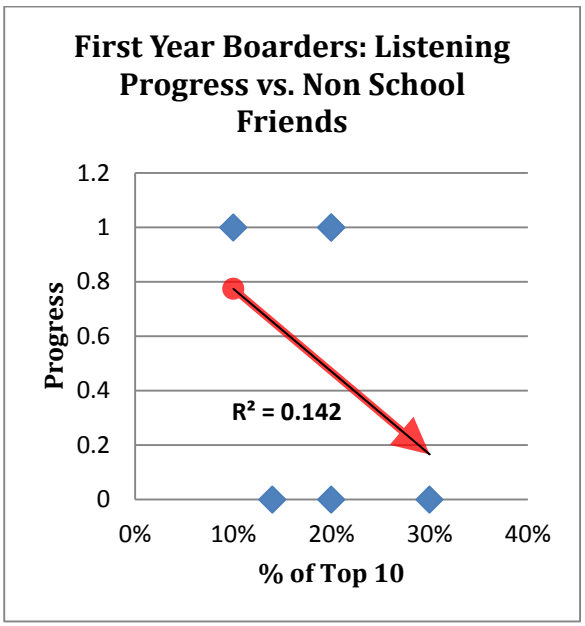

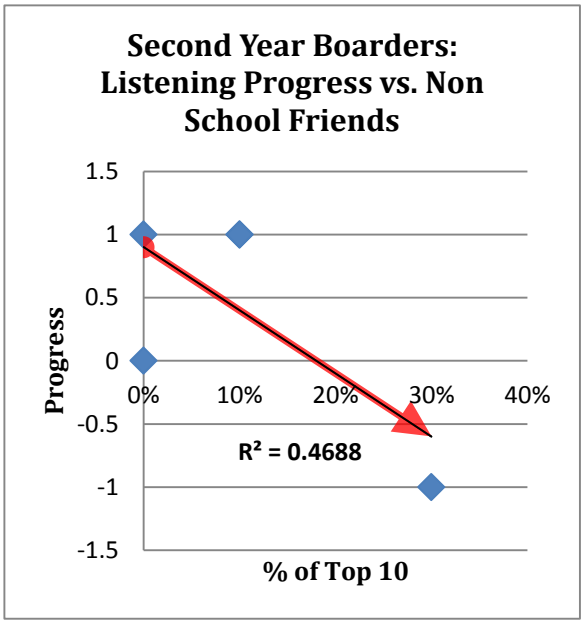

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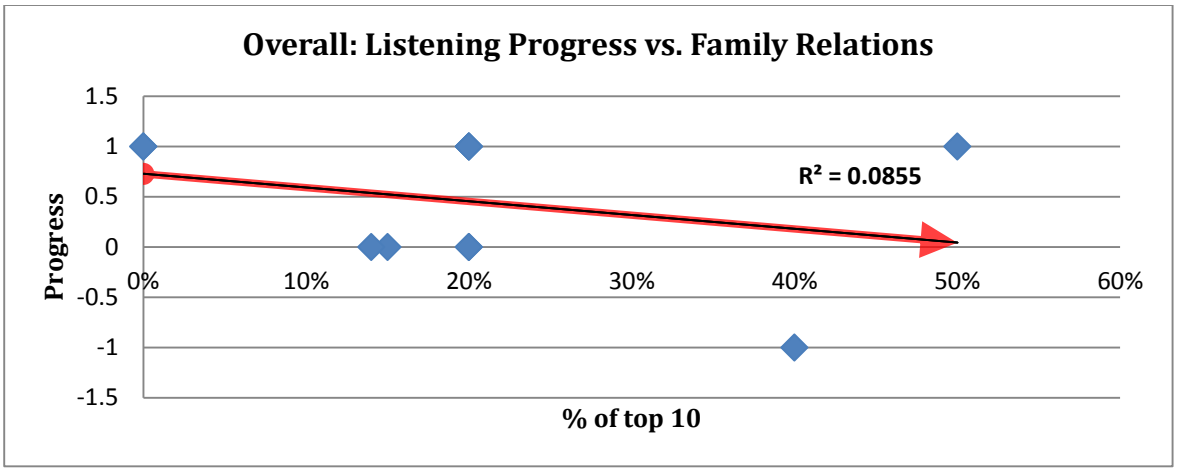

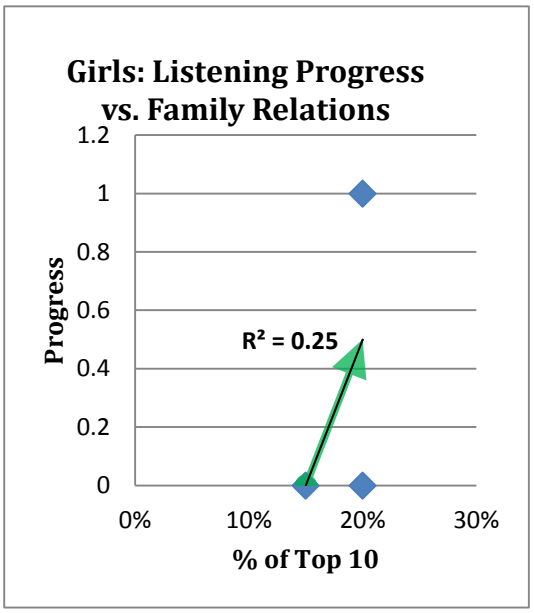

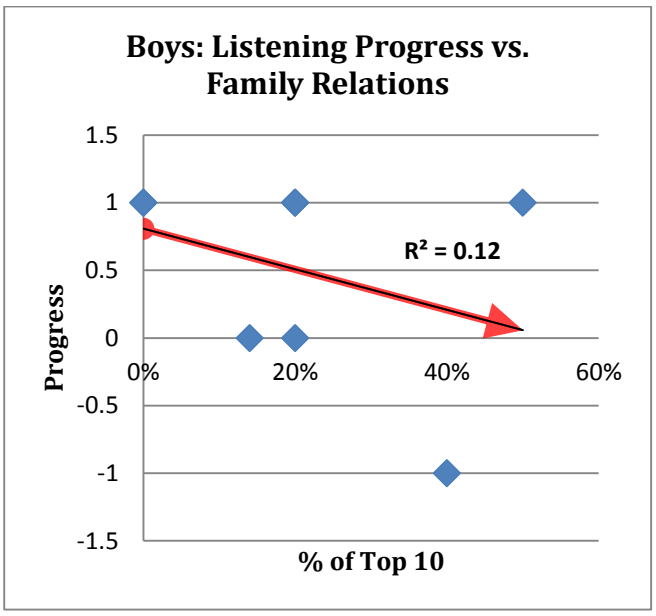

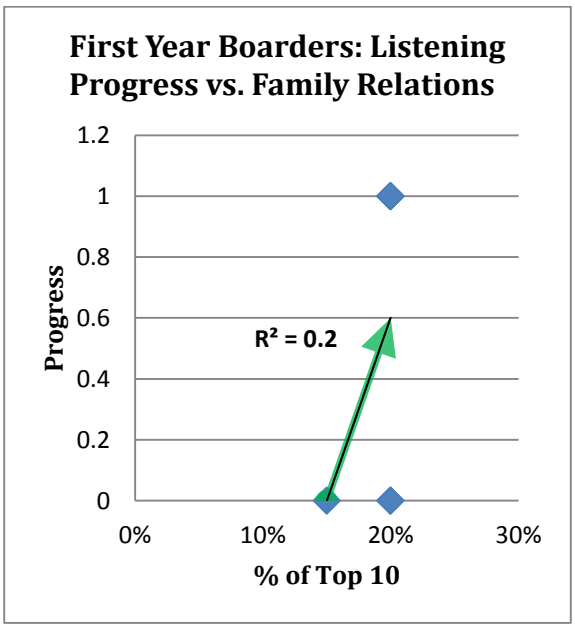

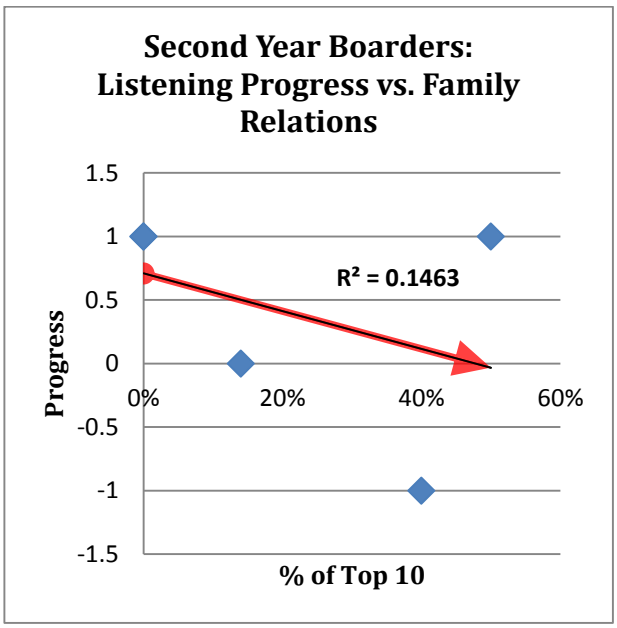

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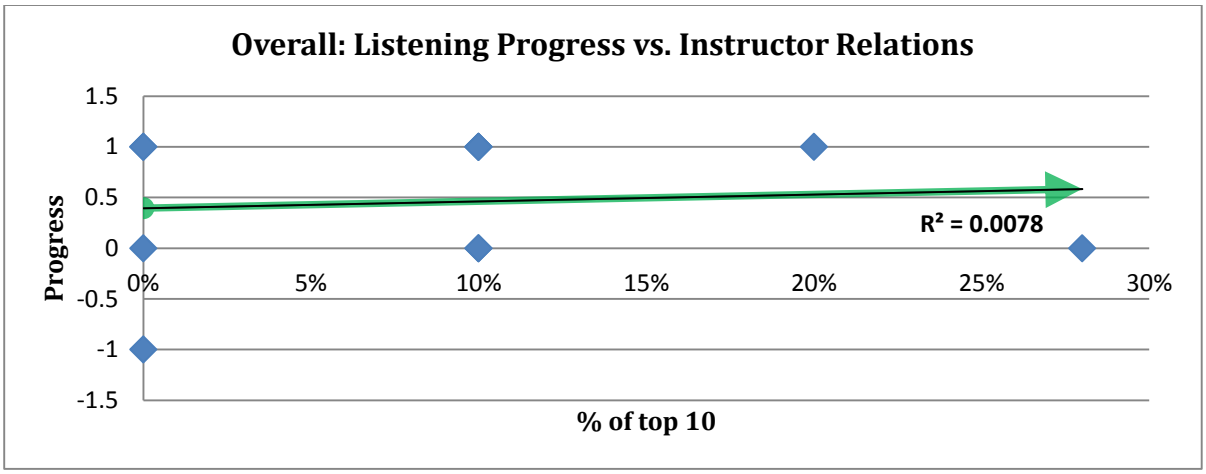

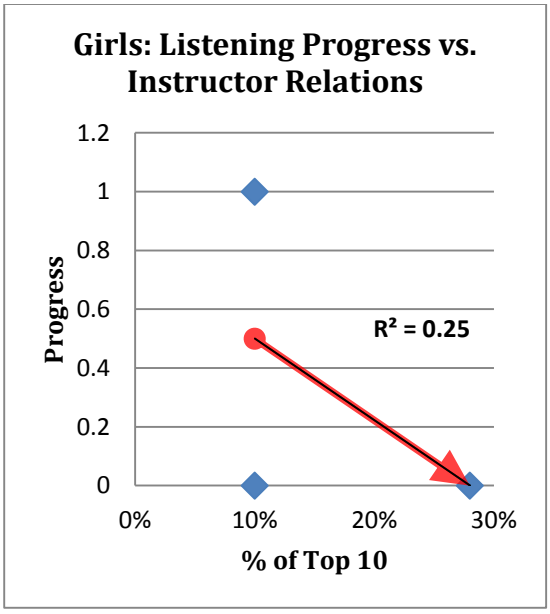

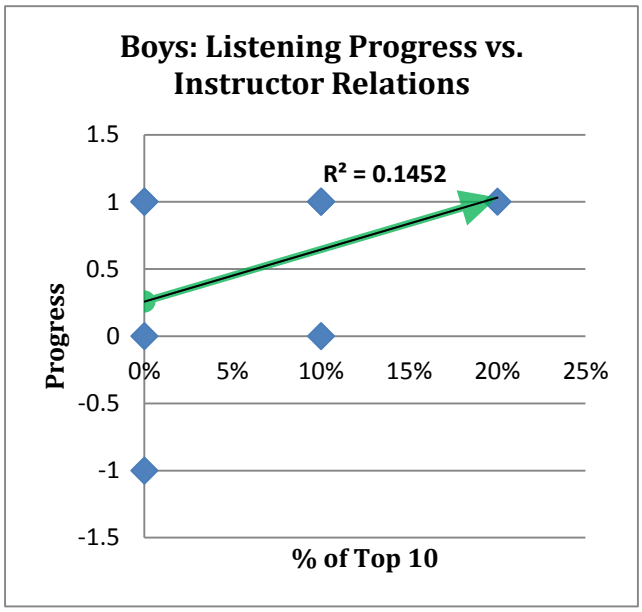

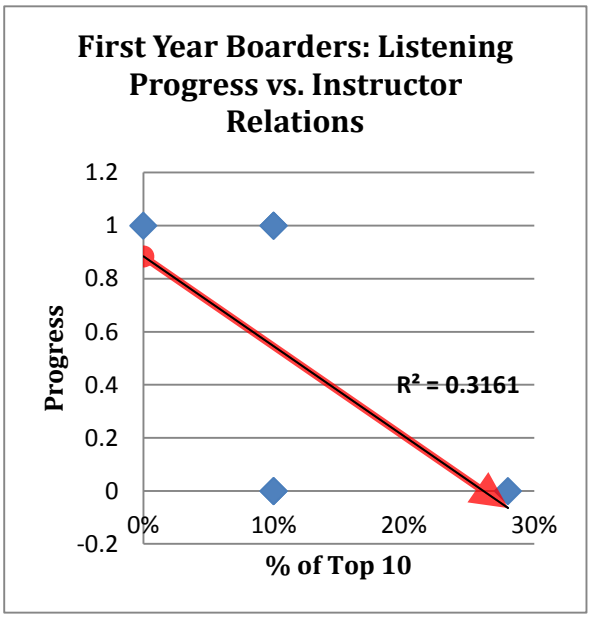

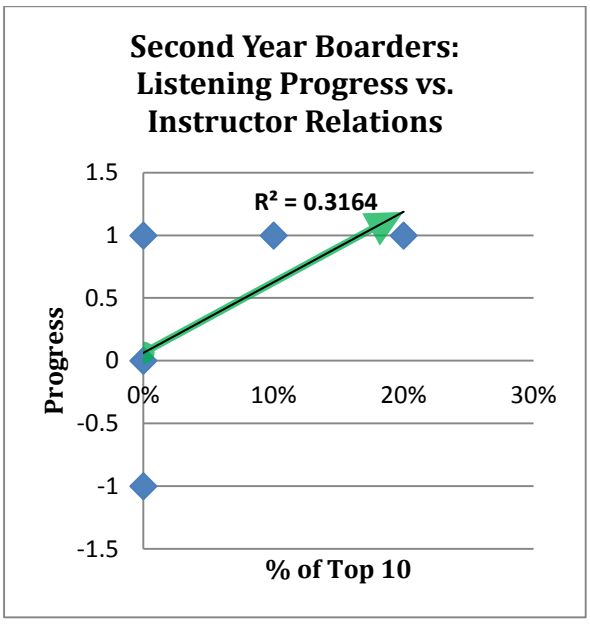

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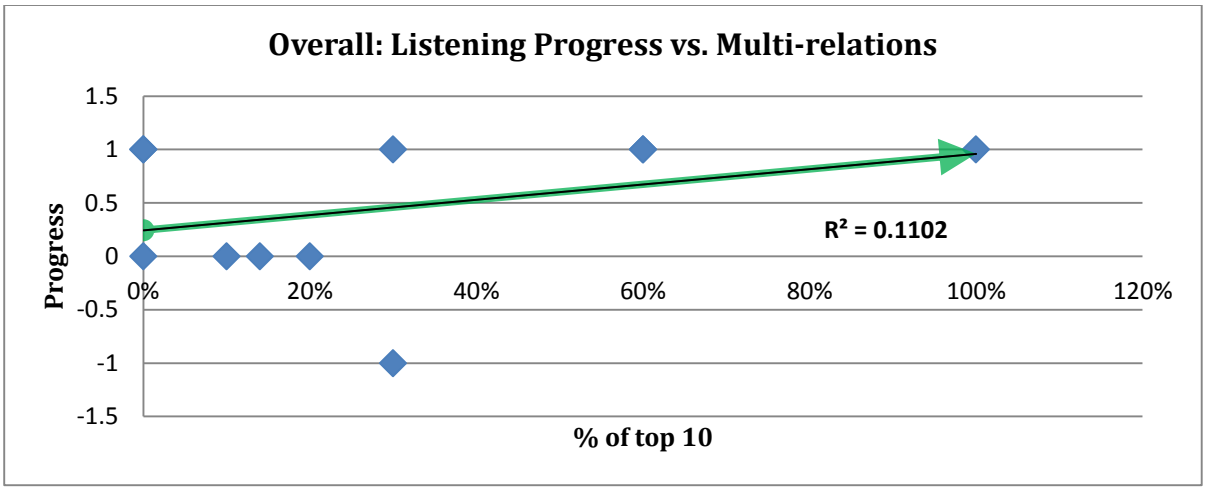
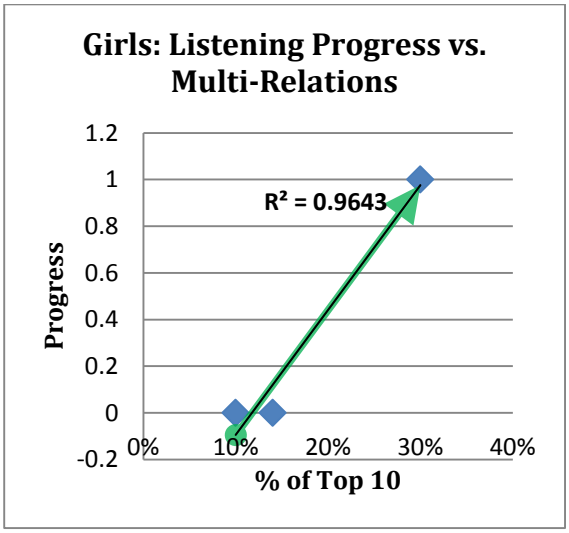
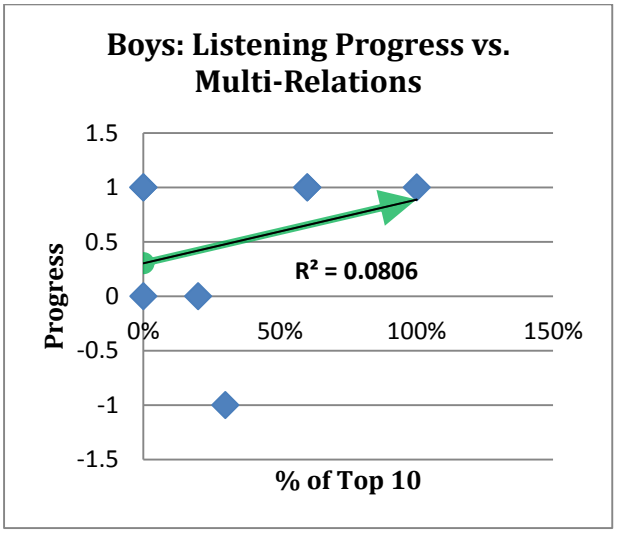
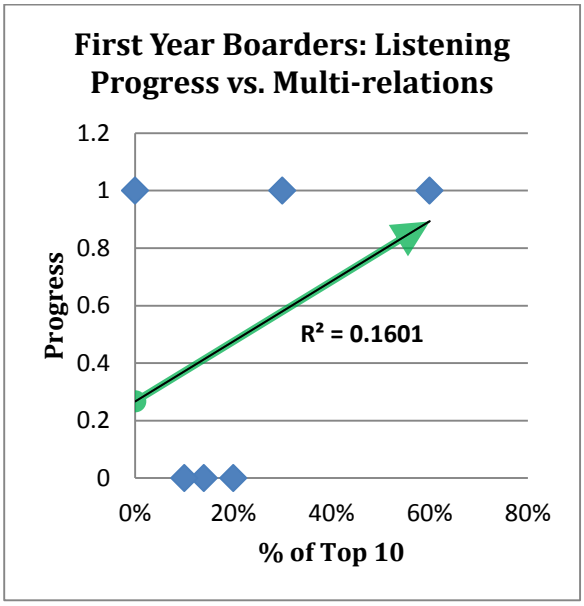
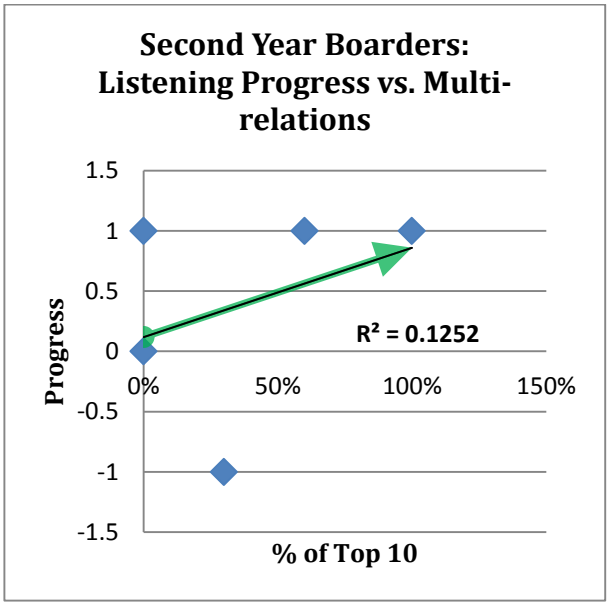




