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Ability Tracking and Its Effects on Students

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Abstract

Ability tracking is an educational practice used throughout the world that separates students into different curriculum tracks based on their perceived academic ability. This heavily debated practice poses significant questions to its continued use due to harmful psychological and social effects on students without any guaranteed academic benefits. This paper considers the literature on all these issues and finds that ability tracking may benefit some students academically, but that this often comes at a detriment to their own and others' psychological and social development. Further, this paper discusses strategies moving forward to ensure all students have access to a high-quality education that meets their academic, psychological, and social needs.

Keywords: Ability tracking, ability grouping, heterogeneous grouping, homogeneous grouping, Highly Capable Program

Ability Tracking and Its Effects on Students

Ability tracking is a practice of separating students by their academic performance into courses or groups with different challenge levels. This practice has been used in various forms throughout primary and secondary education since before the 1950s. This practice originated to meet the needs of many new immigrant students and separate races of students, and many argue that it has retained this function (McCardle, 2020). Presently, ability tracking can range from creating distinct groups within classes for specific subjects to separate cohorts of students for multiple subjects. For the purpose of this paper, ability tracking refers to the separation of students in secondary education by their ability level into one of a few tracks (i.e., remedial or advanced courses, etc.).

These programs are meant to provide students with a more appropriate level of challenge in their education. However, researchers have found that tracking can affect students in concerning ways, and since around the 1990s, the use of ability tracking has been heavily debated. On one side of the debate of whether ability tracking should be used is Jeannie Oakes' 1985 publication *Keeping track: How schools structure inequality.* In this book, Oakes discussed the persistent racial and economic inequalities that translate into the tracking system due to various factors in the schooling environment. Defenders of the practice, however, state that ability tracking allows all students to receive the appropriate level of instruction. Currently, ability tracking is still practiced around the United States with an acknowledgement of the research on both sides. As a teacher candidate, I have learned that we should empower our students in their identities and find ways to incorporate each student's assets into the classroom, so my intent is to find a consensus on this issue and devise a plan for improvement.

Context

What are the National & Regional Connections?

The debate around ability tracking concerns the entirety of the United States as it is a practice used throughout the country. Schools across the state use programs like Advanced Placement, International Baccalaureate, Highly Capable Programs (HiCap), and more to separate students by their perceived ability level. Because of the decentralized structure of the education system in America, students in the same level or grade can receive a widely different education across the country and within Washington. For example, in states where there is a high correlation between the socioeconomic status in the district and average achievement, there is a threefold difference between student performance than in districts with a lower correlation (Jang & Reardon, 2019). Further, it is difficult and unlikely that students move upward out of their track as might be the intention—despite the goal that tracking should alleviate any academic disparity, it simply replicates them (Vanfossen et al., 1987).

This effect is more dramatic when accounting for the use of ability tracking and the observed inequalities present in this system. As will be discussed in this paper, students can receive a widely different quality of education depending on which track they are in. Further, the process by which students enter tracking programs is often very subjective (Rubie-Davies, 2007; Copur-Gencturk et al., 2022). Students across the state and across the country may receive a much different education depending on these factors. Legislation like the No Child Left Behind Act aims to equalize educational opportunities for all students, but these goals may be impeded by systems like ability tracking.

Local Connection

As a substitute teacher, I see various structures of ability tracking across schools across University Place. In this district, students can be referred to the Highly Capable Program by their

teachers with a review of their academic performance on reading and math benchmark tests. This placement ranges from K-12 students remaining in the general education classroom with additional attention to their abilities, going to another grade for a certain subject, to even being in a Challenge classroom with a cohort separate from the rest of the grade. Although I am only in each class for a short time, students in these Challenge classes have told me they were the smart ones, as is a sentiment that can be heard across advanced courses. As I discuss further in the paper, the psychosocial development of students in tracking programs can be negatively impacted by being in these classes, and I have witnessed that throughout my experience substituting in various classrooms.

Importance

To Me

Even before I became a teacher, I recognized that tracking could make students feel inadequate academically. When I was a student, I felt disappointed and that it was unfair that I was not in advanced math, and I felt less confident in my academic identity because of that. Into my college education, I needed to take more classes than I would have if I had been in an advanced course. Later, when I was student teaching, and my mentor teacher used ability grouping, I noticed that many students also held feelings of inferiority or superiority and routinely behaved accordingly. Students get grouped into lower or higher-ability groups based on their performance on tests and other subjective measures like teacher recommendations (Legette, 2020; Copur-Gencturk et al., 2022). They not only miss out on potential academic advantages but can also adopt negative perceptions about themselves and others in non-honors courses (Legette, 2018). With all these factors in mind combined with what I have learned about the

disadvantages students face when separated like this, I knew I wanted to understand the issue as well as figure out the best grouping strategies to use when teaching my students.

