PYGMALION EFFECT: Reflexive Strategies to Mitigate Teacher Bias

By

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Abstract

The self-fulfilling prophecy can best be described as an initial prediction made which causes us to behave in a way that we make that prediction materialize. This phenomenon has been studied and proven to take place in the classroom. Teachers' initial biases and assumptions about student performance affects the way teachers behave towards students in such a way, which only brings out behaviors in accordance with teachers initial expectation. The role of teachers has a profound effect on their students’ academic accomplishments and social well-being. Students believed to be high achievers are granted with most of the teacher’s time, rewarded with attention and positive reinforcement compared to the students who are perceived as unlikely to succeed by the teacher (Rist, 1970). Teacher biases create an environment of differential treatment in which some students are cultivated to flourish while others are given less opportunity, attention and positive reinforcement leading to underachievement. As teachers we are all susceptible to the negative consequences of teacher bias. The purpose of this master’s thesis was to investigate: How do school educators’ work to stay reflexive about their assumptions of students’ abilities and mitigate the potential for the self-fulfilling prophecy? Specifically, I have intended to find strategies to aid elementary school teachers stay reflexive about their assumptions of students’ abilities and mitigate the potential for the self-fulfilling prophecy within elementary school classrooms. Through this qualitative research study I have investigated how exemplary educators attempt to mitigate teacher bias in their own practice and by analyzing the findings, I have come to respond to the research question.

Key Words: Teacher Bias, Pygmalion Effect, Self-fulfilling prophecy, Reflexive practice, Classroom teaching, Teacher Expectation
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CHAPTER 1: INTRODUCTION

1.1 Research Context

Canadian classrooms are consistently becoming more diverse. Students in a class can differ culturally, intellectually, linguistically and, their economic situation can differ. In addition to this extensive list, the initiatives of the Ontario Ministry of Education (2015) has progressively been moving towards the implementation of the integrated approach of students with special needs merged with the general education classroom. Research on how teacher bias affects students and how teachers can mitigate their own bias is scarce. Considering the increasing diversity of the Canadian classrooms, the importance of equity and equality and the myriad of negative circumstances that can arise from teacher bias, it is imperative for research to investigate reflexive teacher practices that support student success and mitigates the unfavorable consequences of these biases. The purpose of this research study was to investigate how teachers’ perceptions of their students are formed and how they implemented reflexive practices to mitigate the effects of teacher bias. Specifically, it explores the unavoidable biasing factors found in the school environment, teachers’ reflexive practices directly challenging these biases, strategic manipulation of the classroom environment to mitigate bias and differentiated instruction and assessment based on learning styles. The research is situated in the field of education and aims to contribute to the growing body of research on equitable education. Teachers’ perceptions or biases stem from a variety of places either based on few initial interactions with students, other teachers passing on information, student reputation or formal documentation such as an Individualized Education Plan (IEP) or the Ontario Student Record (OSR). The consequences of these biases are that it mediates the teacher’s behavior with students causing the initial bias to materialize (Zevenbergen, 2003; Brophy, 1983). This phenomenon is
known as the self-fulfilling prophecy or the Pygmalion effect. Seeking information or receiving information involuntarily about students may be intended for better teaching practice (allowing teachers to modifying lessons for specific needs). However, simultaneously the consequence of teacher bias is in effect and can negatively affect the learning of students. For instance, the research has found that homogenous grouping locks students into a rigid hierarchy which reifies differences and prevents students from progressing as the year goes on (Zevenbergen, 2003). Similar to ability-grouping, teacher bias operates leading to higher expectations of certain students and negative expectations of others based on where they are placed in the context of the classroom. The biases in how teachers treat their students continue to manifest in the way teachers behave towards students or in the way they mark their work creating educational inequities within classrooms (Brophy, 1983). Studies conducted on the self-fulfilling prophecy have found that a teacher’s expectations guides their behaviour, bringing out the expected behaviour in the student, confirming the initial expectation (Jussim & Harber, 2005; Zevenbergen, 2003). This is problematic because the preconceived notions teachers hold are based on few interactions and have been directly correlated with bringing out those results in their students (Rosenthal & Jacobson, 1968; Davidson & Eden, 2000). These studies highlight the importance of the student teacher interactions and student academic achievement.

The Oak School experiment was one of the initial studies that publicized teacher expectation as a significant variable affecting student learning (Rosenthal & Jacobson, 1968). The Oak School experiment took place in an elementary institution where students from grades one to six were given an intelligence test ranging from verbal to abstract reasoning after which 20% were chosen at random and their teachers were told that these particular individuals were “intellectual bloomers” (Rosenthal & Jacobson, 1968). Despite the results of the initial pretest the
remainder of the students were assigned as the controls for the experiment. After the duration of the eight-month-long test, the students were once again tested, demonstrating strong evidence that students whom the teacher had greater expectation from, showed higher intellectual gains (Rosenthal & Jacobson, 1968). Teacher expectation is the preconceived notion derived early in the interactions with the student or information derived from an alternative source, such as another teacher. This expectation can act as a self-fulfilling prophecy as the Oak School Experiment (Rosenthal & Jacobson, 1968) illustrates. Rosenthal and Jacobson’s (1968) study has brought to the forefront of education the self-fulfilling prophecy operating between teacher-student relationships and the effect this phenomenon has on students’ achievement. This phenomenon manifests when the expectation of the teacher directly affects the performance of the student (Rosenthal & Jacobson, 1968). The proof is in the “35 years of empirical research on teacher expectations [which] has justified the conclusion that self-fulfilling prophecies in the classroom do occur” (Jussim & Harber, 2005, p. 131). The initial study correlated greater teacher-expectation with better student-performance, which appears to have positive implications for some students. However, the inverse of this phenomenon has been found to function in the same way, such as the Oak School Experiment (Rosenthal & Jacobson, 1968). Research findings conclude that negative teacher expectancy produces behaviours that negatively impact the performance of students and, in the same disposition; these students themselves start to produce negative behaviours (Babad, Inbar, & Rosenthal, 1982). Teacher expectancy refers to the negative expectation of the teacher bringing forth inferior results directly caused by how the teacher treats the students. Also Davidson and Eden (2000) have found teacher bias effects to be especially dangerous because it can degrade the performance of even highly skilled students. Studies suggest that teacher expectation can have a profound impact on student performance,
which has driven my own inspiration to explore this phenomenon.

1.2 Research Problem

The findings suggest negative teacher expectation is an ongoing problem in the educational sphere therefore it is essential to explore the efforts of exemplary teachers to learn how to minimize the effects of this phenomenon. Although there have been an extensive amount of research conducted on the self-fulfilling prophecy (Babad, Inbar, & Rosenthal, 1982; Brophy, 1983; Davidson, & Eden, 2000; Jussim, & Harber, 2005; Rosenthal, & Jacobson, 1968; Zevenbergen, 2003), few studies have found constructive strategies for classroom teachers to mitigate the effects of teacher bias. This research study sheds light on potential strategies all teachers can implement in their teaching practices in order to stay reflexive of their biases and minimize its consequence in the classroom. Students categorized as lower ability tend to become fixated to this label despite having made improvements, in the perspective of the teacher (Gutshall, 2013). The detrimental consequences of perceiving students as lower ability include assigning these particular students to fixed ability groups, which can further deteriorate opportunities for improvement (Jussim & Harber, 2005). In addition teachers subconsciously lower their expectations for particular students, which is evident in simplifying classwork for these particular students (Murphy et al., 1999).

1.3 Research Purpose

The purpose of this research is to explore teacher expectation within the classroom and how educators take intentional precautions to mitigate negative effects of the self-fulfilling prophecy within the classroom. Through qualitative semi-structured interviews with exemplary educators, I have aimed to gain a rich understanding of the approaches and techniques used to mitigate the biases that plague student-teacher interactions. Although teacher subjectivity exists
within all classrooms and it would be idealistic to assume there is one solution. The approaches implemented by the teachers interviewed have shed light on potential strategies all teachers could implement in efforts to make their classrooms more inclusive. Specifically, this study intends to investigate how exemplary educators use reflexive strategies to raise the bar for all students as progressive ways to encourage students. The goal of this study is to investigate how teachers strive to stay reflexive in their teaching in order to mitigate teacher bias in the classroom. In this context reflexivity is referring not only to the reflection but also learning from this reflection, which has a lasting change on the individual (Hibbert, Coupland, & Macintosh, 2010). Research continues to prove that learning does not stem from experience but rather experience coupled with reflection on that particular experience (Di Stefano, Gino, Pisano, & Staats, 2015). The implementation of reflexive strategies speaks to my research problem because it moves the conversation away from number of years of experience trumping good teacher practice. Instead it provides both experienced teachers and pre-service teachers, with practical strategies to mitigate the negative consequences of teacher bias. As the famous psychologist Bandura (1977, 1986, 1997) has described the term self-efficacy refers to individual’s belief about his/her own capacity to perform a task. By using this strategy to combat the negative consequences of teacher expectation teachers can potentially create an environment in which the success of the student is in their own hands rather than dependent on how the teacher perceives them. I chose to center self-efficacy as the primary pedagogical focus because I am specifically interested in encouragement strategies. Enacting positive reinforcement strategies allows teachers to directly implement an effort to combat teacher bias.

1.4 Research Questions
The primary question guiding this research study is: How do school educators work to stay reflexive about their assumptions of students’ abilities and mitigate the potential for the self-fulfilling prophecy? What do they observe in relation to how these strategies impact students’ academic performance?

In high schools every subject students are met with a different teacher, however in elementary school the majority, if not all, of the subjects are taught by the same teacher which means the teacher is exposed to the same students more frequently and over a longer period of time. Since students have a single teacher for a longer period of time, the potential negative effects of self-fulfilling prophecy are greater in the case of elementary school students. This prolonged exposure is the reason why I have chosen to focus specifically on elementary school teachers.

- How do teachers conceptualize the formation of biasing factors?
- What strategies do teachers enact in order to mitigate the potential for the self-fulfilling prophecy in the layout of classroom environment?
- How can teachers use self-reflective strategies to mitigate the harmful effects of the self-fulfilling prophecy through instruction and assessment?

1.5 Reflexive Positioning

I began elementary school in Canada in grade four, I was sent to English as Second Language (ESL) classes for the majority of the school day. The simplified daily activities consisted of colouring, looking at picture books and the ESL teacher asking me to write out the English alphabet, even though I was capable of writing and reading in English. The misconception that students from non-English speaking countries are intellectually below average or have had an inferior educational experience guided my ESL teachers’ and homeroom
teachers’ interactions with me. This personal anecdote demonstrates how student-teacher interactions are mediated by teachers’ biases. My teachers were assigning me repetition of alphabets, without performing a formative assessment, which would reveal I was capable of reading and writing. However as an immigrant from a country in which English was not the first language, my teachers did not have high expectations from me. As someone who has experienced first hand teacher bias, I can attest to the lowering of expectations for students perceived as less capable. My past experiences as a student inform the strong interest I have developed in teacher-student relationships and the effects this has on student achievement. It has become central to my teaching philosophy to be mindful of how teacher biases act as barriers impacting the educational experiences of students.