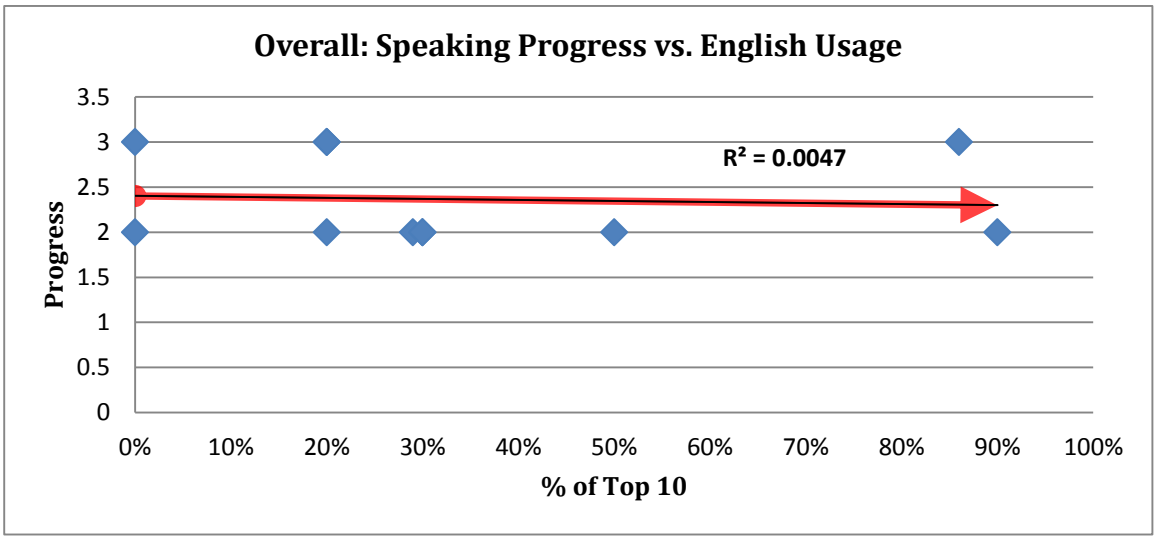


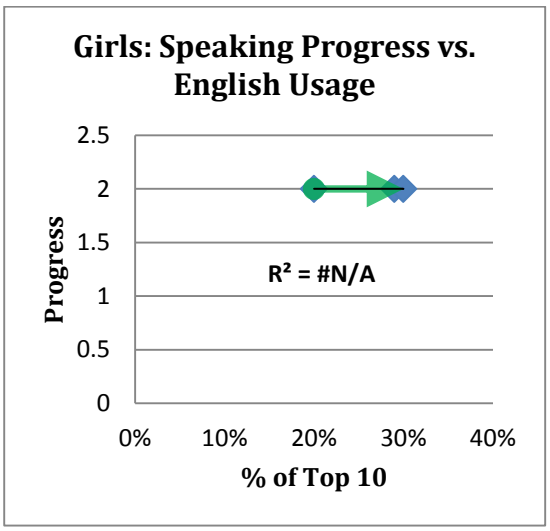


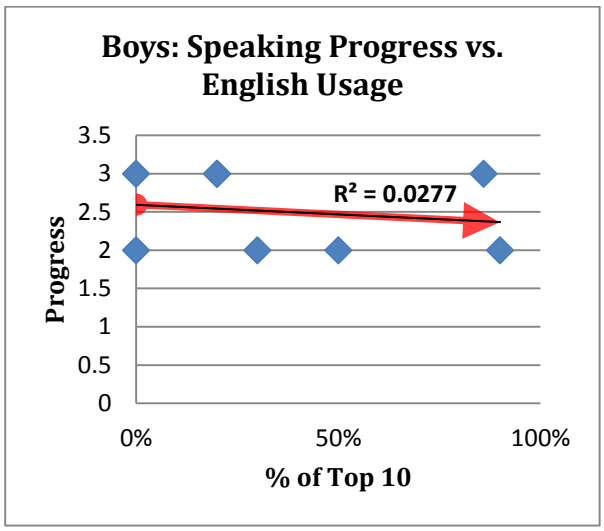


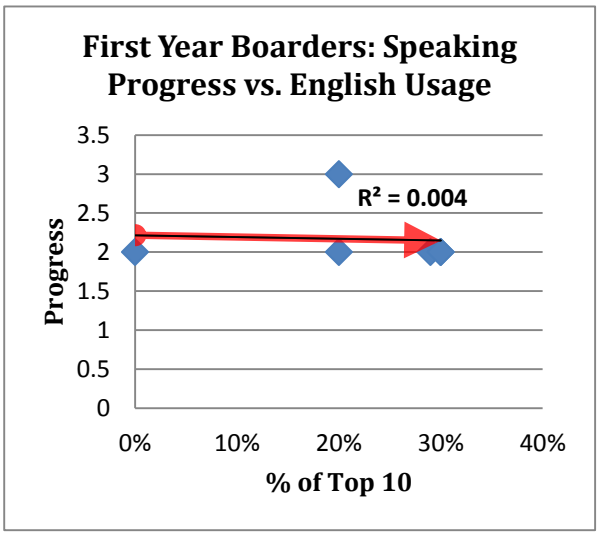
Appendix K: Speaking Progress Vs. Social Variables

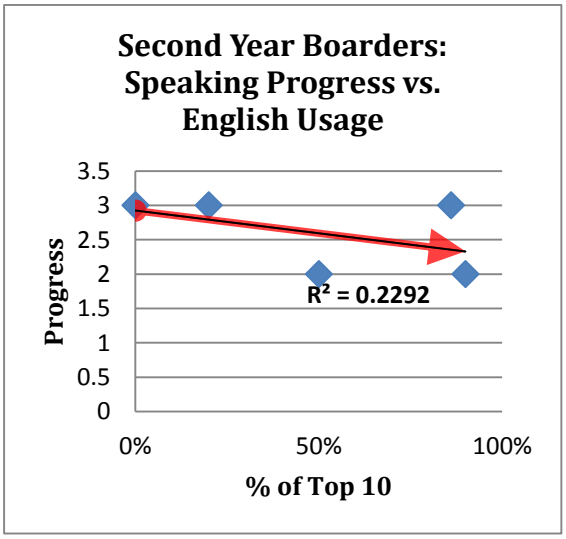
English Usage:



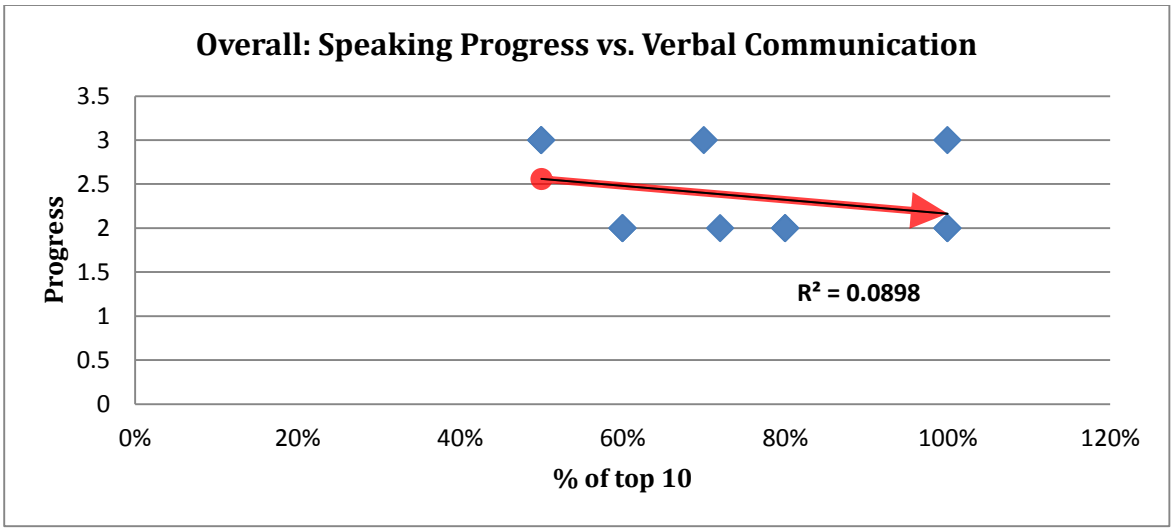


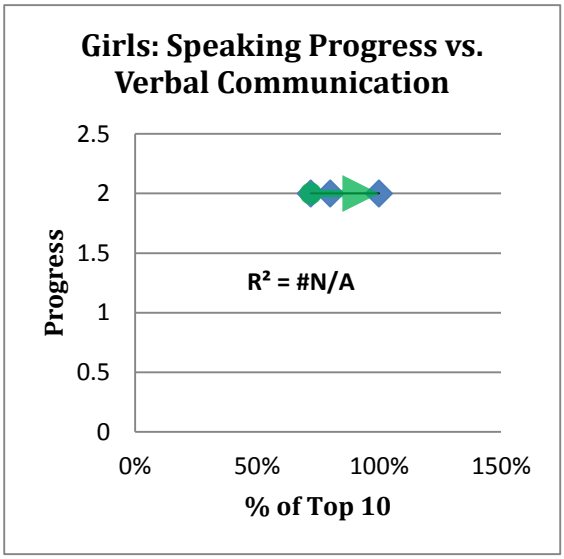


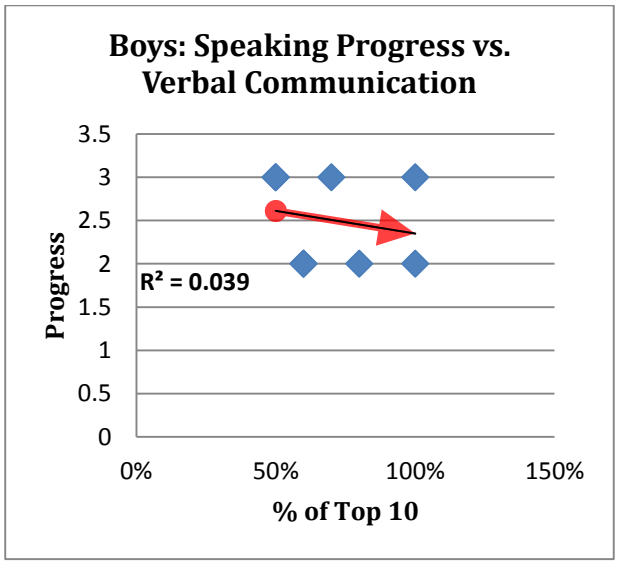


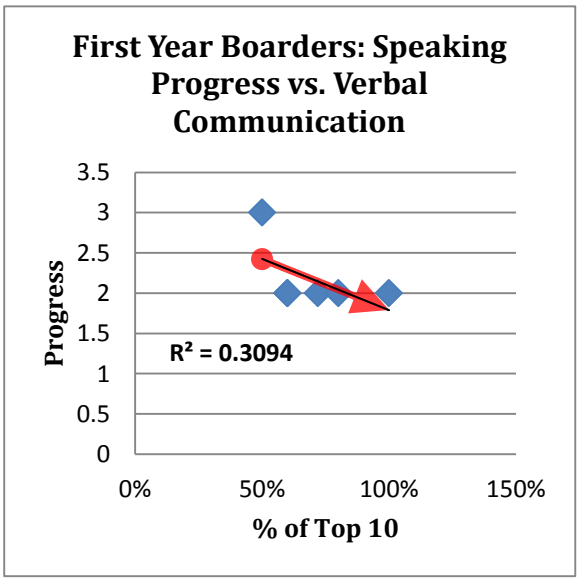


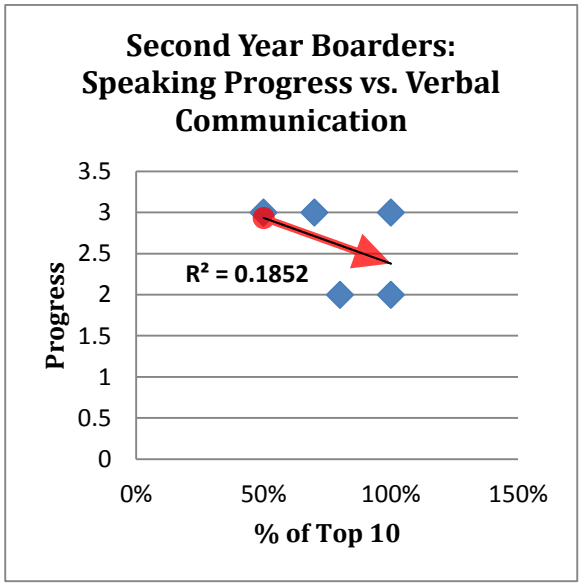
Verbal Communication:











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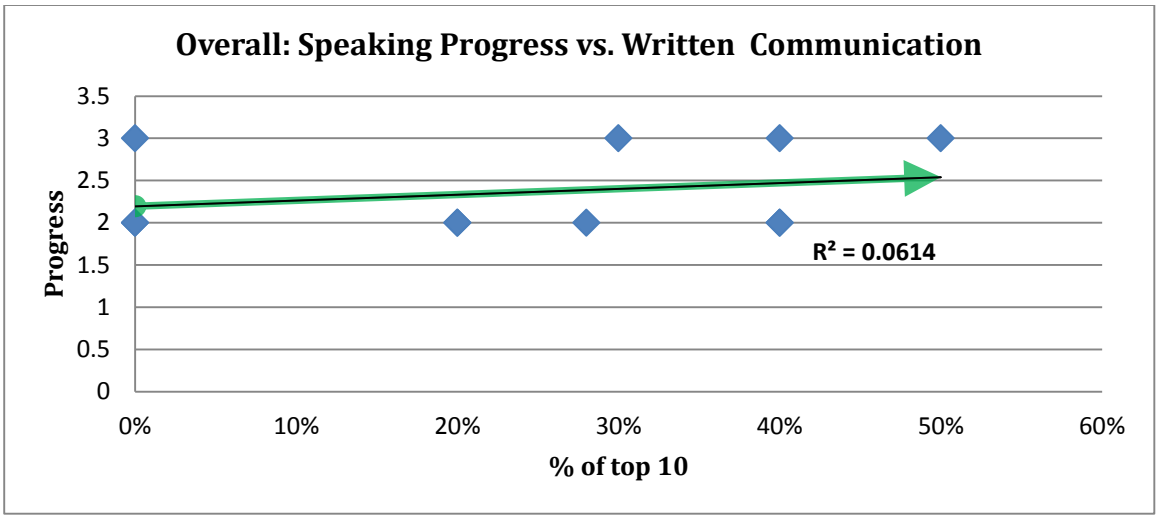

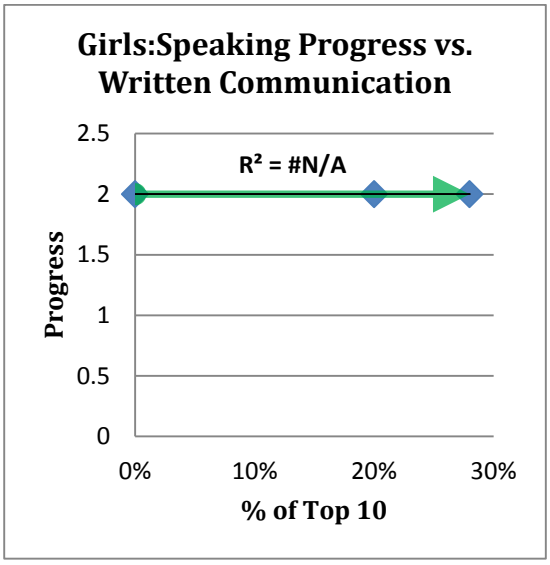

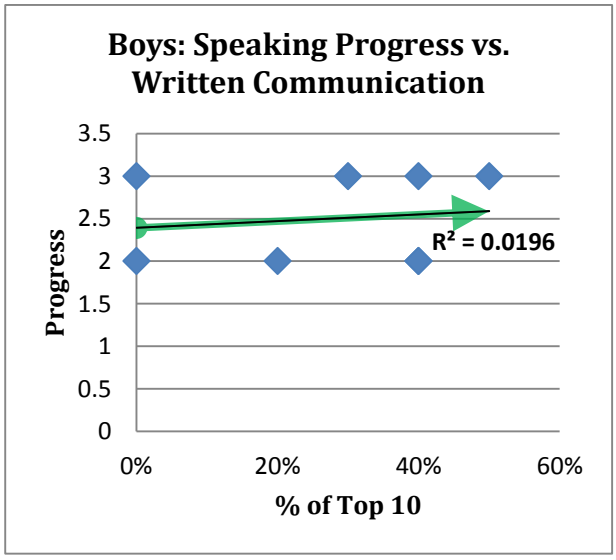

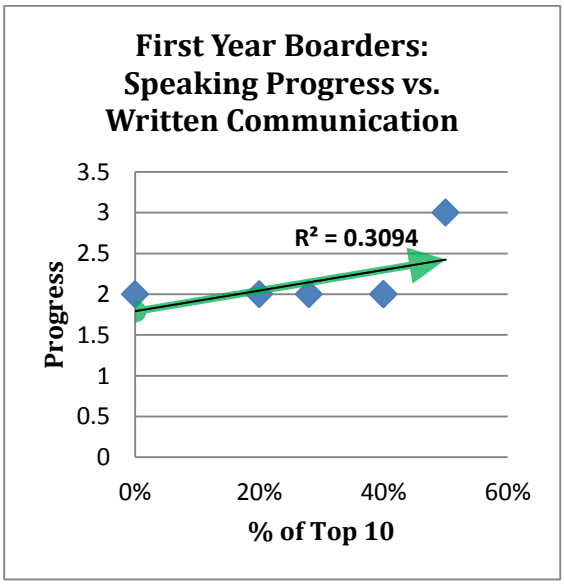

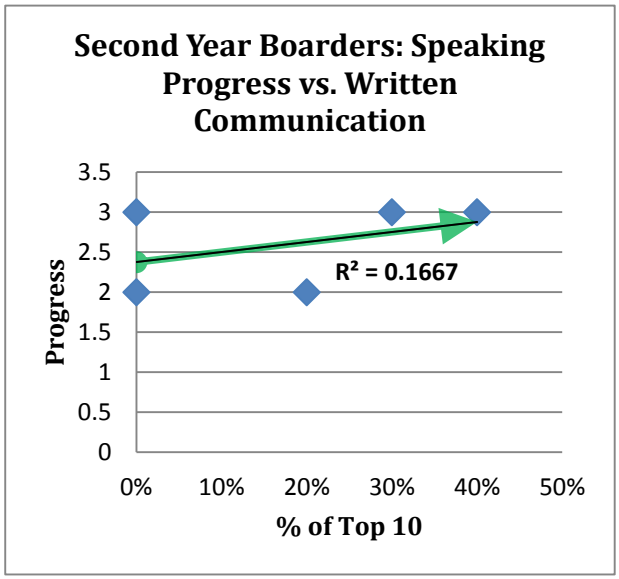

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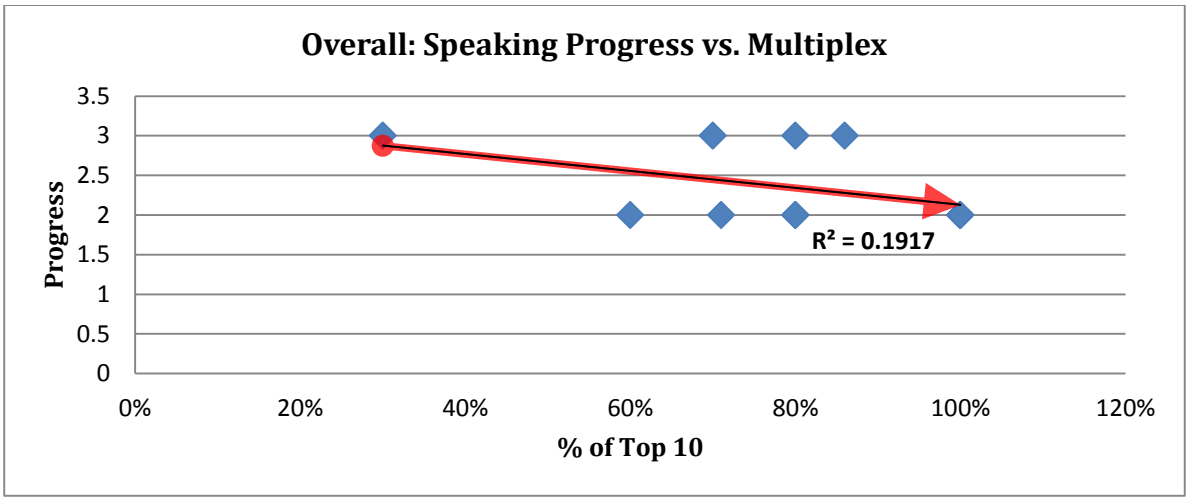

