



Destreaming Position Paper

The Ontario Secondary School Teachers' Federation (OSSTF/FEESO) examined key factors related to the existence of applied/academic/essential level courses at the secondary level and is pleased to offer direction and recommendations for the Ministry of Education and for school boards on this important issue.

OSSTF/FEESO is a diverse union representing 60,000 educational workers from across the Province of Ontario. OSSTF/FEESO's 140 bargaining units represent both English and French members in elementary and secondary school workplaces, private schools, consortia offering support services to school boards and universities.

Introduction

Since secondary curriculum was changed in 1999, questions about destreaming students have been raised. Recent reports released from the advocacy group, People for Education, media reports and opinion-editorial pieces have highlighted the call for changes in the way curriculum, particularly mathematics and to some extent literacy, is being delivered in our schools.

People for Education has connected student enrolment in either applied or academic courses to achievement gaps and student success in Grades 9 and 10. Statistical data is used to illustrate the opinion that students in academic level courses tend to be more successful than those in applied level courses. The numeracy and literacy data cited comes from the Education Quality and Accountability Office (EQAO) and the Organisation for Economic Co-operation and Development's (OECD's) *Programme for International Student Assessment* (PISA) test results in conjunction with demographic information from Statistics Canada.

The demographic data is used to indicate a strong correlation between the choice of level or stream with family income; students from lower incomes tend to be in applied level courses and those from middle and upper incomes tend to be in academic level courses. The reports also use standardized test results to show that applied level students are less successful overall than academic students. The report from People for Education contends that its analysis "shows that taking applied courses may actually aggravate low achievement".

The following quotation illustrates People for Education's opinion about applied level education:

By providing and valuing multiple pathways through high school, Ontario has attempted to make the education system work for a wide range of students. But strongly-held attitudes about which students will be successful in which courses—alongside very real teaching and learning challenges—likely contribute to a policy focus on 'fixing' different parts of applied rather than working to challenge early streaming.

Streaming versus Grouping by Ability

The 2014 Annual Report from People for Education recognizes that students all learn differently and that "...students are often grouped within schools or within classrooms. In fact, it is widely regarded as good practice to group students so that they receive different kinds of instruction and even different work—both of which take into account their different learning needs and backgrounds. This grouping can take place within or between classes." Educators recognize that grouping by ability makes it easier to adapt curriculum for greater equity and the targeting of specific supports so that all students have the best opportunity to achieve their potential.

There is no dispute that all students do not learn in the same way, at the same time. Students have different learning styles and learn at different rates – these can vary for each curriculum area. Research in brain development has shown that intellectual, emotional, and physical maturation occur at different rates in students, yet it is the chronological age that determines the grade level and grouping for most students in our current education model.

"Streaming" (also known as "tracking") is not the same as the grouping of students by ability but the term is often used interchangeably as if it were. In 1987, George Radwanski defined streaming as the grouping of students by their intended post-secondary destination – the work force without further study, community college or university. Streaming "assumes that placement in the respective streams actually leads to those intended destinations after graduation – that basic students go into employment, that general students go to colleges of applied arts and technology (CAAT), and that advanced students go to university."

Radwanski disagreed with the practice of streaming and the setting of curriculum content based on post-secondary destination. Radwanski's report led to Ontario's experimentation with "destreaming" Grade 9 in the 1990s. The initial plan was to later destream Grade 10. The implementation of destreaming was not successful, as indicated by its short history. The general complaint was that the necessary supports for staff and students, curriculum, and resources were not in place to ensure success. This concern was later reinforced by the 2004 research conducted by OSSTF/FEESO, *From Applied to Applause*.

Curriculum changes in 1999 saw the introduction of new Grade 9 and 10 courses. From the Ontario Education Curriculum documents:

Academic courses develop students' knowledge and skills through the study of theory and abstract problems. These courses focus on the essential concepts of a subject and explore related concepts as well. They incorporate practical applications as appropriate.

Applied courses focus on the essential concepts of a subject, and develop students' knowledge and skills through practical applications and concrete examples. Familiar situations are used to illustrate ideas, and students are given more opportunities to experience hands-on applications of the concepts and theories they study.

The descriptions above would suggest that streaming by post-secondary destination was no longer a driver of curriculum content and students could choose courses best suited to ability/learning style. This, however; is not always the case.

The same curriculum documents also imply that students in Grade 10 are required to stream by destination:

Grade 10 academic and applied courses prepare students for particular destination-related courses in Grade 11. The Grade 11 and 12 mathematics curriculum offers university preparation, university/college preparation, college preparation, and workplace preparation courses.

People for Education and others have analysed data from the Education Quality and Accountability Office (EQAO) and the Organization for Economic Co-operation and Development (OECD) and conclude that, too often, streaming by destination appears to be strongly correlated with socio-economic factors. They question “whether having two versions of any required course leads to some groups of students – particularly students who already experience [socio-economic] disadvantage – being further disadvantaged”. Advocates for destreaming use international studies to conclude “that dividing students, especially dividing them early, contributes to worse educational outcomes for those from low socio-economic backgrounds.”

To defend the call to destream, People for Education uses examples from the Limestone District School Board’s pilot at Granite Ridge Education Centre (see Appendix 1) and the experience Poland underwent in its impressive gains on the OECD’s PISA 2012 test as compared to its 2003 results. From Poland’s report, *De-streaming: Stories from one school and one country*, February 28, 2014:

A decade ago, Poland made changes to its policy about dividing students early in high school, and this year's results from the OECD's PISA tests show the country has made impressive gains – in both achievement and equity. Students' scores on the mathematics assessment have increased from a below-OECD-average score of 490 in 2003 to an above-OECD-average score of 518 in 2012. Poland also reduced the percentage of low-performing math students from 22% to 14% and increased that of high performers from 10% to 17% in a period of nine years.

Assuming that PISA scores do provide the basis for decision-making, an assumption that OSSTF/FEESO still challenges, examining the OECD report data from which Poland’s experience was drawn is necessary. The researchers for the report studied a number of countries that either increased or decreased the **grouping** of students **by ability** between 2003 and 2012 (with no reference to streaming by destination) (see Appendix 2). Twenty two out of thirty seven countries/economies studied by the OECD increased student grouping by ability (in mathematical classes). Thirteen of these twenty two countries/economies that increased grouping by ability were in the top 25 of the PISA 2012 rankings and scoring above the OECD average. Only five countries (including Poland) that reduced grouping by ability were in the top 25. Ten of the countries that reduced grouping by ability were all below the OECD average.

Examination of the report shows that countries that moved to increase grouping by ability (such as in Germany) also showed increases in PISA scores over the same time period and that in some cases, countries that moved to reduce grouping by ability (Sweden) experienced a drop in PISA scores.

To pick anecdotal examples like that of Poland that dramatically increased PISA scores from 2003 to 2012 and attribute it solely to destreaming is not justifiable.

Could there be other factors at play in Poland's improved PISA scores? Even the OECD puts forward that other factors such as economic and demographic ones also affect student performance and not just school/government policy. It is noted that during this same time period, from 2003 to 2012, Poland's GDP more than doubled. Studies presented at the Ontario Education Research Symposium 2015 by researchers at UNICEF and in Great Britain showed that where there is greater economic security, lower income inequality and greater access to social programs and greater equity, student well-being and performance improves. Even the OECD studies show that greater equity of education opportunities leads to better performance on PISA tests and that over the years, "the relationship between students' socio-economic background and mathematics performance has grown weaker, not stronger."

The use of data to show that a reduction in the grouping of students by ability to improve standardized test scores is the same as eliminating streaming by destination is not valid. Using the same data, a case may be made for increasing grouping by ability.

OSSTF/FEESO is opposed to streaming to post-secondary destination based on socio-economic factors and believes that all "programmes should be founded on the principles of equity and inclusion" (OSSTF/FEESO Policy 8.5.8.6). The goal is to provide equity to students with the appropriate supports and resources so that all students have the opportunity to reach their potential and to achieve this, grouping by students may be appropriate within and between classes.

OSSTF/FEESO is opposed to any effort to reduce or eliminate grouping of students by ability that would increase the workload of educators and make it increasingly difficult to meet the individual needs of students in the hope that perceived streaming by socio-economic background is eliminated. OSSTF/FEESO understands that to protect the workload of members is to "encourage a safer and positive learning environment for students". (OSSTF/FEESO Policy 6.2.6.1.1)

Streaming by destination should be made in Grades 11 and 12 as the current curriculum is structured with workplace/college/university courses available to students.

Therefore, it is the position of OSSTF/FEESO that:

1. No drastic change be made to the curriculum without full consultation and input from the teacher federations and provide opportunities for members to be involved as equal partners in all aspects of the curriculum development process, including policy formulation, planning, development, validation, evaluation, and review at all levels from classroom through to the provincial level.
2. The government must establish broad minimum staffing and resource levels for all schools to provide the services necessary to permit all students the opportunities to achieve their potential commensurate with their ability.
3. The government curriculum needs to be re-written for a comprehensive set of outcomes that can be achieved regardless of ability.
4. School boards must have the ability to create school configurations that can be responsive to the needs of students, their learning styles, enrolment and demographic shifts to provide equity in education.
5. Courses in Grade 9 and 10 should have the curriculum set to meet the needs of students so that grouping by ability and learning style is possible and equitably provides the opportunity to prepare all students to function as critical citizens. Grade 9 and 10 curriculum should not be used as a prerequisite for a particular stream and determinant to post-secondary destination.
6. New program and curriculum initiatives introduced by the Ministry of Education should be completely funded by the Ministry and writing teams should be composed of practising Ontario teachers who have been recommended by the Affiliates of OTF or appropriate Subject Associations.
7. The Ministry of Education should ensure that there will be adequate sustained funding to support curriculum programs for public school education.
8. The Ministry of Education, in conjunction with the teacher federations, should establish and maintain long-range planning policies and procedures for curriculum development, implementation and review.
9. The Ministry of Education should make a commitment to provide sufficient time, finances, human and material resources, in-service and professional development.

OSSTF/FEESO believes the discussion about destreaming is timely and needs to be addressed in order to answer the many questions that exist around improving Ontario's education system.

Appendix 1: Pilot Project - Granite Ridge Education Centre

People for Education present an alternative by describing the results in a pilot project at Granite Ridge Education Centre (GREC) in the Limestone District School Board. The pilot project involved "destreaming" the English classes in 2011-2012 with all students regardless of the stream chosen. The report states that the students were given the choice of doing the work for either credit. According to the description, "...student behavior had improved, and time on task had increased for all students. Some students who had started in applied were successful in getting the academic credit." On the heels of this "success", the school looked at continuing the "destreaming" in the mathematics course in 2013-2014. Rather than on a semester schedule, this destreamed mathematics class was taught year-long on alternate days.

It is this example that is most often cited in the media.

The GREC Example

Interviewing OSSTF/FEESO members involved either directly or indirectly at Granite Ridge Education Centre provided additional information on the "pilot" project not provided in the reports from the People for Education or the media.

Granite Ridge (formerly known as Sharbot Lake High School) is an amalgamation of several schools into one building because of declining enrolment. The school has a student population between 200 and 300 Kindergarten to Grade 12 students. In 2012, there were 47 Grade 9 students participating in the EQAO mathematics test (21 wrote the applied and 26 wrote the academic) and 39 students wrote the OSSLT.

The pilot project appears to have been initiated ("...foisted upon the school" was the comment from one staff member at the school) by one superintendent of the school board based on an American research report she had read; attempts are being made to identify this report. It is unclear if any input was solicited from the staff or union before implementing the pilot projects. The school was given (at least for the current pilot) extra sections in the timetable to allow for extra assistance and support to be given students in the pilot. There is no indication that the board will continue to provide this in the future if the pilot programs continue with different curriculum pairings.

Teachers indicated that the 2011 semestered "destreamed English" classes had small sizes of 22 or 23. For staffing and class size purposes, the school treated the "destreamed" classes as "applied". The composition of each class, based on student option sheets, was one quarter to one third applied with the balance academic students. The classes were taught by a teacher with no support staff assigned to the class, although the class did occasionally have a senior student in the class as a peer tutor. Though the People for Education report claimed students were given a choice on the level of work to complete, the same booklets and novels were used for all students in the class, the lessons were set up to serve the academic students and no separate assessments were given with a common assessment used for all students. Some differentiated instruction was provided for struggling students but the lessons were generally set at a mid-level of ability. Students that were academic or high-achieving applied earned an academic credit; those that were not successful were given an applied credit.

The comment was that "...it could work..." depending on the group of students in the class. Delivering the academic curriculum became more difficult with a broader spectrum of ability. Team teaching and educational assistant support would have been appreciated by the teachers. The workload and stress level on the teacher appeared to be dependent on the amount of teaching experience with these being higher for the teachers with less experience. Concerns were raised by teachers in other classes on the literacy competency of the students in the program in the streamed classes.

The current year pilot has a curriculum pairing of mathematics and French taught on a day 1/day 2 schedule for the full year. Though the students indicated either applied or academic on their option sheets, they are placed in the same class with the initial goal of earning an academic credit by the end of the year. There are 31 Grade 9 students in the pilot in two classes with 15 to 16 students per class. The timetables of the mathematics teachers show the math class on one day with a corresponding learning strategies class on the alternate day at the same time. This allows for one-third to one-half of the students to be removed from the French class to be in the mathematics teachers' learning strategies class at any given time. The mathematics class appears to take precedence in that if a student requires extra help, they are "exempted" from the French class and scheduled into a General Learning Strategies (GLS) class to receive the extra math help. As a result, they will earn a GLS credit instead of the French credit by the end of the year. Differentiation of the credit earned at the end will occur at the mid-point of the school year. Currently, the academic mathematics curriculum expectations are being followed, with differentiated instruction to cover applied curriculum expectations to be done closer to the end of the school year, prior to granting of credits. No information was provided on the "destreaming" of the French course.

In the spring of 2013, prior to the start of the current pilot, the board held pre-planning meetings with the three potential teachers in the pilot (after redundancy and time-tabling, two of the three were actually assigned). The board is providing on-going, full-day Professional Learning Community (PLC) meetings with four such meetings held since the start of the school year. In the second semester, the two math teachers share common preparation period in their schedules and do lesson preparation on a daily basis. No support staff are assigned to work with the students in either of the pilot classes. The reported work load and stress levels associated with teaching in the current pilot are consistent with the earlier pilot in that they are higher for the less experienced teacher. One of the math teachers has between 5 and 10 years experience, while the other has less than 5 years.

Positive experiences were communicated: smaller class sizes allowed the teacher to provide more individualized help; students this year were better behaved (not because of the destreaming, but because of individual personalities) compared to last year's (the student behaviour aspect was a significant contributing factor on how positive the pilot was perceived); and the opportunity to collaborate with another teacher on a regular basis was the most positive result. A concern expressed was that enrolment in Grade 10 French will now suffer because students were withdrawn from the French class to get extra help in math in the GLS class. Another concern was where the additional sections came from to provide for the extra GLS classes with such small class sizes; were they above staffing complement or did they result in the loss of sections elsewhere in the board?

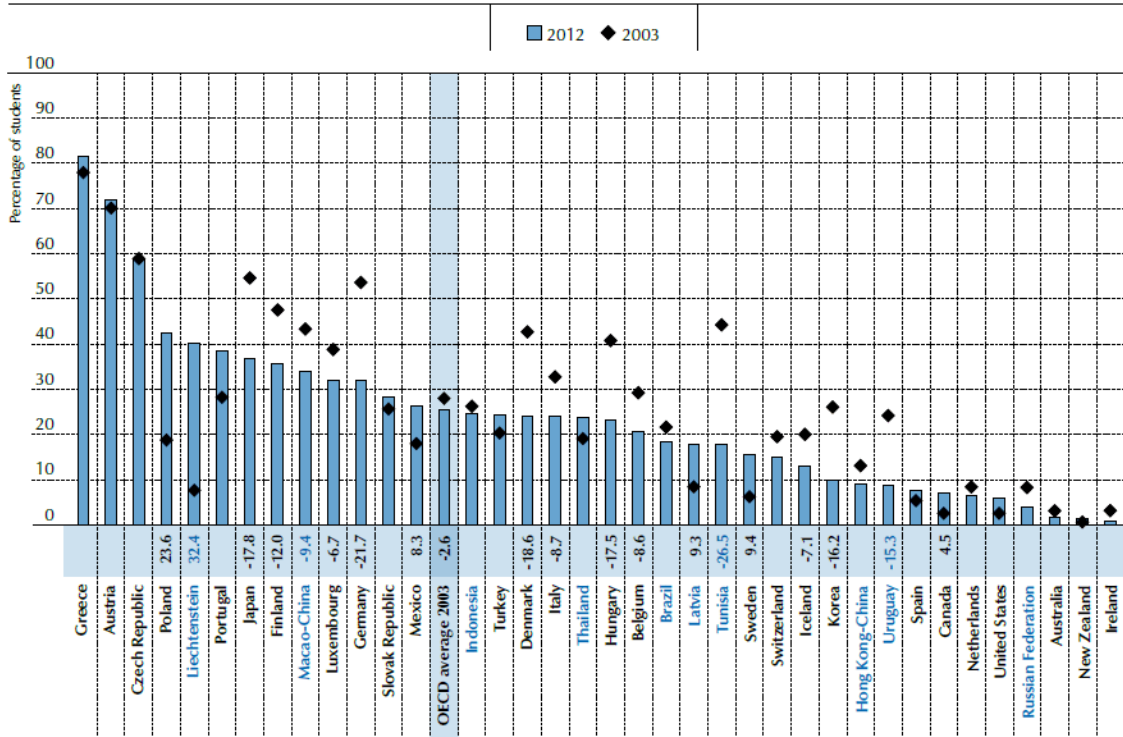
Appendix 1

During the interviews, it was revealed that the Limestone District School Board is contemplating doing a third pilot with a curriculum pairing of mathematics and science in the next school year. Numerous concerns were expressed about the implementation and consequences, most of which involved the core aspect of science with no exemption from the graduation requirement that French is allowed. The scheduling issues, work load issues on staff and students, credit integrity issues, and enrolment opportunities and viability for elective courses were also documented.

Appendix 2: From the OECD Report
 PISA 2012 Results: What Makes Schools Successful?
 Resources, Policies and Practices
 Volume IV

■ Figure IV.2.11 ■

Change between 2003 and 2012 in ability grouping
 Percentage of students attending schools with no ability grouping for any mathematics class



Notes: Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown. The percentage-point difference in the share of students in schools with no ability grouping in 2012 and 2003 (2012 - 2003) is shown above the country/economy name. Only statistically significant differences are shown. OECD average 2003 compares only OECD countries with comparable ability grouping measures since 2003. Countries and economies are ranked in descending order of the percentage of students who were in schools where no ability grouping in mathematics was used in 2012.

Source: OECD, PISA 2012 Database, Table IV.2.21.
 StatLink <http://dx.doi.org/10.1787/888932957308>