Through this study I have investigated how teacher biases are formed, how they affect student performance and what strategies teachers can implement to mitigate the negative consequences of teacher bias. Understanding student-teacher interactions is important for setting up a classroom environment that is both equitable and equal. The expectations of teachers not only contribute to academic success but also impact social well-being, making it essential for every teacher to develop self-reflexive practices in mitigating bias.

1.6 Preview of the whole

By conducting a qualitative research study on; how do school educators’ work to stay reflexive about their assumptions of students’ abilities and mitigate the potential for the self-fulfilling prophecy? I have responded to the research question by seeking out two educators who have done exemplary work in mitigating the disparate effects the self-fulfilling prophecy can have on the academic and social aspects of students in the classroom. Through semi-structured interviews I have obtained valuable input from educators in regards to the strategies they used
and the conscious efforts in their interactions with students, intended to bring out the best in each student. In Chapter 2 I have reviewed the literature analyzing previous research in the areas of education, which reports the impacts researchers have found the self-fulfilling prophecy has on student achievement, inclusive pedagogy as well as teacher-student relations. In Chapter 3 I elaborate on the methodology of my qualitative research design including the procedures used to find sampling participants, and data collection. Chapter 4 will consist of my research findings in relation to my research questions. Finally, in chapter 5 I discuss the conclusions of my findings and the implication they have in relation to the literature as well as its significance to my own practice as a pre-service teacher. I also review the limitations of my research study, make further recommendations for practice and identify potential areas for further research.
CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In this chapter I review the literature in the areas of teacher bias and their influence on student success. More specifically I review themes related to the teacher variable in student achievement starting by reviewing the literature on the significance of the Pygmalion Effect in the realm of education and the harmful the effects of teacher bias. Next, I review research on ability grouping in the classroom as a form of teacher bias organizing the classroom environment according to the teacher’s belief of their students’ abilities. From there, I review teachers’ preconceived notions of students’ abilities through the ‘fixed mindset’ versus ‘growth mindset’, which guide their practices. Finally, I situate the motive of my research, which is the lack of research in the field of positive teacher practices that can mitigate the effects of the Pygmalion phenomenon.

2.1 Pygmalion Effect and Relevance to Education

A brief review of the Pygmalion Effect, also known as, the self-fulfilling prophecy will help situate the relevance of this psychological concept in the realm of education. This theory found that low expectation leads to decreased performance and vice versa (Mitchell & Daniels, 2003). In the classroom, the teacher has a significant role in affecting students’ performance by setting direct expectations for them (Rosenthal & Jacobson, 1968). Exploring the theory under which the self-fulfilling prophecy formed and the consequences it brings to pedagogical delivery has significant ramifications for teachers, which include both their practice and reflection of their teaching practices. Merton (1948) initially coined the term “the self-fulfilling prophecy” in 1948 as a positive or negative false prediction that influences an individual's behavior fulfilling the
preconceived expectation as proof of original false conception. Twenty years later Rosenthal and Jacobson (1968) took this theory and applied this paradigm to the classroom in their book *Pygmalion in the classroom*. They learned that student performance is not an isolated occurrence and that teachers have a significant role on the performance of their students (Rosenthal & Jacobson, 1968). Following this study a conglomerate of studies spiraled with an estimation of over 400 published studies on the self-fulfilling prophecy in education (Meyer, 1985). The Oak School experiment (Rosenthal & Jacobson, 1968) as highlighted in chapter put at the forefront of education, the importance of the role of teachers and the direct effect it has on student achievement. Having sparked a lot of controversy leading to a multitude of replicated studies to both confirm (Murphy, Campbell, & Garavan, 1999; Rosenthal & Jacobson, 1968; Marburger, 1963) and confute (Novak, 2009; Jussim, 1989) the presence of this phenomenon. Thus far the verdict remains that the self-fulfilling prophecy does take place in the classroom, but the long term affects and whether they cause more harm than good is still unclear (Jussim & Harber, 2005). Jussim and Harber (2005) found that the self-fulfilling prophecy functioned and have stronger implications amongst students from stigmatized backgrounds contributing to the social inequities existing in schools. Studies that have confirmed the presence of this phenomenon go on to illustrate how our preconceived conceptions as teachers have the potential to cause those students to react and eventually have material consequences directly inline with the initial bias. Starting from low self-esteem, low grades and continuing into lowering expectations of future goals if they perceive education as a limitation or themselves as incompetent (Jussim & Harber, 2005). The qualitative portion of Novak's (2009) research found the two indicators of model teachers with the most effective practices, in combating the Pygmalion effect, are years of experience in the profession and additional teacher related credentials. Using the findings of
Novak’s (2009) study, I established the principles for sampling participants and used these criteria for seeking potential candidates for my interviewing process.

2.2 Criticism of the Pygmalion Effect in Education

The complexity of the self-fulfilling prophecy in the realm of education has been utilized to refute its’ findings. For instance the multitude of individual variables such as sex, SES, age and experimental variables; such as validity of testing tools, have been pointed out by scholars to debunk the validity of the Pygmalion Effect in the classroom (Novak, 2009; Jussim, 1989). The research however has been inconclusive both qualitatively and quantitatively in formulating a stand-alone theory of teacher bias and student achievement. Teacher preconceived expectancies can result in what Jussim (1989) calls 'perceptual biases' in which it causes the teacher to recall, pay attention to, interpret and attribute student behaviors to be consistent to their initial biases. Jussim (1989) would refute any studies which confirm the Pygmalion Effect that attain data from student tests marked by the same teachers, who are also the direct participant and who's expectations are being tested. The take away message from this particular study was that expectation proof is an idea, which subsists only in the perception of the teacher (Jussim, 1989). This does not necessarily conclude that teachers actually cause students to perform poorly in tests but rather the erroneous assessment of students’ work and behaviors yield these 'expected' results confirming the teachers' initial biases. Novak (2009) concludes that teachers are not the single contributors or the only solution to student achievement disparity. Based on her quantitative results, teacher expectancies and teacher efficacy has no correlation to students’ scores on standardized tests, such as the Massachusetts Comprehensive Assessment System (MCAS) (Novak, 2009). This particular study attributed student MCAS scores to students’ socio-economic status rather than the teachers’ expectation bias or treatment (Novak, 2009). Though
scholars have contested the significance of teachers’ expectancy bias, there has been an equal amount of research, which supports the phenomenon as real in its consequences (Murphy, Campbell, & Garavan, 1999; Rosenthal & Jacobson, 1968; Marburger, 1963). Despite the conglomerate of factors (sex, SES, age, experimental; validity of testing tools, etc) which pool together to create the conditions within which this phenomenon occurs, it is important to recognize that classrooms consist of a range of diversities and to treat this phenomenon as an opportunity to research superior teacher practices. While Novak (2009) may argue that SES predicts student scores, I anticipate finding how exemplary teachers have extenuated their own biases and strategies they have implemented to create an equitable environment for all students to thrive despite their SES. In addition scholars who confirm the effect of the self-fulfilling prophecy still warn that any conclusions deduced solely on the basis of standardized test scores are partial in proving the effects of this phenomenon (Murphy et al., 1999; Rist, 1970). Scholar like Jussim (1989) have also suggested that causality should not be derived by using correlational data because naturalistic observations can be interpreted in a multitude of different ways.

2.3 The Harmful Effects of the Self-fulfilling Prophecy

Studies such as Pygmalion in the Classroom (Rosenthal & Jacobson, 1968) have displaced an abundance amount of pressure on teachers and away from students’ individual characteristics and intellect. Not only has this negatively affected the teachers but also the results suggest that shortcomings of students’ achievements could in part be caused by their teachers’ low expectations (Murphy et al., 1999; Rosenthal & Jacobson, 1968; Marburger, 1963). Authors have argued that experiments designed to correlate low test scores with lack of teacher expectation tend to disservice teachers and schools, encouraging federal policy makers to question teacher training and management of schools (Murphy et al., 1999). As mentioned
previously as a limitation, it also falls into the category of harmful effect that the Pygmalion phenomenon though may not actually affect student performance; in its mildest form it can still alter the teachers perspective of the student leading to poorer grades, which can discourage students in the long run (Jussim, 1989). Teacher expectancies have the detrimental effect of biased evaluation of students’ performance (Jussim, 1989). This multi-dimensional issue arises in a two step process; first teachers form expectancies of the students early in the year on the basis of a few interactions (Brophy & Good, 1974), then with these same lens of preconceived notions about the students they assess their performance (Jussim, 1989). The findings suggest that even if teachers do not impact students’ level of accomplishment, their assessment of these students will still be lower (Jussim, 1989). While other authors have extended this theory to go on and say that teacher expectations have not just an impact on student achievement but as well as a role in their intelligence scores (Marburger, 1963). These findings are held in high regard under the notion that long-term low expectancies of students can deteriorate students’ esteem of their own intellectual ability and therefore start behaving in ways that are consistent with their teacher’s perception of them. These findings reconfirm Rosenthal and Jacobsen (1968) conclusions that students have higher intellectual expectations results in superior student gain on standard testing scores.

2.4 Student-Teacher Interaction

A large body of research clearly articulates the importance of teachers in student achievement (Rosenthal, & Jacobson, 1968) in addition studies have also been conducted to illustrate the degree of students’ understanding of their teachers’ expectations of them affect achievement (Jamieson, Lydon, Stewart, & Zanna, 1987). Specifically highlighting the notion that students hold expectancies of their own about teachers as well and these perceptions can also
affect student performance and level of motivation (Jamieson, Lydon, Stewart, & Zanna, 1987). This area of research demonstrates the complexities and direction of cause and effect, which mediate student-teacher relationships, especially articulating the point that it is not just the teachers' expectations affecting the students’ behaviors and results but also students as autonomous actors. Put another way, students are individual actors whose actions and motivations are guided by what is expected of them or what they think their teachers expect from them. Therefore this study suggests that students will behave in ways that is inline with what they perceive their teacher expects of them (Jamieson, Lydon, Stewart, & Zanna, 1987). Formerly Rosenthal and Jacobson's (1968) initial experiment heavily influenced societies perception of teachers and the burden of student failures were attributed to teacher incompetency or inequitable treatment. The paradigm of teachers as the key variable affecting student achievement has been contested with research (Jamieson et al., 1987). Student-teacher interaction has been studied by scholars to situate the importance of recognizing that teacher expectations do not form and act independently but rather the interactions between teachers and students form attitudes and influences which creates the climate for particular expectations (Good & Brophy, 1974; Jamieson et al., 1987). This theoretical movement builds on Rosenthal and Jacobson's (1968) study by pushing forward the Pygmalion Effect and taking into account the multitude of factors, which negotiate student-teacher relationships. Good and Brophy's (1974) research sheds light on the students role within the classroom and how the students come to form a relationship with their teacher. A five year study used this multilevel model in which educators’ expectations of students future performance and students’ long-term performance in the classroom actually regressed on students’ prior achievements, IQ scores as well as motivation due to teacher bias (Boer, Bosker, & Margaretha, 2010). It is crucial to point out the correlation
between teacher expectation and student performance especially when performance is regressing.