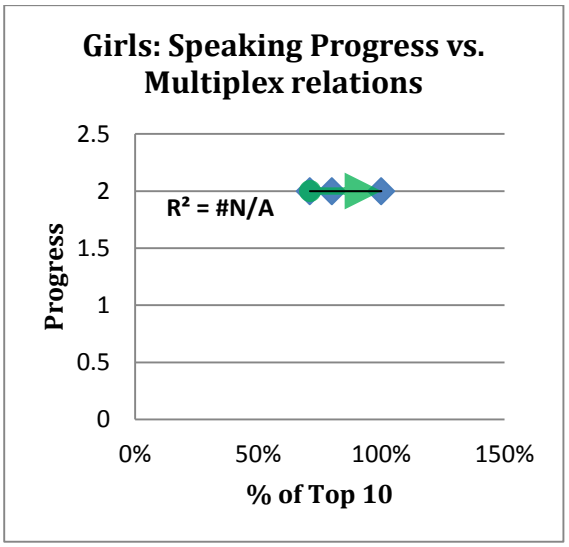

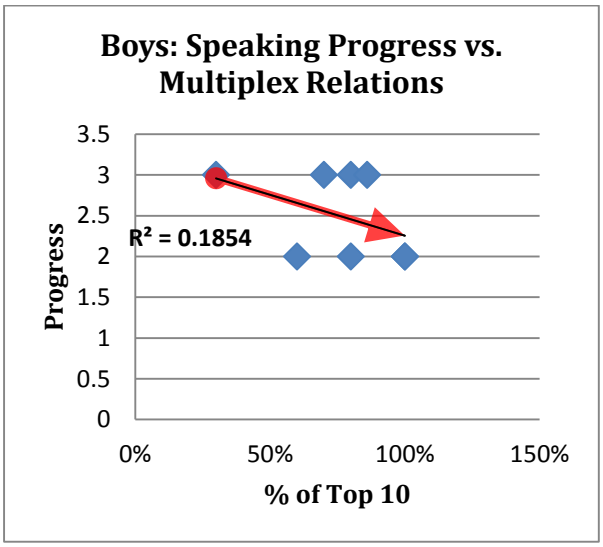

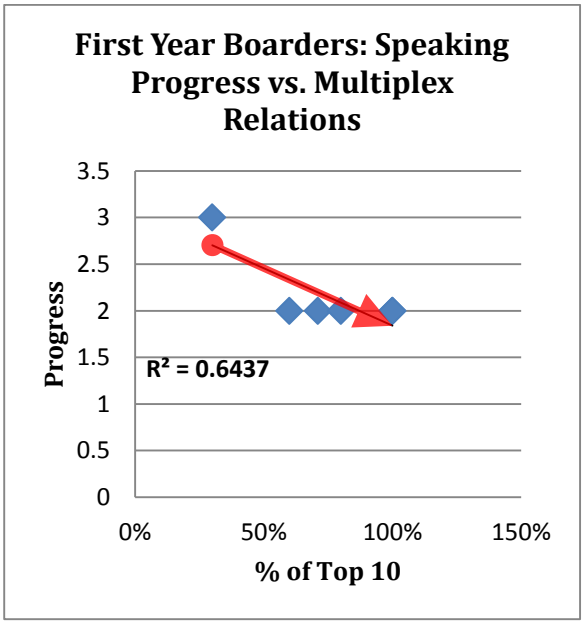

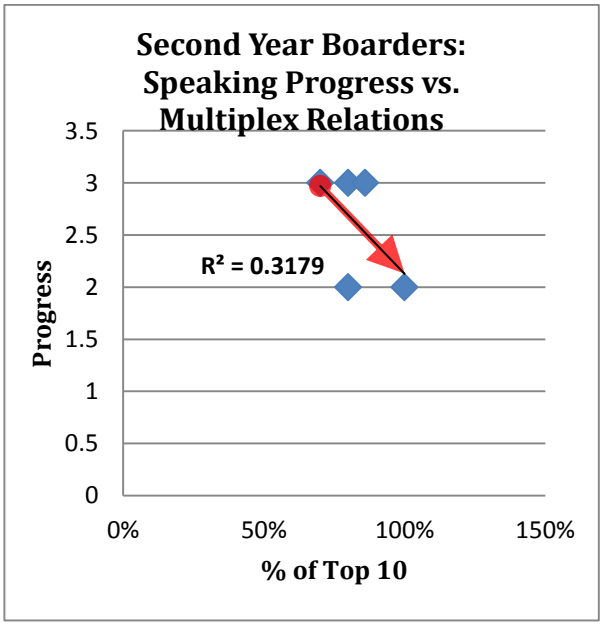

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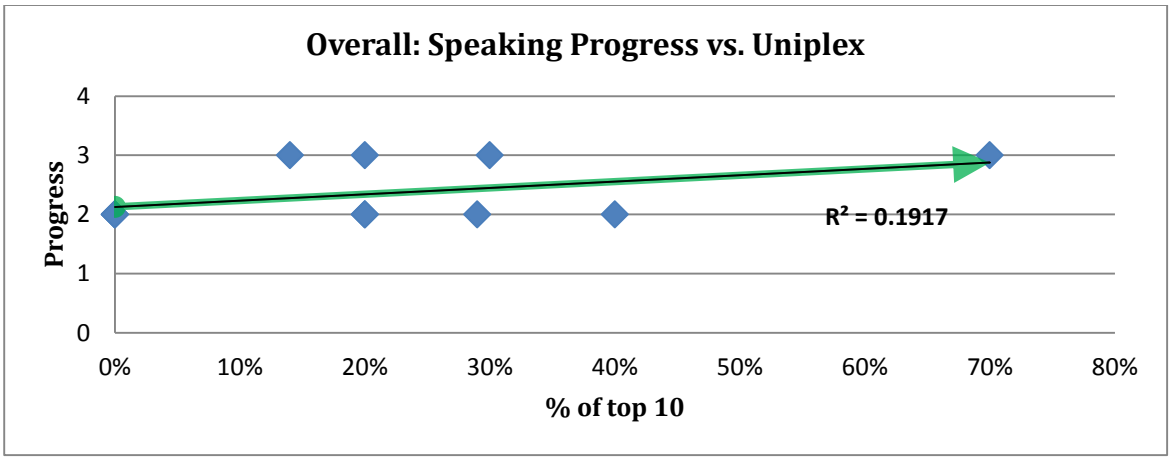

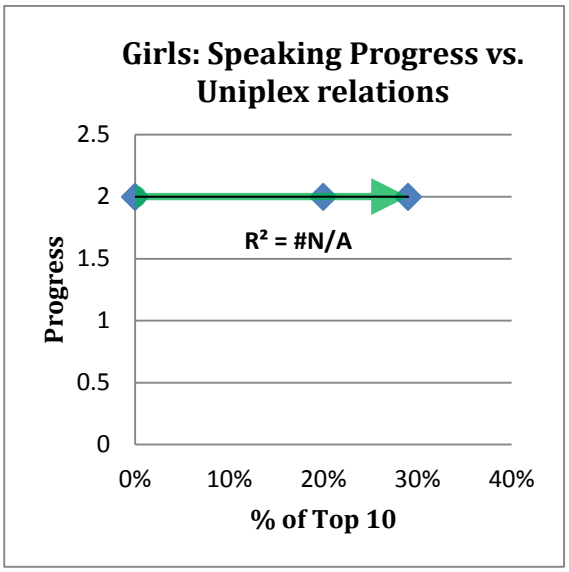

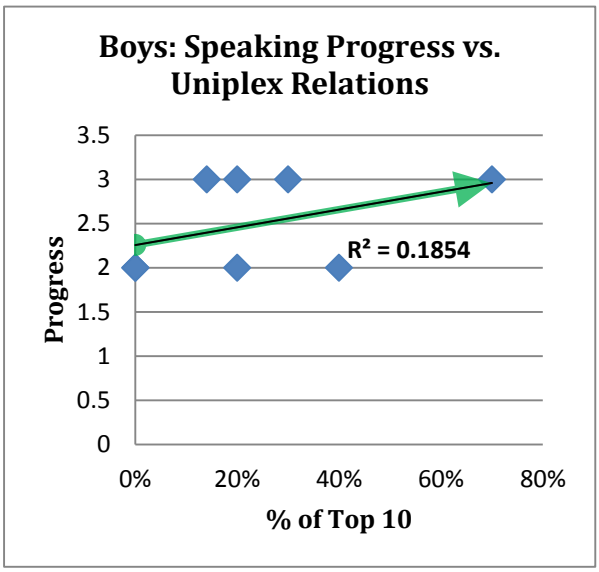

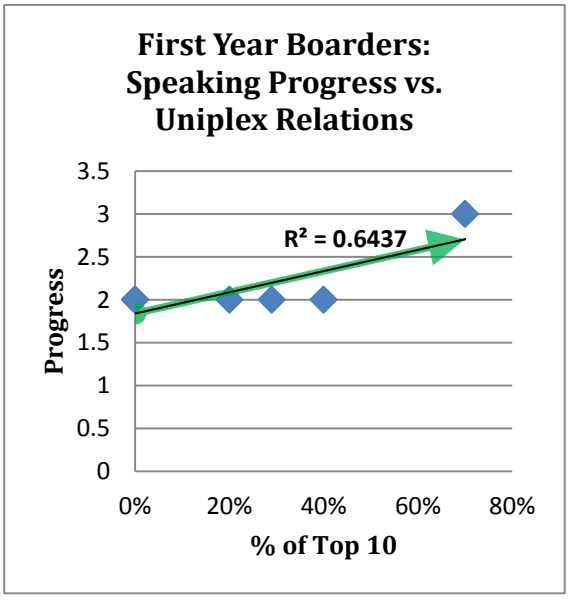

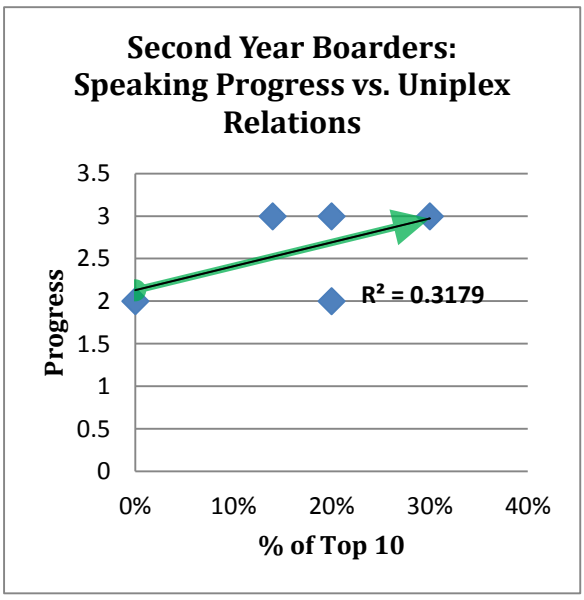

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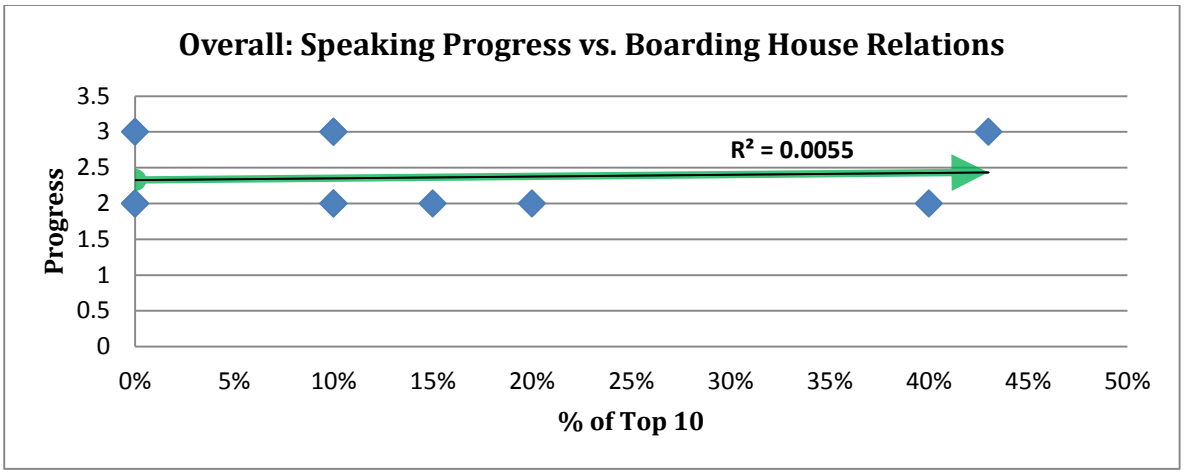
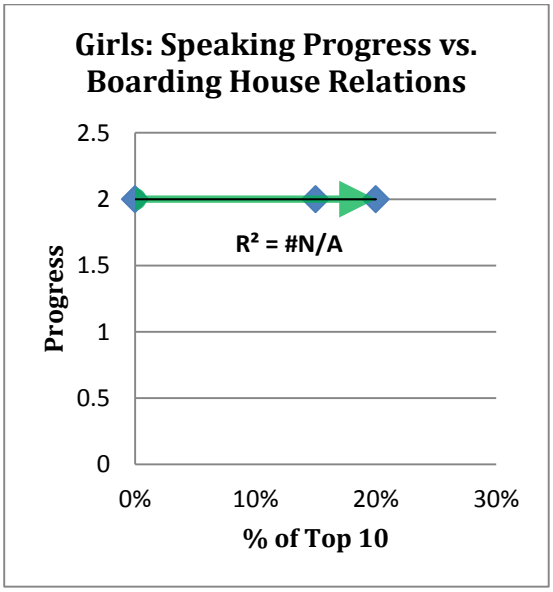
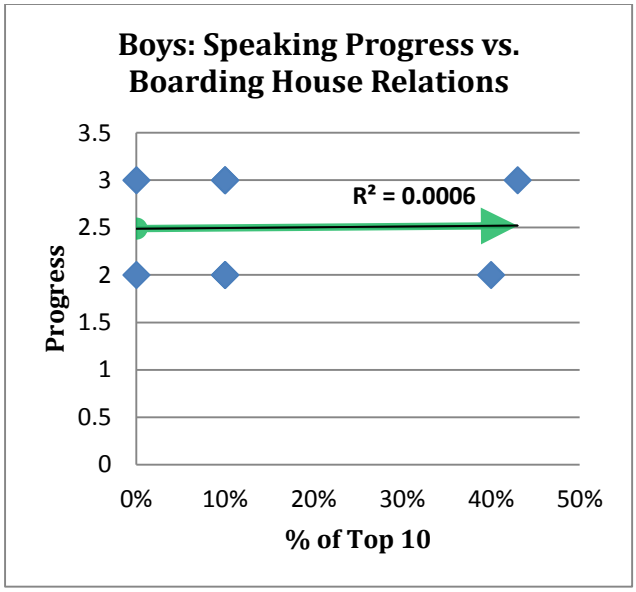
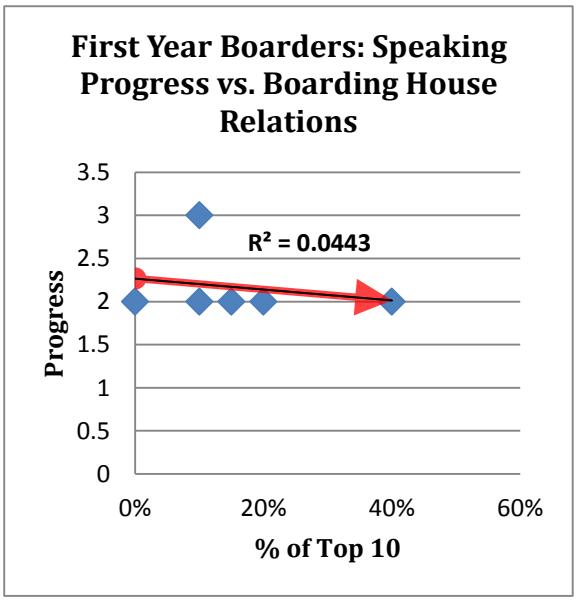
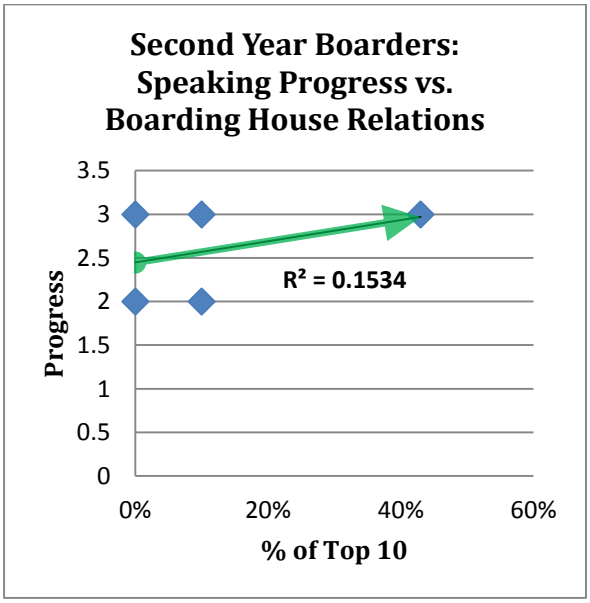


