My Teacher, My Peers, or Myself? A Collective Case Study in Regards to Classroom Comfort and Academic Success Concerning the Taxonomy of Motivations within Self-Determination Theory

Hollyn Saliga

My Teacher, My Peers, or Myself? A Collective Case Study in Regards to Classroom Comfort and Academic Success Concerning the Taxonomy of Motivations within Self-Determination Theory

Hollyn Saliga

This case study intends to research the correlation between the learning climate - including teachers, peers, and students - and student academic achievement in regards to the Taxonomy of Human Motivations created within the Self-Determination Theory (SDT) created by Richard M. Ryan and Edward L. Deci. This study is a triangulation of data collected through tested SDT questionnaires (for teacher and student), additional questioning, and interviewing. The purpose of this study is to help readers understand the effects of different aspects of the learning climate on a student's motivation and to determine which aspects are the most dominant in influence- success and hindrance wise. An understanding of this can allow teachers, students, and peers to alter their interactions with the environment to enable positivity and achievement.

Keywords: education, self-determination theory, teachers, motivation, learning climate

Establishing the motivation to achieve academically is a common problem among high-school students. Graduation requirements, core curriculum, and constant competition for further education acceptance and scholarships shift classroom emphasis away from facilitating personal interests. Many students find self-motivation difficult because of personal and external pressures hindering their academic performance and diligence. This deviation from intrinsically regulated desires negatively impacts student competency, retention, and overall performance. Thus, development of a solution is critical. Despite research validating potential correlations between student anxieties, and negative influences stemming from restricting external pressures, limited prevention efforts have been implemented. Although current literature attempts to evaluate educator effects on student autonomy, personal perception and desires, and social interaction, the application and effect on student motivation has yet to be determined. This research intends to compile data to clarify the impact educators, and students have on academic success.

The aim of my research is to use three in-depth student evaluations to make this determination in order to aid educators, parents, and students in the betterment of the learning climate.

Literature Review

Self-Determination Theory (SDT)

The late 20th century introduced a shift in motivation research towards a cognitive theory which pertains to goal orientation as opposed to psychological and physiological need (Deci & Ryan, 1980 & 2000). As a byproduct of common replacement of goals over needs, SDT was developed, effectively combining motivation theory with a cognitive theory of goals, personal elements, and psychological need - which allowed for insight into the reasoning behind certain goals and the level of fulfillment provided. The means by which goal oriented individuals feel competent, able to relate socially, and supported, yet autonomous,

are integral to progressive self-development (Deci & Ryan, 2000). Within this proper facilitation of integration motivation, SDT necessitates recognition or personal and environmental variables associated with behavior and motivation. While predisposed internal opinions and emotions within an individual may exist, external factors can replace and develop an individual's feelings. Due to substantial interaction between personal and external factors, both must be analyzed when assessing human experience in respect to its effect on tasks and goals. Additionally, a complete analysis of human experience allows environmental and personal consciousness factors to be analyzed together, not only to benefit personal development, but also to discover what factors potentially hinder self-motivation, social functioning, and overall well-being (Deci & Ryan, 1980). Together, these factors facilitate three motivational subsystems: intrinsic, extrinsic, or amotivation (Deci & Ryan, 2000).

Human Taxonomy of Motivations

According to Deci and Ryan (2000b), energy and activation come from motivation, whereas the inverse is to lack those along with inspiration of any degree. Current literature suggests that motivation should no longer be viewed as a unitary phenomenon that strictly boxes an individual into extrinsic, intrinsic, or amotivation. Similar to SDT, the Hierarchical Model of Intrinsic and Extrinsic Motivation also agrees that motivations cannot be a dichotomy (intrinsic/extrinsic), but more so a continuum (Vallerand, 2000). The commonality between research shows that not only do motivations vary in level, but also in orientation- i.e. type (Deci & Ryan, 2000b). However, in order to understand the variations, one must know the broad categories:

Intrinsic- "the doing of an activity for its inherent satisfactions rather than for some separable consequence" (Ryan & Deci, 2000c, p.56)

Extrinsic- "a construct that pertains whenever an activity is done in order to attain some separable outcome" (Ryan & Deci, 2000c, p.60)

It is clear that these motivational subsets contrast each other. While intrinsic is pure in its contingen-

cies, extrinsic motivation is slightly more complex due to the variability of extrinsic motivation within individuals. The creation of the sub-theory of Organismic Integration Theory (OIT) tackles these variations (Deci & Ryan, 1980). The further right one goes on the extrinsic motivation regulation, the more internal the perceived locus of causality becomes. This internalization reflects the incorporation of mind consciousness with the subject that is being motivated. The further left, in contrast, is gradually more external, which reflects a disconnect between the conscious mind and the value of the subject being motivated. Amotivation represents no relation between behavior and outcome.
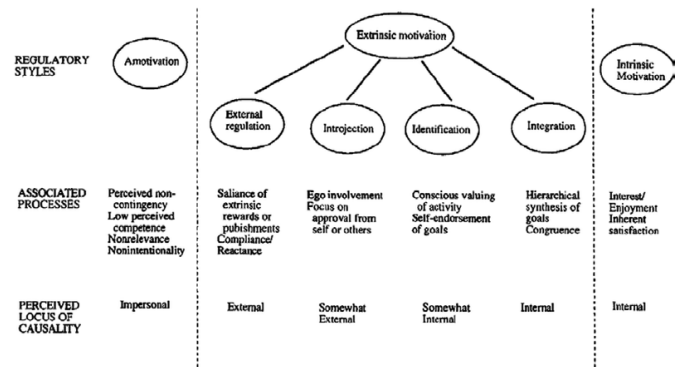

Figure 1. A taxonomy of human motivation (Deci & Ryan, 2000b)

How Need Fulfillment is Observed and Analyzed

Various applications to determine fulfillment and actualization levels of the three psychological innate needs: autonomy, competence, and relatedness exist within SDT through thoroughly developed and tested questionnaires.

Autonomy & Perceived Competence of Authority

Individual autonomy is one's level of independence whether perceived or actualized. One's predisposed personal experiences may render them more or less autonomous, however, according to SDT, environmental influences can strongly impact, or support, existing autonomy through controlling methods. The

student-teacher relationship specifically exemplifies this phenomenon. In the typical learning climate, students are engaged, motivated, interested, and proactive or blankly stare into space and simply go through the motions. The belief of "children's motivation, engagement, and successful school functioning as an interpersonally coordinated process between teacher and students", facilitate autonomy-supportive environments according to Eccles, Roeser, and Sameroff's journal (as cited in Reeve, 2006, p.225) and other literature. It is a general belief that promoting a student-centered learning climate will benefit whatever the course may be: teachers will be more motivated and student-oriented, the motivation of students will then benefit, and performance will subsequently rise/adjust accordingly (Black & Deci, 2000). In the past, evaluations were lacking and did not show the complexity of the relationship between student and authority. However, the few studies attempting the evaluation are met with realizations that autonomy-support versus controlling methods are possibly not just what the teacher thinks they are providing, but more so what the students' perceptions of the teachers' methods are in aid to their autonomy.