A three week long field experiment by Jamieson et al. (1987) was conducted in a high-
school setting in an attempt to find plausible evidence for the idea that students' beliefs about 
their classroom teachers' expectation had any effect on their behavior or academic achievement. 
The experiment followed in the same disposition as Rosenthal and Jacobson's (1968) study 
where the participants, in this case the students instead of the teachers, were primed with either 
positive expectancy of their teachers ability versus no expectation given at all (Jamieson et al., 
1987). In addition to engaging in more appropriate behaviors students were also found to achieve 
significantly higher grades compared to the students in the control group whom were not primed 
with any expectation (Jamieson et al., 1987). The strength of findings from Jamieson et al. 
(1987) experiment was that they were able create the conditions under which the Pygmalion 
Effect could clearly be measured. While a naturalistic observation such as that of Novak's (2009) 
study provides a deeper qualitative understanding of the characteristics and subtle behaviors that 
cannot be measured by quantifiable test such as Jamieson et al. (1987), or Rosenthal and 
Jacobson's (1968) experiment. Qualitative research has found that teachers with low expectancies 
tend to reinforce negative behaviors, lack giving feedback, give less time for students to answer 
questions, minimal eye contact and also friendly interactions are infrequent (Good & Brophy, 
1974; Novak, 2009). The survey component of Novaks' (2009) study also suggested that 
teachers' level of education and numbers of years of experience were strong predictors of how 
well students performed on the Massachusetts' standardized reading comprehension exam. The 
findings of this study gives direct observations that are evidence of preconceived expectation of 
student achievement, which do not appear to intentionally negate student achievement. For 
example eye contact does not correlate with increased student achievement however it is a factor
in positive communication, which in turn affect students perceptions of their learning (Jamieson et al., 1987). These studies demonstrate the complexities, which mediate student-teacher relationships, specifically students as individual 'agents of influence in their own right' (Jamieson et al., 1987). Good and Brophy (1974) found that teachers tend to be unaware of their behavior towards students and the ongoing affects on students. This adds another layer of complexity reiterating the point that teachers’ behaviors may produce unintended consequences, which is why it is crucial to conduct my research about the efforts and expertise of teacher who intent to mitigate the negative effects of teacher biases. This needs to be explored and deconstructed by teachers themselves, to form superior teacher practices and a deeper understanding of how teachers affect their students performance.

2.5 Expectation Formation: Fixed Mindset versus Growth Mindset

A prominent theme amongst scholars has been narrowing down teacher bias down to the comparison between seeing their students through a 'fixed mindset' versus a 'growth mindset' perspectives (Dweck, 2006; Murphy et al., 1999). Teachers’ perception of student’s mindset affects the way they praise and reinforce particular behaviors. As Dweck (2006) puts it, “If success had meant they were intelligent, then less-than-success meant they were deficient” (p. 72). Under this theory of intelligence Gutshall (2013) has suggested that teachers who foster a growth mindset have more successful consequences in the classroom such as increased motivation. In the same strain, holding beliefs of ability either fixed or growth guides their teaching practices (Gutshall, 2013). Those teachers under the conception that intelligence is fixed tended to guide student learning less, with minimal support and promoted students to seek out solutions on their own (Gutshall, 2013). Intelligence is often equated with success; the need to excel on every task puts an immense amount of pressure on the part of the student if they adopt
this theory of intelligence (Dweck, 2006). On the bright side this study also found that teachers on the other side of the spectrum who perceived intelligence as malleable “were far more supportive and reported instructional goals that explicitly taught students how to problem solve” (Gutshall, 2013, p.1074). Fortunately teachers have come to adopt the latter as their underlying principle of intelligence guiding their pedagogical practice. Using the same standard mindset survey used by Dweck (2006), Strosher (2003) conducted a study on 142 Canadian teachers which found that 73.6% of teachers believed in the growth mindset theory compared to only 26.4% of the sample that still held on to the fixed mindset belief, with only about 9.15% of the sample who were undecided. The traditional notion that intelligence is fixed and gained innately still tends to play a role in teacher practices, however as the statistics show, only a small percentage of senior teachers still hold on to these beliefs (Murphy et al., 1999).

2.6 Division Based on Expectation: Ability Grouping

The way teachers organize their classroom layout as well as group work between students is accomplished in a manner that serves a purpose. Research suggests that as a practice to organize students, teachers continue to segregate students within the classroom to ability groups (Jussim & Harber, 2005). While it has been argued that ability grouping allows the teacher to modify instruction to target the needs of students more in-depth, at the same time setting lower expectations for groups of students can have negative consequences such as lower achievement, lack of motivation and not challenging their potential (Jussim & Harber, 2005). This type of segregation becomes much more multi-dimensional when it is layered with issues of identity and minority background (Murphy, 1999; Clark 1963). Murphy (1999) even went as far as to refer to this practice as a form of discrimination. Clark (1963) supported this theory and his research too confirmed that children taught to be inferior internalize these beliefs behaving accordingly and
eventually feelings of inferiority become embedded in their personality. Classifying children as lower ability also ties into the fixed versus growth mindset because had the teacher participants of these studies believed children's minds had the potential to grow, classroom organization and teaching practices would have varied greatly. Classroom teachers who perceived a student as “dumb” tended to not waste any time on the child, which only produced poorer academic performance (Murphy et al., 1999; Brophy & Good, 1974; Novak, 2009). Ability grouping can also have negative socializing aspects because students are placed on a hierarchy of abilities (Novak, 2009). The higher ability students are placed in an exclusive group, which the other groups of students are excluded from. As mentioned earlier, teachers form judgments of their students based on early contact with the student (Brophy & Good, 1974). These beliefs than guide how the class will be structured into groups of “fast learners” and “slow learners” found through a study conducted on children starting from their initial formal schooling experience-kindergarten (Rist, 1970). By physically displacing students into homogenous groups the teacher creates an environment of differential treatment in which the fast learners were granted with most of the teachers time, rewarded and given attention compared to their counterparts in the slow learner grouping (Rist, 1970). This study continued to track student progress and was found that teachers in the future used the students’ previous year appraisal of former teachers to form their own opinions (Rist, 1970). This illustrates how perceptions of students do not start off with a clean slate. Once students are placed in high expectation groupings despite their performance teachers perceive them as characterized by being more appealing, well adjusted and having a higher potential for success (Rosenthal & Jacobson, 1968).
2.7 Conclusion

In this literature review I looked at research on how the Pygmalion effect has come to play a significant role in education and the consequences it has come to produce. Teacher expectation has been found to directly affect student achievement leading to better performance measured over the course of one to five school years (Rosenthal & Jacobson, 1968; Boer, Bosker, & Margaretha, 2010). Though the research has been criticized for methodology and has sparked controversy, the phenomenon still brings to the forefront of education the importance of teacher expectancies. I reviewed literature on student-teacher interactions, which found that the correlation does not occur in one single direction but rather student-teacher interaction is multilayered in which students’ perceptions of their teacher’s expectation also affects student performance. Teacher biases are guided by the philosophy of education teachers’ hold such as fixed versus growth mindset, directly influencing how teacher will perceive their students and is a key determinant of whether they support the students who require more attention or ignore them, perceiving them as a lost-cause. The divisional strategy into ability grouping has been pointed out by studies as a clear demonstration of students perceived to be low versus high achievers and creating an environment of segregated treatment. These components come together to illustrate how teacher biases are reproduced and how they can negatively affect the students. This review elucidates the extent that attention has been paid to how teacher biases affect student achievement. However, what seems to be missing in the literature is a qualitative study, which recognizes the consequences of teacher bias and potential strategies teachers can apply in their practice to combat the negative consequences within the classroom. Refuting the effect of teacher bias on students seems to be the primary goal of skeptical theorists who have challenged the findings. The gap in the literature is lacking expert knowledge in the field from teachers that
have made great strides in mitigating teacher bias in the classroom and teaching practices that support student learning.
CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter will provide an overview of the methodological procedures used to conduct research in the area of teacher biases and assumptions. Starting from the rationale behind the study, highlighting the sampling criteria for ideal candidates and recruitment, ethical review procedures, interview protocol (Appendix B), questions (Appendix C) and consent letter (Appendix A). Finally, I conclude the chapter with a brief summary of key methodological decisions and my rational for these decisions given the research purpose and questions.

3.1 Research Approach and Procedures

This research study will be conducted using a qualitative research approach involving a literature review and semi-structured interviews with teachers. The qualitative research approach adheres to my research topic perfectly because I studied how teachers implement reflexive practices in their teaching approach and specifically what strategies they use to mitigate teacher bias. Qualitative interviews will allow me to probe deeply asking questions that have multiple layers that may go under the radar in a quantifiable style of data collection. This approach is more likely to uncover the intricate and sophisticated strategies developed by expert teachers to practically combat teacher bias within the classroom. Having gained a deep understanding of these practices will allow me to improve my own practice as well as provide educators like myself with practical strategies to implement in their own classroom.

In all cases, the research is qualitative where I have interviewed two educators who are exemplary particularly in the area of teacher bias, allowing me to gain insight on how expert teachers have mitigated the negative consequences of teacher biases and assumptions. Through semi-structured interviews I have obtained the valuable input from educators in regards to their
instructional strategies and conscious interactions intended to bring out the best in their students. Using a qualitative research methodology allowed me to conduct in-depth analysis on carefully chosen respondents who fulfill the set criteria of an expert teacher. Though this style of study may not be quantifiable, however the richness of the experiences, themes and dimensions can only be analyzed and interpreted through conducting a data collection process that allows for a multitude of ideas to emerge (Crouch & McKenzie, 2006). In addition it is important to note that the nature of qualitative research is to explore an area of study without having a strict hypothesis in which findings must confirm or debunk (Creswell, 2007). Using a qualitative approach allowed me to narrow my focus on the experts whom I interviewed, gaining a deeper understanding of reflexive teaching strategies to mitigate self-fulfilling prophecy in the classroom.