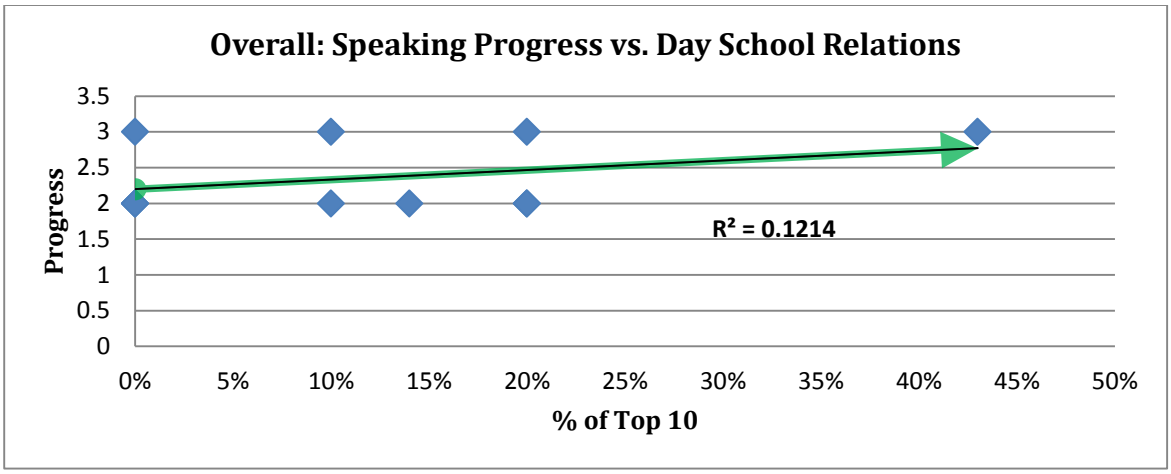


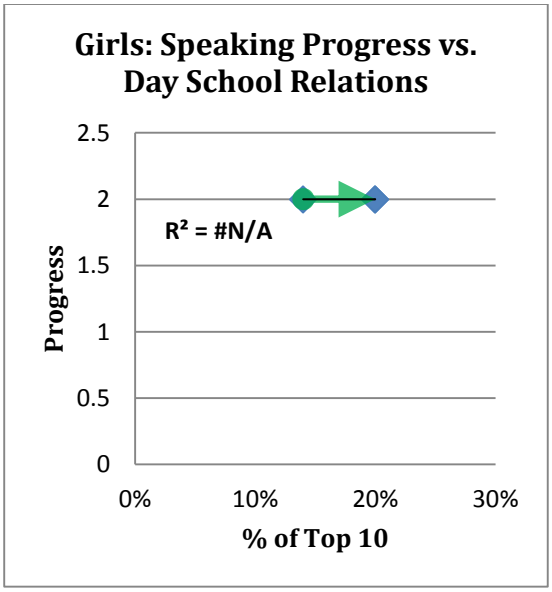


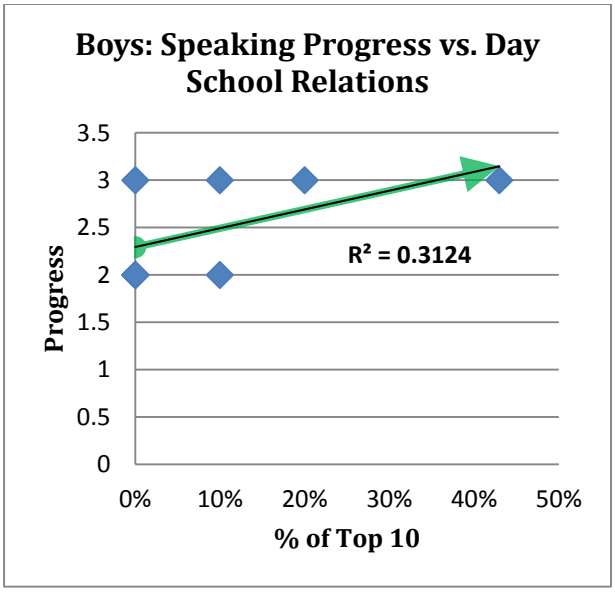


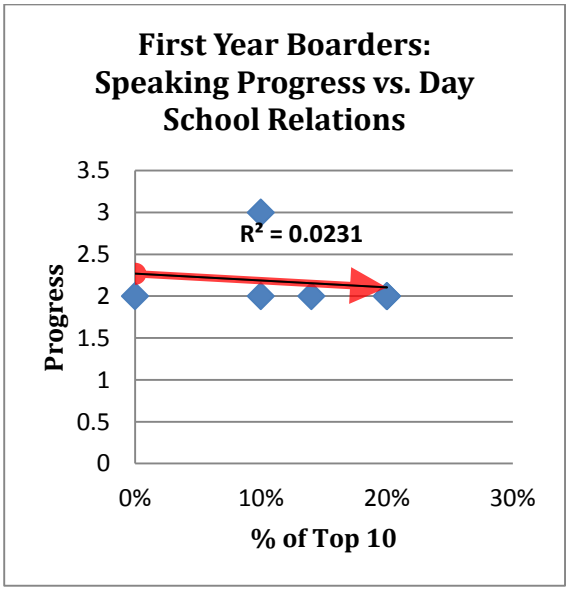


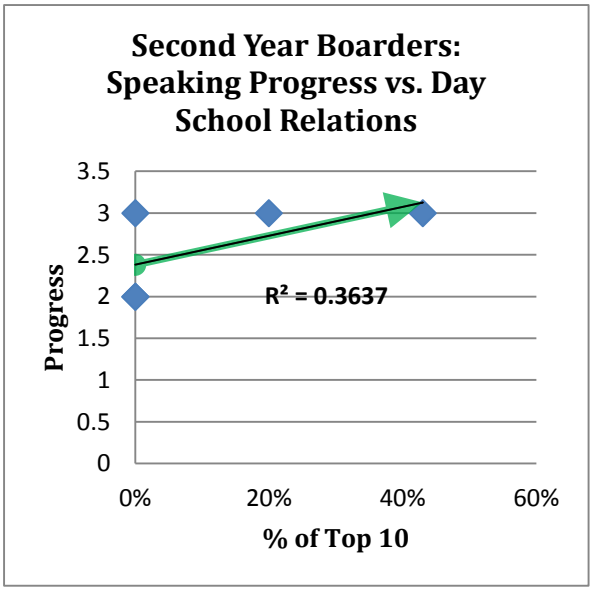
Day School Relations:











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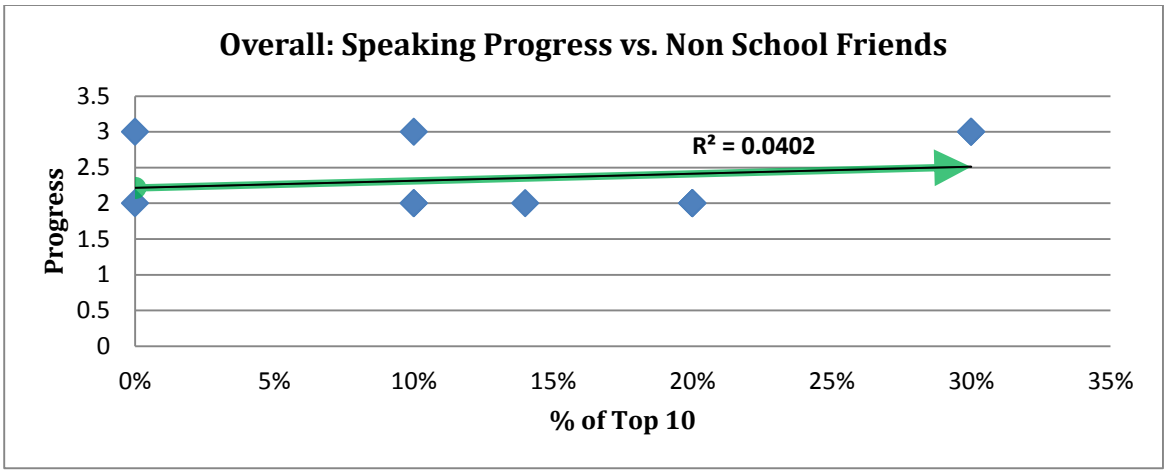

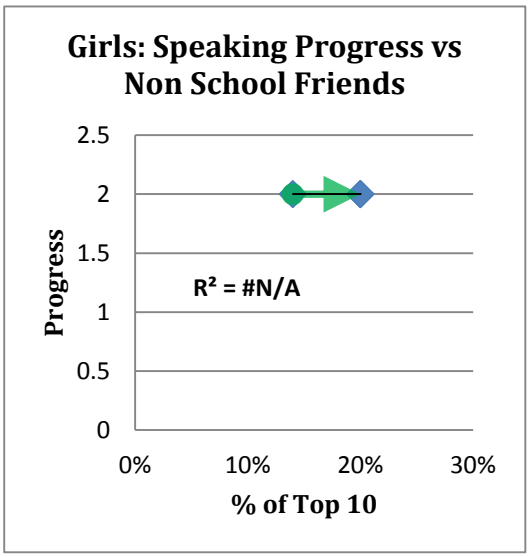

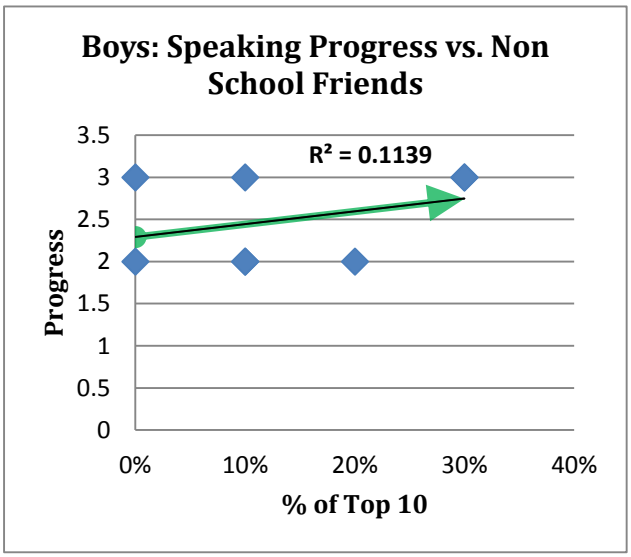

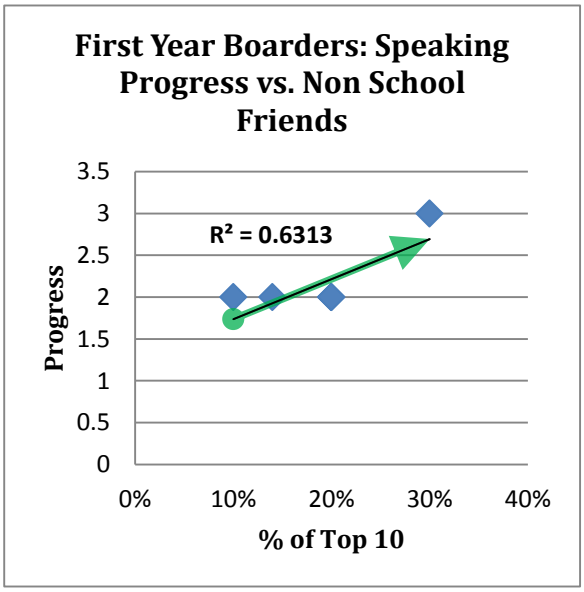

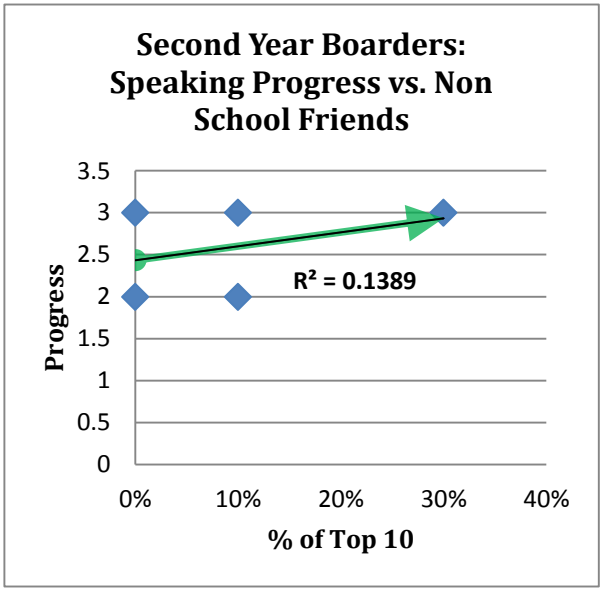

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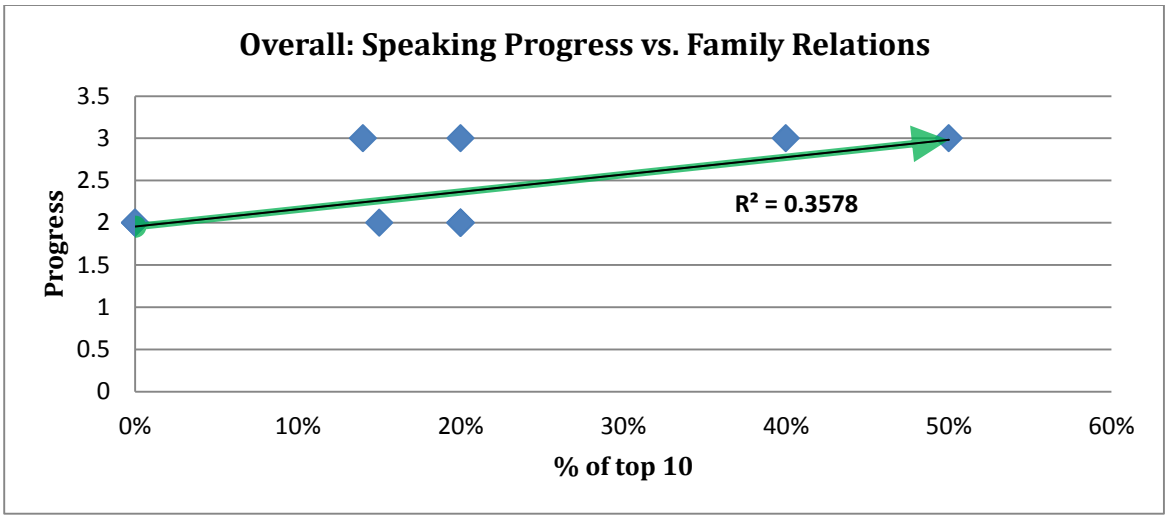

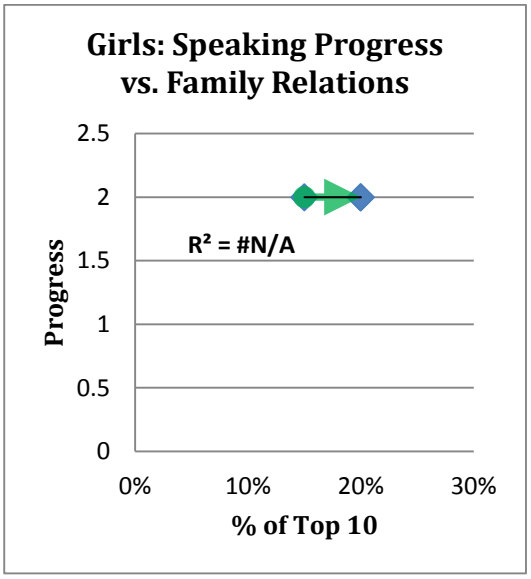

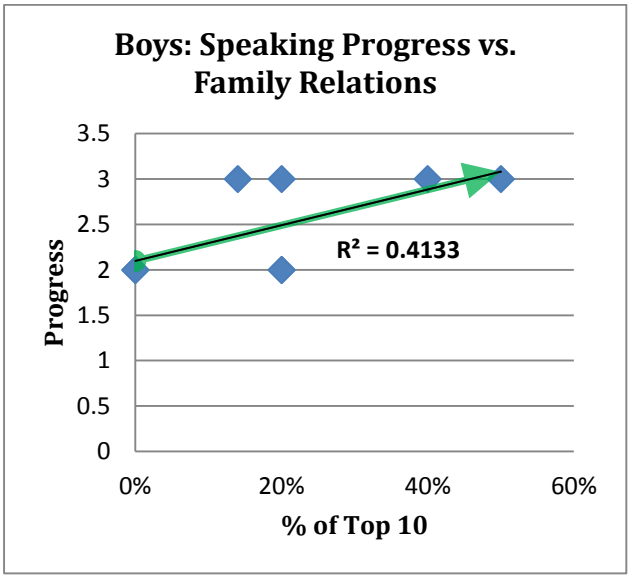

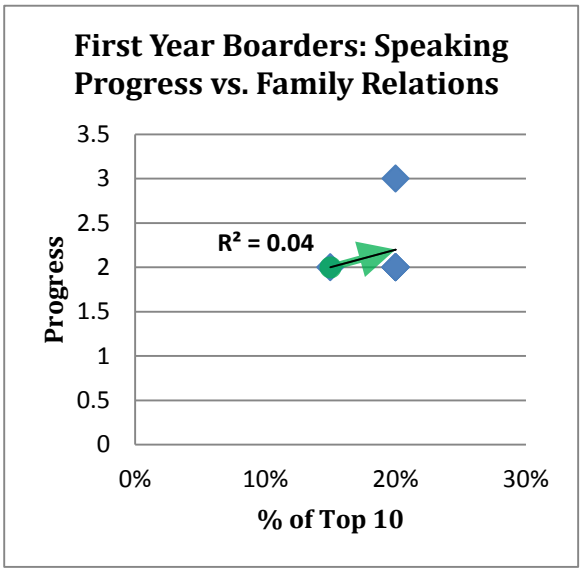

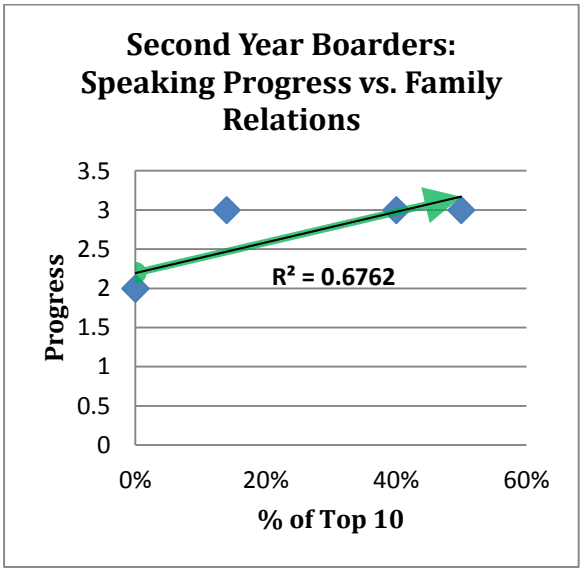

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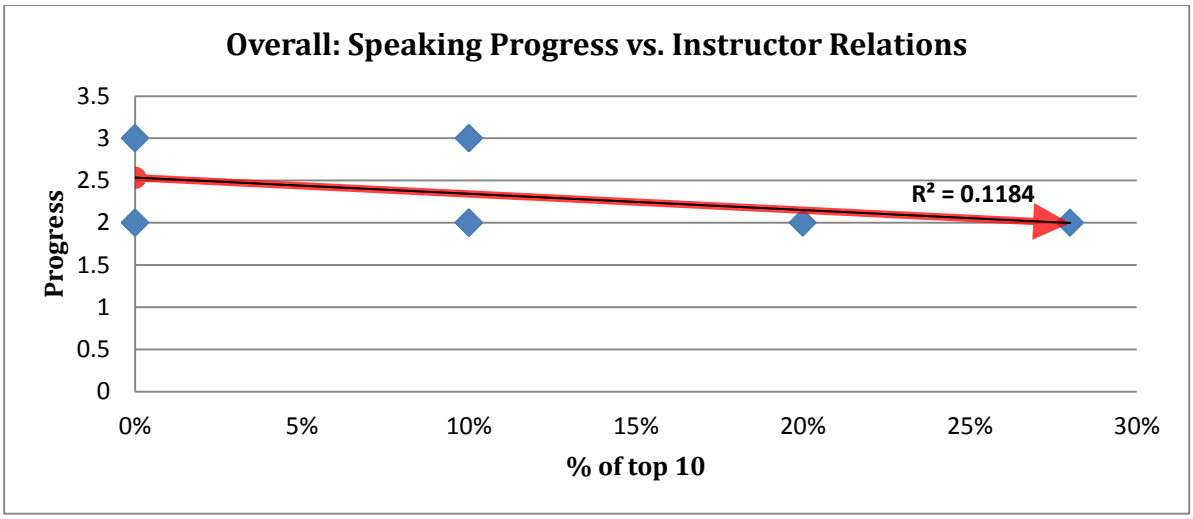