To My Students and Community

It is important that students feel supported and confident in their learning to achieve their academic and personal goals (Yu et al., 2022). When their self-esteem and academic identities are being harmed, this is impeded. Through this research, I can get an understanding of what to do better so I can provide the best education to my students and empower them in their learning and identities! As with any person, teachers have biases and worldviews that can influence their teaching, so by becoming aware of the ways that ability tracking might detract from the academic achievement of some students, perhaps teachers and schools can adjust to a more effective system. This would mean all students have equal access to quality education no matter their demographics.

Purpose & Focal Question

All students deserve an education that appropriately challenges them and benefits their psychosocial development. The purpose of this project is to gain an understanding of the research on whether ability tracking is an education strategy that achieves this or if a better alternative exists. The question that I aim to answer in this paper is: What are the effects of ability tracking on students, and what might be some alternative education methods?

Literature Review

The effectiveness of ability tracking has been debated in educational research, but it is still widely used to attempt to challenge all students to the best of their ability. Some researchers have found that it is unfair and disadvantageous because it means that the different tracks of students are inherently being treated differently (Oakes, 1985; Kerble, 1988; Mulkey et. al.,

2005; Ruby-Davies, 2007; Nomi, 2010; Reilly & Mitchell, 2010; Andersen et. al., 2018; Wang et. al., 2019; Copur-Gencturk et. al. 2022; Legette & Kurtz-Costes, 2022). Conversely, other research has found that when students are grouped into differing ability levels, students show higher academic achievement in reading and math test scores, and other academic measures (Figlio & Page, 2002; Matthews et. al., 2013; Steenburger-Hu et. al., 2016). Despite the uncertainty in the literature on this topic, schools across the country continue to use ability tracking throughout students' education.

The purpose of this paper is to explore the literature on the effects of ability tracking on students and explore possible alternatives to this system. Firstly, it is important to gather a general understanding of the ability tracking debate as well as an overview of the most current literature. Then it will be possible to consider the additional factors like effects on student identities. There are four main themes in the literature included in this paper: the first includes literature showing that the current state of most tracking programs is not equitable for all students. The next includes research that examines the effects on students' psychosocial development, then the effects on their academic achievement. Finally, this paper observes literature that explores alternative situations for the current system of tracking in education. Within each of these themes, I will explore the current state of the literature on that topic and identify where there is room for further research and considerations.

Inequality in Ability Tracking

As mentioned previously, some qualms that researchers have found with ability tracking are that there are disparate effects of tracking on students' academically and psychologically that reflect the same inequalities in our society. When students form social hierarchies among their peers, tracking can be a major influence on where students stand in this hierarchy. Students in

lower tracks have a lower social status than those in higher tracks, especially those from marginalized ethnic backgrounds (McGillicuddy, 2021), and students are unlikely to move upwardly in the tracks (Vanfossen et. al., 1987). These inequalities prevent students from obtaining a truly equitable education when there are factors outside of their learning ability that influence their educational achievement.

The process of being enrolled in a tracking program is often very subjective, making it inaccessible for many students who might benefit from it. In many districts, enrollment in a tracking program results from teacher recommendations, and their biases influence who they recommend for advanced or remedial courses. This means that many students from marginalized backgrounds (e.g., students of color, students from lower socioeconomic backgrounds, etc.) are under-represented in advanced courses and over-represented in remedial courses (Grissom & Redding, 2016; Copur-Gencturk et. al., 2022; Batruch et. al., 2023). Further, students separated by track may also get a different quality of education depending on which track they are in. Teachers who had higher expectations of their students provided a higher quality of education, and teachers of advanced courses also had higher expectations of their students (Rubie-Davies, 2007; Andersen 2018; Wang et. al., 2019). When teachers have certain expectations for their students, they are likely to behave in a way that fulfills those expectations, and this can lead to inequality in education.

In education there is an effect known as the Big-Fish-Little-Pond Effect (BFLPE). This effect is observed when students who are placed in a higher achievement setting (i.e., advanced courses) are viewed as individually less capable compared to others in their same course or level (Bergold et. al., 2022). This effect can shape how students view themselves as well as how teachers view their students. Bergold et. al. (2022) found that teachers who had known their class

for a few years viewed individual students as lower achieving when in a high achieving class, and vice-versa. Conversely, teachers who had only known their class for a year or two viewed individual students at the same level as the class average. These reference effects demonstrate just how subjective teacher perceptions can be, especially when it comes to assessing ability for a grade or a recommendation for tracking.

