

## Webinar Transcript : Destreaming & LDs- Why and how to support ALL your students

- [Susanna] Good afternoon everyone, and welcome to LD@School's Third webinar for the 2022-2023 school year. My name is Susanna Miller and I'll be the moderator this afternoon. If anyone is experiencing any technical difficulties at this time, please contact our team using the chat box or the Q&A box and we will do our best to assist you.

After the webinar today, we'll be sending out the presentation slides and a link to a survey to provide us with some feedback on the webinar. The official webinar recording will be available in approximately three weeks after transcription and closed captioning has been completed, and we will send out a link to everyone who is registered for this webinar today.

If you would like a copy of the slides right now, I've already placed the address of our Padlet in the chat and our presenter today, Jason To, also has a Padlet where you can share some of your initial thoughts on destreaming and start the conversation. So if you wanna just check in the chat, you can find both those links.

If you have any technical questions during the presentation, please contact our the LD@School staff using the chat function or the question button, which are highlighted in this slide. And during the course of the presentation, you can also enter any questions you have for our presenter in the Q&A box.

So without any further ado, the LD@School team is very pleased to welcome our guest speaker, Jason To, whose presentation this afternoon is entitled destreaming and LDs Why and how to include all of your students.

The Ministry of Education has provided funding for the production of this webinar. Please note that the views expressed in this webinar are the views of the presenter and do not necessarily reflect those of the Ministry of Education nor the Learning Disabilities Association of Ontario.

We will be tweeting throughout the webinar. So if you'd like to join our conversation on Twitter, you can do so by looking at our handle at LD@School, which is at the bottom of the screen there, or by using the hashtag LD webinar.

So that takes care of all our housekeeping this afternoon. So let's get started on our presentation. It is my pleasure to welcome our presenter for today, Jason To, who serves as coordinator of secondary mathematics and academic pathways for the Toronto District School Board, where he works with K to 12 staff to tackle academic streaming and tracking and shift towards more equitable, inclusive, and culturally responsive teaching. As a former high school math department head, he began challenging streaming in 2015 by eliminating applied math classes and teaching inclusive grade nine academic math leading to significant gains for students with special education identifications, welcome, Jason. The floor is now yours.



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- [Jason] All right, wonderful. Thanks, Susanna. Hi everybody. Thank you for coming after hours. I think many of you are classroom teachers or educators, and so this is usually your time to breathe and catch up with things, but you're here with me, and so I really appreciate that. So what I'm gonna do, I'm just gonna share my screen just for a second, not for a second the whole time.

Hopefully you can see it. So yeah, as Susanna mentioned, I have been working to support educators across Ontario with respect to destreaming for a number of years now. And I'll tell you a little bit of my story and how I've come about, you know, figuring out that streaming was not good and not really supporting students in the way that we had thought it was, and then how I was just one of many people that decided to do something about it and created enough momentum, you know, with many others across our school boards to, you know, shift how we organise schooling in Ontario now. So it's a really exciting time. I hope you're excited too. It's also a time of tremendous change and a lot of challenges in education, so, you know, nothing that's worthwhile is easy, I mean, I, that's what I tell myself every day, and, but I think this is very fulfilling work if you are a classroom teacher and you are either well on your way or still trying to, you know, understand what destreaming means for students and for yourself, right, as a teacher.

So if you know, if you're willing and able, I highly encourage you to share what you're thinking, ask a question, challenge a statement that I've said, or make a connection with something that you perhaps are experiencing or doing in your day-to-day work using the chat, so please use that as a stream of consciousness. I'd love to see the chat sort of as a, I don't know, like one of those Instagram stories, you know, people just start throwing comments in there, so please do so this is meant to be as much of a conversation as we possibly can make it.

So again, I'll tell you a little bit about me. So back in 2014, I was, you know, a classroom teacher. I was a department head at my high school in the northwest corner of Toronto, kind of just doing my thing, really supporting students, working really hard. And I was teaching a grade nine math class, and I was a grade nine applied math class working with students that, oh, actually no, in this case, no, this story is about a grade nine academic math class. And I had a student and she was having a really hard time in my math class, and I had a, you know, I had a conversation with her in the hallway, and I told her, you know what? I think you would be better off in an applied class. And because she wasn't doing very well, and she was very, she wasn't very happy with what I said and basically just walked away from me. And you know, upon reflection, it was for, you know, a very good reason. I basically told her that her dreams of becoming a physician were really not important to me, and that it was just more of trying to make life easier for me and for her in this moment. Literally a few weeks later, I was taking part in professional learning and I didn't really know for what reason. And I then, you know, went to a session with just a few other

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schools, school teams, and we were learning about streaming, and I was shown information and data, which I will share with you, and it just kind of blew my mind, you know, literally that conversation I had with that grade nine academic then applied student, it was just like, it made me really uncomfortable because I went into teaching to help students, and what I, and what was ending up, you know, in terms of what I was doing, was that I was actually doing the opposite of that through really no fault of my own, because the system had told me that was the right move. That if a student was having a hard time in an academic class, that there is another structure or there is a different stream to, you know, have students that were struggling in mathematics. And so, you know, that led me into a rollercoaster journey to destream essentially, or go academic only in my school for mathematics. And my partner in the English department then went to go academic only in English in our school.