3.2 Instruments of Data Collection

Primarily this research study utilized semi-structured interview protocol as the main instrument for data collection. This approach allowed, me as a researcher, to design the interview directed towards gaining insight into the valuable lived experiences of the expert teacher (Crouch & McKenzie, 2006; Creswell, 2007). Appendix C highlights the 5 sections of the interview with similar topics chunked together to ensure a fluid flow of the interview process. Also interviewing with multiple sections allows the researcher to probe and ask follow up questions during the data collection process guided by the interviewer. By conducting a semi-structured format of interviewing allows the researcher to have full control of questioning and refocusing the conversation towards the research focus and asking the interviewee to elaborate and even re-direct the attention to areas that may be especially important to the findings of the study.
3.3 Participants

In this section I have reviewed the sampling criteria established for participant recruitment, and the range of possible avenues for teacher recruitment. I have also included a section where I provide an introduction to each of the participants teaching experience and the reason they were recruited for this study.

- John (pseudonym)
- Naomi (pseudonym)

3.3.1 Sampling Criteria

Participants were selected based on the sampling criteria, which I used to determine whether selected teachers were the ideal candidates for the purpose of the research study. Due to the small sample size, two participants have been chosen by myself based on their exemplary work in the area of teacher bias. Selected participants have demonstrated expertise in the area of teacher biases and assumptions. This was in the form of providing professional development for colleagues, having completed a graduate degree with this focus, or having written curriculum support materials. Participants must have familiarity to the Pygmalion effect in the classroom or background in psychology (Undergraduate Degree/ Masters Degree) considering the phenomenon being studied has its roots in psychology. As part of the criteria, it was important that the experience of the participants and efforts of practice were implemented directly in the classroom context. Participants were required to have a minimum of 10 years of experience in the field of education ensuring that their practices and strategies have been implemented. The knowledge they brought comes from the actual experience and implementation in the context of a classroom not research lab. The years of experience build valuable insight into the profession
and the challenges, which have guided and affected teacher practices.

3.3.2 Sampling Procedures

Participants have been located based on recommendation from faculty and colleagues as well as based on their work in the field of education. In order to find a greater pool of teachers to fulfill the criteria I have attended professional development conferences for elementary school teachers hosted by school boards and the ministry of education and teacher education programs specifically in the subject-area educational psychology. I have also attended the 7th annual conference hosted by the Centre for ADHD Awareness Canada (Altman, 2015) which focused on reflexive strategies such as mindfulness as well as proven models, tools, and strategies to empower individual students. Though this conference was hosted by an organization geared towards ADHD, the event drew in teachers and speakers from a host of educational psychology backgrounds. Through this event I was able to network and meet teachers whom have done work in the area of reflexive teaching in their own classrooms. In addition, I have been in touch with a former educator who has over 10 years of experience in the field and happens to have moved up from teacher to administration at a middle school. From this connection I used snowball sampling in seeking recommended participants considering this educator is information-rich and immersed in the community of teachers with similar areas of expertise.

3.3.3 Participant Bios

I conducted informal interviews with two TDSB elementary school educators. I selected these participants based on their dedication to equitable classroom practices and have used teaching strategies that are reflexive in mitigating teacher bias.

I met Naomi through the annual conference hosted by the Centre for ADHD Awareness Canada (Altman, 2015), which as mentioned earlier drew in teachers and speakers from a host of
educational psychology backgrounds. Through this event I was able to recruit Naomi who
expressed her passion and dedication to the area of reflexive teaching in her own classroom.
Naomi’s psychology background ensured she is familiar with the Oak School Experiment and
the effects of the self-fulfilling prophecy in the classroom. She has also been teaching for over
ten years, fulfilling the criteria I had set out for recruiting potential participants for my study.

My second participant, John, is a practicing principle who has over 20 years of
experience in both teaching and administration. On multiple occasions I had the opportunity to
observe his efforts to mitigate teacher bias as he advised the teachers in his school on how to deal
with particular incidents and after approaching him I found out in great detail his efforts to
mitigate his own bias. The strategies and philosophies he shared made significant contributions
to my research study and spoke to the research on the self-fulfilling prophecy.

3.4 Data Analysis

Data analysis took place in two steps. First, the recorded interviews were transcribed and
then using a coding process, I categorized the data from which themes emerged across the
interviews. My research question was used as an interpretative tool to code each of the interview
transcripts individually and identify categories of data and themes within.

In the second stage, I read the categories and themes beside one another – synthesizing
themes where appropriate. Using the data I analyzed the greater implications of the data using
meaning-making process whereby I concluded the findings given in relation to the existing
literature and how my study contributes.

Using the qualitative research design makes the data analysis procedure unique in its
nature because it does not adhere to a fixed linear approach (Creswell, 2007). Rather this form of
research allows for the researcher to act as the instrument to collect, interpret, organize, and
expand on specific enlightenments as they appear throughout the data collection process. Rather than finding out post-conducting the study areas of particular importance, qualitative research allows the researcher focus on elements that are of most importance during the conducting the data collection phase. Creswell (2007) describes this form of engaging with the process as data analysis spiral of which the researcher moves in analytic circles which allows the researcher to analyze and interpret a specific area of interest in many facets and dimensions rather than a flat singular statistic. For my research specifically, this style of analysis allowed for myself as a beginner teacher to immerse myself in the information-rich experiences of model teachers whom have mastered the art of reflexive teaching. By having the opportunity to gather detail-rich data through interviews, I have been able to describe, classify, interpret and represent the data in the context of classroom teachers. The significance of this form of data analysis is to gage what exists and what can be learned from these teachers experiences and scrutinizes the dynamic qualities of a particular situation through the lens of the expert (Crouch & McKenzie, 2006).

3.5 Ethical Review Procedures

Participants interviewed have been provided with a letter of informed consent (See Appendix A), which, they have had the opportunity to read and sign prior to the beginning of the interviewing process. All participants who choose to participate in the research study were required to sign the letter of consent at their own discretion. Participants were provided with a copy of the consent letter to keep and the second copy has been retained as part of the records for this study. The letter of consent (Appendix A) outlines all necessary information about content, consent and confidentiality to ensure every effort has been made to protect the privacy of the participant and confirm their willingness to participate in the research study. In the consent letter as well in person prior to the beginning of the interview, participants were informed of their right
to choose to withdraw during any point in the study. Interview time and place were negotiated with the participant, in a location both convenient and comfortable for the participant.

Interviews began with a review of the research topic and informing the participant of the length of time and number of questions I asked. This ensured participants did not feel obligated to prolong interview and could choose to pace their answers in a timely fashion. Participants were also informed that they were not obligated to answer questions they felt uncomfortable with and could choose to review, revise or omit their answers from the interview at any point in time. There are no known risks to participation in this study. Interviews were conducted in person and audio recorded in order to facilitate with transcription. All data (audio recordings) will be stored on my password-protected laptop and will be destroyed after 5 years. Information that could potentially compromise the anonymity and identity of the participants as well as the institution were replaced with pseudonyms protecting the participants from any kind of personal or professional harm. Data gathered with results were reviewed by my course instructor, which the participants were made aware of prior to the interview.

3.6 Methodological Limitations and Strengths

The small sample size may be a limitation however it is insignificant because the nature of my research study is intended to gain an in-depth understanding of the practices of exemplary teachers to develop my own pedagogical practice, rather than to generalize findings. Also the time constraint shortens the number of questions asked and to what degree issues of teacher bias can be explored. However, to address this challenge, I have carefully selected 17 questions to explore the participants teaching practices in depth. The limited amount of time allocated for the interviewing process may not allow me to explore a multitude of aspects in relation to my topic.
I recognize that the greater part of the literature review consists of older articles dating from 30-50 years ago though this may pose a limitation for the validity of the problem/phenomenon today, I have however carefully chosen each article because of the important strides it has made and the contribution it has made to the study of teacher bias. Perhaps inclusion of more current research would develop my thesis making it more relevant to the teaching practices of educators today.

Despite the above limitations, having a small number of respondents can also be perceived as strength of qualitative research methodology. Having narrowed the focus on an ideal candidate for the study allows the researcher to analyze an enriched in-depth interview with an expert in their field (Crouch & McKenzie, 2006). Another quality of this type of research is the ability to probe deeper at any point in the data-collection process (Creswell, 2007). This reflexive and adaptive nature of the process aims to be extensive with intent creating conceptualizations of social phenomenon, which cannot be quantified or made understandable with statistics. The un-structured and unregulated nature of the interview allows the respondent to freely express themselves without adhering to a set of given boxes that may not necessarily describe their beliefs. Through this unrestricted process new knowledge can be learned and uncovered.

3.7 Conclusion

This chapter highlighted the research approach and procedures that I utilized in the implementation of this study. This study uses a qualitative research design with semi-structured interviews ranging from 45-60 minutes. This style of data collection allowed me to conduct in-depth interviews with teachers who were experts in the area of teacher bias providing insight in the practices they use in their own classrooms. Participants were selected based on the set criteria
regarding number of years of experience and those who have demonstrated expertise in field of teacher bias. Two participants were chosen for interviewing who were provided with the letter of consent (Appendix A). The data collected was transcribed and analyzed to find the prominent themes and findings of the interview, which was briefly touched on in the Data Analysis section. The measures ensuring the confidentiality and protection of the privacy of the participants have been outlined in the ethical review procedures to ensure the study does not harm any individuals taking part and also to confirm their willingness to participate. Finally, the methodological limitation section highlights the drawback of qualitative approach, which is that the data does not lend itself to be generalizable to the greater population. Also the small sample size and limited interview time may not provide the opportunity to probe deeper however with a carefully selected list of questions (Appendix C) I ensured that only questions of importance were covered to make the most of the interview time.
CHAPTER 4: FINDINGS

4.0 Introduction

As mentioned in chapter 2, the Pygmalion effect refers to the phenomenon in which greater teacher expectation placed upon students yields better student performance. As research has suggested this influence can be both beneficial to some students, but also detrimental to others, based on the teacher’s expectation from them (Brophy, 1983; Davidson & Eden, 2000; Jamieson, et.al, 1987; Jussim & Harber, 2005). In this chapter I report and discuss the research findings from one-on-one interviews with two exemplary educators, who have over 10 years of experience teaching and have implemented self-reflective strategies in the classroom to ensure that the negative consequences of the Pygmalion effect, also known as the self-fulfilling prophecy, are mitigated. The findings reported here are classroom strategies implemented to combat the negative effects of the Pygmalion effect to create a more equitable classroom environment. The findings of this study are organized into four of the following overarching themes that surfaced throughout the data analysis process; 1) Teachers perceive exposure to biasing factors unavoidable; both formally and informally, 2) Teachers’ reflexive practices directly challenged biases through standards and opportunities set for students; high expectation formation and ‘fresh start’ approach, 3) Teachers strategically created environments, which presented students with natural opportunities for participation; flexible grouping and peer tutoring, 4) Teachers enact differentiated instruction and differentiated assessment based on formative assessments and learning styles, in order to challenge bias formation.