These inequalities go beyond individual teachers as well. Students in a school with a higher population of white students and smaller class sizes had more positive results with tracking than did schools with a higher population of minority students (Nomi, 2010). So, not all students who may be fit for an advanced track have access to it, and any benefits that these programs might glean are then inequitably distributed.

Psychosocial Effects of Ability Tracking

Considering these inequalities with ability tracking, it is important to consider some effects of ability tracking such as how it affects the psychosocial development of students. The time when students are in middle and high school is critical in their development, and the added component of tracking can influence that development. When interviewed about their perspectives of students in different tracks, some expressed their views that "students in nonhonors were academically slow, exhibited bad behavior, and were nonlearners [whereas s]tudents in honors were viewed as academically motivated, hard workers, and smart" (Legette, 2018, p. 1323). Students are aware of the social implications of placement in higher and lower tracks, and these ideas about smartness and belonging can be internalized.

Students in a higher academic track might experience an increased sense of school belonging due to higher academic motivation and frequency of positive interactions (Legette & Kurtz-Costes, 2021). However, "low-tracked students had a greater sense of alienation and lower

levels of academic self-esteem" than their untracked peers (Reilly & Mitchell, 2010, p. 430). Despite feeling an increased sense of belonging, higher-tracked students might also develop a lower self-concept, have higher school anxiety, and less interest in their education due to their placement (Becker et. al., 2014; Trautwein et. al., 2006; g, 2016). Interestingly, one study found that students in lower tracks were more likely to exhibit emotional problems and hyperactivity despite accounting for individual characteristics (Papachristou et. al., 2022). It is apparent that during this critical time of development, students in a tracking program are subject to additional, potentially negative, effects than in an untracked schooling environment.

So how do these ideas about academic identity interact with academic achievement? Well, despite experiencing an increase in academic achievement, in the two years after students participated in an advanced track, they experienced a lower willingness and uncertainty about continuing their education past high school (Mulkey et. al., 2005, p. 159). Further, when students were asked about their feelings about being in a tracking program, they responded differently depending on which track they were in. Students in an advanced track felt that the use of tracking in their school should continue, while students in remedial tracks feel that the school should end the use of tracking (Kerble, 1988). In an ideal educational environment, all students should feel confident in their abilities and their identities, and it is more and more apparent that this system lacks that effect.

Academic Effects of Ability Tracking

With the scrutiny on the justification for ability tracking due to these inequalities, many researchers have explored the question of its effectiveness. As far as research on the effectiveness of ability tracking in enhancing students' academic performance, there are mixed findings and perspectives. These include significantly positive and negative effects as well as no observed

impact of ability tracking on academics. Steenberger-Hu et. al. (2016) found that all levels of students' (high, low, or average) academic performance benefited from ability grouping. Whether these students were grouped within their classes or in separate tracks, they significantly outperformed their non-tracked peers academically.

Other research finds significantly disparate academic effects of tracking between groups, where students in advanced tracks often experience greater academic growth than do students in other tracks (Gamoran, 1992; Trautwein et. al., 2006). When a school made their tracking criteria more selective, students who became part of the middle track who were previously in the advanced track experienced significant detriments in their learning (Petrucci et. al., 2022). The students' ability levels themselves did not change, but their academic achievement suffers solely due to their track placement. All these findings demonstrate that despite the intention to better meet students at their academic level, it is a much more subjective process than tracking allows.

Ability tracking is not always effective in meeting all students' needs more effectively than an untracked system. Some research finds that despite placement in an advanced or average track, all levels of students experience the same rate of academic growth as before they were in these tracks (Betts & Shkolnik, 2000; Figlio & Page, 2002; Matthews et. al., 2013). This shows that whether a school separates their students into low, average, or advanced tracks for any subject, they may not see any change from an untracked, or heterogeneously grouped, system.

As will be discussed in the following theme, other research finds that mixing ability levels (Ehlers & Schwager, 2020), or employing a universal acceleration program (Burris et. al. 2006, 2008), can be more effective than ability tracking at enhancing student performance. Despite this lack of consensus on the effectiveness of ability tracking in improving students' academic performance, this system is widely used throughout the country.

Alternatives to Ability Tracking

Knowing that the research on this topic has so much controversy, we turn our attention to other potentially more beneficial alternatives to ability tracking. As some aforementioned literature shows, it may be beneficial for students to receive a more advanced education. Whether this is due to more qualified teachers, higher expectations, or other factors (Rubie-Davies, 2007; Wang et. al., 2019), advanced courses can positively impact students' academic achievement. Is it possible to achieve these benefits without the negative psychosocial effects?