Perceived autonomy support questionnaires have been developed to determine the students' perception of their teachers, and some interesting correlations have been found such as the correlation with students recording higher personal autonomy making harsher evaluations of their teachers' support. Literature reveals that "student consent and acceptance of teachers' decisions and directives" determine teacher effectiveness (Barata, Casneiros, & Graca, 2013, p.1066). While in the aforementioned study, Barata et al uses the RMA (Relational Model of Authority), the vast analysis of the effectiveness of the Perceived Autonomy Support SDT justifies its use. A review of the more recent theories and ideologies surrounding autonomy-supportive versus controlling learning climates further substantiates the emphasis on student perception of autonomy being the most valuable; a question of traditional societal ways of entrusting authority in education, naturally expecting students to obey unquestioningly, has even been proposed (Hemmings & Pace, 2007). My research to investigate further what happens in classrooms, as its effects are relevant to students in regards to these scarcely observed formations of teacher-student relationships in autonomy support.

Perceived Self-Competence & Relatedness

Self-esteem/competence is a crucial factor which identifies potential physiological hindrances in terms of academic performance, and is a catalyst towards significant individual growth. Another sub-theory of SDT is Cognitive Evaluation Theory (CET) which essentially delves deeper into the motivation continuum determining that increased feelings of individual competency when performing tasks produces increased levels of intrinsic motivation to continue execution. Subsequently, feeling less competent increases externally regulated motivation steering individuals to avoid particular tasks. Emphasis on self-esteem growth and competence aims to promote student-centered learning environments/instruction. Cooper, Dubois, and Valentine's journal (noted in Heath & Stringer, 2008) discuss how positive outcomes, like good academic performance, typically stems from a positive self-perception of competence. Alongside benefits to academic performance, individual ability to tackle challenging tasks is also strengthened (Ferla, Schuyten &Valcke, 2010). However, while self-confidence is beneficial, in excess, it can inflate an individual's perception of their own academic capabilities which can ultimately hinder student success.

Relatedness and perceived self-competence go hand-in-hand. Relatedness is necessary when developing close-knit relationships with others (Deci & Ryan, 1985). It is essentially discovering a sense of belonging while competence necessitates effectiveness when dealing with one's environment, such as teachers and peers within the classroom climate. Whether a result of weak correlations or negligence, literary research pertaining to relatedness has been lacking. This research intends to bridge the gap by evaluating social context within classroom settings.

Overall, data pertaining to SDT application in education is limited. Contemporary research focuses on fulfillment of a singular innate psychological need rather than all three. Although studies exist discussing teacher (autonomy-support versus control) and one's self (perceived competence and autonomy/motivation continuum) social context within the environment is rarely introduced. Furthermore, a gap in knowledge is evident regarding which element – teacher, peers, or oneself – is dominant in aiding, or hindering, self-determination because current literature fails to evalu-

ate all factors comparatively. This study aims to build on current knowledge of SDT within a high-school education system comparatively to identify what has the greatest effects on students. Hopefully, an in-depth student analysis of learning climates and its variables will offer new knowledge regarding dominant factors which could cause implementations ensuring more internal intrinsic and extrinsic motivation which would increase student comfort and academic success.

Method

Three freshmen high-school students that cumulatively identify (based on operational definitions) as low, average, and high academically, make up the sampling. Classifications will not be included necessarily in comparison, but this was important to have a random selection with all types of students. Both genders were included, although in the end only females participated. Individual tables and charts that compared data succeeded in triangulating the data in an effective comparative manner. Each student received questionnaires tested and created by SDT researchers and additional questions created, by myself, to fill in any gaps between questionnaires that were specific to my study - such as the personal element of free response opportunities- in order to collect data. Data was taken from both student and specified teacher to ensure accurate analysis or discrepancies of learning climate perception. Data collection of students concluded with a ten-to-twenty minute loosely-structured interview to validate data conclusion, assumptions, and to determine the dominant negative/positive factors which ultimately affected comfort, or lack thereof, in the chosen learning climates.

Figure 2. Student Self-Selection Survey

Student Selection Survey   Name:_____

Teacher:_____

Grade:_____

1. Are you a High School 9th grader that will have the same classes year round?

    a. Yes/ No

2. Would you be willing to share basic grade information before and after the study (anonymously)?

    a. Yes/ No

3. Would you be willing to complete a total of 4 questionnaires in the next several months that take about 15 minutes in completion time?

    a. Yes/ No

4. Would you be willing to participate in a student-based educational study where you would be observed approximately 2 times in two different classes at your discretion?

    a. Yes/ No

5. Would you be willing to be interviewed after and have your responses shared anonymously for academic purposes?

    a. Yes/ No

If all yes, please provide contact information that will only be shared with the student researcher and will remain confidential

(preferably email and cell-phone

number):_____

_____

Five different teachers- 2 teaching honors, 2 teaching standard, and 1 additional teacher for the freshman AP class, were distributed self-selection surveys. From there, approximately 7-15 students who were interested and in agreement to the terms, were contacted, and the three most cooperative and diligent were chosen as those qualities were highly sought after for the sake of time and ease of information acquisition.

To maintain ethical boundaries, I used informed consent with the Student Self-Selection Survey. A requirement for student participation was that they circled yes for each of the five questions in the survey. The option to opt out at any time desired was present for each student. At data completion, explanations of data and its implications, along with information on their motivation levels, were given to the students and they could ask any questions freely. To ensure an ethical use of human participants, I completed an IRB form and had my project approved. I also referred to the APA Ethical Guidelines.

For the actual study, each of the three students self-identified their most and least comfortable class. These identifications were extremely broad and allowed participants to select any of their classes. Course content and personal reasoning were not required in the initial identification stage. Students were told simply to select the class that they felt the most, and least, comfortable in based on any personal predisposed definitions of comfort they held. The reasoning/factors that affect comfort in the learning climate is what the study evaluates, therefore, allowing potential participants free reign was imperative as to not limit their selection of classes. For each of their two classes, they completed SDT questionnaires- Learning Climate Questionnaire (LCQ) and Self-Regulation Questionnaire (SRQ) - with add-on questions to address the social context, the teacher's perception of that, and more (see Appendix C, 1-2). The Motivator's Orientation Questionnaire (MOQ) went out to each of the teachers of the identified classes. To conclude, the data was calculated, analyzed, and followed up with an interview with each student (see Appendix C, 3).

