Grouping Students by Ability: Is There a Difference in Academic Achievement?

by

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Abstract

Upon the renewal of international competition based on standardized assessments, grouping students by ability has been reintroduced into the education system. In this paper, I review the literature on grouping students and its impact on academic achievement. Within this review, it has been found that generally there is no overall affect to academic achievement when students are grouped by ability. However, if one were to break down the data to consider each ability level, it would be found that there are positive implications for students who are deemed gifted when placed in a homogeneous grouping, and positive implications for students in the low ability group when placed in a heterogeneous grouping. Also, other issues have emerged from this research that could potentially impact student achievement depending on the group in which they are placed. The issues that will be included in this review are: peer effect, teacher impact, quality of instruction, and stigma.

Keywords: heterogeneous grouping, homogeneous grouping, similar-ability, mixed-ability, inclusion, peer effect, achievement, differentiation, stigma
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Chapter 1

Introduction

What does it really mean to deem an education system as “inclusive.” The meaning of this term is blurred and marred by many different connotations. For many, inclusion has been touted as a feel good rhetoric, where all are included in the same classroom and everyone gets along (Armstrong, Armstrong, & Spandagou, 2011). For others, the phrase is meaningless; another catchphrase in education that should be defended at all costs. There are many diverse aspects to an inclusive system, but in order to move forward we must ensure that with every change of government office we don’t diminish our inclusivity with another educational bill watering down the differentiation practice teachers are already using in their classrooms. We must remain cognizant that “inclusion is a sense of belonging” (Connor & Ferri, 2007, p. 73) and that it is “a school-based education model that is student centred and that bases educational placement and service provision on each student’s needs” (Vaughn & Shumm, 1995, p. 265).

The topic of inclusion has been hotly debated for decades; its definition is elusive and surrounded by conflict and ideology. Advocates of heterogeneous or mixed-ability grouping would debate that this style of grouping not only allows for low-achieving students to benefit from their high-achieving counterparts (peer effect), but it also opens up opportunities for students in terms of their future education goals. Maintaining a heterogeneous setting within a school is successful with proper differentiation in place; academic gains are apparent and of course, equality amongst students is in the forefront. Supporters of homogeneous or similar-ability grouping tout that this style of grouping allows for teachers to narrow their instruction to a student’s specific level, enables a gain in efficiency for teachers, and allows for students to have more interaction with their intellectual peers.
Overall, the research on the topic of grouping students by ability suggests that there are advantages and disadvantages for all approaches of grouping. However, when looking at significant differences in academic achievement while students are grouped by ability, research shows there is little to none.

**Personal Interest**

As an educator, I have seen many versions of “inclusion;” of course, the most popular version is that of including all and differentiating for success. This is the version with which I am most comfortable and, as a junior high teacher, at which I am most proficient. Is inclusion easy? NO! Teachers must be able and willing to differentiate their lessons to accommodate students who learn at a different pace.

In my journey to administration, I decided to transfer to a high school setting to gain more experience at a variety of different grade levels. This is where I saw homogeneous groupings for the first time. It made me question why we worked so hard in the previous grades to encourage success in an inclusive classroom when students are grouped by ability when they reach grade 10. During this year of high school teaching, I was also exposed to the pressures of standardized assessments. Everything these teachers did or said began with “but on the diploma…” While teaching grade 10 English, I was pressured to teach towards weekly reading comprehension exams. These exams were excerpts of old grade 12 diploma exams to which these students would eventually be exposed. This seemed very backwards to me, as well as extremely “old-school.” I didn’t really enjoy my year in the high school setting because of these pressures and was relieved to transfer back to a junior high setting in an administrative role. To my chagrin, the school to which I was transferred decided to group students by ability in mathematics to see if their overall achievement would improve in the provincial standardized
assessments. I chose this particular topic because I feel as if my school did not do the necessary research before making this leap into homogeneous groupings.

On a very personal note, my son also attends this school and has been placed in the low-ability group. Not that I feel that he shouldn’t be in the low group, but I wonder if he is feeling any sort of stigma due to this placing. I also wonder if he would ever have the chance to move out of the low-ability group. Truthfully, he is doing well so far this year in math and I have been impressed by his achievement, but he also has an excellent teacher. I wonder if his achievement would be the same if he had a teacher who wasn’t quite so dedicated to her students. Hence, I would really like to find out if grouping students by ability affects their academic achievement, as well as if there are any other issues that arise from placing students in groups.