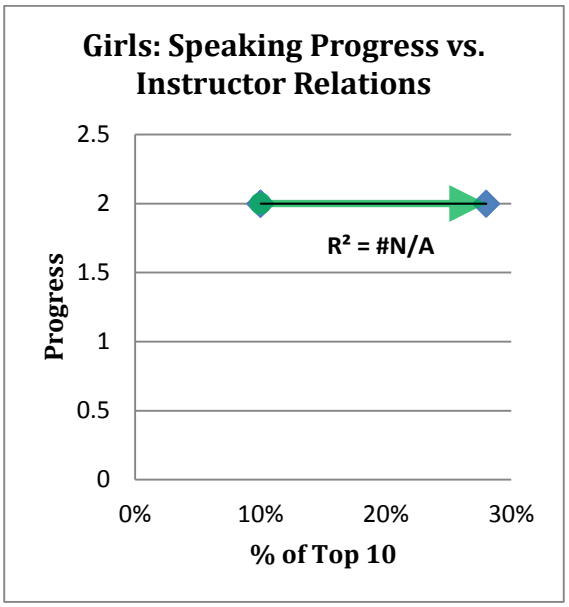

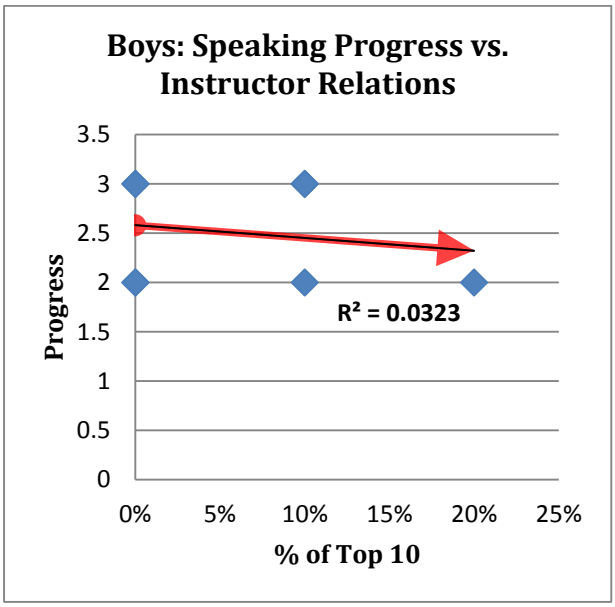

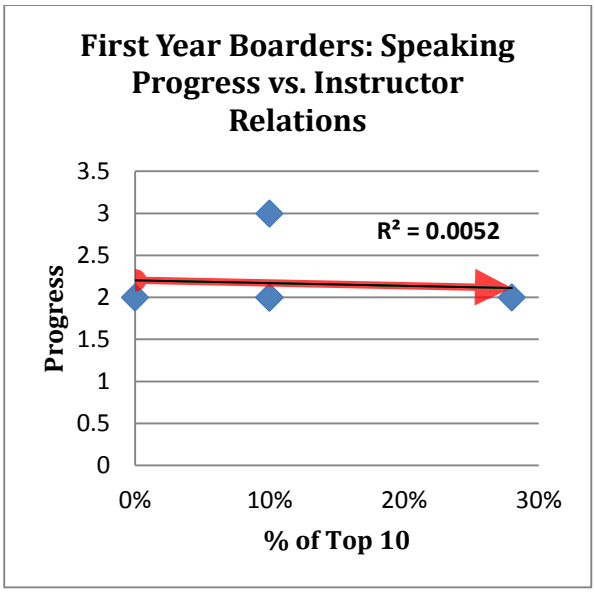

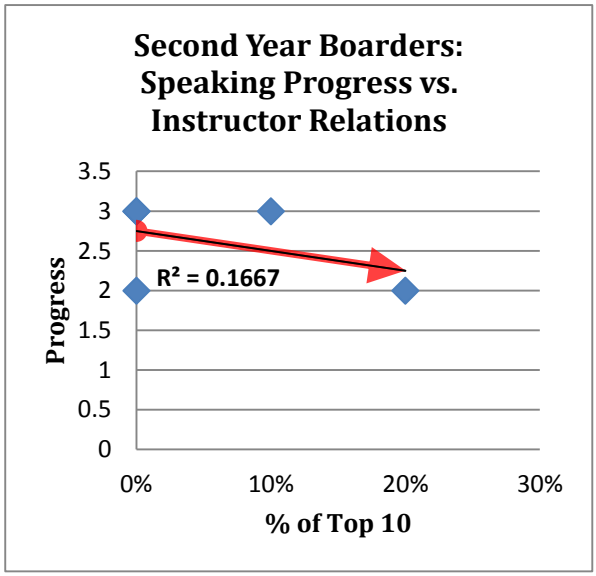

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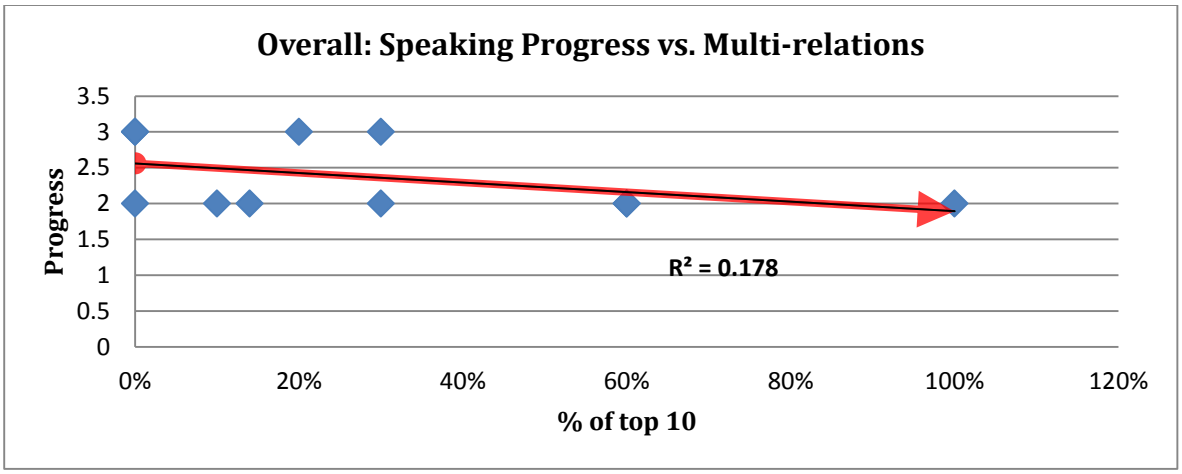
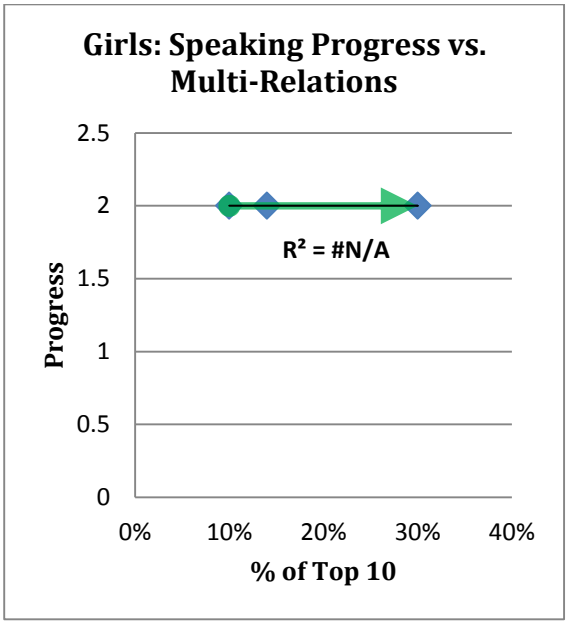
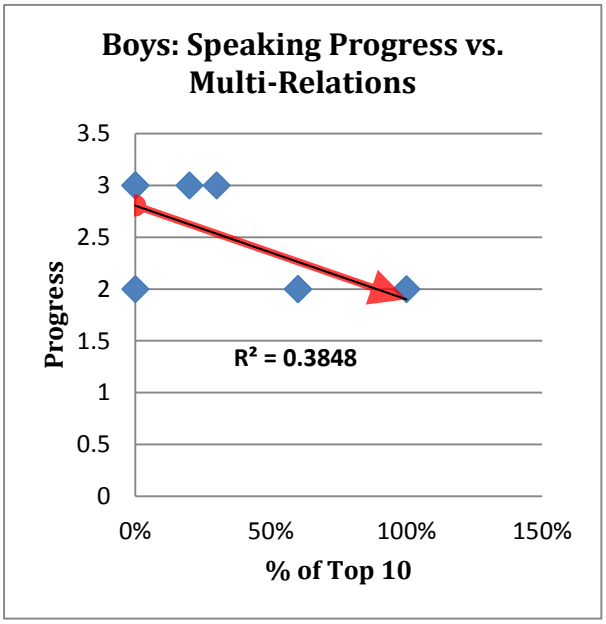
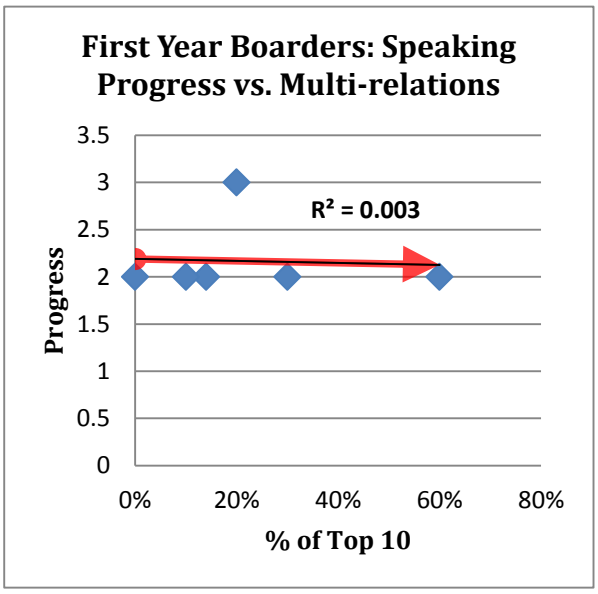
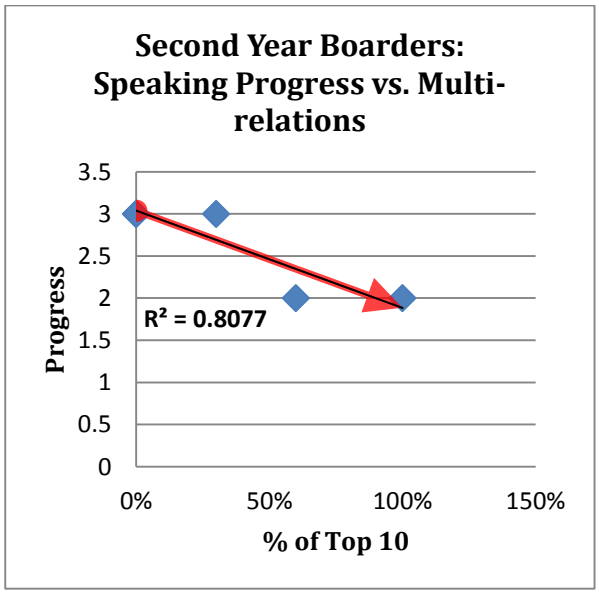




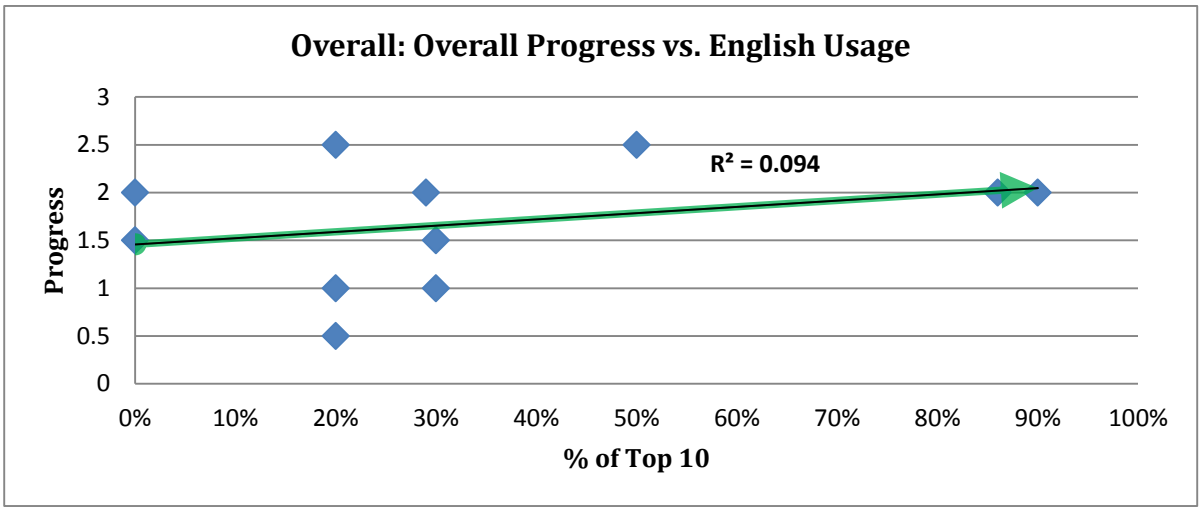


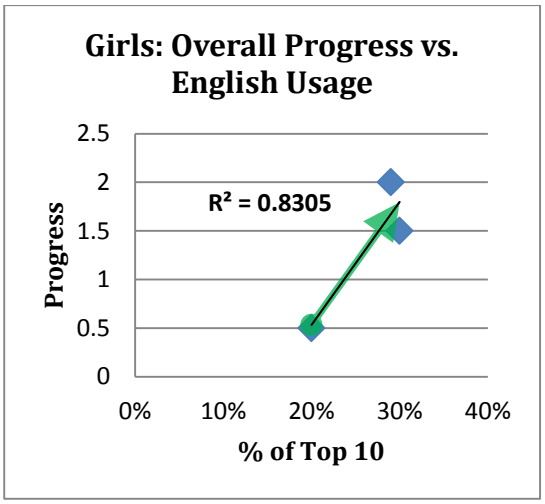


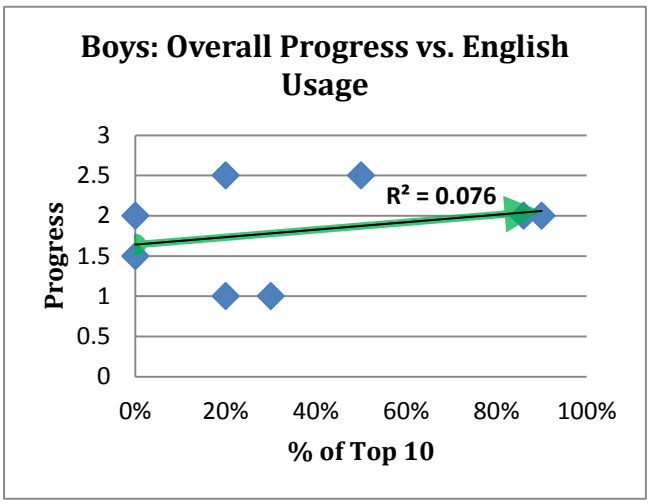


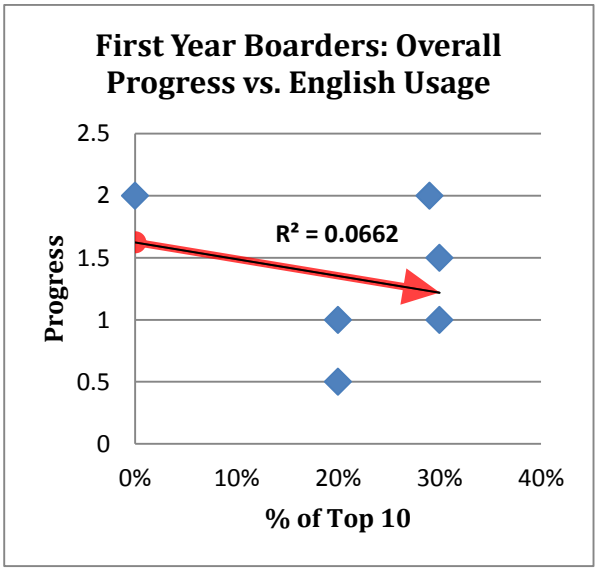
Appendix L: Overall Progress Vs. Social Variables

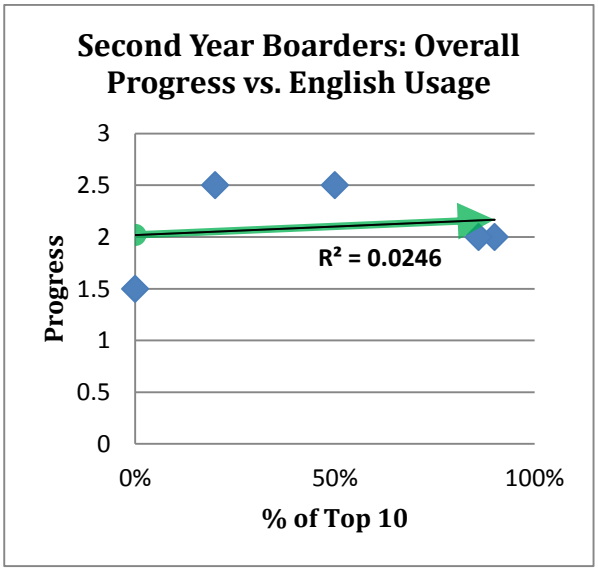
English Usage:











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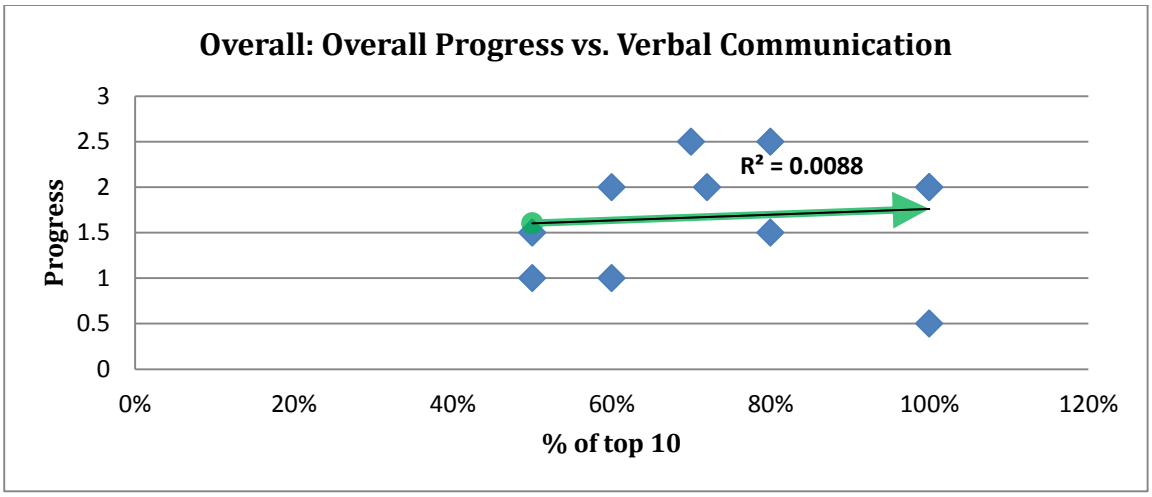