With the Perceived Competency for Learning Scale (PCLS)- connected to the LCQ, a score of seven ranks as very competent while a score of one rank as the inverse. This scale is a brief but effective measure of students' perception of their own abilities. LCQ pairs with the PCLS to evaluate student perception of the environment along with their perception of autonomy support.

The SRQ forms upon a 1-4 scale, one being low and four being high. Its use measures student motivation for learning. According to SDT, extrinsic is pursuing behavior for pay or reward, or because of coercion. Introjection is pursuing behavior due to an internalized guilt while identified is pursuing behavior because the outcomes are valued as important to the person's personal goals. Finally, intrinsic is pursuing behavior for the pleasure of knowing, the pleasure of accomplishment, or the pleasure of stimulation.

The creation of the Relative Autonomy Index takes the previous findings of motivation regulation, and then determines an overall score that relays an overriding regulation. To find it you follow this formula: 2 X Intrinsic + Identified - Introjected - 2 X External.

Higher scores in the case of the LCQ indicate greater perceived autonomy support, while lower scores indicate the perception of a controlling instructor. This compares with the MOQ, which or self-perception of, or teachers' actual teaching style.

Findings, Discussions, and Limitations

Student A

Findings. The student was more intrinsically motivated in the comfortable class than the uncomfortable class but, it is imperative to note that the numbers are highest in both introjection and identification. In the student's comfortably rated class, they were extrinsically motivated. Similarly, in the student's designated uncomfortable class, the RAI was -1.5, which is classified as between introjected and external (see Appendix A, 3-4). The comfortable class's teacher scored a 5.88-their highest rank- in the highly autonomy-supportive section. This correlates to student A's score of their perceived autonomy support for their comfortable class at a 6.4. The uncomfortable class's teacher scored a 6- their highest rank- in highly autonomy-supportive as well. A correlation is not evident between the student's perceived autonomy support of the uncomfortable class' teacher as the score was a 3.5 (see Appendix A, 5).

Limitations. Teachers could have falsely reported what actions they would have taken by instead opting for choices that appear to be the most moral.

Discussion. The extremities of external and intrinsic motivations are hypothesized to be the cause. As discussed by several prominent researchers within the realm of SDT, it is less likely that a student is intrinsically motivated in education. Regardless of interest in a subject, an enrolled student is still required to attend school and complete work to an extent.

Interview & Connection to Data. The student said: "It's not that the classes are hard, it's just that the actual environment makes me not want to do anything…but I will still do the work, I'm just not like, let's do it!" Student A says that within the factors of a class environment, the most influential to them is the teacher. The teacher, specifically, with the comfortable class, is positively influential, while the negative factor is the peer influence. "I love that teacher but the people in that class make me not want to learn because they're just bad…they're the bad kids in the school and always doing inappropriate things." Therefore, in the situation of the comfortable class, the teacher autonomy support, along with the student's self-motivation, are beneficial. The negative factor is peer influence (see Appendix B, 1). The student also says that they feel being in standard classes compromises their learning. The student said:

"all my teachers want me to take honors next year but like I don't do well under pressure so like I know what works with me, I've done honors classes in 6th grade, and I just had a rough time…I know I'm more than capable I just like the pace of standard but I don't like the kids."

Roles switch in the uncomfortable class. The student becomes more reliant on the social environment and their peers, rather than the teacher who the student says is "barely in the class to help us, they normally have other students walking around to help." The uncomfortable class offers credentials that completely extrinsically motivate them. Regardless, it is difficult for them to motivate themselves to be academically successful. The uncomfortable teacher's interview rivals the student's autonomy perception data (see Appendix D, 2). They believe the student is comfortable. The data and the interview enable the assumption that when the autonomy-supportive environment is not present and perceived by both the peer and the teacher, the student leans toward the social environment for support instead. The comfortable class' teacher's interview and data corresponded with the student perception of high-autonomy support (see Appendix D, 1). They have a strong student relationship that is noted to go beyond classroom discussion about curriculum and content.

Student B

Findings. The student's uncomfortable class' high score was 3.4, falling into the category of external regulation. The student showed primarily identified regulation in the comfortable class with the same score of 3.4 as the highest. Student B is slightly more identified in regulation when comparing their comfortable class to their uncomfortable class, with only a 0.3 difference noted. The external regulation rate of 3.4 in the uncomfortable class only varies by 0.1 in the comfortable class. The extrinsic motivator scores are 5.8 in the comfortable class compared to 5.9 in the uncomfortable class (see Appendix A, 6-7). The student's perceived autonomy of the comfortable teacher was a near perfect score of 6.93, compared to the uncomfortable teacher with a 4.93; while the latter is not a necessarily low score, it comparatively shows a more controlling perception of the teacher (see Appendix A, 8).

Limitations. The student's high scores lead one to believe that the comfortable class is primarily intrinsically motivated and the uncomfortable class is extrinsically motivated, it is somewhat misleading. I was unable to acquire data on the comfortable class' teacher because they are a virtual teacher and not on-campus educators. To make up for this, I inquired about the teacher in the student interview.

Discussion. Data shows the student believed the comfortable class's information was beneficial to their personal goals and self-advancement, while the uncomfortable class had little to offer. Both classes experience high extrinsic motivations. The extrinsic numbers outweigh the intrinsic regulations by 0.4. Student B shows external RAI scores in both classes, however, like student A, there is a more external score in the uncomfortable class in comparison to the comfortable one. Like student A, student B has identical scores in introjected with regulation, with very similar findings in external and identified as well. The data appears

indicative of a student who is primarily extrinsically motivated for academics. It is possible that they are not interested in either subject. The high score of the uncomfortable teacher was in the controlling category. High autonomy support was also high in score, but again as seen in student A's perceived support versus the motivator's orientation scores, it seems that regardless of autonomy support score, if a controlling score rivals it, the student has a lesser perception of their autonomy support overall.

Interview & Connection to Data. Student B feels unsure about school. They say they "don't hate it, but they don't love it," because they can hang out with friends, but they also have to get up very early and sit through one-hundred and three-minute classes - which was noted to be unbearable. The student immediately delves into how they like Wednesdays better because the shorter periods prohibit information overload and allow for a better understanding. The student's interview supports their externally regulated data because they do not believe the classes they are taking are preparing them for their future at all (see Appendix B,2).