**Historical Background**

Grouping by ability is an age-old form of education that stemmed from an industrialized society. It was further emphasized through the theorist Franklin Bobbitt and his scientific method of schooling. Bobbitt was adamant that pupils will learn what is required of them in their particular social status. This means that curricular objectives are “numerous, definite, and particularized” (Flinders & Thorton, 2013, p. 11) and are designed for specific jobs that people will stereotypically hold based on where they fit on the social ladder. The role of the education system was to find a fit for students based on their intelligence; hence, educating children based on their ability.

It wasn’t until the latter part of the 20th century that an argument towards inclusion and mixed-ability classrooms became more commonplace. Theorists, such as Elliot Eisner, felt that curricular outcomes that were too definitive and particular could “hamper as well as help the ends of instruction” (Flinders & Thorton, 2013, p. 85). Singularly holding students to one
specific ability does not allow children to flourish in society, as the scientific method theorists hoped. In North America, it wasn’t until the United States introduced an act meant to ensure education for all disabled children; which has since evolved to the current act, Individuals with Disabilities Act (IDEA) (Handler, 2007) that true mixed-ability classrooms were realized. Canada followed suit in 1980 with the Handicapped Persons Right Act.

We have since made great gains in the area of inclusion, but our achievements tend to get shadowed by the competition created through the comparison of countries using standardized assessments and international educational surveys such as the Programme for International Student Assessment (PISA). In Alberta, schools are legislated to publish their results from the Provincial Achievement Tests (PAT) in which each grade 6, 9, and 12 students must participate. This creates undue competition amongst schools and has administration searching for ways to increase their results. Due to this extra attention on standardized results, alternative classes are created, such as homogeneous classroom settings. This is done in the hopes of attaining higher achievement, while disregarding other aspects of the educational experience for students.

Research Questions

This literary review seeks to answer the following questions:

1. Does grouping students by ability impact academic achievement?

In my examination of this question, I break it down to further explore how students in the high-ability level, the average-ability level, and the low-ability level achieve whilst grouped by ability.

2. Does ability grouping have social and emotional components that impact academic achievement?

Definitions

The following terms will be used throughout the literature review:
**Homogeneous Grouping** - The placement of students of similar abilities into one classroom. Also known as similar-ability grouping.

**Heterogeneous Grouping** - The placement of students of mixed abilities into one classroom. Also known as mixed-ability grouping.

**Inclusion** - Both a place and belief, inclusion is a sense of belonging not just reserved to those with diverse needs. It promotes universal acceptance and a sense of belonging.

**Peer Effect** - Individual outcomes are directly affected by the peers in the classroom.

**Differentiation** - Tailoring instruction to meet individual academic needs.

**Research Pathway**

In the research process, I used the University of Victoria database for the majority of my investigation. I have used keywords such as, homogeneous grouping, heterogeneous grouping, similar ability, mixed ability, academic achievement, general classroom, special education, inclusion, and cluster grouping. In my initial search, the articles that were brought forward only loosely matched my topic. I found that once I found about 10 articles that pertained to my topic, it was very useful to use the reference lists to find other suitable articles.

Initially, I narrowed down my search to within the past 5 years, but realized that this time frame did not provide me with the articles to answer my research question. This is in part due to the fact that the impact of ability grouping on achievement has been an item of research since the beginning of this century. Expanding the time frame to the past 17 years enabled for an extensive array of pertinent articles matching my questions. All research focused on articles that related to K–12 education. Once the search was narrowed down to this criteria, I ensured the methodology matched that of an empirical paper.
Once I had a concrete list of articles, I narrowed them down even further by reading through them thoroughly and creating a chart of their key points and research conclusions. This has helped to find a purpose from each article and to aid in the review of my topic and research questions.

Chapter 2

Literature Review

The purpose of this study is to examine the literature surrounding the topic of grouping students by ability and its resulting impact on achievement. Also, research surrounding emerging outcomes associated with ability grouping, such as instructional effects, stigmas, and peer effect have been reviewed. This topic is not new and emergent but is always rife in controversy as its roots are frequently “tied to fundamental, often conflicting, ideological positions” (Ireson & Hallam, 2001, p. 2). Although ability grouping is often “motivated by the goal to preserve interest in school and to prevent frustration” (Vogl & Preckel, 2014, p. 62), it tends to lead students in the opposite direction towards demotivation and negative attitudes towards schooling. Despite the overwhelming research that grouping students by ability does not impact achievement, schools will try anything to alleviate the “increasing pressure to raise standards and to deliver a curriculum which meets the needs of all pupils” (Davies, Hallam, & Ireson, 2003, p. 45). The pressures to conform to the standardized assessments in a particular region have led many schools towards homogeneous groupings; which in theory looks to be advantageous to both student and teacher, as it narrows the range of student abilities “allowing teachers to align the level and pace of instruction more closely with student needs” (Bygren, 2016, p. 119).