Furthermore, I breakdown overarching themes into pertinent sub-themes, that emerged through the data analysis, to organize the scope and depth of teachers efforts to mitigate bias. My intention is to depict an accurate representation of the data retrieved and support my analysis of
the findings through evidence and support of the literature reviewed in chapter two regarding the Pygmalion Effect.

4.1 Teachers perceive exposure to biasing factors unavoidable in their environment

In the standard public school system there is an abundance of information exchanged about each and every student, which cannot be controlled for. In this section I report how teachers receive information both formally, through official documents such as the Ontario Student Record (OSR) or Independent Education Plans (IEP). Also information about the student’s background is often learnt informally through the students’ previous teachers, administration as well as the students’ guardians. Although information received on students’ past are not first hand contact between the student and teacher, both participants identify bias stemming from external sources, which they make conscious efforts to avoid.

4.1.1 Formal data such as OSR/IEP had little bearing on teachers’ perception of students

Both participants described the acquisition of formal data on student profiles to have little bearing on their perception of the student’s academic performance and abilities. The main reason for lack of affect on teacher perception was, due in part, because teachers have the choice to review the documents at their own discretion and time. This may include prior to or after meeting the students. Formal data was provided for teachers in the form of Ontario Student Record (OSR), that consists of pertinent information on all students including students’ educational progress, biographical information, report cards from previous years and additional information which the Ministry of Education (2015) deems, “conducive to the improvement of instruction for the student” (p.4). The second formal information records provided to the participants were the Independent Education Plans’ (IEP), only for select students who received special education programs and services that teachers need made be aware of.
John describes receiving the OSR during the first week of each school year:

> I remember when I first became a teacher I was told within the first week, I would have to spend time going through the student’s Ontario Student Record and as a teacher…I felt I’m not gonna do that …because I don’t want those biases to creep in (Teacher Interview, December 3, 2015).

John’s expressed his desire to form his own perceptions based on first-hand experiences with the students rather than reading documents about students he had not met personally. This was an intentional effort John made to mitigate the bias from obscuring his perception. Naomi also mentioned her experience with OSRs as an important document to review in case students have specific health complications, or learning needs that need to be accommodated. However, she too concluded that she did not like reviewing documents prior to forming her own impressions of the students.

The experiences provided by both John and Naomi illustrates deliberate avoidance of factors that may bias their impression formation of their students. Though the OSRs’ are by law a professional obligation, to read and sign, by the Ontario Ministry of Education standards of practice, both participants ensured that they fulfilled their obligation, only after personally meeting all their students. Teachers’ efforts to avoid initial bias formation related to bias theorist Jussim’s (1989) phenomenon ‘perceptual bias’, whereby a teacher pays attention to behaviors consistent with their initial bias, as mentioned in chapter 2. Participants prevented perceptual bias from occurring because they ensured they did not know any background about their students prior to meeting them. Therefore, halting the wheels of the self-fulfilling prophecy.
Informal data received involuntarily through colleagues posed challenge for teachers to avoid forming biases

Participants explained that formal documents are written on record for teachers and administration to refer to at their own discretion. However, the informal acquisition of information—conversations with other teachers, student reputation, and prior experience teaching those students—teachers explain is unavoidable. Both John and Naomi described the avoidance and impact of informal information to pose a great challenge in their efforts to mediate unbiased student-teacher interactions. Naomi expressed her frustration with colleagues who approach her about specific students in her class, describing how difficult they are to teach or not cutout for the intensive programs they enrolled in. Studies have shown that a teacher’s formation of a ‘perceptual bias’ occurs involuntarily (Jussim & Harber, 2005). This hindrance of bias formation is in line with Jussim (1989), Jussim and Harber (2005) and Rosenthal & Jacobson (1968) who believe that the self-fulfilling prophecy is an acting factor which begins with the formation of biased perception and the consequences it brings to pedagogical delivery. Research suggests that teachers’ perception of students affects the amount of support teachers are likely to give to students which hinders the students’ success (Jussim, 1989). Theorists have also found that teachers used the students’ previous year appraisal of former teachers to form their own opinions (Rist, 1970). Naomi specified that while she “do[es] not intentionally form her opinion of students based on former teachers”, as Jussim and Harber (2005) have found, colleagues appraisals and opinions leave a residual detail in teachers perception of their students whether they may believe it or not. Naomi listed; word of mouth from other teachers, student reputation, personal experience from prior interactions, behavior in the class and outside of class, home life and parents, as all the confounding factors that shape our perception of how we see a
student. John reinforces this same notion of inescapability:

It is unavoidable to dodge the opinions of other teachers and what you hear from your colleagues and in addition also from your own experiences with the student… if you may have taught this child in the year before… however it is important to reflect on your own preconceived notion…much like avoiding looking at the OSR or taking what others say as the truth and build your own rapport with those students.

(Teacher Interview, December 3, 2015)

While hearing criticisms of students and the challenges they may pose for teachers, John recognized the upside of teaching the same students the second time around. John draws on his experience of teaching grade 7 to the same students he taught grade 6:

Got to know them so well, that we were able to go deeper, make those adjustments because of the familiarity, care and respect… at the same time, I felt it was really important for them to have a different teacher for grade 8, because they need a teacher that will see them differently… they needed to respond differently to another teacher.

(Teacher Interview, December 3, 2015)

While having prior experience with the same students establishes an impression of what a teacher can expect. John emphasizes the better you know your students, the more as a teacher you are able to meet their needs. By reflecting on his experience of teaching the same students over two years, John has recognized the extent to how important it has been to get to know your students. John also touches on the limits of teacher biases that are built as a result of experience, which is why it is important for students to experience other teachers who will see the student in a different light. Both participants express the opinions of other teachers and confounding factors such as OSRs, IEPs, student reputation and prior experience as unavoidable. The next theme
demonstrates how these exemplary teachers have taken what they know about students and utilized it to better support their students.

4.2 Teachers’ reflexive practices directly challenged biases through standards and opportunities set for students

In this section I report data in regards to the research question; how do teachers responded to their own biases? As mentioned in Chapter 2 the reflexive practice of teachers which consists, not only of reflection on their biases but also, how this “learning” through reflecting changes their teaching practice (Hibbert, Coupland, & Macintosh, 2010). While specific strategy to mitigate bias differed across participants, they both spoke about the importance of having a frame of reference to guide your everyday teaching instruction. The first subtheme, High Expectation Formation, recognizes the mentality with which teachers approach students and the second subtheme, Fresh Start, establishes a ‘second chance’ style of teaching, focusing on the importance of opportunity.

4.2.1 High expectation formation

Strong evidence has demonstrated that the students whose teachers had greater expectations showed higher intellectual gains, class participation and overall positive attitudes toward learning (Jamieson et al., 1987; Rubie-Davies, 2006; Rosenthal & Jacobson, 1968). In addition, experiments have also found that students primed with positive expectation versus no expectation at all also demonstrated more appropriate behaviors (Jamieson et al., 1987). Both John and Naomi recognized the importance of expectation whether it is positive or negative and the impact it has on student behavior and student achievement. Naomi explains that she establishes a standard for her class right at the beginning of the year despite her conscious awareness of student’s current abilities:
I set the expectation for each of them, not just the few …bright students… I let all students in the class know I have expectations from all of them to succeed academically because in my classroom they will all be supported. (Teacher Interview, Oct 13, 2015)

Though Naomi subtly suggests her awareness of bright students in the class she does not let this bias become apparent to her students. By establishing a standard for the class she diminishes the tiered system of different expectations for different students and sets a positive expectation for all students. Her ‘high expectation’ strategy directly supports studies that have shown a positive effect on student performance compared to no expectations established (Jamieson et al., 1987).

She responds to the follow up question on how she manages to reinforce this high expectation;

I establish success criteria for assignments and rubrics, which all the students receive… I explicitly go through the rubric and tell them all to highlight level 4…this sets the aim for all students. (Teacher Interview, Oct 13, 2015)

John’s reflexive practice resonates with Naomi as he recognized that all students have to be given high expectations regardless of strand, subject or unit you are teaching. John articulates his experience of teaching a gifted class as well as a regular class:

I would ask them the same things …I would ask my regular students because it’s about providing kids with rich tasks and challenging them… that was always important, as opposed to teaching “down” to this class because they are not gifted… but all of a sudden now that I’m teaching this gifted class, I’m going to do these great things… my students [regular class] did awesome things too. (Teacher Interview, December 3, 2015)

John’s practice of providing students with rich tasks whether it is a gifted class or regular class directly reinforces the findings that correlate higher teacher expectation with increased intellectual gains (Jamieson et al., 1987; Rubie-Davies, 2006; Rosenthal & Jacobson, 1968).
Whether a class is established as gifted or as a regular class, participants’ have demonstrated their intentional efforts to establish high expectation for all students not only those deemed ‘high achievers’ by others. John also pointed out that teachers should stay reflexive about their own teaching and lowering of expectation, which becomes evident in practice when educators teach “down” to students. The take away from this approach is to prime students with positive expectation or high expectation rather than no expectation at all.

4.2.2 Fresh Start Approach

The literature places significance on the positive expectations teachers should set but lacks the practical strategies on how this can be implemented. Participant, John, highlighted the importance of a “fresh start” approach as an opportunity for students to start over, redeem themselves from a past failure or have a second chance to do well. The importance of this point is that it suggests a concrete method of opportunity, which teachers can implement to motivate students who may ‘fall off the wagon’ throughout the year. John describes regression of motivation or doing the bare minimum as a state to which we all fall prey to over the course of time:

He (referring to a particular student) has to feel that this is a fresh opportunity… just like we all remember September… look at my notebooks, what those notes look like beginning of the year compared to the middle of the year. September I’m going to write neatly, underline… everything is dated…that approach and then old habits come back but that opportunity for a fresh September is so motivating and invigorating… if you could turn that September to every assignment. That’s always been my approach.