It is important to note that the student is interested in further education. The student specifically enjoys science, history, and English. The student is not interested in the content of their uncomfortable class. The content is a big push for motivation, even though it is not entirely intrinsic because they do not see the pure benefit. Socially, the student says they do not have problems. They are well liked and have a lot of friends, but they know when the time comes to be quiet and focus on the task at hand (see Appendix B,3). Student B says their virtual class is their comfortable one. According to growing data on virtual classes, this can be contradictory to many individual beliefs and comfort in these courses is not universal by any means. While, for some, online instruction leads to higher test scores and greater overall academic performance, others experience incredible difficulty assimilating to virtual instruction and cannot efficiently manage their workload resulting in drastically increased dropout rates, especially in high school (Morgan, 2015). However, the student elaborates on the extra effort their virtual teacher makes even though they have countless students. They said that texts are sent every day to ensure their success in the class. The teacher has horses too, which is a love of the student, so they bond over the phone. The student agrees that a bond with a teacher forms a solid autonomy-supportive relationship and enables more comfort in asking questions and furthering academic discussion as well. The aforementioned observations offer an intriguing topic which would serve as an interesting future research endeavor geared towards involving self-determination theory into virtual classes. This could be done in an effort to discern the circumstances under which students meet, if not surpass, contemporary academic standards extrapolated from traditional classroom settings.

In totality, the student believes that teacher has the biggest impact on success.

Again, the virtual teacher that is identified as the most comfortable class teacher was not accessible for information, although some were obtained in the student interview. In regards to the uncomfortable teacher, the data disconnect between the ranking of student autonomy support from the student versus the teacher is reinforced by the interview through the teacher's assumption that the student is comfortable in their class (see Appendix D,3). The teacher, however, does admit that they struggle with motivating students that are unmotivated.

Student C

Findings. Student C varied the most. Their high score was identified in both the uncomfortable and comfortable class. Both classes show a higher level of intrinsic motivation (see Appendix A, 9-10). Student C has the lowest overall scores of external regulation, showing that while the student may be extrinsically motivated to an extent, the primary weight of the extrinsic score is accredited to introjection. The gap between the classes RAI's is wide. Student C rated that teacher at a 5.46, decently autonomy-supportive for an uncomfortable class. Their comfortable class' teacher at a high score of 6.25 in the highly autonomy-supportive category, with the second highest score in the other autonomy support category of moderately autonomy-supportive, scoring in that a 5.63. The comfortable teacher still has elements of high control in their teaching style, but in this case, the gap between the score of autonomy-supportive and controlling is wide enough that the perception by the student of their true style is not altered.

Limitations. Both classes were very similar and the students indicated their comfortable and uncomfortable class practically switched roles half-way into the study do to class and teacher discussions. Therefore, it was difficult to get a strong comparison from each side.

Discussion. Data shows that the student still has a greater sense of ought or should in comparison to pure outside coercion forces, in both comfortable and uncomfortable classes. The difference between the uncomfortable and comfortable class- which is made clear by the RAI score- is that even though they are both seemingly highly intrinsically motivated overall, the comfortable class leans more towards pure intrinsic and the uncomfortable is wedged between introjected and identified. That is still a primarily intrinsic score, which is an outlier in itself being the uncomfortable class, but it indicates one of slightly more external value.

Again, in contrast to the other two prior students, student C really likes going to school and always has. They note that their friends consider them a nerd, but they are okay with that because they have a joy of gaining new knowledge. The student strongly believes that their academic curriculum is preparing them for their future; this future is noted to entail college optimally, however, the struggle to find scholarships is noted as the student is experiencing financial hardships. Student C has a strong love for animals and wants to pursue that love as a marine biologist rescuing animals. Student C is primarily motivated by the love for content and the teacher influence (see Appendix B, 4). This is key. When the social impact is strong, it is more because of disruptiveness or lack of focus, not bullying or negative environments.

The students' self-impact seems to have a negative effect at times. They note strong test anxiety. The student says:

"I have all the knowledge and then boom paper is in front of me and my mind goes blank it's like what the heck I had this in my mind a second ago and now it's all blank...I'm a really bad test taker, tests are not my thing."

This was specifically emphasized in the student's one AP class, primarily due to the intense rigor and pressure of the academic environment. The student uses their teachers as an aid to getting past external pressures. The student said that even the classroom noted as uncomfortable is no longer an uncomfortable class because they talked to the teacher by writing a note, explaining their hardships and struggles (see Appendix B,5). This student is primarily intrinsically motivated due to their own love of the content (self-motivation) and extremely highly autonomy-supportive teachers.

The uncomfortable class' teacher is autonomy-supportive, but also with controlling/strict elements that could be intimidating to a freshman, backed by their interview responses (see Appendix D, 5). The comfortable class' teacher believes the student is comfortable in the class and hopes that they are motivated by a little bit of them, their own motivations, and their peers. This also appears to be autonomy-supportive, backing the data of the questionnaires (see Appendix D,4).

Conclusion

My hypothesis was that autonomy-supportive teachers and peers that heighten perceived competency, paired with an intrinsic/internal regulation of self-motivation toward a particular subject or class, would lead to higher comfort and subsequent success in the classroom. I hypothesized the internal regulation of self-motivation would be the dominant factor that had the power to override the others in positive or negative effect. I believed the teacher and social aspect would come next in order. This was partially supported and partially not.

The outcomes matched the hypothesis that greater perceived competency shows a direct correlation with comfort in classes. All of the students rated at least a .5 higher perceived competency score for learning in the comfortable class in comparison to the chosen uncomfortable class (see Appendix A, 1). Even if the RAI was extrinsically motivated for both classes, still the comfortable class was more internal- aka introjected or identified. The three participants all separately noted in their interviews and questionnaires that if they are more comfortable in a class and enjoy it more overall, they are more academically successful in the class, or at least prone to be.

It was consistently noted that the teachers of the comfortable classes prioritize students liking them. A mutual liking appears to be needed/ heavily encour-

aged for a relationship and autonomy-supportive teaching is equal to forming relationships. The inconsistencies of some data with discrepancies between student perception of an environment and the teacher versus the teacher's perception reveal some teachers are not aware of the student's feelings towards a class and may not necessarily be purposefully aloof, just unaware. This contributes to less feeling of autonomy-support, thus counteracting the teacher's efforts regardless of their actual motivator's orientation. As shown by the data, while the teacher could be primarily autonomy-supportive, certain things such as disregard for feelings or elements of controlling styles can override that in student perception. This, in turn, can harm the student's comfort, motivation, and success.

Intense competition was not promoted socially; it was promoted within the student. None of the students had major problems with their social environments as a detriment, except for one that cited it as a distraction at times in the standard environment. Several leaned towards the social climate as a back-up if they did not have a strong teacher relationship.