Ability grouping “refers to curricular or at least instructional differentiation on the basis of some measure of student ability or grouping” (Bygren, 2016, p. 118). Critics of this system
“claim that less able students lose their opportunity to benefit from positive peer effects, and they argue that being labelled as less able communicates low expectations” (Bygren, 2016, p. 119). Because grouping students by ability is driven “in response to the perceived need to raise academic standards nationally” (Eilam & Finegold, 1992, p. 343), other pertinent factors are ignored that directly impact how students achieve. “Specific problems include inaccurate allocation of students to groups, inequitable allocation of teachers to groups, lack of student movement between groups, and underestimation of the achievement of students in low streams” (Macqueen, 2011, p. 61).

The literature in this review thoroughly compares the academic achievement of students when placed in homogeneous groupings. Two themes emerged from the studies that will be discussed here: student attainment at all ability levels, and other social and emotional components that are associated with homogeneous grouping; which directly impact the achievement of students. From these themes, two questions are answered in the literature review: Does grouping students by ability (low, average, high) impact academic achievement? Does ability grouping have social and emotional components that impact academic achievement? In the following review these questions will be answered in two sections.

In the first section, the question, Does grouping by ability impact academic achievement?, will be answered by breaking down the achievement of students in all three ability levels: low, average, and high. The empirical studies researched typically show no mean difference in academic attainment, but the need to break this down further into each ability category enables one to look at the data from a different standpoint. Although there may look to be a net effect of zero, “when high ability students gain and low ability students lose” (Betts & Shkolnik, 2000, p. 2), the data is deceiving. In this section, low, average, and high ability
groupings will be reviewed and individually assessed as to how each group achieves when grouped by ability.

The second section of this review will look at other factors that influence student achievement when grouped by ability; answering the question: Does ability grouping have social and emotional components that impact academic achievement? The empirical findings for this question will be broken down into three subsections: peer effect, instructional effect, and stigma. The literature in this review powerfully states that social and emotional factors must be considered when grouping students by ability at all levels.

Based on the findings and the moral dimension of inclusion (Terwel, 2005, p. 67), discussing the impact of ability grouping on students academically, socially, and emotionally is an important exploration. In the following subsections, I review the literature answering these two questions: (a) Does grouping students by ability impact academic achievement? (b) Does ability grouping have social and emotional components that impact academic achievement?

**Grouping students by ability and its impact on achievement**

**Introduction.** Grouping students by ability is not a new phenomenon, but the ever increasing pressure from standardized assessments and its ensuing comparisons of teachers, schools, provinces, and nations have led some schools to return to this style of classroom composition. Many researchers, state that students in streamed classes do not outperform their counterparts in a non-streamed setting. However, “high achieving students tend to have better results in a system with tracking, while low achieving students perform better in heterogeneous classes” (Terwel, 2005, p. 655). The following section will discuss the question, Does grouping students by ability impact academic achievement? The subsections will examine the results for each individual ability group: low, average, high.
Students in the low-ability group. Students in the low-ability category are considered to be a part of the most disadvantaged group. Students placed in the low-ability group are “expected to benefit from the slower pace or alternate teaching methods that become feasible when teachers are not simultaneously responsible for engaging their high-ability peers” (Figlio & Page, 2002, p. 498). In reality, programs that were specifically designed to raise the attainment of low-ability students by grouping them homogeneously were ineffective in improving academic achievement (Macqueen, 2011, p. 62). In an attempt to raise achievement levels across all ability groups, less-abled students were put to a disadvantage to the benefit of their higher-abled peers (Ireson & Hallam, 2001, p. 24). Thus, furthering an achievement gap between these two groups and leaving the low-ability group further behind. “Grouping hurts some students, even while it may benefit others. Specifically, lower group students learn less than their higher-group counterparts” (Hoffer, 1992, p. 207). Clearly, streaming disadvantages the lower-ability students, “who make better progress in mixed-ability groups” (Ireson & Hallam, 2001, p. 25).