There are schools that have asked this question and aim to mediate these effects with alternative systems like universal acceleration or comprehensive schooling. In these types of systems, separate tracks of advanced or remedial courses are eliminated in favor of a standardized, high-track curriculum for all students. When all students are pushed to the same higher standard of education, all students show higher academic performance than when they were tracked previously (Burris et. al. 2006, 2008; Ehlers & Schwager, 2020). In addition to increased academic performance, students reported a higher perception of their math ability when moved from a general to an advanced track (Conway, 2021).

On a lesser scale, one school tried reforming the curriculum they used in just one subject rather than changing the whole school structure, and still experienced significant improvements in students' academic achievement as well as in their self-concept (Boaler & Staples, 2008)! Even within-class grouping can be altered to better meet the needs of all students with more tailored ability groups. One study found that mixed-ability groups are most beneficial for low-ability students, average-ability students most benefit from homogenous groups, and high ability students fare well in either composition (Saleh et. al., 2005). This is one way that teachers can use differentiation techniques while teaching to increase their ability to meet all students at their

academic level without the need to make such distinctive groups as in ability tracking. These studies demonstrate that when the proper resources are dedicated to ensuring a high-quality education for all students, separating them may not be the best strategy. There are alternatives to the current state of ability tracking that can benefit all students academically as well as psychologically. It is important to consider these if we intend to create an equal opportunity for quality education for all students.

Conclusion

By reviewing the literature on ability tracking and its effectiveness, we can gather that there may be certain scenarios when ability tracking might benefit students. However, even in these cases, certain students may be disadvantaged in their academic opportunity as well as in the psychosocial development. Knowing these findings, it is important to consider the nuances of ability tracking and develop a plan for providing all students with the best education possible without disadvantaging others. Certain research showcases some alternative methods for providing an appropriate challenge for all students while maintaining an equal-opportunity schooling environment.

Action Plan

The use of ability tracking in education has been heavily debated since it was originally implemented. While there may be academic benefits for some students to be tracked, access to these programs is unequal and may perpetuate many societal disadvantages students face outside of school as well as create new psychosocial disadvantages. For all students to have an equal opportunity for quality education, this system of ability tracking should be traded or adapted in favor of one which encourages growth for all students. The following is a series of recommendations from researchers on how to improve education for all students from the current

state of ability tracking. These range from suggestions for individual teachers within the current system to larger systemic changes of the educational system.

Inequality in Ability Tracking

Students have unequal access to ability tracking programs, and within these programs, they face continued disadvantages. Table 1 contains the distinct recommendations suggested in the literature on the inequalities present in the system of ability tracking. These recommendations include methods for individual teachers to use as well as school or district-wide strategies for reducing educational inequalities between students.

Table 1

Recommendations for reducing inequality in ability tracking.

What the research says	What my district does	What I recommend
Investigate teacher responses to student track placement as well as how school incentives shape student behavior (Rubie-Davies, 2010; Andersen, 2018; Wang et. al. 2019; Legette & Kurtz-Costes, 2021)	My district has no information on this topic.	I recommend that my school/district investigate how HiCap, and general education classes affect student and teacher behavior related to academic performance.
Research the connection between contextual variables (school characteristics) and potential teacher prejudices, as well as how to mitigate these biases (Trautwein et. al., 2006; Nomi, 2010; Batruch et. al., 2023; Bergold et. al., 2022; Copur-Gencturk et. al., 2022)	My district has no information on this topic.	I recommend that my school considers research on teacher biases in track placement and implements a process for teacher reflection and development. I also recommend that the recommendation process includes a strategy to make the process more objective (e.g. making the student's identity anonymous).
Teachers should prompt students to explain their thinking more regularly. This provides a more tangible measurement than their own	Teachers prompt students to use higher order thinking as this is one of the Pillars of Effective Instruction. They	I recommend that all teachers within my district ask students to explain their reasoning more regularly.

judgement (Copur-Gencturk et. al., 2022)	also use Direct Instruction to prompt students' thinking.	

Psychosocial Effects of Ability Tracking

When in tracking programs, students express discontentment with their track placement as well as concerning perspectives about who belongs in high or low tracks. Further, students suffer from decreased academic self-concepts and identities across track placement due to these perspectives perpetuated by the tracking system. Further research is recommended into these effects to better understand how students are impacted, and researchers recommend that teachers implement practices like teaching growth mindset to improve students' perceptions of themselves and others in a tracking system.

Table 2

Recommendations for benefitting all students' psychosocial development in tracking systems.