The teacher and the student's parents were said to have a large impact on the pressure of succeeding, regardless of actual and perceived relationships. All students agreed that the teacher has the strongest impact on student success and interest, so this disproves my hypothesis that self-motivation would be the most impactful. However, there cannot be one factor that is the most important to student success. In one student's case, the teacher was supportive, but the social environment distracted them from reaching their full academic potential, regardless of their intrinsic motivation towards the content. It is also evident that no matter how autonomy-supportive a teacher is, a student will not be as academically successful if they do not have some level of internal regulation towards the content, so self-motivation is still very relevant. While teacher impact appears to have the greatest potential in the case study to affect a student's success and motivation, this could also be because two of the three participants had limited content motivation and more external regulation to begin with. This study needs to be carried out again with a larger sample size to determine if the same prioritization of teacher autonomy-support would manifest over self-motivation when there are more students that enjoy learning and school. One cannot look at just the teacher factor without evaluating the context of the learning climate holistically- including peers and motivational content interest.

A possible limitation of this research study was the decision to continue with the three most diligent and cooperative participants. While variability among work ethic and academic skill was evident amongst participants, all exhibited a level of diligence and cooperation not met by other candidates. Due to the personal nature of a portion of the inquiries found on the questionnaires and interviews, it seemed most effective to incorporate participants that were readily partaking without continuous force. While this approach was most efficient when dealing with a small sample size selected from a freshman class at a singular high-school, it may not be ideal should one replicate the study with a larger sample size and time frame where a much more diverse participant pool could be selected which could potentially offer a more detailed data. A larger sample size would be especially beneficial as the small sample size of three participants served as a limitation throughout this research study. Purposefully studying students that provide more difficulty in the data acquisition process could provide information from an entirely different perspective, thus progressing this initial analysis through further future research.

Additionally, limitations of the study holistically included time constraints, the honesty of student responses, an abundance of moving factors, age/need of parental consent, and a lack of teacher motivation. Upon board approval, this study was required to be completed within a few short months. This limited amount of time ultimately led to a smaller participant sample, a less in-depth analysis, and an inability to observe students in the classroom- which was initially intended for the research process. Furthermore, the questionnaires could not all be distributed face to face. This gives birth to the possibility that participants answered questions inaccurately in an effort to depict themselves as what they may view as ideal. The concern of honesty is especially relevant with the teacher questionnaires as certain scenarios posed to them and their descriptions of the varying ways to handle the situations presented could possibly be distorted through writing. Teachers could describe particular ways by which they claim they would handle a classroom situation when in reality their ac-

tions should this situation arise could potentially be completely different. Another limitation of this study is simply the fact that there was an obscene amount of factors that had to be taken into account. Due to the abundance of factors being analyzed, paired with the time constraints previously mentioned, less in-depth connections and comparisons could be made. Also, all three of the students participating were minors. This gave rise to concerns with parental consent at times, and limited potential research options and approaches. Finally, the lack of student and teacher incentives led to less motivated participation resulting in tasks being completed in a less detailed manner, and difficulty receiving assigned tasks in a timely fashion.

Possible opportunities for future research include evaluating all boys and comparing those results to these. In addition, expanding the number of participants or having a longitudinal study could offer an interesting analysis. Evaluating at what level controlling factors of a teacher's style is perceived as dominant over existing autonomy-support factors would also be important for education research.

References

Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education, 84*(6), 740-756. doi:10.1002/1098-237x(200011)84:6<740::aid-sce4>3.0.co;2-3

Deci, E., & Ryan, R. (1980). Self-determination theory: When mind mediates behavior. *The Journal of Mind and Behavior, 1*(1), 33-43. Retrieved from http://www.jstor.org/stable/43852807

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior* (1st ed., Vol. XVI, Perspectives in Social Psychology). NY: Springer Science Business Media. doi:10.1007/978-1-4899-2271-7

Deci, E. L., & Ryan, R. M. (2000a). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268. doi:10.1207/s15327965pli1104_01

Deci, E. L., & Ryan, R. M. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi:10.1037//0003-066x.55.1.68

Deci, E., Koestner, R., & Ryan, R. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 71*(1), 1-27. Retrieved from http://www.jstor.org/stable/3516064

Ferla, J., Valcke, M., & Schuyten, G. (2010). Judgments of self-perceived academic competence and their differential impact on students' achievement motivation, learning approach, and academic performance. *European Journal of Psychology of Education, 25*(4), 519-536. Retrieved from http://www.jstor.org/stable/23421486

Goldstein, L. (1999). The relational zone: The role of caring relationships in the co-construction of mind. *American Educational Research Journal, 36*(3), 647-673. Retrieved from http://www.jstor.org/stable/1163553

Graça, J., Calheiros, M., & Barata, M. (2013). Authority in the classroom: Adolescent autonomy, autonomy support, and teachers' legitimacy. *European Journal of Psychology of Education, 28*(3), 1065-1076. Retrieved from http://www.jstor.org/stable/23581536

Morgan, H. (2015). Online instruction and virtual schools for middle and high school students: Twenty-first-century fads or progressive teaching methods for todays pupils? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 88*(2), 72-76. doi:10.1080/00098655.2015.1007909

Pace, J., & Hemmings, A. (2007). Understanding authority in classrooms: A review of theory, ideology, and research. *Review of Educational Research, 77*(1), 4-27. Retrieved from http://www.jstor.org/stable/4624886

Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. *The Elementary School Journal, 106*(3), 225-236. doi:10.1086/501484

Ryan, R. M., & Deci, E. L. (2000c). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54-67. doi:10.1006/ceps.1999.1020

Stringer, R., & Heath, N. (2008). Academic self-perception and its relationship to academic performance. *Canadian Journal of Education / Revue Canadienne De L'éducation, 31*(2), 327-345. Retrieved from http://www.jstor.org/stable/20466704

Vallerand, R. (2000). Deci and Ryan's self-determination theory: A view from the hierarchical model of intrinsic and extrinsic motivation. *Psychological Inquiry, 11*(4), 312-318. Retrieved from http://www.jstor.org/stable/1449629

Appendix A

Table A1
PCLS- Perceived Competency for Learning Scale

	Comfortable Class	Uncomfortable Class
A	6	5.5
B	6.75	3.5
C	7	6

Table A2
LCQ- Learning Climate Questionnaire

	Comfortable Class	Uncomfortable Class
A	6.4	3.5
B	6.93	4.93
C	6.32	5.46

Table A3
SRQ- Self-Regulation Questionnaire for Learning

STUDENT- A	Comfortable Class	Uncomfortable Class
External Regulation	2.7	2.9
Introjected Regulation	3.3	3.3
Identified Regulation	3.6	3.6
Intrinsic Motivation	2.1	2