According to Sermier Dessemontet and Bless (2013), if one would like to see higher progress in achievement amongst our most disadvantaged students, inclusion in the general classroom with differentiated supports is how results will be attained. Research shows positive effects in achievement through heterogeneous grouping with low-ability students. This positive effect “might be the result of the implementation of strategies and teaching techniques that aim at meeting diverse needs” (Sermier Dessemontet & Bless, 2013, p. 24). With that said, collaboration is key to the success of the low-ability students, “as they are more likely to receive the support they need from more capable peers, low-ability students learn more by being in groups with higher-ability students” (Saleh, Lazonder, & De Jong, 2005, p. 107).
**Students in the average-ability group.** Research about average-ability students is sparse. This is mainly due to the fact that most researchers follow the students that are at the most disadvantaged or the most advantaged. The studies that do discuss the average-ability students claim that these students do well academically in the homogeneous setting. This provided that they are in a true homogeneous group where the average-ability students have the chance to play a “more active role in the learning discourse” (Saleh, Lazonder, & De Jong, 2005, p. 108). In this specific setting, average-ability students learned more compared to their average-ability peers in the heterogeneous setting.

The issue presented about average-ability students is that they don’t necessarily fit in their own group. More often than not, schools who group student by ability “manipulate numbers so that low achieving classes are smaller in size” (Macqueen, 2011, p. 65). In most instances where funding is an issue, two groups would be created instead of three: high ability and low ability, furthering the “seeming lack of attention to average-ability students” (Saleh, Lazonder, & De Jong, 2005, p. 108). Due to this, average students are moved from their own homogeneous group to the higher-ability classes to maintain even numbers (Macqueen, 2011, p. 67). In this regard, “pupils of average ability seem to perform better in high-ability classes than comparable students in classes where the majority are pupils of lower ability” (Eilam & Finegold, 1992, p. 345). The issue of not fitting in to their own specific ability group leads to problems in the classroom which ultimately could affect achievement. Average-ability students “may be excluded from teacher-learner relationships that develop between high and low achievers and are given few opportunities to participate in the group’s interaction” (Saleh, Lazonder, & De Jong, 2005, p. 108).
Students in the high-ability group. It is in this high-ability grouping where the research points to “significant, sustainable academic gains” (Matthews, Ritchotte, & McBee, 2013, p. 83). Where the low-ability students benefit from a slower pace and teacher-directed activities, the high-ability students are provided “with more challenging material and presented material at a faster pace” (Figlio & Page, 2001, p. 498). This is crucial to the advancement of high-ability students, as research points to the fact that high-ability students require “adequate academic challenge and peers of equal intellectual ability” (Vogl & Preckel, 2013, p. 51). Although placing high achieving students together promotes higher attainment, it has also been proven that when placed in a mixed-ability class “attainment of the most able pupils was unaffected by the change” (Ireson & Hallam, 2001, p. 27).

On the flip side, students placed in the high-ability stream often feel disadvantaged because they find it difficult to constantly work at the fast pace of the higher set. The pressures of continually working at this high level “precluded them developing a deep understanding of what they were learning” (Hallam & Ireson, 2006, p. 585). There are also other major concerns when grouping high ability students together which over time will impact the academic achievement of the child. “Some students feel isolated, suffer under pressure to perform, and most students experience a decrease in academic self-concept due to reference group effects” (Vogl & Preckel, 2014, p. 51). In gifted education, in order for our highest achieving students to output exceptional results, we must support them in the growth of their “psychosocial strength” (Vogl & Preckl, 2014, p.51). In order to do this, a positive classroom atmosphere is required and for some exposure to all types of learners.

Unlike the low-ability students who are exceptionally sensitive to their learning environment (Terwel, 2005, p. 664), “high-ability students typically perform well regardless of
whether they work with equally capable peers or with lower ability students (Saleh, Lazonder, & De Jong, 2005, p. 107). It is recommended that because of the flexibility high-ability students exude, a cluster grouping model would be more beneficial to all students. In this model, high-ability students are part of the general classroom population but are strategically placed with other high-ability peers within that same classroom. The benefits to this model, beyond creating a more inclusive atmosphere, are “regular interaction with their intellectual peers and age peers, and full-time services for gifted students without additional cost (Gentry & Owen, 1999, p. 224).