(Teacher Interview, December 3, 2015)
To compensate for the habit of students losing motivation John has established an approach that turns everyday and every assignment to what he refers to as “fresh September”. His analogy, “fresh September” stems from the new opportunity that is captured in the essence of every school year that gives all (students/teachers) a clean slate at the beginning of every school year. John’s approach directly responds to the problem uncovered by the five year study conducted by Boer, Bosker, & Margaretha (2010) which found that educator’s expectations of students long-term performance in the classroom actually regressed on students prior achievements, IQ scores as well as motivation due to teacher bias. John’s ‘fresh September’ approach for every task, assignment, unit and strand constantly gave fresh opportunities for students to succeed replacing students past unsuccessful instances with new achievements reinforcing motivation. John reinforces the idea of fresh start by highlighting that the, “Smart quote on quote kids will not excel on everything just because they are deemed ‘smart one’” (Teacher Interview, December 3, 2015). This point underlines the idea that fresh starts give all students an opportunity to excel not only the ‘smart ones’.

4.3 Teachers strategically created environments, which presented students with natural opportunities for participation

In this section I report on data regarding teachers’ strategies to layout the classroom environment in meeting the needs of all students and ensuring the effect of the self-fulfilling prophecy is counteracted. Specifically, teachers have expressed how their reflexive practice and how strategic arrangements of the classroom have been implemented to meet students’ needs in a positive social environment. Research has found that teachers’ organization of the classroom environment, particularly in terms of ability groupings enacts negative consequences such as lower achievement and lack of motivation (Jussim & Harber, 2005). By segregating the students
in terms of their ability, students are confined to an ability group, which defines them. As highlighted in Chapter 2, Rosenthal and Jacobson’s (1968) found that students placed in high expectation groups despite their performance, teachers perceived as well adjusted and higher potential for success. In the same vein, those students placed in lower ability groups are perceived in a homogenous way regardless of their efforts. In addition, studies have also found lowering of expectations has been correlated with students internalizing beliefs of inferiority which not only has negative socializing aspects but also places students on a hierarchy within the class, further isolating weaker students (Novak, 2009; Rist, 1970). Both interviews reveal the teachers conscious understanding of how classroom environment affects student performance.

The first subtheme, Flexible Grouping, refers to the method of classroom organization participants have implemented. While participants have referred to this strategy in different nuances, the core belief here is to ensure students have the opportunity to interact with all different abilities, learning styles and have different social interactions. The second subtheme, Peer Tutoring, was a program implemented by one of the participants, which celebrated and utilized the talents of students by pairing them to support their peers who struggled in particular areas.

4.3.1 Flexible Grouping

Teachers referred to the physical organization of students in the class as either flexible grouping or fluid grouping both of which consisted of small 3-4 person groups. The established groups changed overtime and were not based on ability rather as Naomi puts it:

I know students don't like it when the teacher makes [the] groups, but at the same time…they will hear something very different from another classmate, or they themselves can share something new... which another student may learn from.
The participant highlights the importance of moving students around so they are exposed to different ideas and understandings. In addition, Naomi places a significant weight on learning from peers diminishing the hierarchy as the teacher being the only person in the classroom who shares knowledge and can be learned from. The collaboration of students facilitates learning within groups because the small sizes of the groups allow all students an opportunity to share. John also reinforces the importance of integration of all students even those in the Home School Program (HSP) who require extra support for particular areas of learning. John states, “When we integrate them, if a child has strength in a strand, they don’t need to feel like they need to be in a special class, they can be the star of the class [for particular strand]” (Teacher Interview, December 3, 2015). Integration of students with different abilities was popular amongst participants when establishing the environment of the classroom. John placed an importance on positive socialization of students, giving them opportunities to be “the star” of the class as well as Naomi’s recognition that all her students have valuable input that peers can learn from. Participants’ efforts directly respond to Novak’s (2009) notion of hierarchy and the detrimental effects ability groupings can have on students by strategically organizing students in flexible groupings or pairing through peer tutoring.

4.3.2 Peer Tutor

Peer tutoring was an effort established by Naomi in which students who were strong in particular subjects would use their lunch hour to tutor peers who required additional support. The students who were peer tutors, Naomi clarified, are not the same students for all subjects. John reinforces this idea: “Your smart quote on quote kids will not excel on everything just because they are the smart one” (Teacher Interview, December 3, 2015). Both participants recognize that
students have areas of strength in which they excel and other areas, which might be weaker. Therefore, it is essential to give all students’ opportunities in the classroom environment for their strengths to be celebrated and supported by both their peers and teacher. By celebrating each student’s area of strength, this strategy counteracted the feelings of inferiority students may experience in subject areas that might not be their strong suite, as Novak (2009) suggests. Naomi explains the motive behind her pairing, “Strong students can help other students build up skills” (Teacher Interview, October 13, 2015). During the entire interview the participant rarely used the term “weak student” but always makes the comparison by saying “other students”. This avoidance of labeling students as inferior in ability demonstrates her conscious effort to reflect on her perception of her students.

4.4 Teachers enact differentiated instruction and differentiated assessment based on learning styles

In this section I present the participants strategies, which guide their efforts to mitigate bias in instruction as well as assessment. Both participants suggested differentiation of instruction as a strategy to allow all students an opportunity to excel in their area of strength. Interviews reveal that assessment poses most of the challenge for teachers to remain objective and not let biases such as student’s back-stories affect assessment of their work. Both participants suggested teacher approach does make a difference and by using different assessment styles, all students can demonstrate their learning through different outlets.

4.4.1 Differentiated Instruction: Use of Inquiry-based Learning

In addressing students individual learning needs, participants recognized that learning takes place over time, in a variety of ways and not all students learn using the same teaching strategies. John explains using a singular style of teaching will gain few results. However both
John and Naomi have suggested use of alternative approaches referred to as differentiation of instruction can provide individual students with the opportunity to succeed.

Differentiation includes provision of rich tasks, inquiry-based learning, use of technology, use of manipulates and above all creating an environment in which students can take an active role in their own learning process and speed…

(Teacher Interview, October 13, 2015)

Naomi’s philosophy of differentiated instruction perceives student learning as process in which not only students have control over but also need to be provided with the tools to access “learning”. Gutshall (2013) found that teachers who perceived intellect as malleable “were far more supportive and reported instructional goals that explicitly taught students how to problem solve” (p.1074). Naomi’s differentiated style of instruction and inquiry-based approach is in direct agreement with this finding because it guides students to ask questions, engage in rich tasks to answer their own questions which is a student driven style of problem solving. John also reinforced the importance of differentiating instruction, “My first 6 months in school is always changing it up so I can see different kids strengths” (Teacher Interview, December 3, 2015). In this statement John establishes the importance of changing tasks to see all students’ areas of strength and challenges the notion that teachers form judgments of their students based on few and early interactions with the student (Boer, Bosker, & Margaretha. 2010; Brophy & Good, 1974). By differentiating the instructional approach, all students’ abilities emerge therefore in the perspective of the teacher; the preconceived notion of “smart students” versus all others deteriorates, allowing each student to build their identity based on their area of strength. John reflects on his instructional approach:

Teacher approach does make a difference, and what I mean [is] that we all have different
styles of learning and as teachers we are more inclined [to teach how we learn] unless we
are really focused on differentiated instruction. To be in very intentional on differentiated
practices. (Teacher Interview, December 3, 2015)

John recognizes that all students learn differently and for this reason by differentiating
instruction, teachers are reflexively addressing these learning diversities through their practice.
Despite teacher inclination to teach in ways we ourselves learn, Naomi has reached out to
external sources such as Differentiated Assessment Strategies by Chapman and King (2012) as a
guide to find different avenues to create environments of learning.

4.4.2 Differentiated Assessment: Marking success criteria not marking students

As previously mentioned, assessment is a challenging area of practice for teachers due to
the sheer fact that you must quantify and label the work of your students with a singular letter or
number grade. This section analyzes teachers’ responses to; how they mitigate the effects of bias
through the process of their assessment practices? Researchers have described biased assessment
in a two-dimensional process by which first teachers form biased expectancies based on few
interactions (Brophy & Good, 1974), then with a biased lens, teachers have been found to assess
the performance of the students (Jussim, 1989). As discussed previously teacher biases form in a
multitude of ways through interaction, OSR, IEP, parents, reputation, and previous teacher, to
name a few. John expresses his reflective practice when assessing student work, whilst reflecting
on how personal rapport poses a challenge in assessment:

It is just a challenge! …We care about students, there is stories behind them,
parents…when you start to have your own kids… balancing it with real life,
understanding that its tough and having the opportunity to focus on your core beliefs and
values… If you are marking assignments or papers, you are not marking students… but
you are marking expectations …then you should be able to see what it is you are dealing with. (Teacher Interview, December 3, 2015)

Naomi’s approach to assessment was in agreement with John. She shared her experience with assessment as a tool to perform diagnostic assessments to establish how her students learn and how she can differentiate assessment to make it equitable for all her students. Naomi recommended *The Growing Success Document* (Ontario Government, 2010) as well as *Differentiated Assessment Strategies* (Chapman, & King, 2012) as two reference guides she recommends to all teachers in utilizing alternative ways of assessing student learning. From use of her resources Naomi explained her assessment practices consist of self-constructed rubrics and success criteria often co-created with the students. This approach coincides directly with John’s statement that “you are marking assignments…you are not marking students” (Teacher Interview, December 3, 2015). Naomi’s approach suggests that by establishing success criteria prior to assessing work, teachers have a reference point to assess student work not the students themselves.

### 4.5 Conclusion

In this chapter I reported on the data retrieved from semi-structured interviews with two educators who have done exemplary work in mitigating the disparate effects the self-fulfilling prophecy can have in the classroom. I obtained valuable input from educators in regards to their strategies and conscious interactions intended to bring out the best in their students. The findings were divided into four overarching themes and multiple pertinent sub-themes. First, it was found that teachers’ perceived exposure to biasing factors unavoidable in the school environment. Teachers shared that informal information about students (learned through colleagues) tend to have more of an effect compared to formal school documents, which had little bearing on
forming a preconceived notion for teachers. Second, teachers’ reflexive practices, implemented through their classroom instruction, classroom layout and assessment, directly challenge biases. Teachers ensured that ‘high expectation’ standards and ‘fresh start’ opportunities set for students allowed all students to strive higher. Third, teachers strategically created environments that presented students with natural opportunities for participation such as flexible grouping and peer tutoring. Fourth, participant’s philosophy of differentiated learning guided their practice. Differentiated instruction was an approach derived as a result of different learning styles in the class and integration of all students regardless of learning needs. In addition differentiated assessment was utilized to create opportunity for each and every student to excel by allowing alternative ways for students to express learning and breaking away from traditional testing.
CHAPTER 5: DISCUSSION

5.0 Introduction

The present study was designed to learn about the reflexive strategies teachers implement to mitigate the negative consequences of teacher bias that can lead to inferior student academic performance and perpetuate social injustices in the classroom. Teacher bias was explored as a moderator of the self-fulfilling prophecy in the elementary school classroom. The findings serve to support the extant literature pertaining to the Pygmalion effect also known as teacher expectation bias and to specifically tell us more about practical strategies teachers can use to combat these unavoidable challenges of the teaching profession. The exemplary educators interviewed for this study have over 10 years of teaching experience and have demonstrated their conscious efforts in their teaching practice to mitigate teacher bias, making their classrooms more equitable for student academic and social well-being. This chapter summarizes the research findings in chapter 4, highlights the present study's implications for various stakeholders, provides several recommendations, and suggests directions for future research.