Table A4
RAI- Relative Autonomy Index

Comfortable Class	Uncomfortable Class
-0.9	-1.5

Table A5
MCQ- The Motivators' Orientation Questionnaire

STUDENT- A	Comfortable	Uncomfortable
Highly Controlling	2.25	4
Moderately Controlling/ Slightly Autonomy Supportive	4.38	4.63
Moderately Autonomy Supportive	2.38	4
Highly Autonomy Supportive	5.88	6

Table A6
SRQ- Self-Regulation Questionnaire for Learning

STUDENT- B	Comfortable Class	Uncomfortable Class
External Regulation	3.3	3.4
Introjected Regulation	2.5	2.5
Identified Regulation	3.4	3.1
Intrinsic Motivation	2.0	1.6

Table A7
RAI- Relative Autonomy Index

Comfortable Class	Uncomfortable Class
-1.7	-3

Table A8
MCQ- The Motivators' Orientations Questionnaire

STUDENT- B	Comfortable	Uncomfortable
Highly Controlling	n/a	4.13
Moderately Controlling/ Slightly Autonomy Supportive	n/a	4.5
Moderately Autonomy Supportive	n/a	3.5
Highly Autonomy Supportive	n/a	4.25

Table A9
SRQ- Self-Regulation Questionnaire for Learning

STUDENT- C	Comfortable Class	Uncomfortable Class
External Regulation	2.1	2.4
Introjected Regulation	3.2	3.4
Identified Regulation	3.4	3.6
Intrinsic Motivation	3.3	2.4

Table A10
RAI- Relative Autonomy Index

Comfortable Class	Uncomfortable Class
2.6	0.2

Table A11
MCQ- The Motivators' Orientations Questionnaire

STUDENT- C	Comfortable	Uncomfortable
Highly Controlling	3.75	n/a
Moderately Controlling/ Slightly Autonomy Supportive	4.5	n/a
Moderately Autonomy Supportive	5.63	n/a
Highly Autonomy Supportive	6.25	n/a

Appendix B

Student Excerpt B1

In totality, the student says as far as what is most motivation for them: "I say a little bit of everything because the material…I was so excited when I found out we were reading Romeo and Juliet, like the class with the bad kids, I was so excited…and like the teacher is very nice and I love when you can feel comfortable with them and it's good when you have a class with good students rather than the ones that are bad…like a quiet class with good kids where you still have fun is the ideal, so I really do think a mix of all but its mostly a teacher because they can make boring material fun."

Student Excerpt B2

"I just don't feel like you're being taught necessary things that you need for when you get older; like I don't know how to do taxes, but I'll have to do them. I don't know how to manage your house, but I'll have to. I'm not going to need to know how to do Pythagorean's Theorem in a grocery store. I understand if you want to be a mathematician or something like that but not everybody wants to be a mathematician."

Student Excerpt B3

"When I say my peers don't really do anything for motivation it's just because they're more focused on themselves, also in my biology class we have a couple of kids that just mess around and snicker and whatnot a lot so that's the one class where I'm like okay (disruptive) yeah, but in my other classes we are just focused on what we are doing. I mean disruptive sometimes yeah but making fun no, nothing really negative which is nice."

Student Excerpt B4

"My father, like I even told you in the questionnaire, my father is working right now and with all the stress being put on him with work cause he has crazy hours, he always comes back stressed and puts issues on my mom and I…like he's always been pretty strict with grades but he wouldn't like scream at me but now that I'm taking like AP and honors where it actually counts for college, now comes the yelling now comes the… cause it matter…I mean I guess the yelling does really scare me but what really scares me is when I'm at school or I'm alone and then I see a test grade that's not so good or I look on skyward, which is rare…it gives me anxiety going on skyward because whenever I see something bad, I'm like crap he's going to kill me."

Student Excerpt B5

"Yeah, I actually just uh wrote them a letter. (oh really?) Yeah! A couple days ago, during class um telling them a few personal issues and stuff and that I wasn't ready for this and that I'm so not used to this, I know I could be a lot better but you know I'm really sorry for not being able to do this and if I get behind…um I just am not used to this and I'm very shocked that you didn't kick me out of the class. But, I put it on their desk and they actually texted me on remind, because I have them on there, and they actually texted me about it, a personal text on remind saying: hey, I read your note, I understand what you're going through, but we can talk tomorrow during class about all the academic stuff and that's what we did! They pulled me out of class the other day and we just had a one-on-one conversation. (How'd that go? That's amazing) It went great. They are just definitely an inspiration for me to do very well in school and they gave me a lot of confidence um to do better, and not just in that class but in all of my classes and they are very, very nice. They helped a lot. (That's amazing!) Yeah, (that teacher) is there for his students. They can be strict at times when um there's only five assignments and you already have a D or and F but when it comes down to a student's emotional state, they are there."

Appendix C

Questionnaire C1

Perceived Autonomy Support:
The Climate Questionnaires
The Learning Climate Questionnaire (LCQ)

This questionnaire contains items that are related to your experience with your instructor in this class. Instructors have different styles in dealing with students, and we would like to know more about how you have felt about your encounters with your instructor. Your responses are confidential. Please be honest and candid. If you wish to elaborate, do this on the sides or the provided space.

Please use the following scale:

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. I feel that my instructor provides me choices and options.
2. I feel understood by my instructor.
3. I am able to be open with my instructor during class.
4. My instructor conveyed confidence in my ability to do well in the course.
5. I feel that my instructor accepts me.
6. My instructor made sure I really understood the goals of the course and what I need to do.
7. My instructor encouraged me to ask questions.
8. I feel a lot of trust in my instructor.
9. My instructor answers my questions fully and carefully.
10. My instructor listens to how I would like to do things.
11. My instructor handles people's emotions very well.
12. I feel that my instructor cares about me as a person.
13. I don't feel very good about the way my instructor talks to me.
14. My instructor tries to understand how I see things before suggesting a new way to do things.
15. I feel able to share my feelings with my instructor.

Feel free to elaborate on any of these on the sides or here:_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Climate Perception

1. Do you feel judged or stereotyped in any way in class by your peers? If so, how? Please elaborate.
2. Do you feel like you can easily participate in class discussions and answer questions without fear or student judgment? Please elaborate.
3. Do you feel overwhelmed by the course material in any way? Please elaborate.
4. Do you feel the class should be taught differently at all? Please elaborate.
5. Are your student-student interactions in class positive or negative? How so? Please elaborate.
6. Do you feel as if your teacher is approachable? Please elaborate.
7. Overall, do you feel as if you are in a positive learning environment with a supportive teacher and peers? Please elaborate.