Other factors to consider when grouping by ability

**Introduction.** “Achievement is closely tied to students’ opportunities for learning” (Van Houtte, 2004, p. 355). While achievement tends to be at the forefront of educational discussions, we tend to turn a blind eye to other social and emotional factors that present themselves with the changes we make in classroom composition. Academic attainment is not just about numbers or letters on a report card, it is all encompassing and we must be careful that we are not holding a child back from achieving. There are many studies focused on the social and emotional factors involved in grouping students by ability. The major theme prevalent throughout is that of inequality, in which ability grouping “constitutes significant barriers to the goals of greater equality of opportunity” (Hoffer, 1992, p. 205). Educators must keep in mind that the technical arrangement of their classroom can create inequality amongst students. Hoffer (1992), labels homogeneous groupings a “social phenomenon” (p. 206). Within this social phenomenon, one must consider three factors that could emphasize inequality, as well as disrupt academic achievement: peer effect, instructional effects, and stigma. The following section will discuss these factors through the question - Does ability grouping have social and emotional components that impact academic achievement?
Peer effect. “Friendships tend to be made based on the classes that pupils are in” (Hallam & Ireson, 2006, p. 584). With this, streaming fosters these friendship groups, which over time “contributes to polarized stream related attitudes” (Ireson & Hallam, 1999, p. 348). If placed in the high ability, students will emulate their enthusiastic peers; while students in the low ability will embody an alienated attitude. Students will respond differently to the composition of their classroom, but reorganizing students into groups based on ability has the potential to split friendship groups and “deprive pupils of peer support for their learning” (Hallam & Ireson, 2006, p. 584). Regardless of in which group you are placed, peers will affect the learning environment; “aiding learning through questions and answers, contributing to the pace of instruction, or hindering learning through disruptive behavior” (Hanushek, Kain, Markman, & Rivkin, 2003, p. 529). In the high-ability category, one can assume that the students they have been placed with would aid in their success, yet some students feel isolated from the general population. Because of this, they tend to “suffer under pressure to perform, and most students experience a decrease in academic self-concept due to reference group effects” (Vogl & Preckel, 2014, p. 51). The students in the low-ability group tend to experience group effect in a different way. Whereas the high-ability group has the potential to experience success based on the high achieving students that are placed in their class, the low-ability students have a higher chance of failure. When groups are created and the composition of the class has “too many children that are unlikely to achieve academic success, an anti-authority peer group culture may develop” (Eilam & Finegold, 1992, p. 345).

In contrast, researchers have discussed the possibility that placing students with similar abilities together creates peer groups that are positive to their achievement. “Pond effect” is a coined term where “students’ work is compared only to that of similar-achievement peers,
preventing possible negative effects on low achievement students’ self-esteem, which might result from comparisons with high achievement students” (Bygren, 2016, p. 119). Thus, the low-ability students should see positive effects from not being compared to their higher achieving counterparts. In theory, this should create an atmosphere for the students in the low-ability group to feel comfortable with their peer group. On this same note, researchers have discussed that in order for higher-ability students to have a positive development of “social self-concept of acceptance,” it is crucial that they are placed with peers of equal ability in order to feel a connection (Vogl & Preckel, 2014, p. 53).

**Instructional effects.** There are two aspects of instructional effects that impact student achievement through inequality; these being classroom instruction and teacher expectations. One can expect there to be differences in the instruction provided to the low-ability group versus the high-ability group, but one should not expect the quality of instruction to suffer. A concern that stems from the quality difference between the two groups is that “instruction in low-ability groups is conceptually simplified with more structured written work, which leaves work fragmented” (Ireson & Hallam, 1999, p. 351). This is concerning as the low-ability group will continually miss instruction based on critical-thinking and collaboration. This is further exacerbated by the data provided which shows that over 75% of students are placed in the wrong stream with little to no chance of moving from their initial placement. Throughout this time, students tend to “conform to the standard of their stream and the idea that movement was limited” (Davies, Hallam, & Ireson, 2003, p. 47).