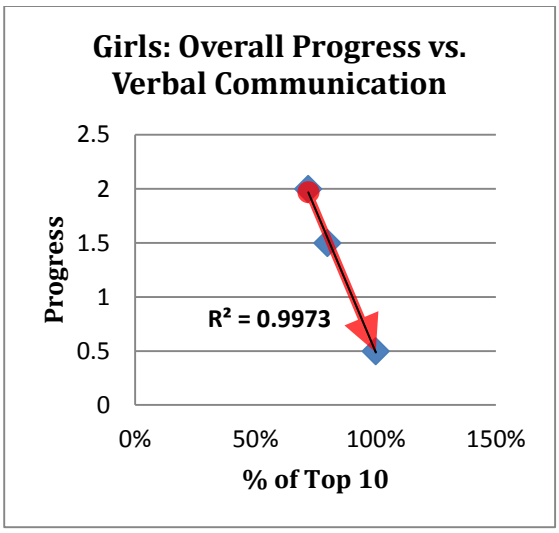

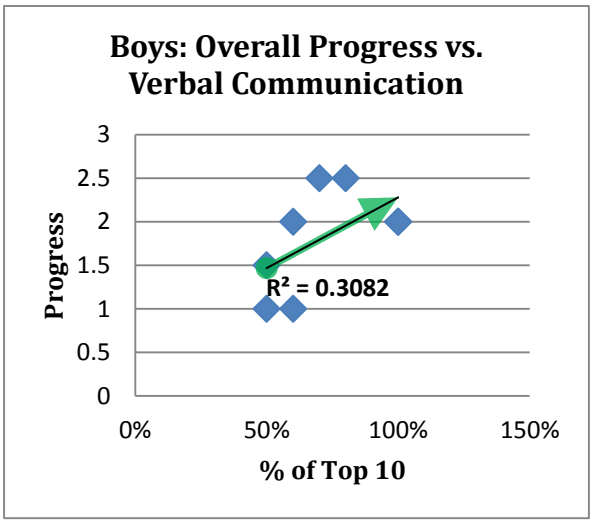

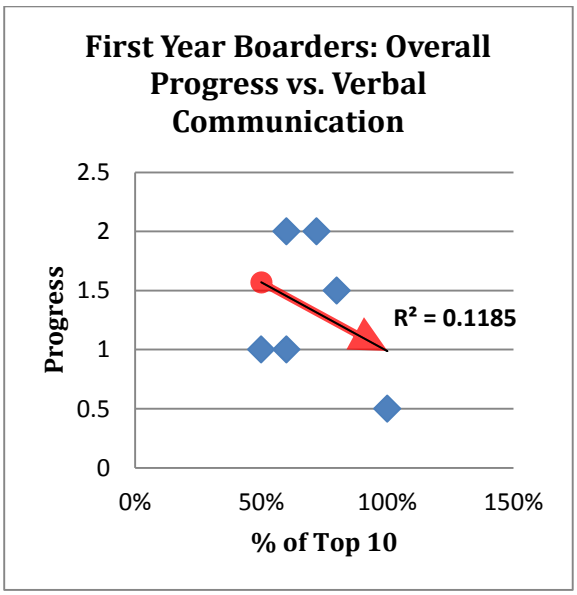

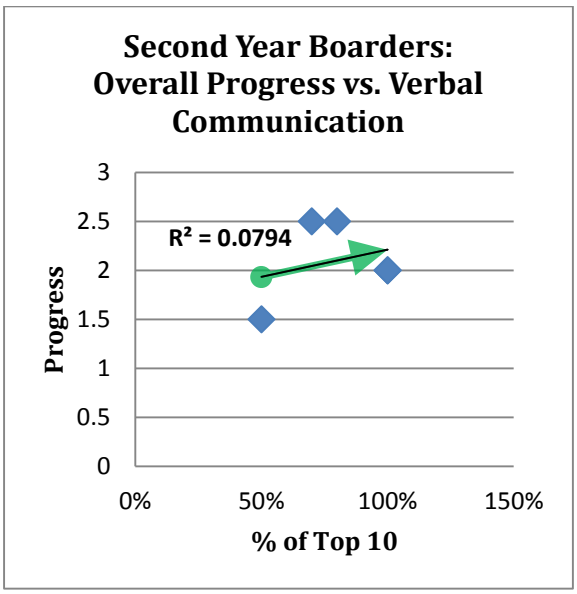

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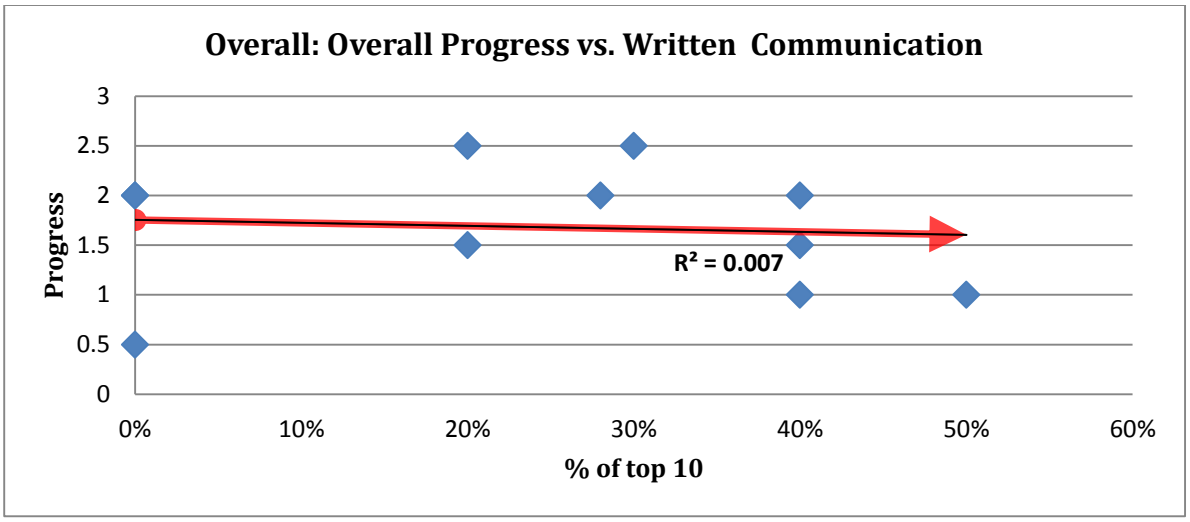

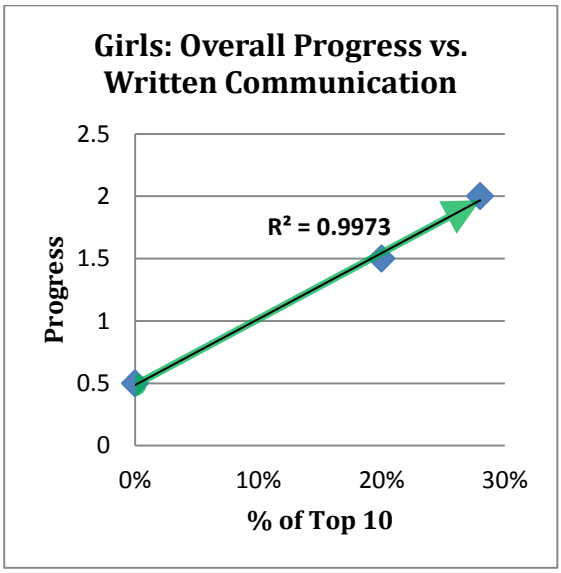

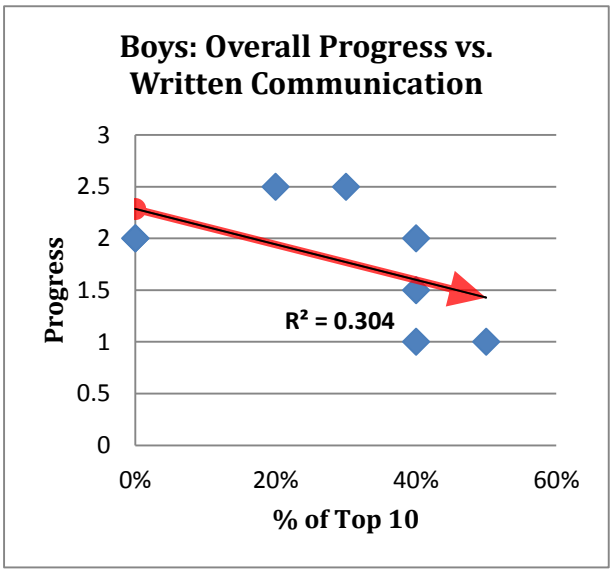

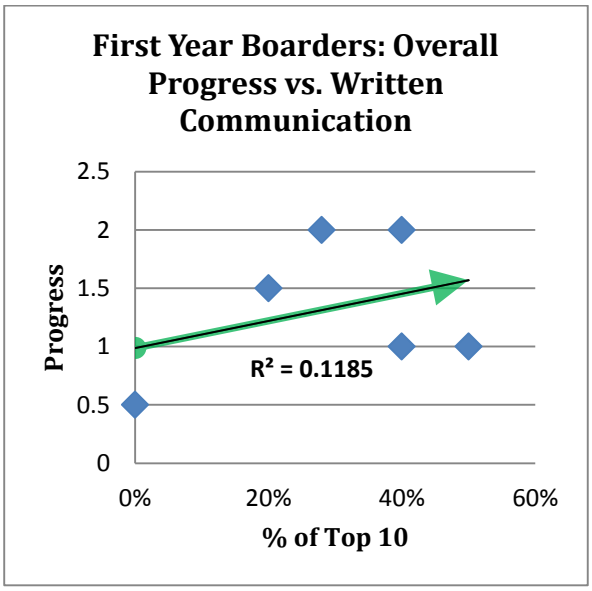

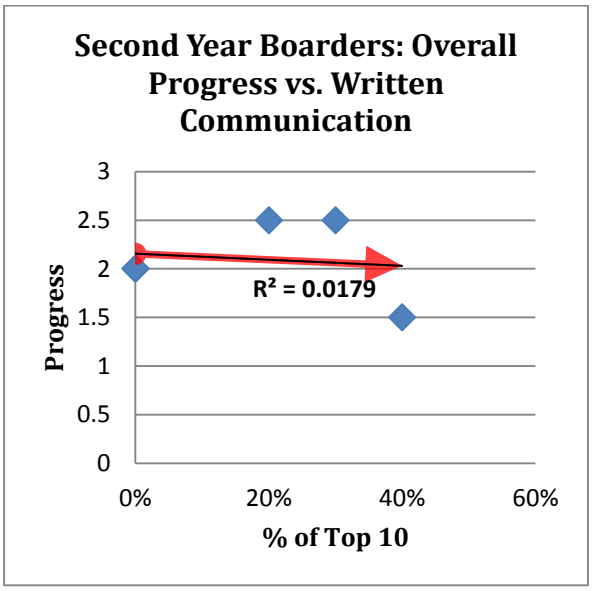

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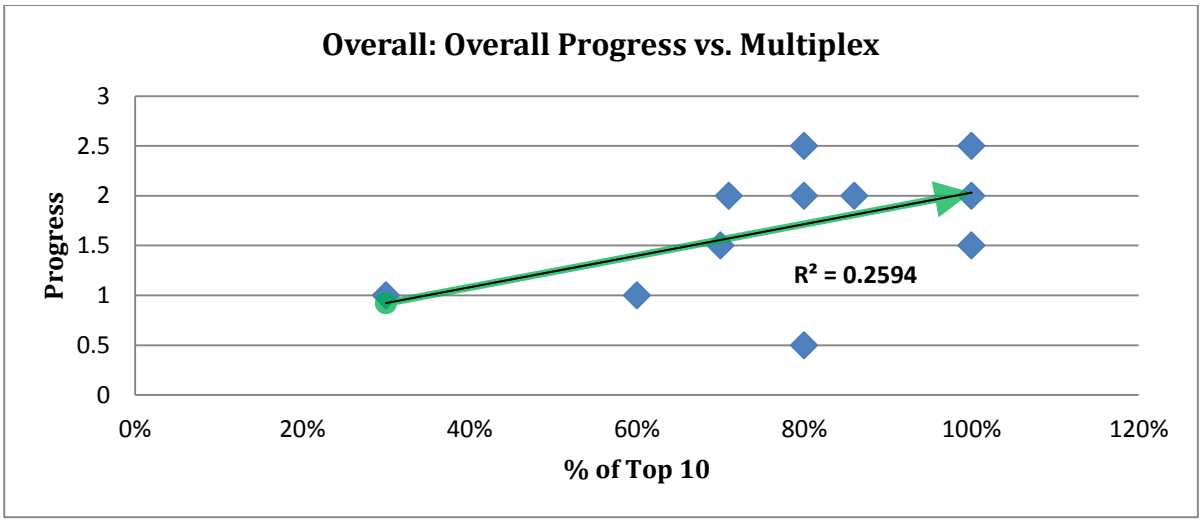

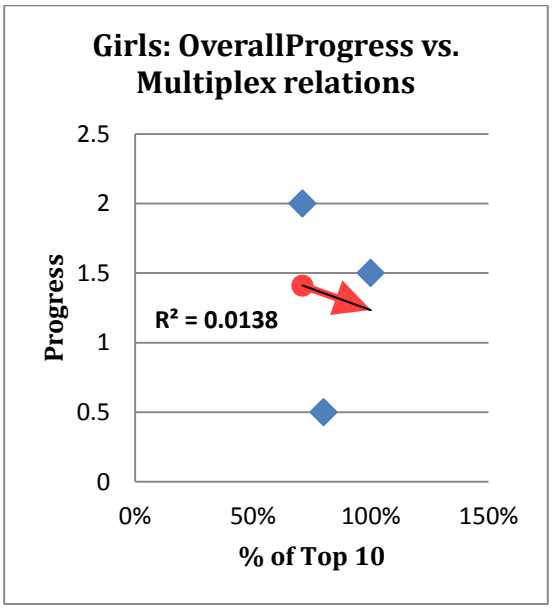

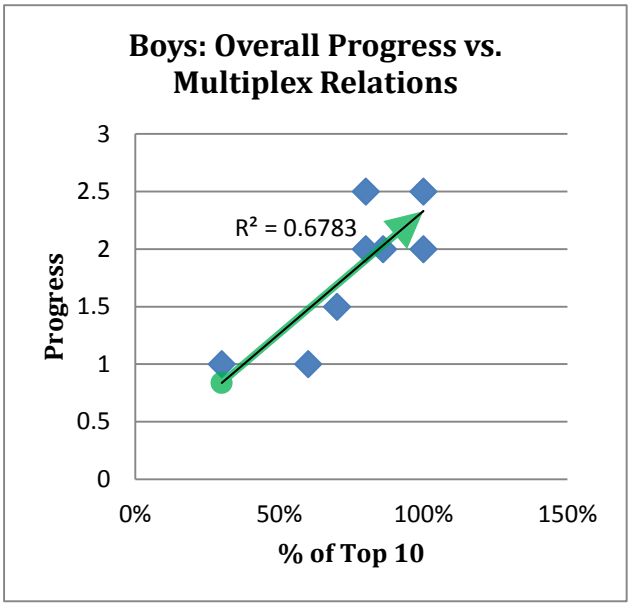

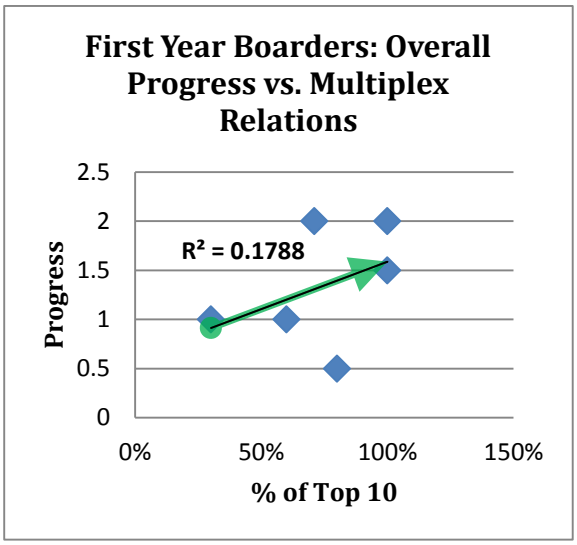

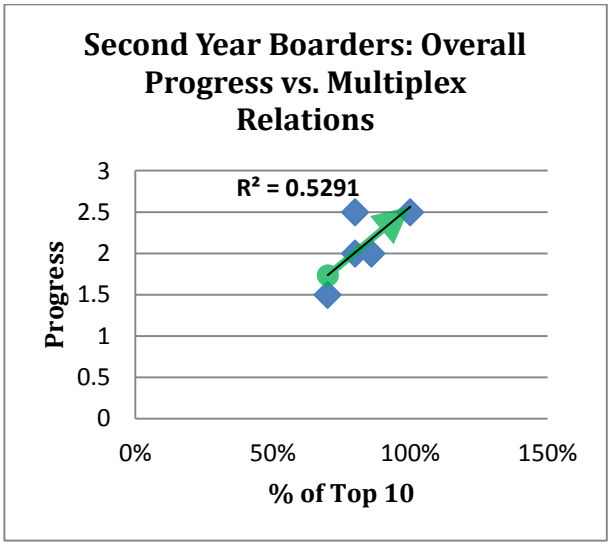

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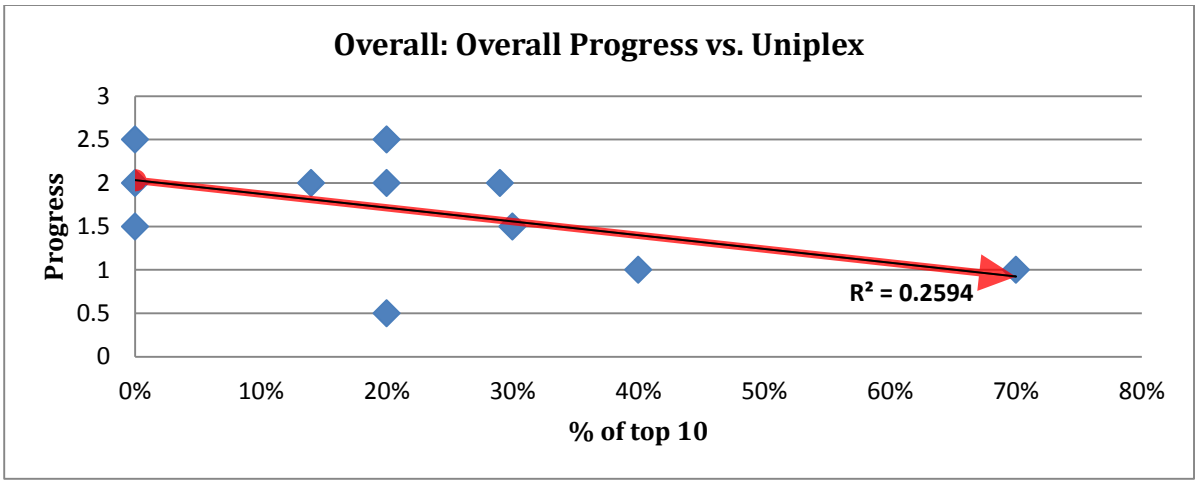