5.1 Overview of key findings and their significance

Following interviews with two educators, a rigorous analysis revealed four important themes: (1) Teachers perceive exposure to biasing factors unavoidable; (2) Teachers' reflexive practices directly challenged biases through standards and opportunities set for students' high expectation formation and 'fresh start' approach, (3) Teachers strategically created environments, which presented students with natural opportunities for participation; flexible grouping and peer tutoring and (4) Teachers enact differentiated instruction and differentiated assessment based on formative assessments and learning styles, in order to challenge bias formation. In this section, I revisit the research findings that I discussed in chapter 4 and how the significance of these
themes related to my literature review in chapter 2.

5.1.1 Biasing Factors Unavoidable

The first theme, teachers' perception of exposure to biasing factors unavoidable, served to remind us that we work in an institutional system where background information, word of mouth and general awareness of students in the school is inevitable. Jussim and Harber (2005) suggests that colleagues opinions leave may leave residual details that cause bias in teachers perception of their students whether they may believe it or not. Both participants interviewed expressed their deliberate avoidance of factors that may bias their impression of their students in the beginning of the school year. Naomi listed informal conversations with other teachers, student reputation, personal experience from prior interactions, behaviour in the class and outside of class, home life and parents, as all the confounding factors act as multiple lenses that unavoidably filters how she perceives a student. However, both John and Naomi found formal student documentation such as the IEP and OSR to have little bearing on their perception formation of their students. John's rationale, for the insignificant effect of formal documents was due to the discretion teachers having to review the documents or not. John would meet his students first before reading any of the documents pertinent to their background after having built rapport. This was a strategy John implemented in his classroom teaching to mitigate the effects of the initial 'perceptual bias' as outlined by Jussim (1989) in chapter two of this research. Both participants felt that they were able to prevent perceptual bias from playing out in the student-teacher interactions within their classroom because they both made conscious efforts to avoid finding out background information about their students prior to meeting them personally. Participants expressed that formal school documentation have less effect on their perception of students compared to the conversations with colleagues. This finding is in line with Jussim and Harber (2005) suggestion
that information shared by colleagues affect teachers' perception of students.

5.1.2 Reflexive Practices Challenge Biases

The second theme, use of reflexive practices to directly challenge bias, emerged as teachers outlined how they reflected on their biases and implemented strategies to combat their unavoidable biases. The first subtheme, ‘high-expectation formation’, described the academic and social standard Naomi set in place for all her students, regardless of her perception of student ability or results of formative assessments. Interestingly, Naomi's strategy corresponds with the research, which has found strong evidence supporting higher intellectual gains and classroom participation for students whose teachers had greater expectations (Jamieson et al., 1987; Rubie-Davies, 2006; Rosenthal & Jacobson, 1968). The significance of this finding is that establishing a standard for the class diminishes the tiered system of different expectations for different students and sets a positive expectation for all students. The second subtheme, ‘Fresh Start’, was a reflexive practice John implemented which focused on the importance of new opportunities for students to succeed regardless of their previous setbacks. The significance of the "fresh start" approach is that throughout the school year students are provided with opportunities to start over, redeem themselves from a past failure or have a second chance to succeed. I learned that the technique used by John also has the effect of counteracting the effects of bias formed based on short-term interactions. For instance, John's approach responds to the problem outlined in the literature review by Boer, Bosker, and Margaretha (2010) who found that educator's expectations of students through long-term performance in the classroom could regress based upon students' prior achievements. However the snowballing effect of one failure forming lower expectations and perceptions of students is wiped away with each opportunity set up for both students to get a clean slate at experience success, and for the teacher to see this same student in a new light.
5.1.3 Classroom Organization Provide Natural Opportunities for Participation

The third theme outlined the strategy teachers used to organize the classroom environments in such a way that it provides students with natural opportunities for participation. As highlighted in the literature review, classroom organization, specifically in terms of ability groupings, has been found to confine students to fixed groups leaving little opportunity for growth because they are restricted to work with the same few students (Jussim & Harber, 2005). Both interviews reveal teachers' attention to the classroom dynamics through the two strategies implemented in their classroom organization. In the first approach, Flexible Grouping, the core belief here is to ensure students have the opportunity to interact with all different abilities, learning styles and have different social interactions. The second approach found, Peer Tutoring, was a program implemented by Naomi, which celebrated and utilized the talents of students by pairing them to support their peers who struggled in particular areas. Naomi’s approach highlights that all students, their knowledge, and skills are equally validated in a classroom environment that highlights equality and collaboration over teacher-centered hierarchy. The significance of altering classroom environment is that these teachers have implemented a way to celebrate each student’s area of strength by giving them leadership roles. This strategy counteracted the feelings of inferiority students may experience in subject areas that might not be their strong suite, as Novak (2009) suggests, by keeping the groups fluid and not fixed.

5.1.4 Mitigating Bias through Differentiated Instruction and Differentiated Assessment

The fourth theme that emerged from the interviews was teachers' enactment of differentiated instruction and differentiated assessment of challenging false bias formation by incorporating a diverse range of assessment and instructional tools. The interviews revealed that assessment poses a significant challenge for teachers, as they strive to not allow a student’s
behavior or back-stories about that student, affect the assessment of the student’s work. Participants revealed similar answers in terms of their beliefs about the significance of their role as teachers in making a difference. Both participants emphasized differentiation of instruction as a strategy to ensure all students understand what is expected of them and are given an equitable opportunity to excel. Through the description of Naomi’s practical strategies, I gathered her philosophy of differentiated instruction as a strategy she used to give students control over their learning and provide them with tools to access "learning". The significance of this finding is that these exemplary educators did not simplify the work just to have the students complete the work, as was my personal experience as a student, instead they accommodated student learning through a differentiated style of instruction and inquiry-based approach. Gutshall (2013) found that teachers who perceived intellect as malleable were far more supportive, providing instructional goals that explicitly taught students how to approach problems. The instructional strategies implemented by Naomi and John were in line with the research findings. This is clear in their practice because they take great strides to mitigate the effects of teacher expectancy bias.

Participants suggested using different assessment styles would help ensure all students could demonstrate their learning through different outlets. This strategy is especially important to note because using the same mode of assessment, has traditionally been seen as the way to assess students fairly, since everyone is writing the same test or writing a paper. However, assessing students through an outlet they struggle with may yield biased results because they were unable to communicate their knowledge. This related to researchers who have described biased assessment as a two-dimensional process by which first teachers develop biased expectancies based on few interactions (Brophy & Good, 1974), then with a biased lens, teachers have been found to assess the performance of the students using a singular approach for all students.
(Jussim, 1989). Both participants highlighted the importance of avoiding using a singular mode of assessment that can further reinforce false biases about student abilities.

I found that the participants established success criteria prior to assessing work; which provided them with a reference point to assess student work, not the students themselves. These ideas were best captured by John's articulation of his assessment philosophy; "you are marking assignments…you are not marking students" (Teacher Interview, December 3, 2015).

5.2. Implications

5.2.1 Broad Implication for the Educational Community

The present study has important implications for educational reform. In broad strokes, this study should serve as a reminder to policymakers and curriculum planners that the effects of the self-fulfilling prophecy can mediate student-teacher interactions. As Jussim and Harber (2005) have called for in the literature, this study identifies practical strategies classroom teachers can implement to mitigate the effects of teacher bias and the detrimental consequences it can have on student performance. The study also provides novel insight into the issue of how biased perceptions of students is formed in the school environment and the proactive strategies educators implement to combat the negative effects of teacher bias.

The present study also has three specific implications for school boards, administrators and teachers working in the sphere of classroom education. First, biased perceptions are unavoidable because of the structure of the educational institutions. For teachers working in the same school, building friendships and having taught the same students, it is inevitable that information regarding students will be exchanged. By exchanging information the student’s future teachers will have formed a biased opinion of the students prior to meeting them. As this study has suggested, for equitable treatment of students it is imperative to avoid biasing factors,
such as exchange of information between teachers about students. The second implication is that it is imperative that school boards and administrators put in place professional development programs for teachers to become mindful of teacher bias and gain practical strategies to mitigate its effect in the classroom. Third, educators should become proactive in mitigating teacher bias because their role in the classroom is crucial to the mitigation of the self-fulfilling prophecy.

5.2.2 Narrow Implication for Self: Teacher and Researcher

The findings of this study have enlightened my understanding of how teacher bias seeps into our practice, despite how many years of experience we may have. My interviews revealed that teachers' exposure to biasing factors is unavoidable and served to remind me that we work in an institutional system where background information, word of mouth, and general awareness of students in the school is inevitable. However, hope is not lost. Our role is to take the information received as only a fraction of defining whom our students are and how they will fair in our classroom. The findings of this study have allowed me to reflect back on my own classroom teaching experiences and situations where my biases have guided my behavior towards students. I have learned to become reflexive of how I organize group activities, assess student work and instruct the class. In addition to applying these practical teaching methods, this research study has inspired me to approach teaching as a lifelong process. While the completion of a teacher education prepares us for many aspects of teaching, this multifaceted profession requires us to consistently improve upon our practice. This study has reaffirmed my belief that good teaching practices will only produce results when habitually applied. The reflexive strategies I have gathered through this study will have a lasting effect on my teaching journey.

5.3 Recommendations

The ways educational institutions are organized create an array of circumstances in which
students are positioned to fall prey to the self-fulfilling prophecy. Ontario Student Records (OSR), Independent Education Plans (IEP), teachers sharing information regarding students are all examples of how schools create an environment which breeds teacher bias. The number of years of experience does not necessarily mean a teacher has mastered or is better at challenging teacher bias. The degree the self-fulfilling prophecy affects student academic success has been debated however, the social impacts of the self-filling prophecy yet to be challenged. Researchers have found when teachers perceive a student as unlikely to succeed they are more likely to regulate the student with increased discipline, less attention or opportunity to answer questions which could lead to low self-esteem and easily promote underachievement (Jussim & Harber, 2005). The implications of the present study point specifically to several recommendations for ministries of education, school administrators, and teachers to mitigate teacher bias that could lead to differential treatment of students. Three recommendations resulting from this study are outlined here.