Although schools tend to spend more money on the lower ability classes by providing them with smaller class sizes, they tend to allocate teachers with more teaching experience and more education to the higher ability classes (Betts & Shkolnik, 2000, p. 14). This leads to a
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lowered status assignment for those teachers who are attached to the lower-ability stream, which leads to a “polarization of their attitudes and behaviors” (Van Houtte, 2004, p. 357). Teachers also try to avoid teaching the low-ability stream because of “pupils’ negative attitudes towards school and poor behaviour in the classroom” (Ireson & Hallam, 1999, p. 351). Stereotypes ensue which creates a vicious cycle of lowered expectations and fewer opportunities for learning, especially in the low-ability group. Different attitudes between teaching the high-ability stream versus the low-ability stream enable the idea that higher stream students receive an education based on achievement and the lower stream students receive an education based on behaviour (Van Houtte, 2004, p. 357). Despite the fact that teachers prefer to teach classes based on ability because of the perception that it is easier to plan for students if they are all at the same level, teachers “frequently underestimate the range of needs in ability grouped classes” (Ireson & Hallam, 1999, p. 351). Teachers assume when teaching a class separated by ability that all of their students have an identical ability, not taking into account the differences between students. “All pupils were given the same tasks and were required to complete them at the same speed. It seems that teachers’ expectations are influenced by the formation of the ability group” (Ireson & Hallam, 2001, p. 32). This, according to Ireson and Hallam (1999), is why better results are not achieved in ability groups (p. 351).

**Stigma.** High-ability students facing the pressures that they will achieve in all aspects of their learning and low-ability students facing the stereotype that they will never achieve past the level they are placed, leads to stigma. “Status assignment is a powerful mechanism, in school, in the classroom, and in particular in the peer group” (Terwel, 2005, p. 665). While assigning students to tracks that will hopefully lead to an increase in attainment, a process of categorization ensues that ultimately drives a wedge socially between all levels of students (Terwel, 2005, p.
When a student’s ability in school becomes an “immutable trait,” stigma is present. If stigma is present, student’s will live up to that trait, which is why one sees high-ability students thrive amongst their highly educated teachers and the critical thinking challenges posed to them. Low ability students, “rather than work hard, stay behind, thereby validating the ‘low-ability’ stigma” (Hoffer, 1992, p. 206). Amongst other issues, behaviours will persist. “Bad behaviour can occur in lower streams because of pupils’ recognition of their place in the scheme of things - at the bottom” (Ireson & Hallam, 1999, p. 348). In a system where the majority of students are placed in error, we are essentially creating a stigma that wouldn’t exist normally. If students are placed too high, improvement is expected, but for those streamed too low, they tend to deteriorate (Ireson & Hallam, 1999, p. 350). As one can see, stigma is prevalent in both the high and low groups but is detrimental to the students deemed “low-ability.” Research has highlighted that “structured ability grouping can lead to low expectations, limited opportunities, and the labelling and stigmatism of those perceived to be of low ability, with consequent negative attitudes towards school” (Hallam & Ireson, 2006, p. 583).

**Discussion.** In an era of education where the success of all students is promoted, it is surprising that ability grouping has made such a prominent comeback in North American schools. Although there is research promoting the advancement of high-ability students in a homogeneous setting, the same research shows a disadvantage to the low-ability group. This only exacerbates the inequality our generation has worked so hard to eliminate (Duflo, Dupas, & Kremer, 2011, p. 1739). In summary, this review examines empirical research that answers the following questions: Does grouping students by ability impact academic achievement? Does ability grouping have social and emotional components that impact academic achievement?
The results presented in this review indicated that ability grouping appears to have “negligible mean effects and unclear differential effects on education outcomes” (Bygren, 2016, p. 134). In the section representing the low-ability group, it is noted that despite the attempt at increasing attainment through a slower pace and matching curricular objectives to the students’ level, the grouping actually led to no achievement increase, widened the gap between their higher ability counterparts and exacerbated stereotypes and stigma. For the average-ability students, dependence on whether they were placed correctly, decided their achievement. Overall, the average-ability student is not positively or negatively affected by homogeneous placement. The high-ability students show an increase in mean effect for academic achievement. These students are not as sensitive to their learning environment and often thrive from the fast-paced instruction provided, as well as the critical thinking challenges and collaborative nature of high-ability streams. As was mentioned earlier though, the highly competitive nature of the high ability setting causes stress in many of the students. Other social and emotional factors presented in this review, such as peer effect, instructional effects, and stigma show that academic achievement is not solely based on classroom composition.