What the research says	**What my district does**	**What I recommend**
Students have a better self-image when they are in mixed ability groups, so teachers should be supported in utilizing various strategies to support students of mixed abilities (Kerble, 1988; Reilly & Mitchell, 2010)	Currently, students in my district are tracked into general and HiCap classes based on their academic performance and teacher recommendations	I recommend that teachers be supported in implementing mixed ability classes effectively with professional development and training.
Research should investigate the relationship between student identities and tracking over time (Legette, 2018)	My district has no information on this topic.	My district should consider the research on how students' identities are influenced by their track placement and adjust the current program in response.
Teachers should work with students to emphasize a growth mindset and implement this belief into the structure of tracking (Legette & Kurtz-Costes, 2021).	Teachers in my district discuss growth mindset sparingly.	I recommend that the current HiCap system encourages all students to be challenged beyond their current placement and allows them to move upward through the tracks.

Further research should investigate how students' social networks are influenced by ability tracking (McGillicuddy, 2021).	My district has no information on this topic.	I recommend that my district research how students' social lives are impacted by tracking.
Research should consider how student behavior is affected by tracking (Papachristou et. al., 2022)	My district has no information on this topic.	I recommend that my district examine any differences between tracked populations of students and evaluate the role of tracking in that context.

Academic Effects of Ability Tracking

Research shows mixed findings in the academic effects of ability tracking, ranging from no effect to significant effects in increased performance. Generally, suggestions within this theme are for more research into specific compositions of tracking as well as supporting research on how students' academics are impacted by being placed in various tracks.

Table 3

Recommendations for benefitting all students' academics in tracking systems.

What the research says	**What my district does**	**What I recommend**
Further research into how ability grouping, and professional development are related (Matthews et. al. 2013)	My district has no information on this topic.	I recommend that my district investigates the relationship between general education and HiCap teachers and the effects of tracking.
Future research should re-examine how ability tracking affects the academic achievement of students across all grouping contexts (Steenburger-Hu et. al. 2016).	My district has no information on this topic.	I recommend that my district observes how students may be differentially impacted in their academic achievement across track levels.
Further research should consider how peer-group interacts with motivation to learn as well as track mobility on academic achievement (Gamoran, 1992).	My district has no information on this topic.	I recommend that my district considers research on peer-group effects to observe how students' motivation and academic achievement is affected.

Alternatives to Ability Tracking

In the literature on ability tracking, there have been interesting alternatives proposed that could benefit students more equitably. These range from radical shifts to the whole system that a school or district uses to improvements on the part of individual teachers. Altogether, the aim is that education becomes a more equitable opportunity for all students.

Table 4

Recommendations for improving school practices to benefit all students.

What the research says	What my district does	What I recommend
All students deserve high-track curriculum and teaching (Burris et. al., 2006, 2008)	My district continually assesses and attempts to improve the curriculum based on feedback from the community and review with a committee.	I recommend that HiCap and general classes continue to be reassessed to ensure the resources and teacher development provide high-track quality to all students.
Community stakeholders should be an integral part of reducing or eliminating tracking and its effects (Conway, 2021).	See comment above.	I recommend that the community continue to be an integral part in determining the direction of tracking and curriculum.
Consider the research on group compositions when making differentiated learning groups (Saleh et. al., 2005).	Teachers in my district group students into homogeneous within-class ability groups.	I recommend that when teachers employ in-class grouping, they consider the research on ideal group compositions to benefit all students in their learning.

This action plan contains suggestions for implementing the research on ability tracking as well as how to improve its function for the sake of all students. These recommendations span the four themes in my literature review which are: the inequalities present in the tracking system, the psychosocial effects of ability tracking, the academic effects of ability tracking, and possible alternatives to this system. The research on ability tracking has recommendations that include systemic changes that would require reformation of the education system at a large scale to

practices for individual teachers that would improve their own classrooms. In my district, some of these suggestions are being followed while there is no evidence of its implementation. For example, my district includes all stakeholders in the process of changing the Highly Capable Program and should continue to do so. However, there is no data on how this program affects students' academics, which should be an integral part of its use. There is much to be done in my district to abide by the suggestions of scholars in the field of ability tracking, and I have included my suggestions on how my district can do that.

Discussion

Ability tracking is a practice meant to improve the efficiency and effectiveness of teaching in a classroom by allowing teachers to focus on one level of learning in their teaching rather than differentiating to multiple levels for each topic. Whether this means separating students into wholly different cohorts of ability levels or pulling out small groups for some subjects, ability tracking distinguishes levels of students based on measures like teacher recommendation and previous academics. This is a contentious practice as it has been shown to disadvantage students in receiving a quality education as well as causing potential psychosocial damage (Trautwein et al., 2006; Rubie-Davies, 2007; Reilly & Mitchell, 2010; Becker et al., 2014; Andersen, 2018; Legette, 2018; Wang et al., 2019). While some students may benefit from ability tracking in their academics (Steenberger-Hu et. al., 2016), this is not always the case, and is often reserved for those in higher tracks (Gamoran, 1992; Trautwein et. al., 2006). Considering all these factors, it is important to also consider alternatives that might achieve the academic benefits of a more challenging curriculum without the drawbacks of the current system.