The first recommendation centers teachers as having the key role in implementing classroom strategies to mitigate biases that will allow students to have opportunities to flourish. As the findings suggest implementing a ‘fresh start' approach to each new task or project and setting in place ‘high expectations' for all students in the classroom, not only high achievers in the class, creates an environment in which all students have the opportunity to succeed.

The second recommendation is for educational researchers and policy makers to invest in research on teacher reflexivity. Considering the increasing diversity of the Canadian classrooms, the importance of equity and equality and the suggested negatives implications that can arise from teacher bias, it is imperative for research to investigate reflexive teacher practices that support student success and mitigate the negatives consequences of these biases.
The third recommendation is for policy makers to implement professional development programs for all teachers in order to bring awareness to pre-service and practicing teachers about the potential effects of this phenomenon and how they can stay reflexive in their practice. This top-down approach will bring awareness of teacher bias and provide teachers with classroom strategies to mitigate teacher bias.

5.4 Areas for Further Research

Inasmuch as the present study has served to expand upon the extant literature, it has also highlighted the need for further study. In future research endeavours, it is recommended that greater emphasis be placed upon the students’ experiences. My research study has shed light on the proactive strategies teachers can implement to mitigate bias in student-teacher interactions. For the research community gaining an awareness of the student experience will expand and enrich the knowledge and understanding of the effects of the self-fulfilling prophecy in the classroom. Furthermore, specific marginalized groups should be studied individually to ensure that educators are responsive to the needs of all of these students. Perhaps probing into the experiences of marginalized students could shed light on, how teacher practices could mitigate the effects of bias that stem from racial stereotyping? How does low socioeconomic status affect the experiences of students in the classroom? Having research explore the student experience could put teachers in a better position to mitigate the effects of bias. The scarce literature on the experiences of marginalized students in relation to the self-fulfilling prophecy that stems from teachers low expectations displays the invisible problem school boards have yet to acknowledge and researchers need to address. These inquiry questions underpin the goal of improving the Canadian educational system and upholding the rigor with which Canadian education is delivered and educating teachers. The difficulty of finding and recruiting suitable educators for
this research study demonstrates the lack of awareness of teacher bias amongst current elementary school educators. Having spoken to over a dozen teachers and networking through teacher groups, I found that very few teachers to be familiar with teacher-bias. This suggests that the Toronto District School Board schools do not seem to have mitigation of teacher bias as one of their strategies for making classroom practices more equitable. Through professional development or policy initiatives teacher bias could potentially create awareness and support more equitable classroom practices. Educational research scholars should direct their attention to professional development seminars to find what might hold the most promise in terms of approaches to professional development for in-service teachers about the effects of the self-fulfilling prophecy that stems from teacher bias. It is important to further the understanding of this phenomenon because there appears to be a lack of awareness in the educational community and, with the growing trend of diversity, teachers should be provided with a frame of reference to understand their own biases and have viable strategies to mitigate its effect.

5.5 Conclusion

The purpose of this research study was to investigate how teachers’ perceptions of their students are formed and how they implemented reflexive practices to mitigate the negative effects of teacher bias within the classroom. This phenomenon is problematic because the preconceived notions teachers’ hold are based on few interactions with students and have been directly correlated with bringing about results in line with their initial false perception of the students (Jussim and Harber, 2005; Gutshall, 2013; Brophy, 1983; Rosenthal & Jacobson, 1968). This research study sheds light on potential strategies teachers can implement in their teaching practices in order to stay reflexive of their biases and minimize its consequence in the classroom. Through qualitative semi-structured interviews with exemplary educators with over 10 years of
teaching experience, I have aimed to gain a rich understanding of the approaches and techniques used to mitigate the biases that plague student-teacher interactions. The current literature on the self-fulfilling prophecy has spent too much of its focus on establishing or refuting the impact of teacher bias on the academic performance of students. Through my research, I have reviewed the findings of previous studies and suggested practical strategies to mitigate the effects of teacher bias on student performance; a phenomenon that may be prevalent in some educational contexts.

Through qualitative semi-structured interviews with exemplary educators, I have investigated reflexive strategies. The key findings of this study suggest practical strategies educators can implement to mitigate the effects of teacher bias. The first two strategies outlined were the ‘fresh start’ approach and ‘high-expectation’ formation. ‘Fresh start' approach was a strategy outline where each task or assignment is presented as a clean slate or new opportunity to start over, regardless of how far into the school year it is. ‘High-expectation formation' was another reflexive strategy educators implemented, setting up a high expectation for all students not only the high achievers in the class. The next key finding I addressed was classroom organization that teachers manipulated in ways to provide the student with natural opportunities to participate. Flexible grouping was a strategy the participants used to mitigate the native effects of ability grouping. Also, peer tutoring was another strategy implemented to give all students opportunities to demonstrate their areas of expertise and take on leadership roles. Finally, I explored the differentiated instruction and differentiated assessment styles the participants implemented to mitigate the bias. In line with the research, the participants expressed the importance of avoiding using single mode of assessment that can further reinforce false biases about student abilities. I found that the participants suggested approaches consisted of establishing success criteria and adhering to the idea that “we are marking assignments, not the
student". The goal of mitigating bias through differentiated assessment and differentiated instruction was consistent across participants.

In the conversations with my participants, I found that there is no singular way to create a bias-free environment. However, by organizing my classroom dynamics to provide students multiple opportunities to succeed will consequently challenge the initial biases I may have acquired about my students. The issues outlined in this study bring to the forefront of education the teachers’ role in the opportunities students have to succeed in the classroom. Also, this study highlights the responsibility teachers have in ensuring each student has the same chance for success and recommends further research on the student experience from different cultural backgrounds, linguistic proficiencies or socio-economic status. It is imperative for school boards, policy makers, and educators to make it a priority to address teacher bias in practice and implement policy in line with research findings. As multiple studies have proposed and the implication my research suggests it is the role of the classroom teacher to ensure students are met with equitable circumstances and multiple opportunities to succeed.
REFERENCES


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Appendix A : Letter of Consent

Dear _______________________________,

My Name is Aria Amini and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on how elementary school educators stay reflexive about their assumptions of student’s abilities in order to mitigate the potential for the self-fulfilling prophecy. I am interested in interviewing teachers who have a demonstrated expertise of reflexive strategies in the area of teacher biases and have been teaching in a classroom for over 10 years. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a research conference or publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. This data will be stored on my password-protected computer and the only people who will have access to the research data will be my course instructor Angela MacDonald. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data
has been collected. There are no known risks or benefits to participation, and I will share with
you a copy of the transcript to ensure accuracy.

Please sign this consent form, if you agree to be interviewed. The second copy is for your
records. I am very grateful for your participation.
Sincerely,
Name: Aria Amini
Phone Number: (647) 771-5351
Email: ms_amini@hotmail.com

Course Instructor’s Name: Angela MacDonald

Contact Info: angela.macdonald@utoronto.ca

Consent Form
I acknowledge that the topic of this interview has been explained to me and that any questions
that I have asked have been answered to my satisfaction. I understand that I can withdraw from
this research study at any time without penalty.
I have read the letter provided to me by Aria Amini and agree to participate in an interview for
the purposes described. I agree to have the interview audio-recorded.

Signature: ______________________________________

Name: (printed) _____________________________________________

Date: ______________________________________
Appendix B: Interview Protocol

Thank you for choosing to participate in this qualitative research study. The intention of this study is to learn strategies teachers use to stay reflexive about preconceived assumptions of students’ abilities in order to mitigate the potential for the self-fulfilling prophecy. The interview should take approximately 45-60 minutes and I will ask you questions about your teaching background, beliefs and values in the realm of education, teaching practices, influencing factors and potential goals for teachers. I want to remind you of your right to refrain from answering any questions and have the right to stop the interview at anytime you wish. Do you have any questions before we begin?
Appendix C: Interview Questions

Section 1: Background Information

1. What do you teach? Where do you teach?
2. How many years have you worked as a teacher?
   How many years have you been teaching at this school?
3. Can you tell me about the school where you currently teach? (Size, student demographics, program priorities)
4. How did your interest the area of ‘teacher bias’ develop? And why did you select this area of study?
5. What personal, professional, and educational experiences have contributed to your interest in and commitment to reflexive practice for mitigating the consequences of teacher bias?
6. Was there a specific experience that you had either as a student or with a student that had a particular impact on you? If yes, can you tell me what happened?

Sections 2: Beliefs/Values (Why?)

7. What does the self-fulfilling prophecy mean to you? In what ways do you see this operating in schools? How prevalent do you believe this phenomenon is in schools?
8. Why do you believe that it is important that teachers be reflexive about their biases and assumptions about students’ abilities?
9. What does it mean to you to be reflexive?
10. In your experience, what are some of the consequences of teacher assumptions about student abilities that you have observed?
11. How do you think it comes to be that teachers commonly make assumptions about students’ abilities? What factors and circumstances contribute to this tendency in your view?
12. What do you think that teachers and students have to gain from teachers enacting reflexive practice about the assumptions that they make about students’ abilities? Do you have an example that you could provide to illustrate this?
Section 3: Teacher Practices (What/How?)

13. What do you do in your practice to stay reflexive of your biases and assumptions about students’ abilities? Can you give me some examples of strategies, habits, considerations, and/or practices that you enact?

14. Since you began implementing these practices, what, if anything have you observed in terms of outcomes? (*Listen, and then probe):

   a. Have you observed outcomes for your students’ academic achievement
   b. Have you observed any outcomes related to the classroom culture?

15. What practices do you use to mitigate your biases and assumptions when assessing students and why?

   a. What methods do you find most effective?

16. What factors and/or resources support you in implementing these practices?

Section 4: Influencing Factors (Who?)

17. What challenges, if any, have you encountered with staying consistent in your reflexive practice? What challenges have you encountered in terms of your commitment to these practices? How do you respond to these challenges? How might the education system further support you in meeting these challenges?

18. Have you ever shared your reflexive teaching practices with colleagues? If yes, why? How did they respond?

19. What kind of response have you had from your students after implementing your strategies to mitigate teacher bias in the classroom?

Section 5: Next Steps (What next?)

20. How do you think teachers might be further supported and prepared to learn to be reflexive of their assumptions about students’ abilities?
21. What advice, if any, do you have for beginning teachers about how they can mitigate their biases and assumptions about students’ abilities and help mitigate the potential for, and effects of, the self-fulfilling prophecy?