**Extending the research.** Pressures to perform at a high academic standard through standardized assessments will continue to plague schools. Instead of focusing our research on ways to advantage one group on the backs of another who are disadvantaged, we should be researching ways to encourage and support differentiation in the classroom to support all levels of students. “Successful mixed-ability teaching relies heavily on teacher skills” (Ireson & Hallam, 1999, p. 352); with that being said, ensuring teachers are prepared for all types of learners in their classroom is imperative to an increase in academic achievement. Most importantly, according to Gentry and Owen (1999), regardless of what grouping approach your
school decides to use, administration must ensure the following: positive classroom environments; high, yet realistic teacher expectations; strong administrative leadership and support; programming that benefits all students and teachers; and professional development opportunities.

In conclusion, research has shown that, overall, ability grouping does not positively or negatively impact academic achievement yet imposes social and emotional impacts on student learning. When considering this style of classroom composition, one must be informed of the inequality it could pose between high-ability and low-ability streams. A statement to ponder in regards to this is “grouping hurts some students, while it may benefit others” (Hoffer, 1992, p. 207). As is stated in Alberta Education’s vision of inclusion that learning should always be values-based and learner-centred, “we should see students as participants in a dynamic culture rather than as individuals to be fitted into static, pre-determined categories” (Terwel, 2005 p. 667).
Chapter 3

Project Introduction

In the research presented in the above literature review, it is apparent that research in the area of grouping students by ability is far from conclusive. What is apparent is the overwhelming research pointing to the negative effects that come with stigmatizing students into a specific category to hopefully attain higher grades in government mandated standardized assessments. As was stated earlier in Chapter One, my personal interest lies in the fact that I was moved to a school that had started homogeneous groupings in mathematics without, in my opinion, doing the relevant research beforehand. We are now moving back to heterogeneous groupings in the next school year and I know that this will cause teachers to question why. This presentation and annotated bibliography are designed to present the research about ability grouping and its natural stereotyping consequences.

Within the presentation, teachers will be exposed to the research that ability grouping does not raise the attainment of students. All three ability levels low-, average-, and high- will be explained and impacts will be explored. Social and emotional effects will also be introduced and alternatives to ability grouping will be discussed. To complement the presentation, I have prepared an annotated bibliography of the sources that best support the research found in the literature review and this presentation.

Google slides presentation:

https://docs.google.com/presentation/d/1Vq4iPkSpIIBLA7b5lbe2qQ64ICg02vlge43IYIQZ3tY/edit?usp=sharing
**Topic:** Is there a difference in academic achievement when grouping students by ability?

**Thesis Statement:** While looking at the academic achievement of all groups holistically, there is no mean difference in achievement. Yet, if one were to look at all aspects of the education of the child, one would see other components that lead to an impact in achievement. These components are made up of the social and emotional well-being of the child.

**Annotated Bibliography**


In this article, Bygren quantifiably researches the affect that ability grouping has on student attainment. He was able to do this as naturally occurring experiment as the school district he was already involved in was changing to an ability grouping model. Although he did not find that ability grouping lead to an increase in academic achievement, he did discover that the grade gap was not as big as he initially hypothesized. Bygren bears in mind that many other components impact research in ability grouping and he was unable to rule out the possibilities that teacher and instructional effects didn’t have an impact on his results. The take home point of this article is that ability grouping appears to have negligible mean effects and unclear differential effects on educational outcomes.


Eilam & Finegold discuss whether the heterogeneous classroom is the best composition for educating our youth. They review literature on the impact that
homogeneous grouping has on the child, especially on the low-ability student. They claim that few researchers argue for homogeneous classes and the reasoning is lengthy: low ability only strive for low results; lack of discipline; stigma influencing achievement; low teacher expectations; low chance for upward mobility, so students stagnate in their perceived group. Through their naturalist research of a school, in which there are many disadvantaged students, it was discovered that the heterogeneous class was a viable solution for students to be exposed to each other and bring improvement to achievement. They did specify, though, that class composition must be carefully designed and should not be left to chance in mirroring the community from which they are drawn. If this is the case, the heterogeneous class will become another burden to the teacher full of problems and obstacles.


This article was interesting as it was centered around a questionnaire given to students in grade 9, in which students chose ability grouping as they perceived that it enabled teachers to meet their educational needs. The authors of this study understand at a deeper level the negative and social outcomes that come with ability grouping so they aim to find a better way of achieving matched educational needs. Hallam and Ireson write at length about the stigma and anti-school attitudes that are introduced due to grouping by ability. They give suggestions in how to alleviate these social and emotional outcomes: let students decide what group to be
in; group heterogeneously and differentiate curriculum; and incorporate modular curriculum in which students work at their own pace with teacher support.