And I just wanna share with you some information, some data that we gathered about students once we decided to go in the single stream route. So I'm sharing with you a graph of data from my school at Westview Centennial Secondary School students that got a level three plus, right? So that's the provincial standard. And I know EQAO is one of many measures, but it is one that has common understanding amongst everybody across our province. So you'll see here that the bars are made up of students in applied and academic in the blue and in the orange. In 2016 was when we decided to go academic only for that 2015-2016 school year. So that's why you'll see there's no blue there, right? And what I mean to highlight here is that you'll notice that it's not the highest bar in the graph, but it's also not the lowest bar in the graph. So this really is meant to tell you that, you know what? The sky didn't fall when we decided to go academic only. It kind of fits in with the year to year fluctuations that you see generally from school to school in terms of EQAO achievement. But everybody that was achieving at this standard was achieving at the academic level, which, depending on how familiar you are with the curriculum and the assessment is that I'm gonna, I'm gonna essentially say that the academic has, well, has more content, and so the bar is higher, right? So again, this is not the highest bar, it's not the lowest bar.

But now when we zoom in and look a little bit further with respect to students with special education needs, you'll see that in that same year, that that was the highest bar, and not only was it the highest bar, it was completely orange compared to years past where the majority of students that were meeting a provincial standard in the math EQAO were meeting it at predominantly the applied assessment. So I mean, this is really a culmination of a year of wow moments, so I taught predominantly our students with special education needs that they had a separate section for our learning disabilities, like intensive support program. And so when we went and taught academic only and students were getting it, you know, with the right supports and we changing how we provide instruction, I started to see like, holy moly, we are onto something here. And so this really just validated the entire year of just the amazing things that were happening, you know, in my classroom and in other classrooms as well. Tactile, you got

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your hand up. Hi, by the way, I don't know if you're able to mute or unmute. Maybe Susanna, I'm not sure if, I think we're gonna be casual. I hope it's okay if we can have kind of Q&A on the go.

- [Susanna] Yeah, of course. I can just, I just have to find the person with their hand up and I will let them speak if they still have their hand up.

- [Jason] Oh, I can do that. Okay, go ahead.

- [Susanna] Let's see.

- [Participant] Hi, sorry, can you hear me?

- [Jason] Yeah I can hear you, hey.

- [Participant] I'm new to Zoom. I didn't even know I had my hand up. I can't see anyone's faces and I just figured out where the chat window is, I'm so sorry.

- [Jason] No it's okay, no worries. Okay, so we'll continue. So the main thing is when we rip the ceiling off of what is possible for students is that they rise to the occasion so long as we believe that students are able to meet those standards. So I'm gonna share with you sort of why we need to, and we have begun moving towards a destream model, but, and also some teaching practices and approaches that support an inclusive environment.

I'm gonna share with you a little backgrounder. So we've gone through this route before, right? In the early nineties, we have decided, we've decided then that we were destreaming, and then something happened, right? And so what I wanna share with you, oh, what happened in 2017, so what happened was, and let me go back to that slide, is that there was additional tinkering.

So I left the school and I went to a central role to support professional learning in mathematics across the system. And so when I left, there was, you know, additional inquiries and experimentation with single stream and academic only, and so, you know, that's where you see like, oops, you know, we've done something, and so, I mean, that's just the whole process of, you know, in the early stages of challenging streaming was that we were sort of figuring things out as we go, so yeah, so that's just how inquiries go is that you take two steps forward, you might take one step back and so on. And I would hope that's, you know, that this model's, what I hope every teacher does and every school does is feel free to take a chance, right? And go with your gut and to, you know, you might, it might work out, it might not, but then you learn from it and then you move on.

So I'm gonna share with you a video that I created right when the ministry decided to move

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forward with destreaming. And of course the first subject was mathematics. So I wanna share with you, again, this is just a brief history of academic streaming in Ontario. I'm gonna have to do that. Okay, here we go.

- [Jason-Video] What is academic streaming and what is its history in Ontario?

Well academic streaming is the practice of separating students into distinct schooling pathways based on their perceived ability.

Streaming in Ontario can be traced back to the origins of schooling in the mid 19th century when education originally created solely for the colonial elites was richer and more advanced than what the general working class leader received.

Academic streaming as we know it today, has roots firmly in the education system of post World War II Ontario, the Hope Commission of the early 1950s, promoted ability grouping and the building of special education schools.

In 1961, 3 educational streams were created and hundreds of vocational schools were built across Ontario to develop the workforce and accommodate the children of the baby boom, particularly those deemed with lesser ability.

However, it became clear that these vocational schools were dead end programs. In Toronto, these schools consisted almost entirely of students from racialized, working class, or single parent families with a graduation rate of only 20% and without adequate preparation for apprenticeship programs, enrollment declined significantly after only 10 years.

By the early 1980s, a new secondary school curriculum was created with courses at three difficulty levels, with streams essentially still intact, along with hundreds of vocational schools still in existence across Ontario, students from marginalised backgrounds continued to be encouraged to attend lower streamed programs.

A government commissioned report in 1988 recommended destreaming to combat increasing dropout rates. Most school boards began destreaming, though in 1993.