Through this project, I intended to gain a general understanding of the literature on ability tracking with this focal question: What are the effects of ability tracking on students, and what

might be some alternative education methods? This question led to my identification of four themes within the topic: inequality in ability tracking, effects on the psychosocial development of students, effects on students' academics, and alternative practices. In the section that follows, I will address the findings, implications, and limitations of each of these themes.

Inequality in Ability Tracking

The issue of inequality in ability tracking is at the center of the debate on whether schools should continue to utilize this practice. While it is intended to benefit all students and teachers by making the time spent teaching more efficient, ability tracking often perpetuates many inequalities we see in society (Vanfossen et al., 1987; Nomi, 2010; McGillicuddy, 2021). Further, students have unequal access to any potential benefits of tracking due to subjectivity in the recommendation process and distribution of local resources (Bergold et al., 2022; Copur-Gencturk et al., 2022; Batruch et al., 2023). Students in higher tracks are more likely to receive higher-quality education, and, likewise, students in lower tracks are more likely to receive lower-quality education (Rubie-Davies, 2007; Andersen, 2018; Wang et al., 2019). All these things perpetuate the inequalities that exist broadly in society due to race, gender, socioeconomic status, etc. The goal of education in the United States is to provide an equal opportunity for quality education for all students, and with the practice of ability tracking in its current state, that is not the case.

My district uses the Highly Capable (HiCap) program which enrolls students into advanced courses at the recommendation of teachers on students' academic performance. There is little research on the HiCap program specifically, and this reflects the same issues present with the tracking programs in the literature. OSPI's 2018 Update on the Highly Capable program concluded that despite efforts to ensure that HiCap services are provided to all candidates, there

continues to be a disproportionality in who is recommended for this program. In fact, throughout my time as a substitute, I have heard sentiments from both HiCap and general classes of being the smart students or wishing they were in the HiCap classes. Thus, it is a logical conclusion that the same inequalities present in the literature can be generalized to this district and the use of the HiCap program.

Knowing that inequality is such a great issue within this practice is a crucial consideration for future practice for schools and teachers. Schools should consider this research and these findings and use it to direct future practice whether that means small or large changes to the current practice. Teachers can make individual changes to how they compose small groups, for example, so they are more fit to benefit all students' learning. Saleh et al. (2005) for example, found that homogeneous groups are best for low-ability students, homogeneous groups are best for average-ability students, and high-ability students fare well in either grouping. Alternatively, schools can make radical changes to class structure and curriculum where all students have access to a high-quality curriculum like that for advanced tracks (Burris et al., 2006, 2008). It would be greatly useful to gather information on how the HiCap program used in this district affects students' academics and psychosocial development as this could provide more specific direction on how to improve students' education.

No matter what changes occur, teacher biases should continually be an area of focus for professional development as these directly impact students and their learning. As this is such an influential part of teaching, not even considering ability tracking, teachers should be given regular opportunities to reflect on their biases and work to mitigate them. This kind of professional development could include training on how to identify one's own implicit biases and how these are harmful and learning the tools on how to mitigate their effect in teaching. So,

teachers can be equipped with strategies to represent more perspectives in the curriculum, encourage students to share their identities, etc. With regular practice of these strategies, hopefully educators can teach more effectively to all their students and encourage their cultural competence in their schools.

Psychosocial Effects of Ability Tracking

Another area of major contention in the debate on whether ability tracking should be a continued practice is the ramifications on students' psychosocial development. There is abundant evidence that, beyond the inequalities to access and quality of education in the system of ability tracking, students' psychological, social, and emotional development can be damaged by nature of inclusion in these programs. Students recognize that a social hierarchy is established within a tracking system where students in advanced courses are seen as smarter and better students while students in remedial and general classes are seen as less smart and less capable students (Vanfossen et al., 1987; Legette, 2018; McGillicuddy, 2021). I have witnessed these sentiments throughout various tracking structures where students express that their advanced cohort are the smart ones or that students in remedial and even general courses feel that they are less capable. In my own experience as a general track student, I wished that I was in honors courses because I felt judged that I was not.

These perceptions are held by both students and teachers which is not only detrimental to one's identity (Rubie-Davies, 2007; Andersen 2018; Wang et al., 2019), academic or otherwise, but these also further impede academic achievement. In recognizing this hierarchy, students may feel a higher sense of school belonging when they are in higher tracks, but they have a worsened perception of their ability in the subject area they are tracked as well as more school anxiety (Mulkey, 2005; Becker et al., 2014). Further, students who are in remedial or average courses

have a lower self-esteem by nature of their track placement (Reilly & Mitchell, 2010; Legette, 2018; Legette & Kurtz-Costes, 2021).