Thomas Hoffer claims that ability grouping benefits the advanced students, to harm the slower students. This is a very bold statement in that society seems to think that it is not fair to hold back the advanced students, but how fair is it to harm the slower? Hoffer comes to the conclusion that grouping by ability is not an optimal arrangement because the low group are significant losers. Although, he does not think that ability grouping has to be abandoned. If a school can come up with a way to flexibly group students so that stigma does not set in, then grouping is manageable.


This article and the authors who wrote it have been the most beneficial towards the issues surrounding ability grouping. They have done years of research to support teachers and administration in providing alternatives to ability grouping to enable an increase in attainment for students without the social and emotional impacts that come with grouping by ability. Regardless of grouping practices, ways to mediate some of the major impacts come from within the school. Schools must incorporate the following in order to effectively teach students: shared vision and goals, concentration on teaching and learning, purposeful teaching, high expectations, positive reinforcements, monitoring responsibilities, rights for students, and a
positive home-school relationship. Ireson & Hallam also state that mixed-ability classes are not absent of problems. The biggest message these authors promote is regardless of how a school groups their students, we must rely on the strength of the teacher. If we cannot do this than we must support the teacher and provide training in differentiation. Also, if ability grouping is chosen it must be fluid and flexible; a place where students can move in and out depending on the curricular objective being taught.


If one were to pick a book that perfectly sums up the current research in regards to ability grouping and its impact on academic achievement, all while bringing forward the issues of social and emotional impacts, it would be this book. In this book, Ireson & Hallam use their research and the research of others over the past century to compare results of students placed in groups based on ability. The discuss many topics including teacher perceptions, student perceptions, alternatives to ability grouping, attitudes towards schooling, and of course the impacts of grouping students by ability. Through mixed methodologies in research, Ireson & Hallam bring home their point that grouping students by ability does not raise attainment and in fact creates inequity amongst students, which in turn creates negative school attitudes and elitist beliefs amongst the highest achievers.

The author in this study provides a great summary as to the different types of grouping methods found in an educational context. Macqueen also touches upon why school systems have returned to ability grouping and gives many examples of where it is found. In this paper, research was completed over an eight-year period in which students’ standardized assessments were compared between schools who group by ability and those who don’t. It was found that grouping students by achievement level was ineffective in producing academic gains.


In this article, it is discussed that low-ability groups achieve better in mixed-ability classes, average-ability students prefer a homogeneous setting, and high-ability will achieve in any setting. It is in this article that we learn of the lack of average ability research. In their research, Saleh & De Jong realize that group composition also affects how the student learns. Homogeneous groups are more susceptible to collaborative learning, as similar ability students can complement each other’s thoughts. This does not help the low-ability homogeneous group as there is an absence of more capable peers; this leads to individualized learning.


Terwel speaks of education in terms of a curriculum theory, in which the development of the child should be at the forefront. He follows Freundenthal’s thinking that all children should be in the same classroom and taught from the same curriculum. He claims that low achieving students should not suffer from ability
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grouping because high achieving students can potentially gain. This is important to
keep in mind, as all students are sensitive to their environment, but none so much as
the low ability group. Terwel is adamant that streaming students creates an
atmosphere of unequal status and drives a wedge between peer groups. This article
elocquently relates to Dewey’s thoughts on the development of the child:
“continuous reconstruction.” We must be fluid and flexible when educating the
whole child.

Vogl, K., & Preckel, F. (2014). Full-time ability grouping of gifted students: Impacts on social
self-concept and school-related attitudes. Gifted Child Quarterly, 58(1), 51-68.

In this paper, the authors focus on the social and emotional impacts that ability
grouping has on gifted students. Vogl & Preckel have found that gifted students
who are placed in gifted classrooms tend to exhibit a higher interest in school and a
stronger relationship with their teacher. This is mainly due to the benefit that these
children are with similar intellectual peers. With that being said, students placed in
gifted classes are easily exposed to labeling, stereotyping, and social isolation. To
criticize this article, the time period of research throughout one grade level would
seem too short, especially in the ever-changing middle years. It would be
interesting to see if these same students held the same school attitudes in the eighth
grade, not just the fifth grade.
References