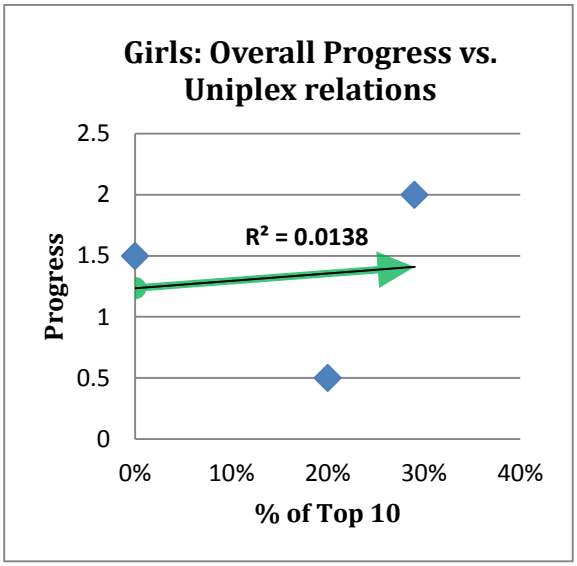

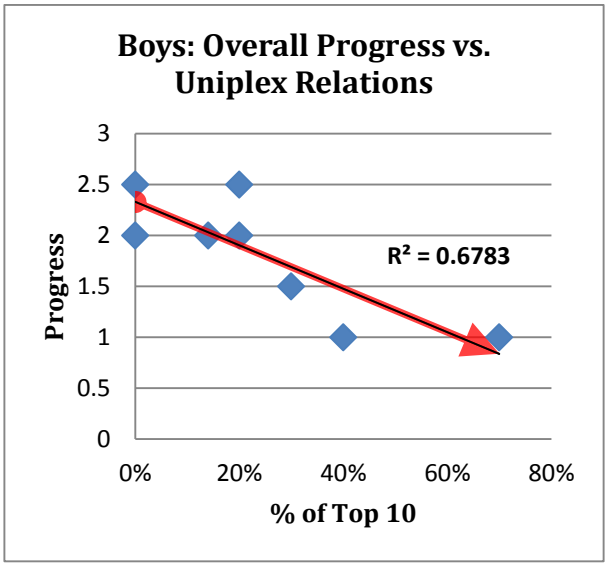

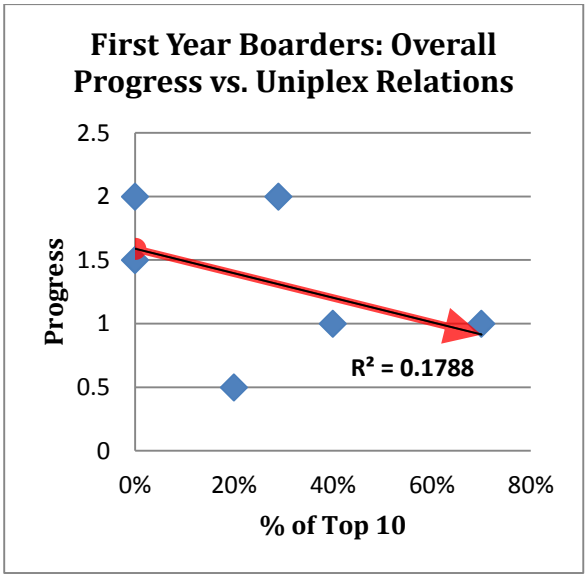

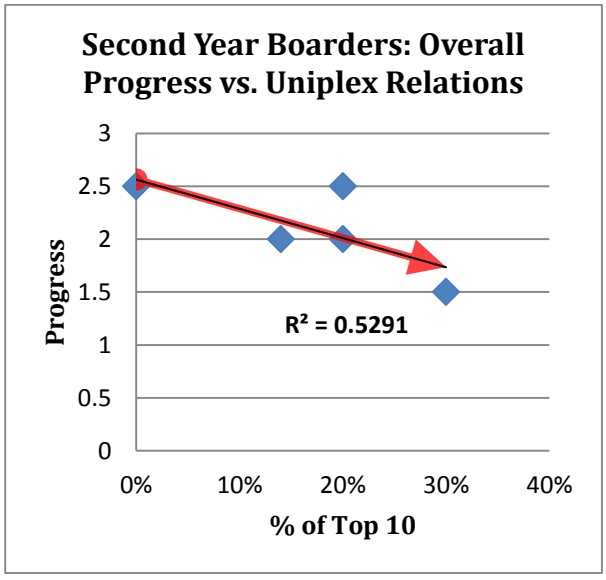

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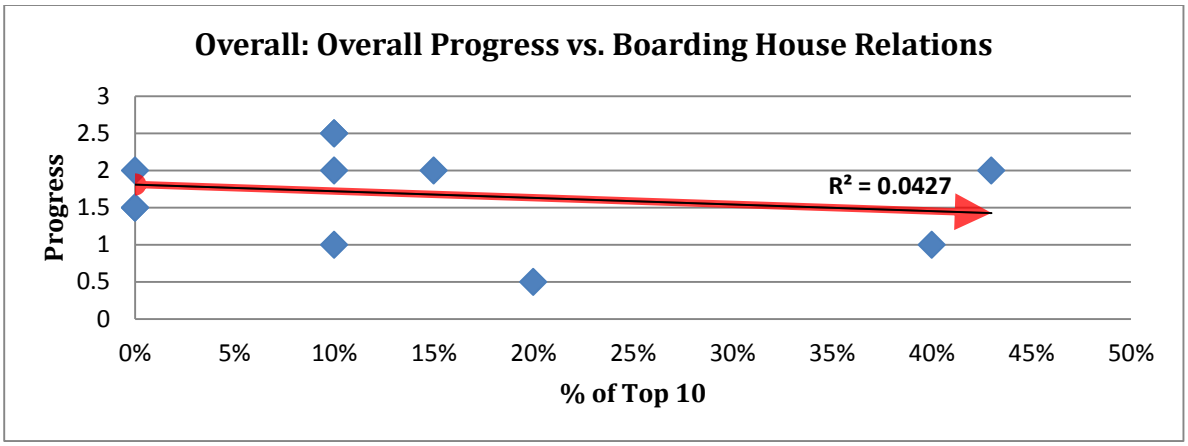

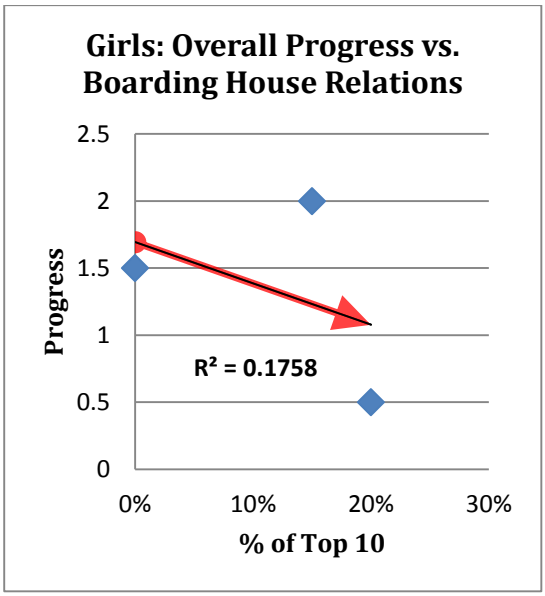

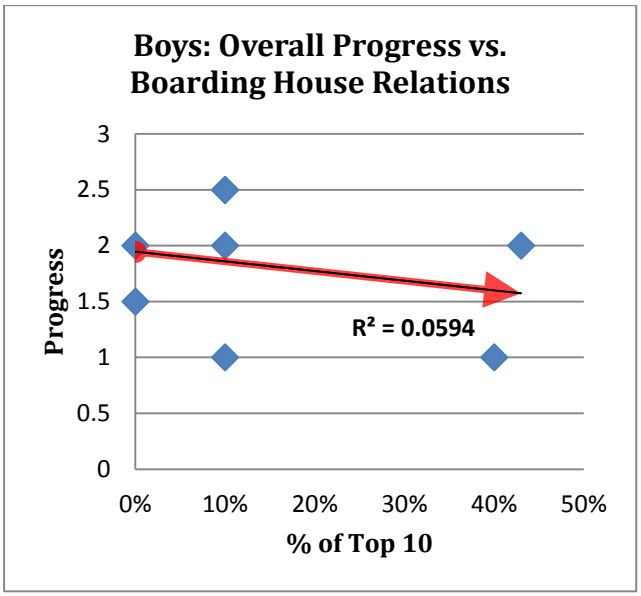

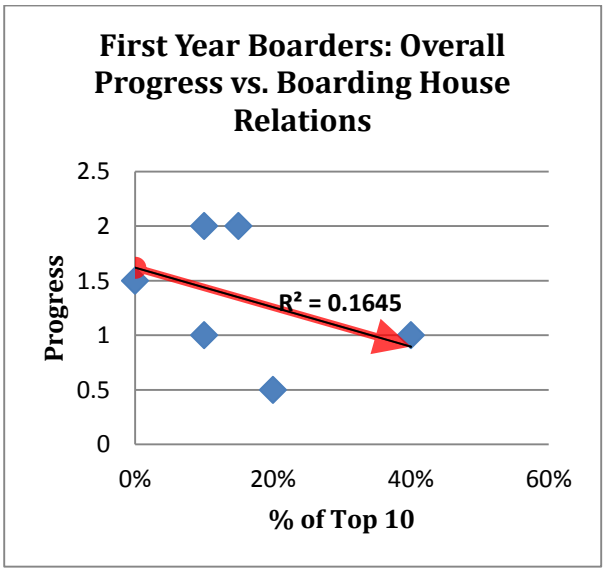

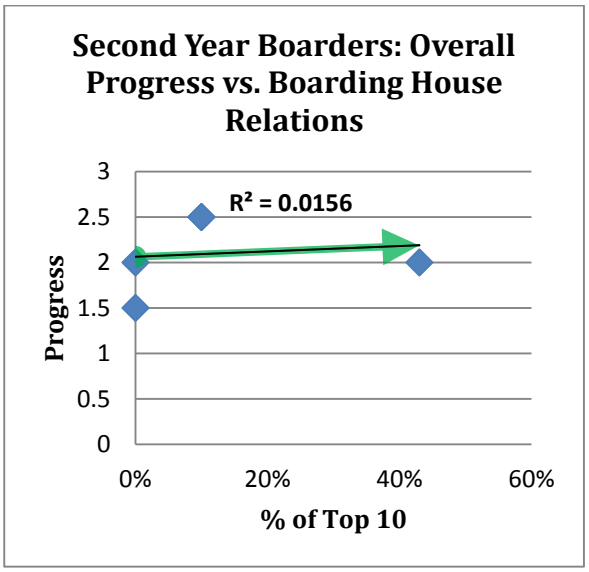

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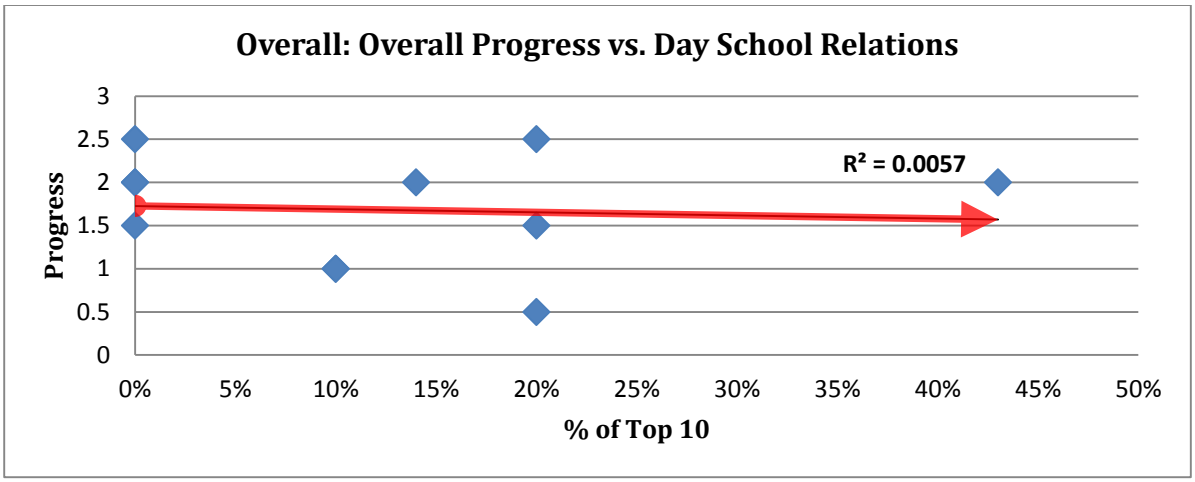

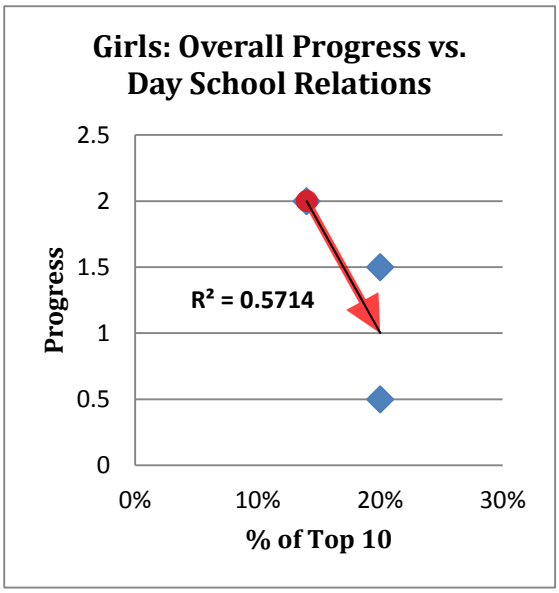

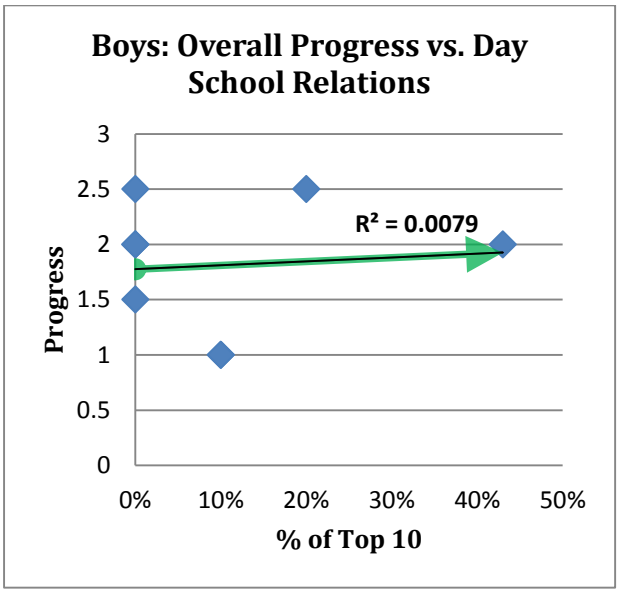

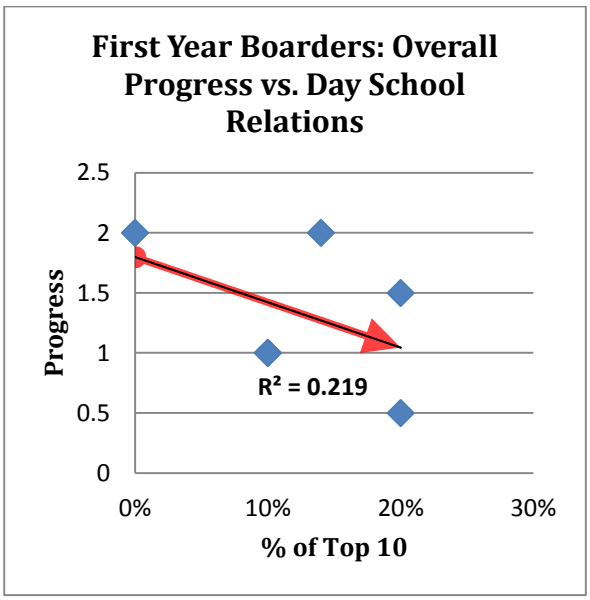

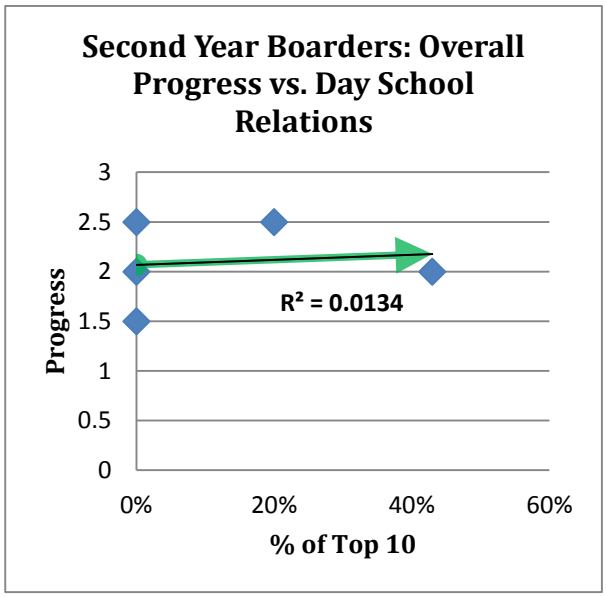

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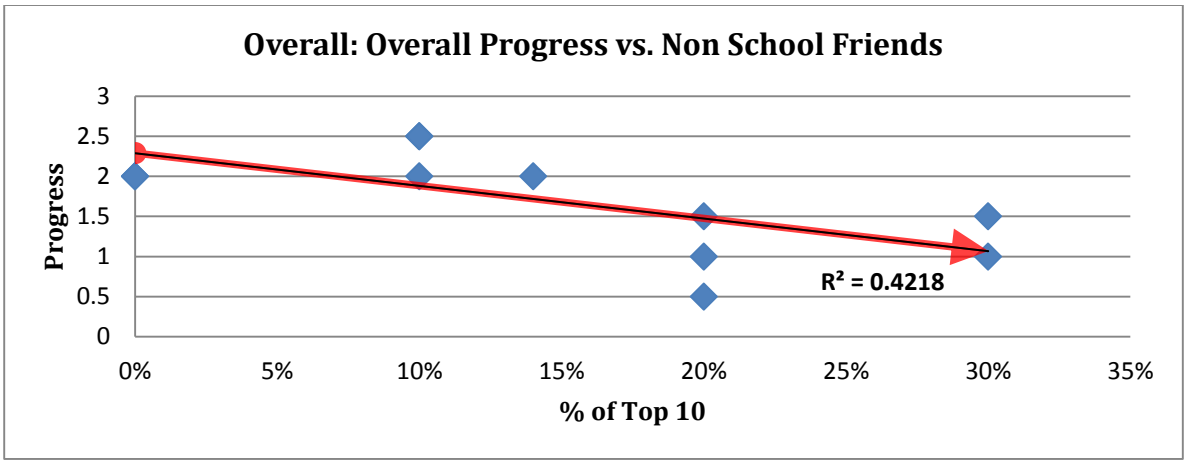

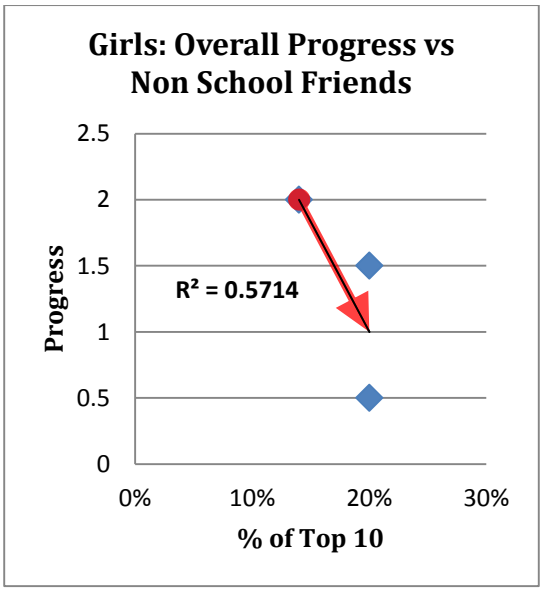

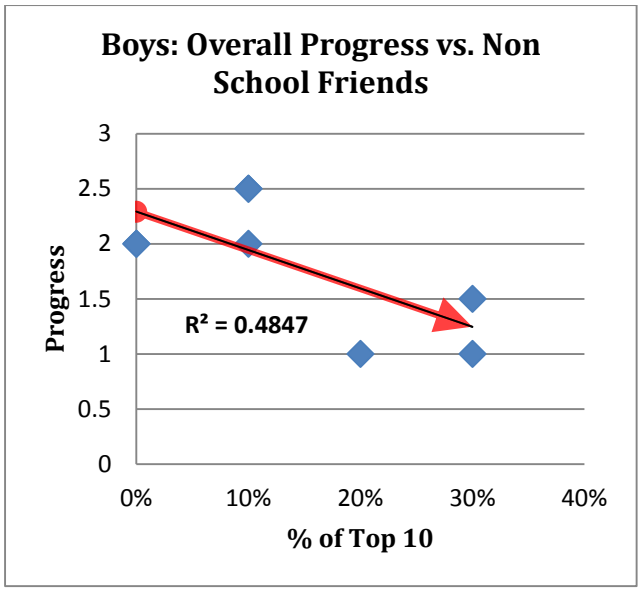

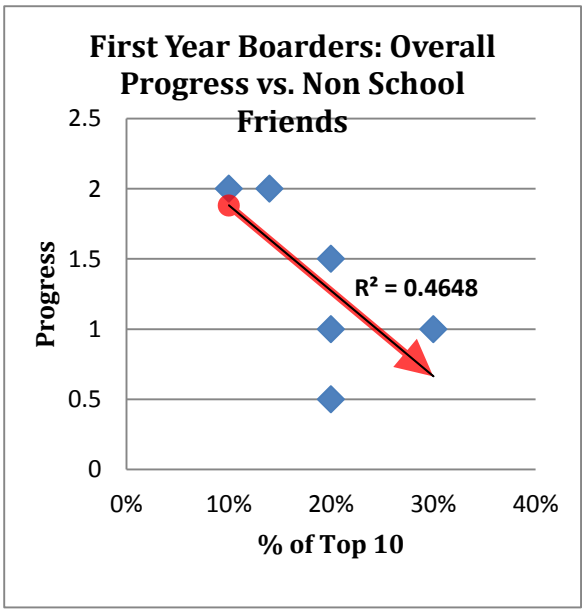

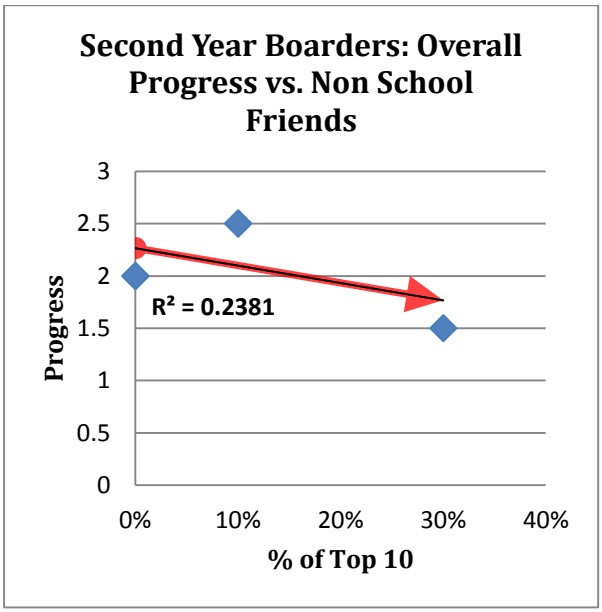

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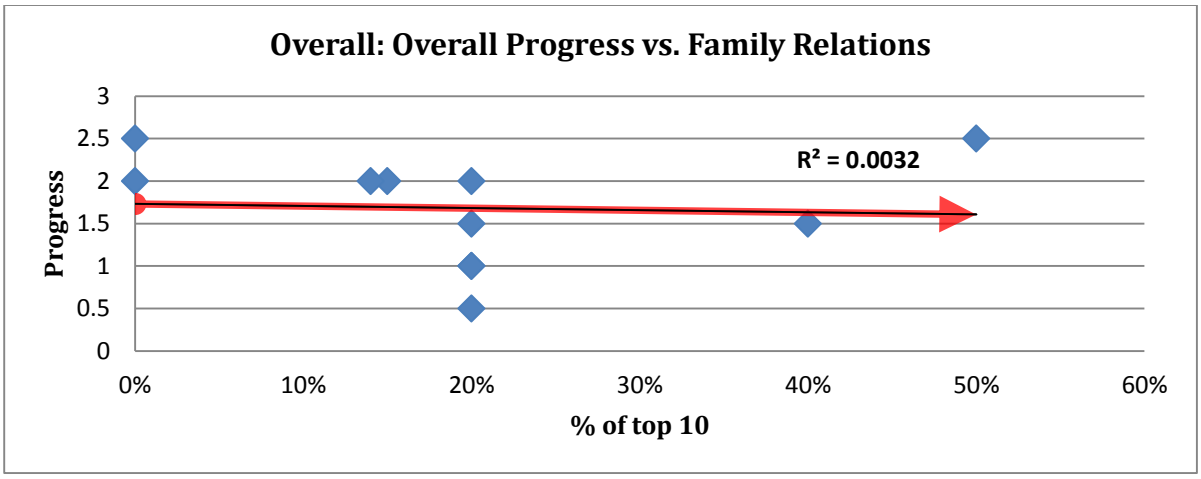