Questionnaire C2

Academic Self-Regulation Questionnaire (SRQ-A)
The Scale (standard version)

WHY I DO THINGS IN:_____

Name: _____

_____ Age: _____

Grade: _____ ( ) Boy or Girl ( ) Teacher: _____

A. Why do I do my homework?

1. Because I want the teacher to think I'm a good student.

2. Because I'll get in trouble if I don't.

3. Because it's fun.

4. Because I will feel bad about myself if I don't do it.

5. Because I want to understand the subject.

6. Because that's what I'm supposed to do.

7. Because I enjoy doing my homework.

8. Because it's important to me to do my homework.

B. Why do I work on my classwork?

9. So that the teacher won't yell at me.

10. Because I want the teacher to think I'm a good student.

11. Because I want to learn new things.

12. Because I'll be ashamed of myself if it didn't get done.

13. Because it's fun.

14. Because that's the rule.

15. Because I enjoy doing my classwork.

16. Because it's important to me to work on my classwork.

C. Why do I try to answer hard questions in class?

17. Because I want the other students to think I'm smart.

18. Because I feel ashamed of myself when I don't try.

19. Because I enjoy answering hard questions.

20. Because that's what I'm supposed to do.

21. To find out if I'm right or wrong.

22. Because it's fun to answer hard questions.

23. Because it's important to me to try to answer hard questions in class.

24. Because I want the teacher to say nice things about me.

D. Why do I try to do well in school?

25. Because that's what I'm supposed to do.

26. So my teachers will think I'm a good student

27. Because I enjoy doing my school work well.

28. Because I will get in trouble if I don't do well.

29. Because I'll feel really bad about myself if I don't do well.

30. Because it's important to me to try to do well in school.

31. Because I will feel really proud of myself if I do well.

32. Because I might get a reward if I do well.

Part 2: Self Perception

Perceived Competence for Learning

Please respond to each of the following items in terms of how true it is for you with respect to your learning in this course. Use the scale:

1	2	3	4	5	6	7
Not at all true		Somewhat true				Very true

1. I feel confident in my ability to learn this material.
2. I am capable of learning the material in this course.
3. I am able to achieve my goals in this course.
4. I feel able to meet the challenge of performing well in this course.

Answer in sentences.

1. Do you enjoy this subject? Why or why not?
2. Do you see a use for this subject in your future and in what ways?
3. Are you self-motivated for this class, or do you have to be pushed?
4. Are you afraid to fail in this class/subject? Why or why not?

Questionnaire C3

The Motivators' Orientations Questionnaires

Part 1: The Problems in Schools Questionnaire (PIS)

On the following pages you will find a series of vignettes. Each one describes an incident and then lists four ways of responding to the situation. Please read each vignette and then consider each responses in turn. Think about each response option in terms of how appropriate you consider it to be as a means of dealing with the problem described in the vignette. You may consider the option to be perfect, in other words, extremely appropriate, in which case you would respond with the number 7. You might consider the response highly inappropriate, in which case would respond with the number 1. If you find the option reasonable you would select some number between 1 and 7. So think about each option and rate it on the scale shown below. Please rate each of the four options for each vignette. There are eight vignettes with four options for each.

There are no right or wrong ratings on these items. People's styles differ, and we are simply interested in what you consider appropriate given your own style.

Some of the stories ask what you would do as a teacher. Others ask you to respond as if you were giving advice to another teacher or to a parent. Some ask you to respond as if you were the parent. If you are not a parent, simply imagine what it would be like for you in that situation.

Please respond to each of the 32 items using the following scale.

1	2	3	4	5	6	7
Very Inappropriate		Moderately Appropriate			Very Appropriate	

A. Jim is an average student who has been working at grade level. During the past two weeks he has ap-peared listless and has not been participating during reading group. The work he does is accurate but he has not been completing assignments. A phone conversa-tion with his mother revealed no useful information. The most appropriate thing for Jim's teacher to do is:

1. She should impress upon him the importance of finishing his assignments since he needs to learn this material for his own good.

2. Let him know that he doesn't have to finish all of his work now and see if she can help him work out the cause of the listlessness.

3. Make him stay after school until that day's as-signments are done.

4. Let him see how he compares with the other children in terms of his assignments and encourage him to catch up with the others.

B. At a parent conference last night, Mr. and Mrs. Greene were told that their daughter Sarah has made more progress than expected since the time of the last conference. All agree that they hope she continues to improve so that she does not have to repeat the grade (which the Greene's have been kind of expecting since the last report card). As a result of the conference, the Greenes decide to:

5. Increase her allowance and promise her a ten-speed if she continues to improve.

6. Tell her that she's now doing as well as many of the other children in her class.

7. Tell her about the report, letting her know that they're aware of her increased independence in school and at home.

8. Continue to emphasize that she has to work hard to get better grades.

C. Donny loses his temper a lot and has a way of agitating other children. He doesn't respond well to what you tell him to do and you're concerned that he won't learn the social skills he needs. The best thing for you to do with him is:

9. Emphasize how important it is for him to control himself in order to succeed in school and in other situations.

10. Put him in a special class which has the structure and reward contingencies which he needs.

11. Help him see how other children behave in these various situations and praise him for doing the same.

12. Realize that Donny is probably not getting the attention he needs and start being more responsive to him.

D. Your son is one of the better players on his junior soccer team which has been winning most of its games. However, you are concerned because he just told you he failed his unit spelling test and will have to retake it the day after tomorrow. You decide that the best thing to do is:

13. Ask him to talk about how he plans to handle the situation.

14. Tell him he probably ought to decide to forego tomorrow's game so he can catch up in spelling.

15. See if others are in the same predicament and suggest he do as much preparation as the others.

16. Make him miss tomorrow's game to study; soccer has been interfering too much with his school work.

E. The Rangers spelling group has been having trouble all year. How could Miss Wilson best help the Rangers?

17. Have regular spelling bees so that Rangers will be motivated to do as well as the other groups.

18. Make them drill more and give them special privileges for improvements.

19. Have each child keep a spelling chart and emphasize how important it is to have a good chart.

20. Help the group devise ways of learning the words together (skits, games, and so on).

F. In your class is a girl named Margy who has been the butt of jokes for years. She is quiet and usually alone. In spite of the efforts of previous teachers, Margy has not been accepted by the other children. Your wisdom would guide you to:

21. Prod her into interactions and provide her with much praise for any social initiative.

22. Talk to her and emphasize that she should make friends so she'll be happier.

23. Invite her to talk about her relations with the other kids, and encourage her to take small steps when she's ready.

24. Encourage her to observe how other children relate and to join in with them.

G. For the past few weeks things have been disappearing from the teacher's desk and lunch money has been taken from some of the children's desks. Today, Marvin was seen by the teacher taking a silver dollar paperweight from her desk. The teacher phoned Marvin's mother and spoke to her about this incident. Although the teacher suspects that Marvin has been responsible for the other thefts, she mentioned only the one and assured the mother that she'll keep a close eye on Marvin. The best thing for the mother to do is:

25. Talk to him about the consequences of stealing and what it would mean in relation to the other kids.

26. Talk to him about it, expressing her confidence in him and attempting to understand why he did it.

27. Give him a good scolding; stealing is something which cannot be tolerated and he has to learn that.

28. Emphasize that it was wrong and have him apologize to the teacher and promise not to do it again.

H. Your child has been getting average grades, and you'd like to see her improve. A useful approach might be to:

29.   Encourage her to talk about her report card and what it means for her.

30.   Go over the report card with her; point out where she stands in the class.

31.   Stress that she should do better; she'll never get into college with grades like these.

32.   Offer her a dollar for every A and 50 cents for every B on future report cards.

Part 2: Self and Student Perception

Please answer these questions to the best of your ability regarding the student's social interaction in your class, their interaction with you, and their academic success/ potential. These answers will be anonymous and the student will not be shown. Please be as candor as possible.