Although many teachers felt frustration and a lack of professional support during this destream period, a Toronto Board of Education study found that destreaming led to moderately positive results for student attendance and achievement. However, when a new government was voted in, the education system was re-streamed in 1999 into academic, applied, and essentials programming. While it was never intended for the structure to divide students along lines of ability and disability, class and race, this was exactly the result.

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- [Jason] There we go. So one main point that I wanna highlight from that video is to share that academic streaming has essentially existed since the invention of schools, public education, or even just education from the colony. So when we think of shifting how we organise students in schools, we are working against a structure and a practice that has existed before confederation. So to make that change is seismic, right? And it's gonna take a while for people to adjust to a system where we are no longer doing that. So you know, I think people need to realise that we have been streaming students for almost 200 years and, you know, so this is a very new phenomenon that we are doing in terms of destreaming, so just wanted to put that in context. I want to go over in some detail as to why we are moving to a destreamed environment, because the data here, this is the same, essentially the same data that I saw when I was a classroom teacher, and for the first time, sort of understanding streaming and the implications of essentially an exclusionary practice. So this is data from the Toronto District School Board. We're looking at students self-identified race across different programs of studies, so different streams, academic, applied, essentials, or locally developed. Undefined as mainly K courses and students that, you know, if you had a, like a, an even mix, didn't quite know where to put you.

So what I wanna highlight from this is when we look at two of our most marginalised communities, black students, indigenous students, you see that black students in the Toronto District School Board made up 12.6% of the student population, however, they only made up 8.8% of students in the academic stream. They were overrepresented in the applied program and even more overrepresented in locally developed and essentials courses. And the same holds true for indigenous students as well. This is a phenomenon that is not just in the Toronto District School Board, as in other jurisdictions where they gather race-based data and have streaming or tracking predominantly in the United States, this phenomenon replicates itself. So this is not new, it is something that happens everywhere where separation by ability occurs.

Streaming doesn't work just on lines of race, it also works, you know, a focus for this presentation in particular as students with special education needs. So here's a graph of students with and without special education needs in academic applied and essentials courses. So for academic courses, you see that pretty much 19 outta 20 students in academic courses did not have a special education need, excluding gifted, so that really, like one out of every 20 students in an academic class had a special education need. However, when you then look at applied courses, about one in three students had an IEP or a special education need in those courses, and then it's two out of every three students when we look at essentials courses or locally developed courses. So there is clearly a pattern of, you know, when you're moving away from academic programming that they're, and you're moving to, you know, I'm gonna say like lower streams, is that now we're seeing an increase in special education populations.

Oh, there's a question in the chat. Why exclude gifted when looking at students of special

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education? It's 'cause the gifted exceptionality works very differently. People often seek out that exceptionality and are trying to move into programming that, you know, that is on purpose moving them away from their homeschool and into special, like a gifted class, so the dynamics of that particular identification are very different than the rest of them, so, good question though. Thank you Michael.

Now we are looking at income. So streaming also works with respect to, or marginalize students based on income as well. So this graph shows that in the academic courses, as students are coming from higher income backgrounds, they're more likely to attend academic courses. And the converse is true when you're going, or sorry, when you're coming from a lower income background, you're more likely to take applied and essentials courses. So you're seeing very clear patterns, again, it's almost like you can predict, you know, with certain, with some certainty where students are going just based on their income, right? And also disproportionately on race and special education. So there's very, you know, there's very clear forces at play here. Ones that we really ought not to have in public education when we're, you know, essentially saying that, you know, everybody should have, you know, equal opportunities. But what we're seeing is that's just not the case.

When we take a look at and zoom outside the Toronto District School Board and look at provincial data, we see something very similar. So this is data from People For Education. When you look at schools with the lowest proportion of students in applied courses, we see that the average family income was over a hundred thousand dollars, this is back in 2014. However, when you take a look at schools with the highest proportion of students in applied courses, we see the average family income at less than \$70,000. So again, the patterns of income and streams is existing, you know, overall in the province and not just in Toronto.

The Royal Commission on Learning identified streaming as an issue. So this is way back in 1995. It substantially reflects such factors in terms of organisation of students by levels, right? By factors such as parent, occupation, education, income, and sometimes we fear race, home language or national origin. So this is a pattern that isn't new, like this phenomenon was known to well government, in which case everybody hopefully as far back as when the original decision to destream occurred.

So in a nutshell, that's, you know, the exclusionary and the discriminatory force of destreaming really led to challenging that structure. And then, you know, when we decided to do that in the Toronto District School board and also in Limestone District school board, there was also a school that was working on it there as well. We started to see really interesting and really positive things happen. However, there is also questions and myths that I'm gonna, I'm gonna call them myths that persisted amongst those that were still questioning like, well why are we doing this? Like we've been streaming for a while, like, isn't it good? Like, I have stories of

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students that were streamed and put in applied classes and are doing really well. And you know, we need to move beyond the individual stories and kind of take a look at group level, community level patterns to really get to, you know, what are some of the fallacies of streaming.

So this is, for those that require a little bit of a reminder, so we have three streams, right? We have academic applied, locally developed, this is a map from the Coalition For Alternatives To Streaming And Education, which I am a part of. And this is essentially showing that if a student is working in the applied destream, that there are opportunities for students to move right from one stream to another. They can start in applied and then make their way into academic. And there are some challenges to do to, you know, in terms of that, but it's there, right, on paper. But what we actually see when we take a look at the data is that these streams, which technically are rather fluid, are in reality, very structured pathways that are rather rigid.

So this is, again, Toronto District School Board data from 2011 to 2016, we're following students over time, and we're giving students five years to exit and enter a post-secondary institution for a student that starts in academic courses in grades nine and 10, almost all of them will make their way to university preparation courses in grades 11 and 12. And then almost all of them will make their way into university as a post-secondary destination. When we take a look at students in applied courses in grades nine and 10, what we see is, while some of them make their way to university preparation courses in grades nine and 10, almost all of them will make their way to college preparation courses, sorry, in grades 11 and 12. And that's okay, right? You know, folks, when we talk about destreaming advocates, there is no preference for university or college or apprenticeships in this case, although apprenticeships, it makes a very tiny sliver of the data, which is why it's not shown here. It's more about providing an array of opportunities for students, so if students are making their way into a college preparation program in grades 11 and 12, that's great if they go to college. But what we see when we take a look at the data is that while many make their way to college as a post-secondary destination, what we see as that the, you know, actually most students when they go through the college route don't even apply to go to college. So again, there is no preference as to which post-secondary destination students go to. But if we are essentially advertising to students, Hey, if you wanna go to college, take these college preparation courses, what we see though is this pathway actually only works less than half of the time. So you know, it's not even better than a coin flip whether students will make their way successfully into a college preparation into college after high school. So that's the danger, right, is that there is a myth, the myth of college preparation is that, you know, if we put students here in grades 11 and 12, that they're going to make their way. But again, that pathway works less than half the time. Let me show you some actual hard data there.

Students that start in academic courses, they will have a post-secondary confirmation rate of over 80% versus less than 50% if you begin in the applied courses, okay? And less than 15% of here from a locally developed program. What we actually see is, there's a comment from

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Heather is that some college programs prefer you courses as prerequisites. Actually the majority of students, or actually well at least a huge bulk of them that are entering college, are coming from university preparation courses in grades 11 and 12, and I'll go into a little bit of detail about the implications of that.

So when you combine the rates of post-secondary attainment for academic versus applied programs and students in those, and you factor in also the disparities amongst race, income, and ability disability, it's really no surprise that even as recently as 2016, that black students in the Toronto District School Board were entering post-secondary education at the lowest rate amongst the categories that you see here in the subgroups. So that is alarming, right? When we think of education as a force for equity in our society. So that means we need to do better.

When we, again, let's zoom out of the Toronto District School Board as Toronto, we always see of ourselves as the centre of the universe, but we're not, I know that. But if we look at data from the Ministry of Education, looking at the entire province, we see, you know, a very similar picture that if a student is beginning high school by taking grade nine applied math and language, 26% of them will not graduate. But then if you're taking academic courses in grade nine for math and language, only 5% of those students will not graduate. So that's a fivefold difference, right?

And if we look at what happens when they go after high school, be, you know, starting with applied courses in math and language, we see that only 33% of students will go to post-secondary college or university versus almost versus 73% of students if they're taking academic courses in grade nine for math and language. So very stark differences in terms of outcomes for students taking either applied or academic courses. So that's, again, we're saying to students, it's okay to start in applied, but what we actually see shake down is that it's actually do it at your own peril.

Another myth that I want to tackle in terms of streaming is, well, you know, students that take college preparation courses, they'll be fine when they go to college 'cause that is the purpose of those courses is to prepare students for college. But what we see though is that's actually not the case. So this is data from the College Math Project with which looked at math achievement in college courses. So we're talking about actual college courses after high school. And one data set that they sh that they shared in their report was the disparity between students that entered college through college preparation courses versus university preparation courses. So I direct your attention to the last three sets of bars here on the right hand side. This is, these are three years worth of data. And in these three years, these are three cohorts of students that took grade 11 university preparation math and any grade 12 university preparation math, 'cause there's three of them. And what we see is that students that are coming from a university preparation background in mathematics were getting good grades, which is a c or above in this

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study at a rate of over 80%, right, which means less than 20% of students were at risk of failing, which is a D or below. Now if we look at the cohort of students over three years or through three years that went to college, haven't taken college preparation math, right? What we have told students to do, Hey, if you wanna go to college, take college preparation math. What we see though is if that's what students did, then they are achieving a good grade at a rate that is just over 50%, right? Which means almost 50% of students in college were at risk of failing math if they took college preparation math, right, doesn't that blow your mind? That blew my mind when I saw that, right? We have been telling students one message, but what happens is something very different, right? So again, the data also tells you that there is a significant number of students that go to college having taken university preparation courses. And so those, you know, if you're aware of the curriculum, they're very different in terms of the, what is expected of students, so when we put, you know, those students together in an environment, there is a clear advantage for students that have taken mathematics at the university preparation level in high school. So this to me tells me that if we want students to be successful once they leave our K to 12 system, we should be having them learn math at the highest levels possible, in which case, in this case it's the university preparation courses, which is really a misnomer, right? Like it's preparing for both university and college. Now remember, in the data before, if you want to get to university preparation mathematics, you need to start high school at the highest levels of mathematics, which at the time was academic programming. Now we have the new grade nine destream math course. So everybody is starting at what we have in our system now as the highest level of mathematics. So that's why there is an imperative to destream and to have everybody begin in grades nine and in the Toronto District School Board, now we have also in grade 10 maintaining students at the highest levels of mathematics.

One more myth I think that I want to address is, well, students that were in applied courses, let's have them start there because they can get a good mark there and they can feel good about themselves and then that will set them up for success, okay? And while that makes sense in our heads, when we take a look at the data, that's not actually happening. So we're gonna hold in this chart here, it's kind of busy, but I'm gonna share with you that we're gonna hold achievement constant for students. So let's in grade six, so let's pick a cohort, let's pick this one here. Level two to two and a half in their grade six EQAO. So these are students that are approaching provincial expectations in mathematics in grade six. Now, from that achievement cohort, many students will make their way into grade nine academic math, but most of them will take grade nine applied math. Those that took grade nine academic math, they had a median mark of 55 versus the students that took applied math from this cohort, they got a median mark of 61. So hey, that's great, right? Students in applied math were getting a higher mark in generally than students that were in academic math, however, now when we follow them over time, what we see is students, those students that got a higher mark in applied were making it to college and university at a far lower rate compared to students that got a lower mark in academic math, right? So that high mark generally didn't translate into equal or better rates of

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post-secondary attainment, right? And if we look at other achievement cohorts, it's the same pattern, right? Higher mark in applied, but a lower rate of post-secondary entry. So let me show you the rest of them. It's essentially the same thing.

Oh, there we go. Same deal, higher mark in applied, lower rate of post-secondary access. So that's a, again, a myth, a fallacy, it's not happening. So we are essentially, you know, asking students to mortgage their future for a good feeling in the present when we were telling students, you should take applied because that's a soft landing and then you can transfer, right to grade 10 academic, but when I shared with the data with you, that just on generally just didn't happen.

So when the Minister of Education announced that they were moving forward with destreaming, it was shared in social media. And what was really interesting, and I was following the response was that there was a lot of stories that started to come out about adults and their experience with destreaming, or sorry, with streaming. And I just have about 20 of them here. And what I noticed was that a lot of people that were like basically saying, you know what, it's about time, you know, almost all of them based on their profile picture are a visible minority, right? So you know, the community, at least on social media we're saying this is a needed move and it was long overdue.

So the, this movement towards destreaming the, it has its roots in the, you know, the eighties and nineties, Jeanie Oaks is a writer and a researcher in the states. She wrote "Keeping Track," that's the copy of the second edition. There's also a book around "Detracking For Excellence And Equity." This is a story of how a school district in New York detract or destreamed their high schools and saw incredible gains for black and latino Latinx students. There was a book written, I believe in the nineties called "Stacking The Deck," which took a look at streaming in Ontario.

I mentioned earlier that there was a Royal Commission on Learning that identified that streaming was likely impacting disproportionately racialized low income families. When stacking the deck didn't make enough noise, they wrote "Restacking The Deck," People For Education came out with reports, social planning. Toronto wrote a report and did research that showed that students in grade eight did were not ready to make decisions that impacted their futures this way. York University, Carl James, Tona Turner wrote a report about black student experiences in the GTA and wrote a lot about black students, you know, feeling like they were judged at a different standard and impacted where they were placed in terms of streams. The government of Ontario came out with an equity action plan that identified that streaming led to, or it was the, that had an unintended consequence of streaming that disproportionately impacted already marginalised groups.

The National Education Association is one of the largest teacher unions in the states, and they

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advocate for destreaming the National Council of Teachers of Mathematics. I'm a math guy, so you're gonna see a lot of math references as that they advocate for the removal of streams as well. So there's a lot of organizations literature that have called for this move.

All right, so just, I just wanna summarise before I take the last, oof, last few minutes on the practices that, and we'll do like a very high level overview, is that streaming, while it reports to support students success, has done little to provide equitable access to post-secondary education for decades.

Streaming disproportionately impacts students with special education needs, students from lower income backgrounds and indigenous and black students, so it is a systemically racist, classist, ableist education structure, which is why upon the murder of George Floyd. And then there was an, a real hard look in the mirror amongst many organisations and institutions. The government of Ontario identified streaming as one systemically racist and problematic practice that required immediate attention.

Destreaming has long been advocated for by researchers, educators, and community groups and from populations most impacted by streaming.

Alright, so let's shift gears. You know, in terms of looking at, you know, what we can do in classrooms to support student success in a destreamed environment, these are how, what I identify as some key goals in destream classrooms, right? The first thing is maintaining high expectations for every student. There is, you know, this idea is like, oh, I've gotta like teach to the middle because that's the only way I can manage. And that's not, that's never been helpful, right? Like, there's been variability in all of your classes to a certain extent. And teaching to the middle always short changes students that are, you know, ready to move on to do something else and students that are struggling. Ensuring accessibility to learning, because it really is about creating the conditions for students to be able to take in the information and be able to interact with the learning opportunities that student that teachers put forth. So we have to make sure that students actually are able to access the learning. Responding to students needs. That's something that I think we have always been doing or at least been trying to do. Leveraging students various identities, not just in terms of ability and disability, but race, culture all sorts of ways, right? There's so many different ways that students identify. It's about how do we honor them and include them in our programming and of course building strong relationships with students. That is, you know, again, one of those things that we know doesn't change, you know, in any circumstance.

All right, there are three key overarching approaches that have been identified as being critical in a destream, in a successful destreamed class. Universal Design For Learning, Differentiated Instruction, and Culturally Relevant and Responsive Pedagogy. UDL and DI are spoken about

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extensively in this document, the "Learning For All" document, which is celebrating its 10th birthday apparently. So take a look at that. The information there is very much still relevant.

I'm gonna go over very quickly, Universal Design For Learning. So there are three main pillars of Universal Design For Learning, there is multiple means of engagement, representation, and action and expression. So essentially providing choice, options, supports, right? For students in these areas. So multiple means of engagement looks like sparking interest by providing choice in topics and contexts, like providing options of varying difficulty, building in classroom routines and collaboration that, you know, sustains effort. Multiple means of representation, you know, we want to have opportunities for students to be able to show and for you to be able to display learning in different ways, whether it's, you know, through visual means with words, and having a combination of all of those to have different entry points for students. And then multiple means of action and expression. So how many different ways can we offer students opportunities to share their learning right in the mode that best meets their strengths?

So you know, again, I mentioned that my bias is in mathematics because that is the main area that I support in my day job, but I would also argue it's one of the ones that is in many people's minds the most challenging to destream and to make inclusive. So you know, whether you have a range of readiness and particularly, you know, when we're, you know, being hosted by LDAtSchool, a huge piece to support students with learning disabilities is making sure that we have manipulatives to build conceptual understanding. A lot of times what I've seen as a classroom teacher, as a department head supporting teachers, as a district coach and a leader, you know, oftentimes we want to just make sure that students with learning disabilities are able to perform an algorithm so that they can show they look like they are able to perform mathematics. But often what happens is that's done at the expense of understanding, right? The conceptual understanding that goes, that is baked into those procedures and algorithms. So that's really important that we have different modes of supporting students and their understanding of concepts like this that's running on loop where we're looking at, for example, here are the addition and subtraction of integers.

One tool that has really helped me during my practice as a high school math teacher is leveraging computer algebra systems. So I was teaching, you know, in that year, 2015-16 students with learning disabilities and I knew that many of them required additional assistance with procedures because I saw, while some students were okay with that, some students had trouble kind of translating what was in their head over to paper. And so, you know, one of the tools that I had learned along the way was I can provide students in this picture here, there's a calculator that has a computer algebra system that essentially is like a souped up, it's a souped up calculator, right? That allows you to not just do the basic functions of what a, you know, run of the mill calculator does. But it simplifies algebraic expressions, it helps you solve equations. Over here on the right hand side, this gif that's also one loop is from GeoGebra. So this is

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something that is now available online. It's free, there's an app on a phone that a student can essentially now use it to perform a strategy or an operation, not automatically, which you actually can get the calculator to do, but it's really allowing students to apply their conceptual understanding in this case, solving an equation by performing the inverse operations on both sides of this equation, right? That's the big idea of solving an equation. And when I put this tool in the hands of students, they were now accessing grade level learning and many of these students had modified expectations on their IEPs, you know, from elementary school. So they were entering grade nine having learned anywhere from grade five to grade seven math expectations, right? So this is really an assistive technology tool that anybody can use in reality, right? These are tools that mathematicians can and also use. So let's put them in the hands of students for the sake of inclusion and accessibility.

A differentiated instruction, I noticed at the time, I gotta speed up a little bit, so, differentiated instruction is again, nothing new, right? It's an idea from 19, like in the seventies, Carolyn Tomlinson is a huge researcher that has a really champion differentiated instruction in a nutshell. Again, we're looking at a response to learner's needs. You can differentiate through the content, right? In which we teach students the process that we teach, the products that we ask students to create to demonstrate their learning as well as the learning environment. And we can do that in response to students' different levels of readiness, which is usually the one that's top of mind when we're looking at destream classrooms. But also interest and learning profile. So we can leverage students' strengths and interests in our classrooms as well, so we can't forget that.

I would be remiss again, math bias is that the new curriculum also came with this wonderful document, it's called the High Impact Instructional Practices in Mathematics. And these are bread and butter instructional strategies that enhance learning for everyone. But they are really critical, I would argue, to ensure that students with any special education need, but especially with a learning disability, like having tools and representations, even direct instruction is an important element that's not teaching, you know, like a lecturer didactically, it's very much a structured, you know, guided inquiry, exploration, consolidation, you know, guided practice as well. But having small group instruction, that's a huge one.

So oftentimes, again, as a classroom teacher, and many of you can attest to this, is that when you know, ask students to come after school 'cause they need a little of help, they often are not coming. And students that usually don't need your help are the ones that are coming after school, so when students are in your classroom for the 75 minutes, that's when you support students. And we do this through like a, like small group instruction is a critical component of that. The ministry has said it's so powerful at moving student thinking forward, it's worthwhile for educators to intentionally carve out time to include it in their daily plans. This is an example of what that looks like in an elementary classroom. And this is what this can look like in a

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secondary classroom as well.

In the last couple minutes, I'll mention culturally relevant and responsive pedagogy. Now that this is a diagram that's from the monograph of the Ministry of Education, also celebrating its 10th birthday. These are six characteristics of a culturally responsive educator, so having a sociocultural consciousness understanding that students' backgrounds influence and also teachers' backgrounds, right? Influence what learning and teaching looks like in a classroom. Having high expectations of all students and holding positive, affirming views of students. That's an important characteristic. A desire to make a difference. So I argue that every single teacher that is in a destream classroom is active, is an active change agent to write the wrongs, right, that streaming has done and we now creating a more just education system and everybody that's in a destream class is playing their role. Constructivist approach is another characteristic. Having a deep knowledge of students is a critical component. Knowing that you can't know absolutely everything about students, but you know enough, right? To help with informing culturally responsive teaching practices that leverage students' prior knowledge and use that as, you know, the raw ingredients for your lessons and your teaching.

One really important part of culturally responsive teaching is this idea of a warm demander, now, I don't know if many of you know about what a warm demander is, it's somebody who has, it's sort of like that teacher has a bit of tough love. Someone who knows you and cares really deeply about you, wants you to strive for greatness and doesn't tolerate foolishness, right? Like, you know, of that teacher that you know, basically believes in you and just won't have, you know, won't stand for you slacking or coming late and things like that. This is a graphic that is adapted from Zaretta Hammond's book. It's called Culturally Responsive Teaching in the Brain. And I really love it A, 'cause it looks like math because I got an X Y axis. But it also tells a really important story if you have, and if you are an educator, if you're high on warmth and also high on your active demandingness, right? That you earn, you earn that right to demand through building strong, positive relationships, and you are a warm demander. And that's where you're at. You don't have to start that way because I was a sentimentalist at one point, I had high warmth, but I realised through reflection actually someone else told me is that I had some tendencies to be passively lenient on students, and so I knew I had to up my demandingness game. If you have high demandingness but like are generally distant from students, then you are a technocrat. And you know, actually students generally actually like these teachers because they have a real passion for the subject matter, but they're not necessarily the greatest with like one-on-one help. And if you have low warmth, like if you're really distant and you're lenient, then you're what we call an elitist and that's not great.

Those are people that kind of say stuff like, I'll bet half of you will drop this class by the third week. You know, I maybe we've had teachers like that. I know I have and that's not where we want to go, right? We want teachers to believe in students and say things like this, right? Keep

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your head up. I know you can do this 'cause I've seen you do it before. I've got you. That's how we need teachers working with students in an inclusive destream setting.

All right, so just in conclusion, right? These three main domains, Universal Design For Learning, Differentiated Instruction, and Culturally Relevant And Responsive Pedagogy. When you put these three together, right, and they overlap, you end up creating a classroom that promotes accessibility, responsiveness, and also I would say argue most importantly affirmation, that students belong in your class and that you believe in them. So in a nutshell, that is how, that is why we destream.

So thank you so much for taking the time and I've hit my 4:45. If you have any questions, I'm happy to take them. If you want to connect later and want to continue this conversation on the socials, that's how you can get ahold of me. So I really appreciate you taking time outta your day to join me.

- [Susanna] Thank you so much, Jason. That was a really great presentation and I wanna say thank you to our audience too. You did such a great job moderating yourselves in the chat and helping each other out that I barely needed to be in there at all.

- [Jason] Yeah, sorry, I needed to like, I just needed to, I know I have to like go through this and I know I had Q&A time, so I'm happy to address any kind of outstanding questions. Cause I agree, there was a, there was a side convo that was happening in the chat.

- [Susanna] there was tons going on in the chat and I'm thrilled to see it. If you're in the audience thinking, oh God, I gotta go right now, go, everything's being recorded and you will get the recording, but we will stay to ask just a few questions to Jason. Some of the things that kept coming up in the conversation. I'll try to get a few of those questions answered. So basically the way I'm conceptualising how people view streaming is you went over one where they sort of think of it as stepping stones to where you wanna get to. So you take college courses along, you end up in college, and we saw that that isn't really the case. But I feel like there's another group of people that are viewing applied courses as sort of a safety net. So if you're not achieving in academic, you can bump down to somewhere where you maybe fit in better, what would your response to that be?

- [Jason] So I mean the data clearly showed that that safety net wasn't really catching a whole lot of, and the, you know, like nets have holes, but those are really big ones where people were really falling through the cracks. So I would say that rather than creating a completely separate, and I would argue a segregated structure, right, where, you know, you can go down, but to get back up was really quite a challenge, is we need to create, you know, the pressure, I would argue, it's not the greatest term that I'm gonna use right now, but we need to have students in a

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classroom and there's really no negotiation, like the teacher has to support that student, because I'll tell you right back, I shared that story with you that when I was struggling with meeting the needs of a student, you know, my recourse was not necessarily to try to change what I was doing, although I think memory serves, I was trying to do what I can, but I knew I had my own safety net. My safety net was punting the student over into another stream. And so that wasn't really for the student's benefit because I felt like I wasn't doing my job really well. And so, you know what, rather than continue to try to, you know, like I'm hitting my head on a brick wall here, I'm gonna just make that someone else's issue, and I notice, you know, that really, that again, that message was implicit in how we structure our, like our high school system is they can go somewhere else. And what we're saying now is, no, we're not gonna condone that anymore. We have to service them better in a mainstream class or in the single stream class. And I think that's where the challenge is now is how do we provide those supports, you know, professional learning resources, human resources as well into classrooms so that we can do a better job, you know, working with students in these destream classes.

- [Susanna] Hmm, yeah. I guess next question, in this new destreamed world, is there still room for something like a locally developed course? Maybe not in the core subjects like English and math, but somewhere else?

- [Jason] Yeah, so you know, the, one of the mandates of public education is you service everybody, right? And you are going to have students that are coming in with severe intellectual disabilities or severe learning disabilities or other, you know, acquired brain injuries. Like you're gonna have students that may not, you know, that may not be best serviced in a destreamed class, right? And so there for sure, like there is a place for courses like locally developed, like non-credit courses. But what we are asking schools and school boards and teachers is to be really critical in your thinking as to who those courses really should be for, it was usually rather automatic that if you had a learning disability, a severe learning disability and you are three or four grades below that you would be put automatically into a locally developed course, let's say. And what we know now is if you put the con, you know, if you have the right conditions and you're willing to change your practice or to adjust practice to be more inclusive, what we can actually see as we can accelerate learning to get students at grade level with supports and moving forward, so it's not like, it seems very, you know, predetermined where students were going previously. Now we're just asking people to just be much more thoughtful about student placements, cause you're, you know, like I mentioned, like there are a tiny fraction of students where they are probably better serviced than another program. It's just not to the extent where it was before.

- [Susanna] Wonderful. We were lucky enough to have a lot of the educators in the chat sharing their own experiences and one stood out to me. They were mentioning that they had a lot of students coming into their grade nine course in math, that had previously had a modified

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course. How do you handle that one? You've got a destreamed math class and suddenly the expectations are quite different?

- [Jason] So you know, the thing about the destreamed math course is that it is designed to be rather inclusive of students that are coming in having modified expectations. So for instance, you know, previously, you know, when we look at the grade nine math curriculum, academic or applied, was that there wasn't really any talk around integers. However, in the new grade nine destream course, there is a component where we're looking at integers again because we know that there are students that are, that need to learn that again, or might not have seen it in elementary for whatever reason, like modifications. So the new course has been designed to be much more of a ramp, right, to get students learning at grade level. But I think, you know, that example speaks to the fact that destreaming doesn't actually start in grade nine, is that there are processes in elementary schools that we need to tackle, and the ministry understands this and school boards understand this. The main force and there's several forces, but the main one really is, you know, I guess I would call 'em like unnecessary or severe modifications to curriculum, which is creating this gap. You know, once students are, you know, going to, going to high school, they're essentially being forced to skip several grades to get to grade nine, right away. And so that's work then needs to happen too in terms of how do we better, how do we accelerate learning, how do we make learning more accessible to students with learning disabilities or other kinds of disabilities so that, you know, we get more students at or close to grade level by the time they exit elementary school and make it to a credit granting situation right in high school.

- [Susanna] Yeah. All right I'm gonna try to squeeze one last question in here.

- [Jason] All right.

- [Susanna] Since you're sort of on the forefront of destreaming and the math area's going first, you're kind of leading us all down this path. Do you have any words of wisdom for maybe the English teachers that are dealing with this soon or other courses that will be destreamed in the future?

- [Jason] Yeah, I would say be open-minded to needing to adjust practice, 'cause I, you know, I think that by and large teachers are doing really great work and responding to students in front of them. And all we're, you know, all we ask of any teacher right, is to reflect on what we do. Is it working for the crowd that's in front of us? And if it's not, then we need to figure something new out. It's not like, oh, I'm gonna talk louder or, you know, or get a bigger book or, you know, there's lots of amazing organisations now that have really also taken on supporting schools with destreaming. So like I know that there's like the, you know, there's English, there's an English teacher organisation that has dedicated so much of their resources and time to supporting

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destream classes. So there's always somebody to go to. There's always learning that you can take on either within your own board or like I said in within like a subject organisation, so just be open to learning, be know that it's not always gonna be perfect. I've made my fair share of mistakes and you just, you know, lick the wounds and move on and learn from it and then, you know, do better the next time.

- [Susanna] Awesome. Well that is all the time we have for today. So we're gonna end the webinar at this time. If you do have further questions for anyone at LD@School or for Jason, you can email us at any time [info@ldatschool.ca](mailto:info@ldatschool.ca) or find us on Twitter. I've been using the hashtag today #LDwebinar, but you can also find us at #LDatSchool. So on behalf of the entire LD@School team, I would once again like to thank Jason for his presentation and thank all of our participants for taking the time out of their day to be here and join us and have such an engaging conversation. Please remember that we will be sending out the presentation slides and a short survey. If you did want the slides right now, I did put the link to the Padlet in the chat one last time for everyone. So when we do send up the survey, we really encourage you to complete it because the feedback we receive provides us with a lot of important information about planning future webinars. And we will send out a link to the recorded webinar in approximately three weeks. So thanks again for participating and everyone enjoy the rest of your days.