Again, this issue is generalizable to the context of my local district as the HiCap tracking system aligns with the tracking systems studied in the research. It is no leap in judgement to apply these findings to my district and the students in it. In fact, I have observed both the discontentment of not being in an advanced course as well as the negative perception of the general tracks by the students in the advanced course. In my time as a student teacher, my mentor separated students into math ability groups by pulling out the advanced students while I taught the rest of the class. At times when I wanted the whole class to participate in a math activity, I would inevitably hear complaints from the advanced group about working with the rest of the class who was behind. No matter the specific make-up of the tracking program or the intention behind it, the separation of students into higher and lower-ability groups creates and reinforces concerning perceptions about students and their abilities. As will be discussed in the coming sections, all students would be better served if they were all given the opportunity to succeed with a higher-challenge curriculum instead of select cohorts. If all teachers were provided with the resources necessary to differentiate to the needs of all ability levels in their class, there would be less need to separate students in this way.

Academic Effects of Ability Tracking

The entire purpose of ability tracking is to provide more targeted instruction to the different academic levels that are inevitable throughout a single grade. While some research has found that there may be academic benefits to separating students into distinct learning cohorts (Steenberger-Hu et. al, 2016), or that there is no academic difference (Betts & Shkolnik, 2000; Figlio & Page, 2002; Matthews et. al., 2013), this practice is more likely to create unequal

academic advantages for those in the higher groupings (Trautwein et al., 2006; Petrucci et al., 2022). If there are advantages to be had from being in a tracking program, students are better off in the advanced or honors courses. These effects might arise from the same beliefs about who is smart and who is not or from the inequalities in resources or selection to be in honors courses as discussed in the previous sections, but it is apparent that some students will receive a higher quality education at the expense of others. This is not an ideal state for our primary system of education to function, but despite the evidence and contention, it remains the preferred state.

In my own experience teaching, I have seen the same sort of preferential treatment for higher-level students than students who need extra help in their schoolwork. As I mentioned previously, in my time as a student teacher, some of my students would be pulled out of class to work ahead on our math coursework while I taught the rest of the class. While students who needed extra help could stay after school for tutoring, there was no inherent support for their needs as there was for the higher-ability students. These groupings were not formulated to provide all students with an appropriate challenge, but only gave some a head start. While I have not been able to observe such distinct practices in my time as a substitute, the 2018 OSPI update which shows continued inequality in access to the HiCap program coupled with the fact that HiCap teachers are expected to undergo more extensive teacher preparation than general teachers (National Association for Gifted Children), it is evident that there is an unfair advantage for some students over others in the quality of their education.

Alternatives to Ability Tracking

We now understand that the research on ability tracking shows that it has some serious caveats in providing all students with a high-quality education, so we must consider alternative systems. In the literature on ability tracking, we have identified ways that some schools have

embraced an alternative curriculum or school structure, so all students are provided with a high-quality and challenging curriculum rather than only some. Whether this change entails creating a standardized higher-level curriculum for each grade (Burris et al., 2016, 2018) or expanding the margins of who can get into an advanced course (Ehlers & Schwager, 2020; Conway, 2021), students have higher academic performance than in a general track. It is apparent that students from all ability levels benefit from a higher-level curriculum, and that restricting who has access to this perpetuates academic inequalities.

It is unlikely that my district will change or eliminate tracking any time soon, but it is still important that we take action to consider and apply the recommendations of the researchers in this field. My district should collect data on the HiCap program to understand how students and teachers are affected by it and use this to guide teaching practices moving forward. With this, they could ensure that all students are benefiting academically and psychologically as best as possible. Further, they could provide teachers with more opportunities and resources to check their biases with professional development courses and weekly meetings for example. When administrators observe their teaching, they can ensure teachers represent multiple perspectives of the curriculum and the identities of their students, etc. Even without completely reworking the school structure, a school can make these small changes so that all students are given the opportunity for a high-quality education.

Implications for Future Teachers, Students, and Schools

One can see now that ability tracking is a practice that may cause more harm than good, and that there are many factors to consider moving forward. In my district, specifically, it is important to consider this research as the HiCap program uses the same structure as many of the tracking programs used in the research, meaning that these findings can be generalized to this

system as well. By substituting in this district and teaching both HiCap and general education students, I have seen and heard how students feel about the tracking system; these sentiments reflect the same feelings I held when I was in the general track as well as the interactions I had with my peers in advanced classes. Students recognize the implications that they are gifted, smart, talented or that they are not through their assignment to these tracks, and this can greatly impact their motivation to learn and their academic self-concepts (Trautwein et. al., 2006; Reilly & Mitchell, 2010; Becker et. al., 2014). A system that is truly benefitting all students' learning would provide them with an opportunity for a high-quality, challenging curriculum without the negative effects on their self-esteem and academic self-concepts.

Another consideration that is just as important as student perspectives is the influence of teacher biases on student learning. Teacher perspectives of a student's ability not only influence how they grade that student but also can influence how that student feels about their own ability (Rubie-Davies, 2007; Andersen, 2018; Bergold et al., 2022; Copur-Gencturk et al., 2022; Batruch et al., 2023) Since teacher biases can be so influential throughout a student's education and track assignment, it is important that they are provided with opportunities to investigate and reflect upon these to minimize the effect on their teaching. Teachers should regularly find time to reflect on any implicit biases that may influence their teaching, and consistently find ways to work past these. Further, the process by which students are recommended into tracks should be made as objective as possible if it is continued to be used. This means that student identities should be anonymous when their performance is being reviewed by a board for recommendation into a tracking program, for example. It is important that even if my district or other districts do not radically change their systems, like those mentioned in this research, they are still doing what they can to provide all students with a high-quality education.

Implications for Future Research

While there is good research on ability tracking, there are still factors that should continue to be investigated to further understand how this practice affects students. Future research should consider specific tracking programs like HiCap to assess whether and how these findings can be generalized, and what differences might exist that could address ways to improve. Further, in the research on how ability tracking affects students, there are some gaps that should be addressed with further research, specifically, how students' identities, social lives, and motivation are influenced by their track placement. Not only would this data further the literature on this topic, but it would also provide me and other teachers with more directions on how to improve our teaching when working in an imperfect system. Whether I am teaching a general track of students or an advanced track, I want to know what the research says about how to ensure my students know that they are capable learners with endless funds of knowledge.

As mentioned previously, there is little research on the HiCap program specifically, so any research that my district could do on this program would be helpful to understand any particulars of how best to move forward with or without this program. Understanding how the different identities of all students within this district could directly inform the practices of all teachers within this district so we can continue to move forward with research-informed practices. Beyond my district, further research on different ways that schools are changing their curriculum and school structures to move away from these negative effects of ability tracking would be greatly useful. This research could help me in my future position as a teacher in a school which will probably continue to use ability tracking in the form of the Highly Capable program. While my own findings for this project have given me invaluable insights into how to

operate in my classroom, further research on the gaps in this topic would help myself and other teachers in maintaining an environment that is conducive to the learning of all students.

Limitations of the Project

Ability tracking is a complex system with many factors that influence how well it functions in providing all students with a high-quality education. There is one area of research briefly mentioned in this project that is a major factor in the quality of education available to students; that is the variation in distribution of resources within and between districts throughout the country. Of course, when a school has more funding and resources, there is a higher opportunity for a quality education than in a lower-funded district. While this issue extends beyond the scope of my research, it is certainly not to be discounted or ignored. Addressing this issue would require much more background in the foundation of the United States and the role of racism, nationalism, etc. Further, proposing a change to this would require an upheaval of the current education system in favor of a radically different one. While this might be the most attractive option for achieving the most equitable education system, it is a much larger undertaking than this project allows.

While this project mostly focuses on students, the role of teachers is just as important. This project could have explored how to alter the teacher's role to better meet the needs of many levels of students within the same class, like providing more time for planning and instruction, or a lesser focus on standardized testing in schools, etc. Again, while this is an important consideration on this topic, it is beyond the scope of the current project.

Lastly, for a more specific application to my district, it would be helpful to have more research on how the HiCap program interacts with students' identities, psychosocial development, and academics. Altogether, however, I think that the research on ability tracking

provides a clear path forward on how to best provide a quality education for all students, and I hope that my district and other schools take this research into account.

Conclusion

With all these issues considered, it is important not to ignore the importance of meeting the needs of students at all ability levels. The purpose of this paper is to demonstrate that the current system and practices are not the most equitable while they may offer unguaranteed academic benefits. There is no debate that students deserve to be met at their ability level, and in fact there is a significant need for this. Special education services are offered to those students who benefit from it, so what is different about ability tracking? The purpose of this paper is not to argue that students be subject to a standard level of education, but quite the opposite. The education system should allow for more flexibility in meeting students' needs without the rigidity of ability tracking and so many other factors of the current system. There are certainly systems that do meet the needs of all students while avoiding these inequalities and psychosocial detriments, and whether we take large or small steps toward this ideal, there is much to do to get there.

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