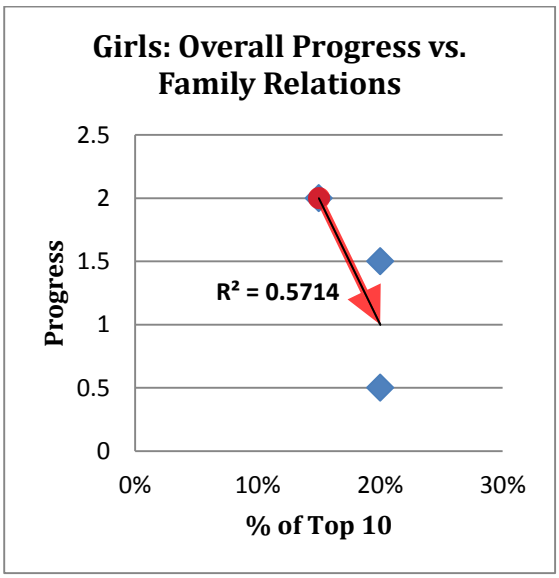

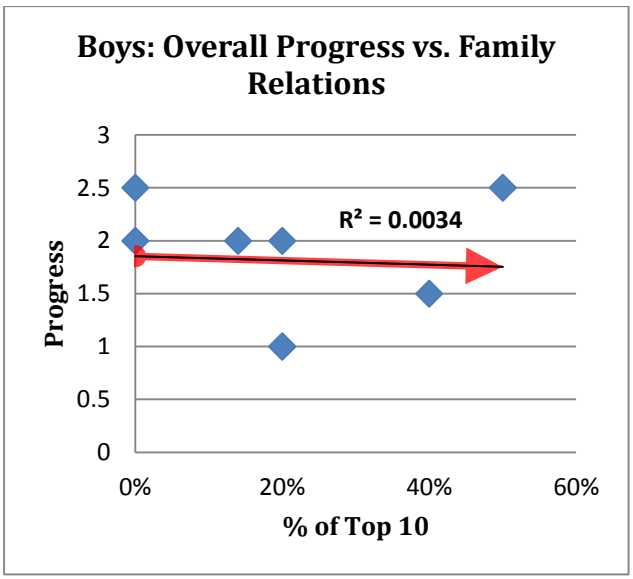

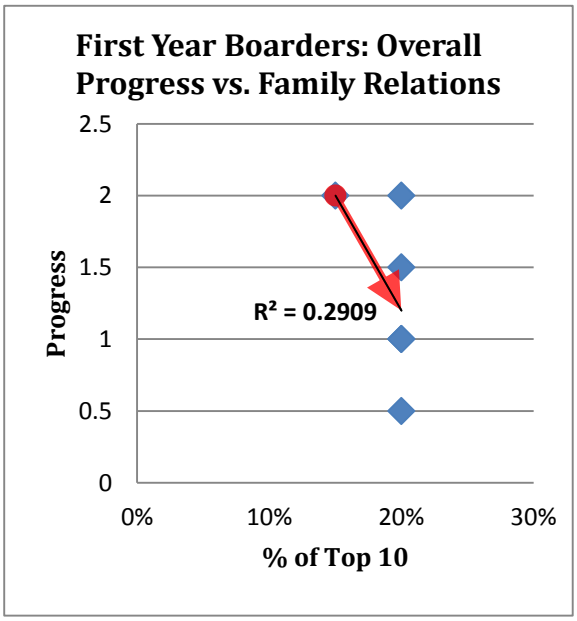

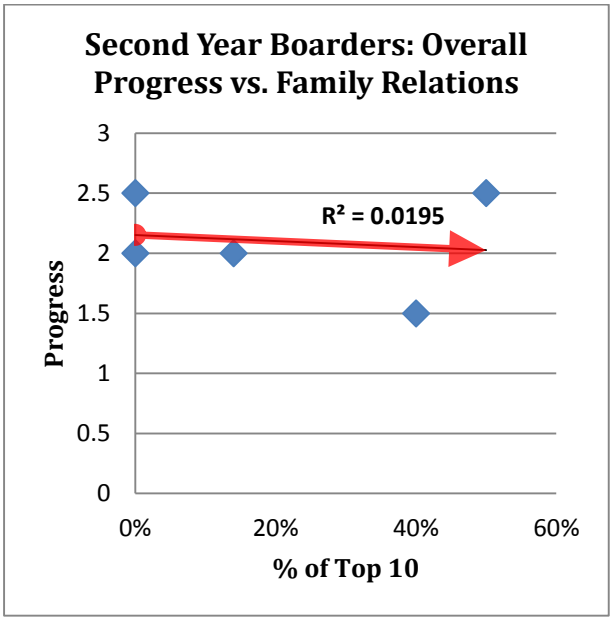

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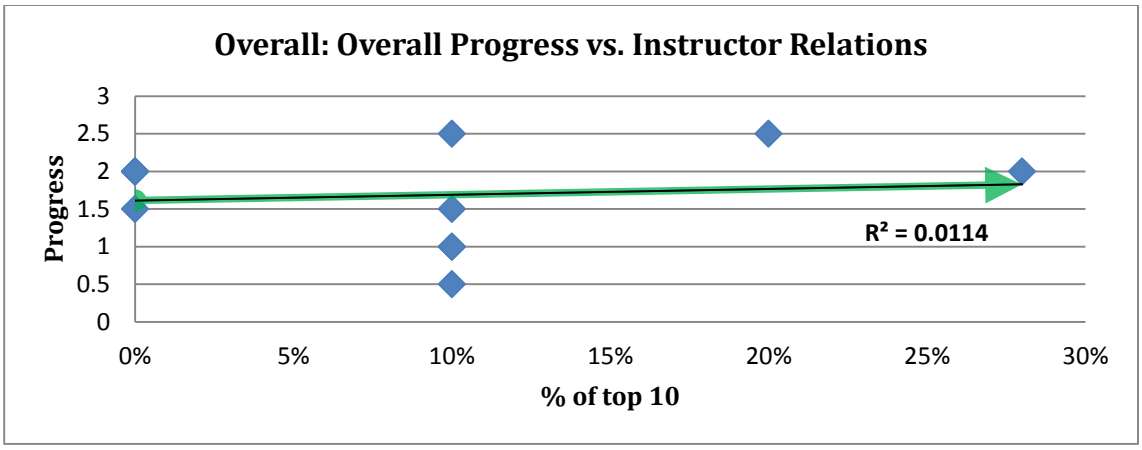

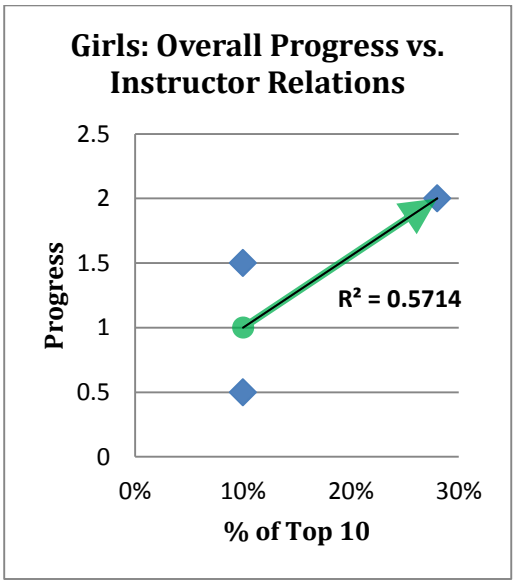

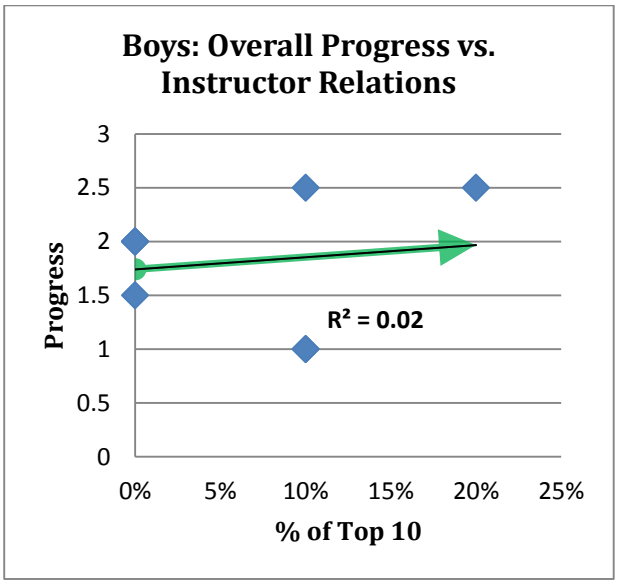

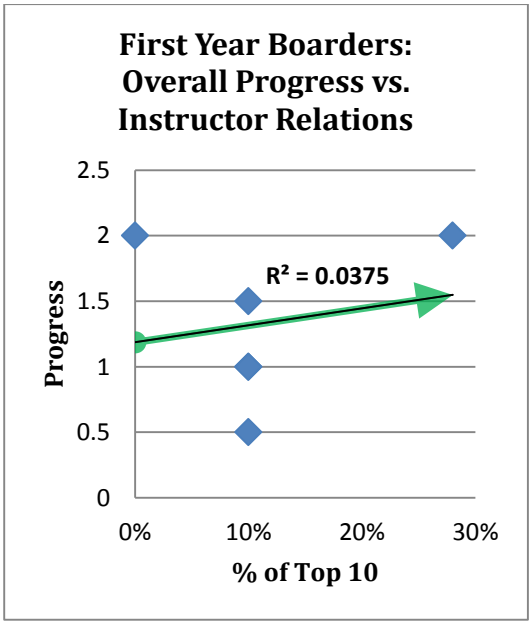

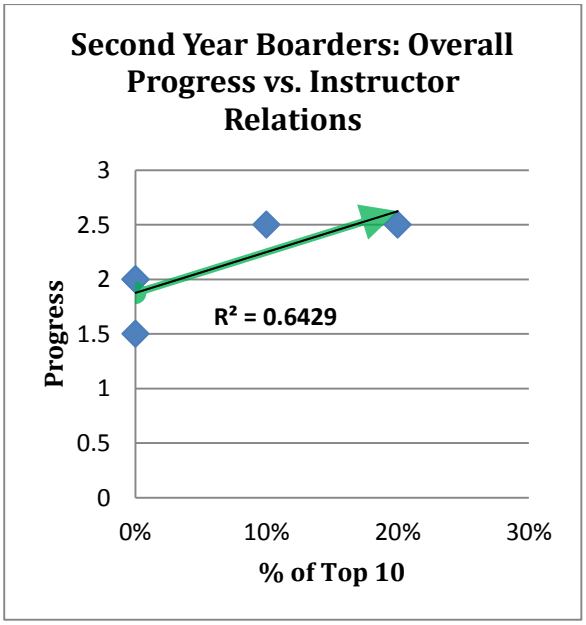
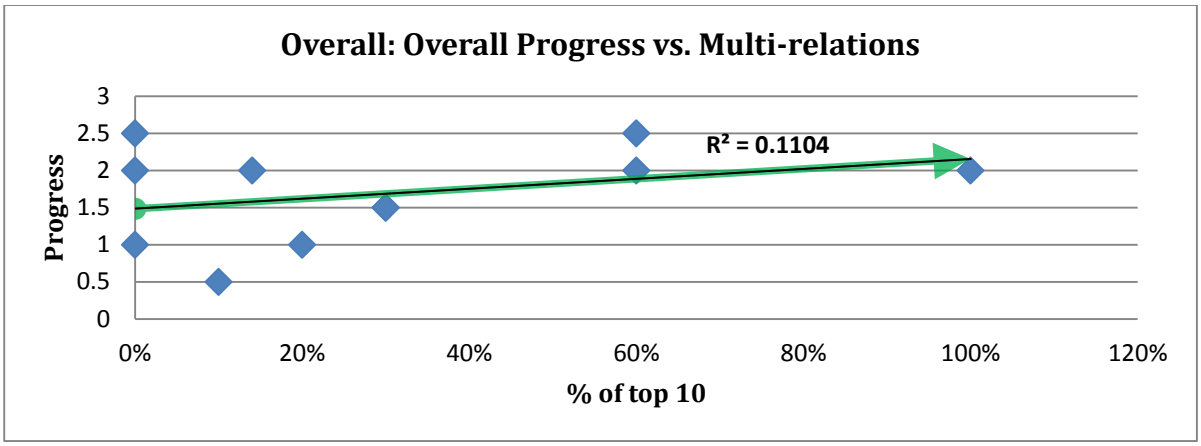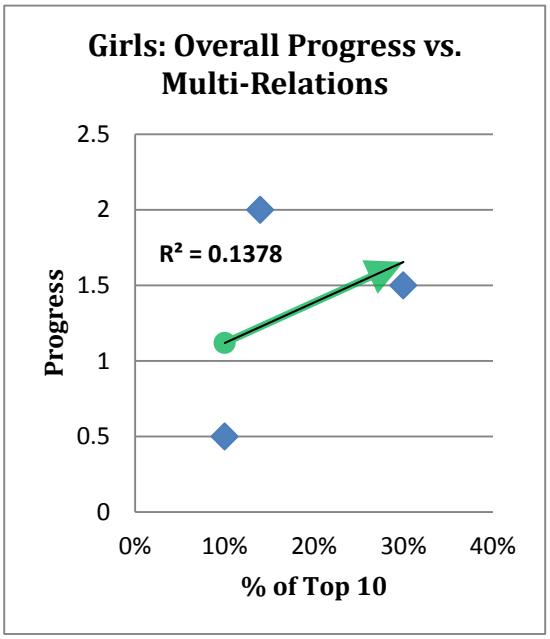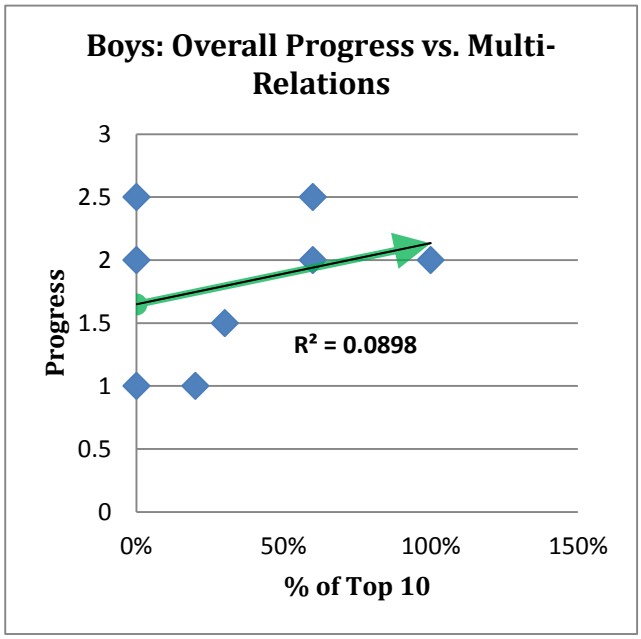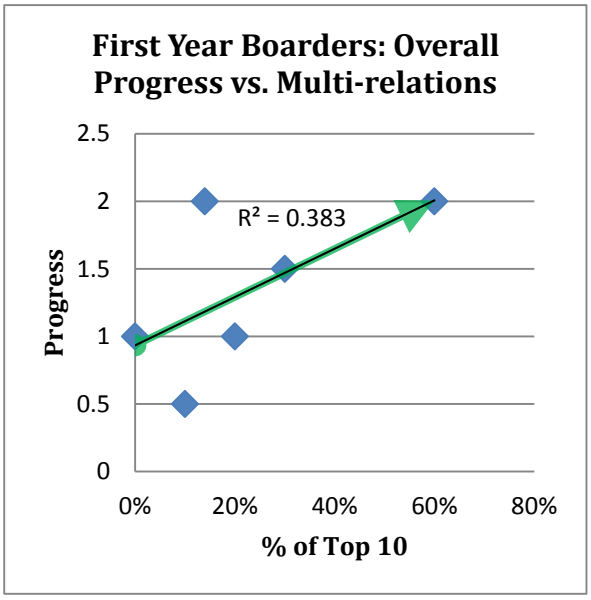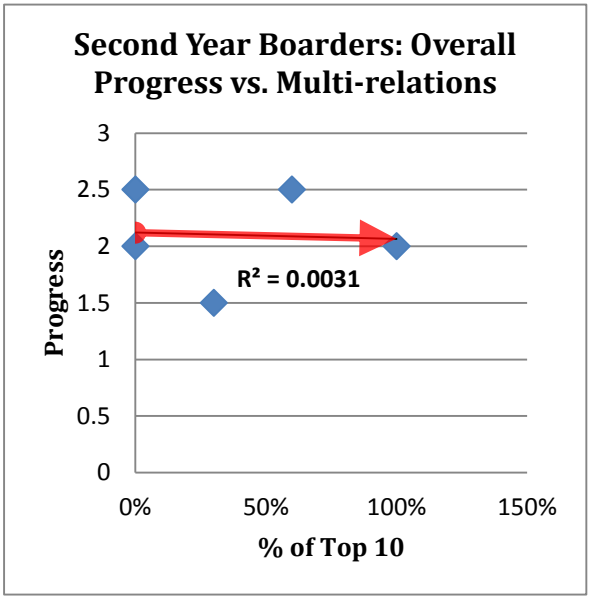
Multi-relations: