NEXT SCHOOL

LEARNING - DECOMPARTMENTALIZED

Design Summary Report
Phase 2 ~ Prototype II
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a **learn** initiative

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A. Executive Summary

This report is an overview of the Design Phase of the *NEXTschool* project and builds upon the principles and findings described in the Research and Development Report (October 2017).

The Design Phase involved the establishment of three 'design-thinking' groups (close to 100 participants) representing teachers, school administrators, commissioners, directors general, graduate students, parents, business and community members in Quebec.

1. InnoPods were composed of over 70 participants who met 5 times over a period of 4 months to develop operational prototypes for a generic *NEXTschool* scenario.
2. A graduate student cohort from the McGill Faculty of Education, composed of 25 school administrators, as well as 5 Master's students, followed a similar design thinking pathway to imagine and develop specific prototypes for *NEXTschool*.
3. The pedagogical staff and Provincial Resource Team (PRT) of LEARN contributed their ideas and thoughts around possible characteristics of *NEXTschool.*

The results of the design phase include over 35 prototypes and poster presentations based on the STARC subsytems: Spatial, Temporal, Andragogical, Relational and Communal; which together frame the underlying operating principles for an integrated prototype of *NEXTschool.*
(Poster samples shown in Appendix 1)

The next stage in the process will be the identification of individual schools which are interested and ready to become *EXPLOREschools.* These schools will use the outcomes of the Design Phase to inspire them as they adapt the framework to develop prototypes that respond to their own unique community needs and the context of their own high school setting.

It is recommended that the Directors General Table support the next phase of the project and agree to:
a) Approve the Exploratory phase of *NEXTschool for 2018-19*
b) Support the Exploratory phase of up to 5 *EXPLOREschools* (given current resources)
c) Name two DG delegates to participate on selection committee
d) Inform their school network of this opportunity and/or invite interested schools within their board to apply as *EXPLOREschools*

In addition, The Directors General Table is being asked to support the use of the following parameters as qualifications for the *EXPLOREschool* candidates.

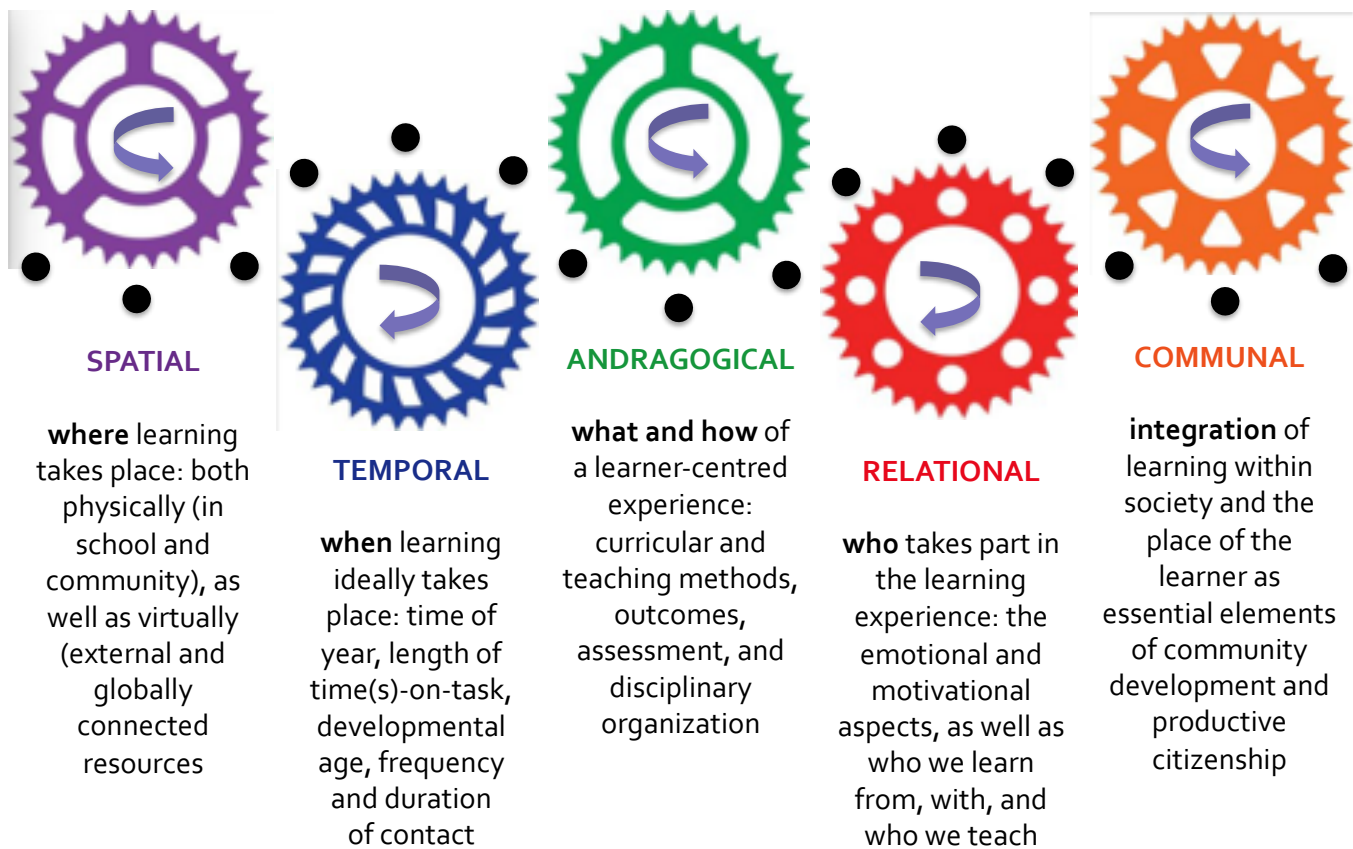This may subsequently be used to form agreements with schools selected to participate.

1. Participation in the project is voluntary for all stakeholders
2. Initial target groups are Cycle 1 Secondary (Sec. I and II)
3. Each learning 'cluster' within a school will be composed of approximately 170 students with 10 teachers dedicated to the cluster.
4. A five-year commitment from board, principal, and teachers to ensure sustainability.
5. A selection process based on 'readiness criteria' will take place for schools interested in the exploratory year.
6. *EXPLOREschools* will have a year (2018-19) to undertake necessary training, design their own *NEXTschool* prototype, and prepare for initiation in 2019-20 as a *LEADschool*
7. Schools may opt out of the project after the exploratory year.
8. The physical space of a *NEXTschool* cluster will include dedicated space including at least 6 classrooms, a Makerspace and a communal area.
9. During the transitional period, teachers and students will work collaboratively and independently of the rest of the school's classtime schedules and space allocation.
10. *NEXTschools* will adhere to the '5x5 Systems Platform' as outlined in *Section 'E'*
11. Each student will have an Individual Learning Pathway and learning will be personalized and followed closely through a digital portfolio and a Learning Management System (LMS)
12. *NEXTschools* will have full internet capability and WiFi Access for students and teachers
13. *NEXTschools* will develop meaningful community partnerships and students will initiate and participate in service learning projects
14. *NEXTschools* and their stakeholders will participate in ongoing research on the project with the McGill Faculty of Education
15. *NEXTschool* teachers and administrators will have a '*NEXTschool* mindset' i.e. a learning, collaborative, creative and solutions-oriented mindset

B. Design Phase Context

In December 2016, the *NEXTschool* project was presented to the Directors General of the English School Boards of Quebec. At that time the project was still at the conceptual stage and described a broad theoretical framework for the creation of a model for secondary studies that was aligned with OECD recommendations for the 'Principles of Learning' and the development of competencies deemed essential for the 3rd Millennia. With the approval of the Directors General table, the project moved to a Research and Development (R&D) phase where the underlying principles were examined in greater detail. During this phase the project leaders worked closely with key stakeholders to define the theoretical underpinnings for a future-ready school, a *NEXTschool*. Of equal importance, during this phase, a 'systems-thinking' lens was incorporated in order to assure that the project was not limited to select schools; but that it would create a platform that provided sustainability and scalability across the entire English school board network.

This framework highlighted the interconnectivity of the stakeholders engaged, and generated a model composed of five interdependent systems: Spatial, Temporal, Andragogical, Relational, and Communal, or STARC.

NEXTschool ~ STARC Systems

SPATIAL

where learning takes place: both physically (in school and community), as well as virtually (external and globally connected resources

TEMPORAL

when learning ideally takes place: time of year, length of time(s)-on-task, developmental age, frequency and duration of contact

ANDRAGOGICAL

what and how of a learner-centred experience: curricular and teaching methods, outcomes, assessment, and disciplinary organization

RELATIONAL

who takes part in the learning experience: the emotional and motivational aspects, as well as who we learn from, with, and who we teach

COMMUNAL

integration of learning within society and the place of the learner as essential elements of community development and productive citizenship

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After the results of the research phase were presented to the DG's table, and approval of the next stage was granted, work began in the Design Phase and the creation of a prototype *NEXTschool* that could be operationalized within the current existing regulatory frameworks and collective agreements. This work was done in collaboration with key stakeholders of the English community of Quebec.

A Design Strategy Group (DSG), was established to provide guidance for the design phase of the project, and was composed of eighteen representatives from diverse sectors and included teachers, administrators, community partners, industry leaders, and university professors. The DSG coordinated with design teams (InnoPods) to provide invaluable input for the composition of this report. *(See Appendix 5)*

C. Design Process Summaries

As previously established, the *NEXTschool* framework is built around the integration of Systems and Design Thinking theory and practice. Three distinct processes were undertaken using design models emanating from the Institute for Design at Stanford University. The processes were undertaken by two groups, and validated by a third, to ensure a range of perspectives and diverse design ideas. In each case, the guiding question for the initiative was at the centre of the process:

> *When High School is the best it can be at engaging students and*
> *preparing them for the world ahead... what will it look like*?

PROCESS 1 – Design InnoPods
Over the course of 5 full-day workshops of design thinking, from January to May 2018, a diverse group of 60 individuals including teachers, administrators, commissioners, parents and community members, led by Concordia's Don DeGuerre, Kate Woolhouse, and the team at People Powered Innovation Lab, were introduced to the principles of design thinking and collaborated to imagine, explore and refine prototypes for *NEXTschool*, based on the established STARC sub-systems.

Day 1: Initiate Phase
Participants were introduced to the principles and process of design thinking and the framework to be used for the process. Discussion around the salient points of the Research & Development report and the emerging guiding question helped to prime participants for creative thinking. During the Initiate phase, each participant was assigned to one of the STARC InnoPods and had the opportunity to get to know other group members and to collaborate on small tasks to build community and trust among members.

Day 2: Inquiry Phase
The design process relies on ensuring a deep and broad understanding of the problem or guiding question. During this phase, InnoPod participants conducted appreciative inquiry interviews and used an empathic, curious mindset to learn from each other and subsequently other stakeholders (students, colleagues, community members). They heard about 'peak performance in education' stories and ideas for tackling the guiding question. These interviews amplified the voices of a range of stakeholders, particularly students, and gave the designers a rich context and deep insights into people's needs and motivations, which would inform their design outcomes.

Day 3: Imagine Phase
This fast-paced phase asked participants to develop raw, provocative solutions to the guiding question as it pertains to each STARC sub-system and based on the insights gathered to date. Primed by a number of activities to conjure up creativity, groups worked together and across groups to give input, think "broadly and wildly". At the end of the session, each design team had an initial prototype – a visual or symbolic model to express the concepts of their provocative solution – and an accompanying storyboard.

Day 4: Invigorate Phase
In this phase, the key focus was the ongoing iteration of the prototypes where teams refined, questioned, sought feedback and 'learned forward' in the spirit of continuous improvement. Participants were highly engaged and motivated to test their prototypes and modify them to bring them closer to an implementable state. While still focused on their respective STARC sub-system, teams were inspired by the work and feedback of others and the inevitable integration of the prototypes started to emerge.

Day 5: Integrate – Final Prototype
Each of the 5 STARC teams continued to work on and iterate their prototype from the previous workshop. At the final workshop they brought together a 'final prototype' along with an accompanying presentation poster to share with the entire group. Throughout the presentations, participants continued to express their enthusiasm for the *NEXTschool* project, their desire to continue to support its implementation and their hope that their work will be inspiration for the *EXPLOREschool*-based design teams.

PROCESS 2 - McGill Design Lab
As part of the McGill Educational Leadership program, a group of graduate students (25 school administrators and 5 Master's candidates) were led through a Design Lab experience by Noel Burke as 'navigator' and Lise Palmer as 'facilitator' in a similar adaptation of the Stanford design process, in this case the 'Design Tech High School Playbook'. The Design Lab followed an amalgamated 8-step process where the final prototypes synchronized with the design prototypes of the InnoPods. Like the InnoPods, participants were presented with *NEXTschool*'s guiding question and took time in the 'empathy' stage to incorporate the perspectives of critical stakeholders. Working within their own choice of STARC subsystem, each member of the group elaborated this foundational work to contribute to the design challenge, by evolving a prototype of a specific idea and presenting the innovation through a poster presentation and supporting position paper.
NOTE: A qualitative analysis of the interviews collected will soon be available for consideration and integration into the final version of this report.

PROCESS 3 - LEARN Pedagogical Team
The LEARN Pedagogical team had representation in the InnoPod Design sessions. In addition the team participated in a workshop at LEARN that focused on the guiding question of *NEXTschool* where they shared their perspectives on the design and implementation. An experienced team of teachers, consultants and technology experts, this group brainstormed ideas under each of the STARC subsystems. The results of this group's input affirm many of the discussions and prototypes developed by the InnoPods and the McGill Design Lab. This group also spent some time thinking about implementation and highlighted the importance of:
- training and accompaniment for *EXPLOREschool* teams
- the integration of executive functioning skills for students so that they can be successful in personalized, flexible space and time-frames
- defining underlying ingredients of a *NEXTschool*-ready mindset.

D. Outputs of Designers' Work

The design process involved the input of close to 100 individuals – the voices and perspectives of a diverse group of stakeholders. The outcomes of the process include:
- · 5 Platform prototypes from the STARC InnoPods
- · 25 Framework prototypes and position papers from the McGill Design Lab

(Samples in Appendix 1 + LINK)

All of the collected rsearch, resources, and prototypes will be made available as a Resource Kit that *EXPLOREschools* will use as nourishment for their own school-based design process. The expectation is that results of this design phase will act as a foundation for each *NEXTschool* cluster as they adapt the framework to their unique clientele, community and context.

The project has now benefitted from two researech grants in partnership with McGill's Faculty of Education, and a third grant application to the Bill and Melinda Gates foundation is under review.

E. STARC '5x5' InterDependent Systems Platform

Below are the specific components of the *NEXTschool Design* within each of the STARC subsystems that were developed during the Research and Development phase and validated in the Design Phase of the project. As such, the application and integration of ALL of the following elements are seen to be the essential characteristics that qualify a school to be designated as a *NEXTschool*.

As these are the constituents of global best practices, they comprise the integrated structure of a 'high school for the future' that is designed to continually evolve with its students and community in 'student-centered - teacher guided - globally connected - community engagement'.
Each school-based design team, or InnoPod, will adapt these components into their own *NEXTschool* design prototype during the exploratory year in anticipation of a *LEADschool* launch for the 2019-20 school year.

SPATIAL
- · Open-plan flexible learning zones
  - *- 6-8 dedicated classrooms that are neutrally and identically furnished*
- · Off-site learning and research
  - *- Provision for significant 'out-of-school' learning and project work in the community*
- · Blended learning experiences
  - *- Complementary internet 'cloud' space for interactional learning and project work*
- · Maker, performance, and design spaces
  - *- Common area plus adjacent, dedicated and attached workshop equipped with modelling and prototyping tools*
- · Seamless technology integration
  - *- Learning Management System (LMS) to coordinate inputs, outputs, and place*

TEMPORAL

- Teacher-managed timetabling
  - *Cluster-based management of 'time-on-subject' and variable students groupings*
- Student logs of 'times-on-tasks'
  - *Students accountable for planning and managing their 'time-on-competency' work*
- Homework replaced by 'research'
  - *'Homework' consists of acquiring required skills and resources for the tasks at hand*
- Annualized distribution of time
  - *Prescribed teaching and learning time is distributed over a trimestered school year*
- 20% of class time to project work
  - *At least 20% of weekly 'instructional hours' is dedicated to independent project work*

ANDRAGOGICAL

- Self-directed educational goals
  - *Every student adopts an annual Personal Learning Pathway based on QEP competencies*
- Continuous formative assessment
  - *Assessment, grading, and crediting is based on the QEP continuum of competencies*
- Project & design-based learning
  - *'Design-thinking' adopted as the universal framework for project realization*
- Interest-based project choices
  - *Projects are collectively selected from a range of relevant internal and external choices*
- Social-constructivist collaborations
  - *Project and academic groupings based on the interests and capacity of participants*

RELATIONAL

- Interdisciplinary teaching teams
  - *Teachers' dual-function as 'specialists' consultants' and 'generalist' navigators'*
- Mentoring and coaching scenarios
  - *Active support to student initiatives by peers, teachers and external experts*
- Interest-based groupings of students
  - *Project participation is not restricted to grade or age-specific assignments*
- Co-curricular and community credits
  - *Recognition and substitution of externally-acquired competencies through credits*
- Collaborative design culture
  - *Every student's input and contribution is equally valued as essential to the project*

COMMUNITY ENGAGEMENT

- Service learning and experiences
  - *Encompasses projects that support the community, both school and externally based*
- Occupational apprenticeships
  - *Competency acquisition through collaborative work with experts in the projects' fields*
- Community-based problem solving
  - *Focus on challenges such as the UN Challenges for Sustainable Development*
- Community and social advocacy
  - *Local community context is embedded in the mission and outputs of the school*
- Elaboration of cultural diversity
  - *Manifestation and celebration of the cultural identities of students and local community*

F. Key Parameters of the *NEXTschool* Prototype

The following are the key parameters of the prototype framework that is being proposed. This list is not exhaustive and represents only the recurrent elements validated by the DSG and InnoPods. A subsequent version of this may be used as an agreement with selected *EXPLOREschools*

1.   Participation in this initiative must be **voluntary,** particularly in the transition period phases. This is especially relevant in terms of the participating school boards, schools and their administrative and teaching staff, and parents. During the Exploration phase, local student voice must be incorporated into the process.

2.   The project targets Secondary I and II students (Cycle 1) in its initial deployment. The levels may vary from school to school depending on a number of factors including total student and grade populations and each school's readiness to participate. As such, schools can choose to initiate *NEXTschool* as a Middle School model or choose to extend the cohort through the grades toward a whole-school application.

3.   The participating clusters will include approximately 170 learners with 10 teachers who will be dedicated to this student cohort exclusively. These numbers are approximate and reflect Règles Budgétaires ratios. Each school cohort will be self-contained as a 'Learning Cluster' and not be scheduled within other student groups. Selected teachers will work exclusively within the cluster.

4.   The success of the implementation is contingent on participating principals and teachers being committed to a 5-year mandate to ensure that the initiative becomes embedded in the school's culture as the cohort extends through the grades.

5.   In September 2018, participating schools, referred to as *EXPLOREschools*, will be engaged in a preparatory year. During this timeframe, all needed components will be explored, prototypes developed, and all necessary professional learning activities, including the *NEXTschool* Summer Seminars, will be provided. Interested schools will have been introduced to the project in the prior spring, followed by a selection process in order to assess a school's readiness to participate.

 5.   Each *EXPLOREschool* will work throughout the preparatory year to apply the established design process to create their own *NEXTschool* prototype which is responsive to their school's localized culture and programs*.* Specifically, the *NEXTschool* design process will adapt a customized framework to generate true ownership of the resulting model. This is essential in order to promote sustainability and assure ongoing maintenance and improvement. Each school team will be accompanied in their own design process by trained facilitators throughout the preparatory year. Note that *EXPLOREschools* which have completed the preparatory year and have been subsequently selected to move forward in the project will be referred to as *LEADschools.*

6.   *EXPLOREschools* will design and develop a set of organizational structures that respond to the requirements of the '5x5 Systems Platform' outlined in Section 'E'. This includes the management of time and space that reflects the andragogical elements associated with project-based learning, a communal component, using a trans-disciplinary approach. In addition, group time for teachers case work, professional learning, and individual work must be factored into the flow. As per the QEP, the curriculum is driven through the cross-curricular competencies as well as the broad areas of learning.

7.   Personalization for all students is core to the initiative and resources which allow for student planning, tracking, and managing digital portfolios must be provided. In essence, every student will must have their own 'Individual Learning Pathway'. Assessment practices will prioritize formative processes, focused on the QEP competencies, which support and frame the learning experience.

8. Following the design process in the 2018-19 school year *EXPLOREschools* can opt out and new schools can opt in for an exploratory year starting in September 2019. Additionally, schools that conclude that they require a second Exploratory year can opt to do so.

9.   For the school year 2019-20, all *LEADschools* will need to dedicate an area comprised of at least 6 classrooms, a 'Makerspace', and a communal area. In the transitional period of the Cycle I year, the *LEADschool* cluster should function relatively autonomously and independently of the students outside these dedicated areas.

10.   *LEADschools* will require full Internet capability with WiFi access for its students and educators. All staff and students will must have a digital device which allows for internet access (Chromebooks/PCs/Tablets/Phones).

11.   All *LEADschools* will establish meaningful community partnerships and engage students in community service learning; within a learning eco-system which functions beyond the physical boundaries of the school building with the broader community in a collaboration of learning.

12.   All *NEXTschools* will agree to participate in ongoing research which will accompany and help guide the process and outcomes of the initiative. Research grants have already been awarded to McGill University in collaboration with LEARN, to support the project's rollout.

13. Personal Readiness criteria will incorporate a wide range of factors:
   o   Have all stakeholders signed off on the project and are they ready to commit to a high level of engagement?
   o   Do the school principal and *NEXTschool* teacher cohort have a "*NEXTschool* mindset"?
As laid out in the Design Thinking Playbook, critical to readiness for design thinking are the following six mindsets required of the various participants in the re-design of the high school experience:

1. FOCUS ON HUMAN VALUES
   Grounding of solutions in user (student) needs
2. RADICAL COLLABORATION
   Breakthrough insights from diverse backgrounds and viewpoints
3. BE VISUAL
   Create clarity by visualizing ideas in graphic representations
4. BIAS TOWARD ACTION
   Come up with solutions vs problems / prototypes vs theories
5. DEFER JUDGEMENT
   Build on other's ideas - imagine first, evaluate after
6. EMBRACE EXPERIMENTATION
   Ambiguity is inherent to creativity - experiment to learn

NOTE: Specfic 'Readiness Criteria' for *EXPLOREschools* (2018-19) and 'Startup Conditions' for
        LEADschools (2019-20) can be found in Annex 2.

G. Recommendations to the Directors General

It is the hope of the *NEXTschool* team that the Directors General will share in the enthusiasm and
momentum of the project and agree to:
   a) Approve the Exploratory Phase of the *NEXTschool* project
   b) Support the Exploratory phase of up to 5 *EXPLOREschools* (given current resources)
   c) Name two DG delegates to participate on selection committee
   d) Inform their school network of this opportunity and/or invite interested schools within their
      board to apply as *EXPLOREschools*

The following are a number of additional recommendations for the Administrators (School and Board)
whose schools are selected to participate in the *NEXTschool* project for the *EXPLOREschool* Phase,
starting in September 2018.

1. Actively participate and support the initiative and to provide the school staff with the needed
   resources and direction.
2. Engage in discussions with the teachers union on matters that require clarification or for
   special agreements.
3. Inform the Council of Commissioners, assure their support, and keep them up to date on the
   status of the project.
4. Involve the Department of Educational Services and any other department in the school board
   that may be consulted or required to realize the project.
5. Coordinate with the *NEXTschool* support team as well as the research team in order to access
   the necessary professional learning and guidance to the *EXPLOREschool* staff.
6. Assure that the basic tenets of the *NEXTschool* '5x5' framework are respected.

Appendix 1
NEXTschool McGILL Design Lab Prototype Samples

NEXTschool SPATIAL SYSTEMS
The Transitional Classroom: The Awè:ri Room ♥
DESIGNER: *Tania D'Alesio* CONTACT: *tania.dalesio@kecedu.ca* or *taniadalesio@gmail.com*

CHALLENGE
- A transitional classroom would allow children with mild to exceptional needs the right to instruction in their mainstream classroom while receiving 1:1 specialized support in a another location when necessary or required.
- This would allow all high schools to address the needs of students with specials needs while ensuring learning for all.
- Special needs children would be instructed along the principles of equity and inclusion in a mainstream school allowing for more effective, positive and appropriate role modeling of social interactions than in a special needs school.

PROPOSAL
- I propose to create The Awè:ri Room, which means heart in Mohawk. This classroom in the high school of the future would be a sensory room/instructional space for students to use, when needed. This space can act as a classroom on one side and a sensory room on the other.
- Special needs students can use it when they require regulation and/or extra support with 1:1 academic instruction; on a drop in or rotation basis.
- The name Awè:ri was chosen since children are at the heart of all that we do in Education.

FINDINGS
- Students regardless of age or educational level are concerned that learning occurs for "all". The students interviewed liked the idea of a transitional classroom.
- They did not object to learning alongside students with special needs as long as "all" students were able to learn.
- The students interviewed said they were "happy" about having less distractions due to poor behaviors if a transitional room existed. They also added that they would be "fine" with a student coming back to class once they were regulated enough to return.
- They also said that this set-up would benefit all students by minimizing "distractions" while allowing everyone to learn together.

WHAT IT LOOKS LIKE
- The prototype transitional classroom would be a combination of a sensory room/classroom.
- Sensory stimulating and calming tools in the room
- Hammocks suspended from the ceiling
- Weight vests and neck weights
- Sensory pillows and balls
- Sensory murals
- Light/sound activated stations and murals
- Natural lighting
- Alternative seating
- Calming music like water sounds, ocean sounds etc…
- Medicine balls
- Healing Crystals
- Essential Oils
- Sensory mats
- The theme of the room would be inspired by nature, the outdoors, seasons, and animals (particularly the clan animals)
- The room would be divided in two. One half would be a typical classroom with desks and chairs. The other would be set up as a sensory room.

ASSUMPTIONS
- Budget is a non-issue
- Parental support and student engagement are a non-issue
- Community support and involvement is high
- Government Subsidies are available
- Staff buy in is a non-issue
- Space is available in the school
- Governing Board approval is a non-issue
- Assessment and evaluation will be equitable and fair for all students

STUDENT EXPERIENCE
- Students who would have access to and use a transitional classroom would be better able to cope with a crisis, when it occurs
- A transitional room where certain students can self-regulate and continue learning without disrupting their mainstream peers, encourages inclusion, acceptance and sensitization towards special needs
- All students are able to have their needs addressed while maintaining their right to instruction in the mainstream classroom when they are self regulated enough to return
- This prototype will decrease bullying since inclusion and acceptance would be ingrained in the school culture, mission and vision
- Children, both special needs and the mainstream students would have a more positive learning experience. The special needs children would learn autonomy and social skills while the mainstream students would learn empathy, tolerance and sensitization

OUTCOMES
- Increase in enrollment of students with special needs in mainstream high schools
- Increase in empathy, tolerance and sensitization amongst high school aged children
- Decrease in bullying and violence in schools
- Increase of funding allocated to special needs population
- Better collaboration with special needs schools for severe cases that need behavior modification programs or therapeutic placement
- More professional services for the general population of the school because of the increased presence of the special needs population in the mainstream

START-UP CONDITIONS
- FNEC Special Needs Budget would have to support the set-up of the room, hiring of new personnel and the purchasing of specialized equipment
- The hiring at minimum, of 2 Special Needs Teachers in the high school of the future
- The hiring of an OT (Occupational Therapist) to either consult the school during the start-up phase and/or throughout the school year in order to provide continual support and guidance
- The hiring of a psychologist or outsourcing the psychology assessments to an outside party since formal assessments will be required for all students using the transitional room
- ABA (Applied Behavior Analysis) training for all staff
- CPI training for all staff (Crisis Prevention Intervention)
- Hiring of Behavior Techs for all classrooms in place of teacher assistants
- Hiring of SLPs (Speech and Language Pathologists).
- Hiring of Art Therapist(s)
- Sub-contracting Pet Therapy to Zoothérapie Quebec
- Managing Student Services at the school level to ensure that the needs of both the special needs population and the mainstream population are met in an appropriate and timely manner

REFERENCES
- http://www.sensoryone.com/MikeAyresDesignSensoryRooms.html (Info. re: Sensory Rooms)
- https://www.crisisprevention.com/en-CA/Home (Info. re: Crisis Prevention Intervention model and PD)
- http://zootherapiequebec.ca/services/la-zootherapie/ (Info. re: Zootherapy in Quebec)
- https://www.facebook.com/436652376502249/videos/872409346259881/ (The official Awè:ri Room video)

NEXTschool TEMPORAL SYSTEMS
CREATING A FLEXIBLE TIMETABLE
DESIGNER: *Andrew Mangal* CONTACT: *amangal@emsb.qc.ca*

CHALLENGE
- STUDENTS ARE NOT ENGAGED IN SCHOOL BECAUSE THEY ARE UNABLE TO PURSUE PROJECTS THAT THEY ARE PASSIONATE ABOUT
- HOURS THAT ARE SPENT DOING VOLUNTEER AND EXTRA-CURRICULAR ACTIVITIES ARE NOT RECOGNIZED FOR CREDIT

PROPOSAL
- TO BUILD TIME WITHIN THE EXISTING TIMETABLE WHERE STUDENTS CAN WORK ON A PROJECT OF THEIR CHOICE THAT INTERESTS THEM (PRELIMINARY STEP)
- THE FIRST STEP WILL BE FOLLOWED BY INCREASING THE AMOUNT OF PROJECT TIME AND IMPLEMENTING OFFICE HOURS WHERE STUDENTS MEET WITH TEACHERS TO GET COACHED ON THE CORE SUBJECTS AND ON THE PROJECTS OF THEIR CHOICE.

WHAT IT LOOKS LIKE
- STUDENTS WILL HAVE MANDATORY INSTRUCTION TIME FOR CORE SUBJECTS
- TEACHERS WILL BE FACILITATORS AND WILL MEET WITH STUDENTS BASED ON SIGN-UP SHEETS
- TEACHERS WILL WORK IN AN INTERDISCIPLINARY TEAM
- OUTSIDE OF THE MANDATORY INSTRUCTION TIME, STUDENTS WILL BE ABLE TO PURSUE EDUCATIONAL PROJECTS THAT WILL CREATE AN AUTHENTIC LEARNING EXPERIENCE
- THERE WOULD NOT BE TRADITIONAL INSTRUCTIONAL PERIODS
- PROJECTS THAT ARE DONE OUTSIDE OF SCHOOLS (ECA ACTIVITIES) WILL BE RECOGNIZED AND COUNTED TOWARDS GRADUATION REQUIREMENTS.
- STUDENTS WILL NEED TO TRACK TIME THAT IS SPENT ON THE PROJECT THROUGH THE ADULTS THAT THEY WORK WITH
- STUDENTS WILL COMPLETE ONE PROJECT PER MONTH (THIS CAN BE FLEXIBLE HOWEVER DEPENDING ON THE SCOPE OF THE PROJECT)
- STUDENTS WILL WORK WITH TEACHERS DURING PLANNING TIME TO OUTLINE THEIR STRATEGY TO COMPLETE THEIR PARTICULAR PROJECT.

STUDENT EXPERIENCE
- STUDENTS WILL LEARN THROUGH HANDS-ON PROJECTS (AUTHENTIC LEARNING)
- "DISCOVERY LEARNING" WILL BE THE EMPHASIS RATHER THAN THE TRADITIONAL LECTURE MODEL
- LEARNING WILL TAKE PLACE ON-SITE AT THE SCHOOL AND ALSO OFF-SITE (DEPENDING ON THEIR PROJECT, STUDENTS MAY HAVE TO MEET PEOPLE AT THEIR WORKPLACES)
- STUDENTS WOULD ESSENTIALLY CREATE THEIR OWN TIMETABLES BY SCHEDULING TIME TO MEET WITH TEACHERS
- WORK DONE OFF HOURS WOULD BE COUNTED (STUDENTS CAN DEVOTE TIME ON WEEKENDS AND AFTER SCHOOL)
- STUDENTS WILL RECEIVE CO-CURRICULAR CREDITS AS WELL AS COMPETENCY-BASED CREDITS
- STUDENTS WILL BE MORE INTERESTED IN THE SUBJECT MATERIAL AND WILL FEEL THE NEED TO BE MORE REPONSIBLE

START-UP CONDITIONS
- A CLEAR STRUCTURE MUST BE SET-UP IN ORDER TO ENSURE THAT ALL MINIMUM REQUIREMENTS THAT ARE OUTLINED BY THE MINISTRY ARE MET, AS WELL AS ENSURING THAT STUDENTS ARE ACCOUNTABLE
- PROFESSIONAL DEVELOPMENT MUST BE PROVIDED TO TEACHING PERSONEL TO PROPERLY TRAIN THEM
- CORE TEACHERS WILL NEED TO CLEARLY DEFINE THE ESSENTIALS OF THEIR SUBJECT
- THE SUPPORT OF PARENTS IS KEY; IF THE LEARNING ENVIRONMENT IS TO BE EXPANDED TO OFF-SITE PLACES, PARENTAL CONSENT WILL BE REQUIRED
- THE SCHOOL BOARD WOULD ALSO NEED TO SUPPORT THIS INITIATIVE AS THE RISK OF STUDENTS TRAVELLING DURING THE DAY WOULD INCREASE THE POSSIBILITY OF LIABILITY
- CONNECTIONS BETWEEN THE COMMUNITY AND SCHOOL NEED TO BE MADE TO SUPPORT THIS LEARNING APPROACH

FINDINGS
- STUDENTS FELT THAT THE EXISTING INSTRUCTIONAL TIME OF 75 MINUTES IS TOO LONG
- STUDENTS WANT TO LEARN AND EXPLORE SUBJECTS AND MATERIAL THAT THEY ARE PASSIONATE ABOUT
- WHILE STUDENTS ENJOYED LEARNING NEW THINGS AT SCHOOL THERE ARE AREAS OF LEARNING THAT ARE NOT ADDRESSED IN THE TRADITIONAL SETTING
- STUDENTS PREFER TO LEARN THROUGH DOING AND NOT THROUGH LECTURING

ASSUMPTIONS
- STUDENTS WILL WANT TO COME TO SCHOOL AND THEY WILL BE ORE ENGAGED
- THE COMMUNITY WILL BENEFIT FROM WORKING WITH THE SCHOOL AND UNDERSTAND ITS IMPORTANCE
- TEACHERS WILL FIND IT CHALLENGING TO NOT HAVE AS MUCH CONTROL IN THE LEARNING ENVIRONMENT
- ALTHOUGH IT WILL BE DIFFICULT TO IMPLEMENT IN THE BEGINNING, THIS NEW APPROACH WILL BRING NEW MEANING TO SCHOOL

OUTCOMES
- STUDENTS WILL BE MORE ENGAGED IN LEARNING
- STUDENTS WILL BE MORE PASSIONATE ABOUT COMING TO SCHOOL AND WILL BE MORE APPRECIATIVE
- TEACHERS WILL BE LESS FRUSTRATED AND WILL NOT BURN OUT AS THEY WILL BE DEALING WITH STUDENTS THAT WANT TO BE IN THE LEARNING ENVIRONMENT
- PEOPLE WILL REALIZE THAT LEARNING DOES NOT ONLY HAPPEN IN THE SCHOOL BUILDING DURING SCHOOL HOURS; EVERYTHING COUNTS

REFERENCES
- WHY LATER START TIMES ARE BETTER
- https://sleepfoundation.org/sleep-news/backgrounder-later-school-start-times
- FLEXIBLE LEARNING ENVIRONMENTS
- https://education.alberta.ca/media/3069751/flexiblelearning.pdf
- SCHEDULE FOR LEARNING, NOT CONVENIENCE
- http://www.gettingsmart.com/2017/02/scheduling-for-learning-not-convenience/

Transcending Disciplines: A Transdisciplinary Approach
DESIGNER: *Aron Rosenberg* CONTACT: *aronleerosenberg@gmail.com*

1. CHALLENGE
- How can we rethink disciplinary structures in order to fully engage students in learning and to prepare them for the world ahead?
- How can we design activities and assignments within a transdisciplinary framework?
- How can educators collaborate with one another and with students to connect curricular outcomes from various disciplines throughout the process of facilitating educational experiences?

2. WHAT IT LOOKS LIKE
- Curriculum is organized around:
  - Broad-based "Big Ideas" (Drake, 2012) or major themes
  - "Inquiry projects" (Ewing, 2017) and student interest
  - Community/global events or initiatives
- Educators work collaboratively across disciplines to facilitate units of activities, assignments, and excursions.
- Students and educators design curriculum together in a flexible and ongoing process, meeting on a regular basis.
- Students are initiated into the program as consultants in and co-connectors of class activities and assignments with curricular outcomes from various disciplines.
  - These connections are constantly and collaboratively negotiated through explicit discussion of curriculum and through reflection before, during, and after activities.

3. STUDENT AND EDUCATOR EXPERIENCE
- Robinson (2016) claims that learning "happens anywhere there are willing learners and engaging teachers. The challenge is to create and sustain those experiences within schools."
- Instead of initiating and planning class activities using the "Progressions of Learning Documents" that prescribe learning outcomes in disciplinarily discreet and fragmented ways, educators start with transdisciplinary activities and assignments (projects, trips, events, etc.) and then look at how to connect disciplinary outcomes collaboratively, throughout the process.
- Students are equipped with the information, tools, and support they need to independently identify curricular connections and relevant outcomes.

4. START-UP CONDITIONS
- Educators likely need:
  - Professional development on how to facilitate curriculum design that is collaborative and transdisciplinary
  - Support from educational services departments and consultants to help plan and facilitate curriculum design
  - Connections to community and awareness of global events
- Students likely need:
  - Initiation workshops and ongoing support designing their educational experience and connecting it to curricular outcomes
- Schools likely need:
  - A committed group of full-time educators working as a cohort
  - Flexible schedule for co-teaching
  - Scheduled planning time amongst educators and between educators and students

5. PROPOSAL
- Educators design and facilitate class assignments and activities in ways that:
  - Transcend disciplinary boundaries
  - Collaborate and connect with other educators and with students
  - Bring disciplinary perspectives and curricular connections in throughout the process

6. FINDINGS
- Many of the interviewees' peak learning moments were:
  - Based around a transdisciplinary experience or project
  - Applicable beyond discrete discipline areas
  - Connected to their life within their larger community and world
- Transdisciplinary structures are key components of leading contemporary curricular designs:
  - The Finnish education system
  - The International Baccalaureate program
- Canadian commitments around embracing Indigenous epistemologies emphasize the value of integrating or relating disciplines in education.
- Upon looking into the Quebec Education Program, transdisciplinary structures of learning clearly fit within broad-based curricular guidelines and legally mandated learning outcomes.

7. CONCERNS
- Concerns:
  - There is a long tradition of discipline-bases for teacher specializations, school timetables, and assessment structures.
  - Some claim there is a lack of balance in programs that blend disciplinary areas (Ewing, 2017).
  - Some theorists are concerned about the potential for losing or watering down specific, disciplinary skills within a holistic, transdisciplinary context (Applebee et al., 2007).

8. ASSUMPTIONS
- Assumptions:
  - Educators must be open to working towards transdisciplinary approaches.
  - Educators must responsibly collaborate with colleagues and balance the different disciplinary areas that are brought into transdisciplinary activities.
  - Educators must work critically to ensure that they do not lose or water down the technical, discipline-specific skills.
    - This critical care must:
      - Be mindful of local conditions
      - Be responsive to educational partners and students

9. OUTCOMES
- Organizing curricula transdisciplinarily has been proven to:
  - Motivate students towards relevant and transferrable content that cultivates creative, open-minded, and joyful learners
- In the Quebec context, the idea is particularly vital and feasible because:
  - The curriculum here "identifies interdisciplinarity as one of its main orientations" (Hasni et al., 2015).
- With this transdisciplinary approach, students:
  - Direct their learning more autonomously
  - Contextualize their learning more holistically
  - Develop adaptable competencies
  - Achieve conventional content-literacy

10. REFERENCES
- Cross-country study of US educators taking various approaches to connecting, combining, or transcending disciplinary structures:
  - Applebee, A. N., Adler, M., & Flihan, S. (2007). Interdisciplinary curricula in middle and high school classrooms: Case studies of approaches to curriculum and instruction. *American Educational Research Journal*, 44(4), 1002-1039.
- Comprehensive textbook including theoretical and practical strategies for rethinking disciplinary structures in broad-based and interconnected ways, including descriptions of current examples:
  - Drake, S. M. (2012). *Creating standards-based integrated curriculum: The common core state standards edition*. Corwin Press.
- A description and analysis of a British Columbia high school program that flexibly rethinks disciplinary structures around inquiry projects:
  - Ewing, N. (2017). *Learning to find a sustainable balance: a case study of the Reynolds flexible studies program* (Doctoral dissertation, University of Victoria).
- Article exploring the current state of teaching inter- or transdisciplinarily in Quebec high schools. Finding efforts to be largely superficial, the article suggests recommendations for more authentic discipline-based structural reforms:
  - Hasni, A., Lenoir, Y., & Alessandra, F. (2015). Mandated interdisciplinarity in secondary school: The case of science, technology, and mathematics teachers in Quebec. *Issues in Interdisciplinary Studies, 33*, 144-180.
- Book contextualizing what schools are doing well and what schools need to be doing better in order to reach the educational priorities of adaptability and creativity. Includes descriptions of current exemplary models:
  - Robinson, K., & Aronica, L. (2016). *Creative Schools: The grassroots revolution that's transforming education*. Penguin Books.

For more information or for further references, see the related position paper.

Multi-Age, Interest-Based Grouping in "Authentic Inquiry Projects" (A Day in the Life at OJC, n.d.)
DESIGNER: *Ellen MacCannell* CONTACT: *ellen.maccannell@mail.mcgill.ca*

CHALLENGE
Our current age-graded organizational structure is based on three assumptions:
- That students of the same chronological age are ready to learn the same objectives
- That students require the same amount of time, an academic year, to master predetermined content
- That students can master predesigned objectives for a grade level for all curricular areas at the same rate (Stainback & Stainback, 1984)

This is of particular issue because grouping students by age alone may be creating a significant barrier to meeting the goals of "equity and instructional excellence in schools" (Miller, 1995, p. 28). This is due to the fact that, grouping students strictly by age does not reflect a "naturalistic life-like setting in which people of different ages learn from each other" (Miller, 1995, p. 28) nor does it reflect child development theory (Miller, 1995; Vygotsky, 1978).

Therefore, how might we better group students in order to address their learning needs and interests?

WHAT IT LOOKS LIKE
- During "application time" (Burke, 2018) for "authentic inquiry projects" (A Day in the Life at OJC, n.d.) students will be grouped based on interest into multi-age working groups.
- The size and exact mixing of age in groups will be determined by the needs of the students and school. In other words, in the beginning, junior (Sec I-III) and senior (Sec IV-V) groups may be formed so as to scaffold the process, and when it is appropriate, move towards Sec I-V mixing.
- Groups will be determined through educator assessment (which will be ongoing so as to best suit the needs of learners).
- Based on the interest and needs of the students, outside community experts will be brought in to co-teach in these groups.
- Opportunities for student mentorship within the groups is possible and especially beneficial for younger members and high-need populations (Miller, 1995).
- Students will be assessed individually and collaboratively on their projects.

PROPOSAL
- Flexible grouping will be used as an organizational strategy to address the broad range of student needs within "pods" (Burke, 2017).
- Flexible grouping is based on the assumption that "every instructional episode demands careful attention to matching students' needs with the most appropriate group experience" (Flood, 1992, p. 615).
- As such, for their "authentic inquiry projects" (A Day in the Life at OJC, n.d.) students will be grouped into multi-age groups according to interest. Students will be grouped and regrouped based on particular student learning needs as determined through continuous assessment.
- This type of grouping is chosen since multi-age groups have been shown to increase harmony and acceptance (Miller, 1995, p. 30) amongst students. Interest-based grouping has been shown to enhance interpersonal functioning and to develop an understanding of working relationships. Furthermore, it fosters the type of intergroup understanding and relationships essential to establishing a school climate of caring and mutual respect. (The National Center for Mental Health in Schools at UCLA, 2013). Finally, interest-based child learning is associated with positive child behavioral consequences (DeLoache et al., 2007; Dunst et al., 2001; Johnson et al., 2004; Pruden et al., 2006) and has been credited as the bridge linking cognition, motivation, and academic outcomes (Hidi & Harackiewicz, 2000; Pekrun, Goetz, Titz, & Perry, 2002).

START-UP CONDITIONS
- Protocols for educator-expert collaboration will be set up, as well as leadership and collaboration courses for students.
- Educators will need be trained in assessment strategies for forming multi-age, interest based groups
- Consistent evaluation criteria will need to be established (all stakeholders should have a voice in this process).