Self:

1.   Why did you decide to become a teacher?
2.   What is your teaching philosophy?
3.   What are your perceived strengths and weaknesses as an educator?
4.   How would a student describe you?
5.   How do you keep students engaged?
6.   Do you want your students to like you? Why or why not?
7.   How do you promote student success in learning for retainment, not just for the test?

Student:

1.   How does the student interact with his/or her peers in the classroom?
2.   Is the student disruptive? If so, how?
3.   Does the student participate in classroom discussions and activities?

4.   Do you believe the student is comfortable or uncomfortable in your class? Why or why not and how can you tell?
5.   What do your interactions with the student consist of and what are they like?
6.   Is the student academically successful in your class?
7.   Do you believe the student's individual success is determined more by their social interactions, their self-motivations, or their interactions with you?

Appendix D

The Motivators' Orientations Questionnaires- Part 2: Self and Student Perception (teacher responses in order of appearance)

Comfortable Class Teacher Response D1

Self

1.   "I became a teacher because my mom was one and I always admired what she did. Specifically, reading because it is necessary to be an effective reader in all fields and most people take it for granted."
2.   "My teaching philosophy is that all students can be reached and be successful."
3.   "Strengths: patience, sense of humor, skill/knowledge, strong presence. Weaknesses: organization, follow-up."
4.   Characteristics: "Bubbly, positive, always smiling, easy to talk to."
5.   Keeping students engaged: "I always tell them why what we are doing is relevant to their lives. I try to give them choice."
6.   "I want my students to both like and respect me. If they don't "like" the teacher, they are less willing to apply themselves."
7.   Promoting student success in learning for retainment: "Students are aware if the relevance if the context/ skill, so they understand how it applies to their lives and betters them."

Student

1. Student interaction with peers: "She has a small group of friends and always wants to participate and answer questions."
2. Student behavior: "Definitely not disruptive. Works hard and participates."
3. Participation: "Often. She is very insightful and contributes fresh ideas."
4. Comfort vs. uncomfort: "I believe she is very comfortable because of how often she participates and how she interacts with peers."
5. Interactions: "She tells me about her 'crushes' and seeks advice. She asks a lot of thought –provoking questions about the novel."
6. Academic success: "Extremely. She applies herself and works hard."
7. Determination motivation of the three: "I believe number one would be self-motivation."

Uncomfortable Class Teacher Response D2

Self

1. "I enjoy being a mentor and inspiring others."
2. "Students are people first."
3. "Strengths: I believe I relate well with others and have empathy."
4. Characteristics: "Hopefully outgoing, fun, and caring."
5. Keeping students engaged: "Lots of movement!"
6. Student liking: "Of course, it just makes things easier and happier!"
7. Promoting student success in learning for retainment: "Cooperative activities like Kagan- fun academic games!"

Student

1. Student interaction with peers: "They plan lessons together, work together teaching Little Hawks."
2. Disruptive?: "Not this particular student."
3. Participation: "Yes!"
4. Comfort vs. uncomfort: "I think so because she speaks to me often and is involved with discussions."
5. Interactions: "Our interactions mostly involve this class; however, we sometimes talk about extra curricular activities."
6. Academic success: "Yes!"
7. Determination motivation of the three: "With her peers mostly."

Uncomfortable Class Teacher Response D3

Self

1. "I love math and enjoy working with kids."
2. "Set high expectations. Create a positive learning environment. The only way to learn math is to do math."
3. "Strengths: positivity, availability to help, ability to explain. Weaknesses: motivating students (I am self-motivated, so I struggle to motivate the unmotivated)."
4. Characteristics: "A good teacher, but she gives too much work!"
5. Keeping students engaged: "Frequently ask questions, review games."
6. Student liking: "It would be nice, but it isn't needed."
7. Promoting student success in learning for retainment: "Constantly add spiraling questions, try to use catch phrases or have students answer questions instead of me."

Student

1. Student interaction with peers: "Positively."
2. Disruptive?: "Sometimes, she likes to talk/express her opinions and sometimes does so while I am talking."
3. Participation: "Yes."
4. Comfort vs. uncomfort: "She works with others during class work, not afraid to ask me questions or offer her opinion/ tell me about her weekend."
5. Interactions: "Some social, some content based, some pluses, some minuses (whining by student)."
6. Academic success: "No."
7. Determination motivation of the three: "Self-motivations"

Uncomfortable Class Teacher Response D4

Self

1. "Education is the key to a successful life. It is the noble profession."
2. "All students are capable of learning but only if they're willing to work
3. "Strengths: work ethic."
4. Characteristics: "Bald and beautiful! But fair and knowledgeable."
5. Keeping students engaged: "Technology. Not be-

ing aloof."
6. Student liking: "Sure, but I'm not in it to win a popularity contest."
7. Promoting student success in learning for retainment: "Examples of others' success stories. Teaching to the test is stupid!"

Student
1. Student interaction with peers: "She is outgoing and kind."
2. Disruptive?: "Never."
3. Participation: "Sometimes."
4. Comfort vs. uncomfort: "She's intimidated by the level of AP. She told me so."
5. Interactions: "Informal conversations before and after class."
6. Academic success: "Could do better."
7. Determination motivation of the three: "All of the above."

Comfortable Class Teacher Response D5

Self
1. "Firm, but fair."
2. Student liking: "Don't have to."
3. Promoting student success in learning for retainment: "Little prizes for students/ smiley faces and stickers/ relate things to them."

Student
1. Student interaction with peers: "Very well."
2. Disruptive?: "No, participates (stuff needs to be in on time though)."
3. Comfort vs. uncomfort: "Yes."
4. Academic success: "Yes."
5. Determination motivation of the three: "I would hope that it's a little bit of everything. Peers tend to be the most influential (positive if they're role models)."