STUDENT/EDUCATOR EXPERIENCE AND OUTCOMES
- Students will get to work on projects driven by their own interest and collaborate with other students and experts who share the same interest.
- Students will develop interpersonal skills, naturally be more motivated to learn and exercise autonomy.
- Students will experience working groups more reflective of real-life working conditions.
- Educators will get to co-teach and collaborate with outside experts.
- Educators will better be able to address students' learning needs.
- Educators and students will develop collaboration skills.
- Student/educator relationships will be strengthened due to increased need for educators to know students' personal interests.
- Educators will by supported by professional development that helps them hone skills to support the new grouping arrangement and thus themselves continue the process of lifelong learning.

FINDINGS
Students want agency in their learning:
- to learn things that interest them and have applications in their own lives
- to have more responsibility

They also want:
- to develop a social-sense of belonging, and how to "deal with people"
- to develop skills that prepare them for the workforce/life
- To have better relationships with educators

ASSUMPTIONS
- Age-based grouping is a long-established practice in education as such, resistance to grouping students of various ages may occur (from all educational stakeholders).
- Educators may not feel comfortable being responsible for grouping students. They will need apt training and to feel prepared to facilitate learning across age ranges.
- It may be difficult to group students by interest if interests are quite divergent.
- Educators may need help providing pedagogically sound support for all areas of interest.
- Stakeholders will have to be willing to invest the significant amount of energy necessary to begin this grouping process.
- Multi-age grouping already naturally complements the proposed NEXTschool timetable model (Burke, 2018)

REFERENCES
Authentic inquiry projects":
A Day in the Life at OJC. (n.d.). Retrieved from http://www.ojc.school.nz/day-in-the-lifeat-ojc/

Flexible grouping:
Flood, J. (1992). Am I Allowed to Group? Using Flexible Patterns for Effective Instruction. *Reading Teacher, 45*, 8, 608-16.

Interest-based grouping:
Hidi, S. (1990). Interest and Its Contribution as a Mental Resource for Learning. *Review of Educational Research, 60*, 4, 549-71.

Multi-age based grouping :
Miller, W. (1995). Are Multi-Age Grouping Practices a Missing Link in the Educational Reform Debate?. *NASSP Bulletin, 79*, 568, 27-32.

For more information or further references please refer to the accompanying position paper.

NEXTschool COMMUNAL SYSTEMS
Student Success and Community Organizations
DESIGNER: *Craig Olenik* colenik@emsb.qc.ca

CHALLENGE
- To provide learning opportunities which stimulate student interest, positively impact student retention, and promote independent learning.
- To revitalize the traditional academic delivery model into one that leverages student interests.
- To restructure the school experience into one that intrinsically motivates students and better prepares them for the 21st century.

PROPOSAL
- Outside community organizations will be incorporated into the school and will deliver non-traditional programming that will tap into student interest.
- These programs will complement the regular academic component, and will provide opportunities for individual interests, learning, and evaluation.
- This program model will require onsite space, and this will result in a reorganization of the physical landscape of the school.

WHAT IT LOOKS LIKE
- In addition to the core academic subject areas, time would be allocated within the schedule for the offering of innovative programming that would be animated onsite, and it some specialized cases, in offsite locations. These programs would be rooted in student interest.
- The onsite program would require the physical landscape of the school to be reorganized. Themed activity zones would be created. These zones would be shaped by students and feedback from other schools that have implemented similar programming.
- These activities would also have a vocational educational slant and allow students to explore areas of interest that in some cases, may lead to Vocational streams. Activity examples include a Barbershop and Hairdressing Salon, Computer Repair, Printing, Garage Band, and Boxing
- The timetable would group courses such as Study Methods and Explorations together to liberate time.

STUDENT EXPERIENCE
- Fundamental to this experience is shifting the students perception about school. By providing a non-traditional experience combined with the ability to pursue personal interests, the school experience could shift from one of rigidity and routine towards responsive and autonomous.
- Students are organized by grade level and begin their day in the Resource Hub before engaging in their core academic subjects until lunch.
- After lunch, and based on their preferences, students are channeled to a variety of different activities both onsite and at offsite locations. These specialized programs are animated by outside organizations experienced in that domain.
- Participation in the activity afternoons is contingent upon certain conditions, Any student not in good academic standing would attend the Resource Hub for additional help instead of the activities.

START-UP CONDITIONS
- The logistical and financial considerations include:
- Program Coordinator: During the initial start-up phase, this individual would liaise with outside organizations and support the implementation of the programs within the school. There is a cost consideration attached to this position, however, it would be non-recurring and could be phased out after program start-up.
- Material Purchase: Depending upon the onsite activity zone areas that are selected, there could be initial costs associated with the purchase of materials.
- Community Organization: Depending upon the community partnerships that are established, charges may be associated with their program implementation within the school.
- Reorganization of Physical Layout: Dedicated space would need to be allocated for the "Activity Zone Hub"

FINDINGS
- Students indicate that the present, overly rigid and inflexible school structure is not the ideal environment to stimulate student learning.
- Schools are unresponsive to student interests, and as a consequence, fail to leverage student interests into the learning process.
- Programming offered by community organizations is viewed as being innovative, positive, and responsive to the learning needs of students.

ASSUMPTIONS
- That all students consider the present academic delivery model to be inadequate for their needs.
- That a correlation between student interest, student retention, and non-traditional programming will exist.
- That all students will be motivated by student driven activities administered by community organizations.
- That students who are not currently motivated will become so once participating in these activities.

OUTCOMES
- Students will become more engaged in their learning and will be motivated to persevere in all their subject areas.
- Students who were unmotivated to attend school, or who were at risk of dropout, would find a renewed purpose for school.
- Students will become motivated to be independent learners, as new opportunities to explore areas of interest would serve as springboard.

REFERENCES
- https://pdfs.semanticscholar.org/710f/98b7226dec3f3ce9c6e36951d5209f53c491.pdf
- https://youtu.be/M_plK7ghGw4
- http://www.seenmagazine.us/Articles/Article-Detail/articleid/1298/-school-8212-community-collaboration
- https://www.youtube.com/watch?v=0lZyxbP8szo&feature=youtu.be

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NEXTschool INTEGRATED SYSTEMS
INDEPENDENT DIRECTED STUDY
DESIGNER: *Amy Caesar* CONTACT: *amy.caesar@mail.mcgill.ca*

CHALLENGE
- TO ENGAGE STUDENTS IN RELEVANT, AUTHENTIC AND CHALLENGING LEARNING EXPERIENCES
- TO CONNECT ACADEMIC SKILLS AND COMPETENCIES TO STUDENTS' INTERESTS AND DAILY LIVES
- TO SCAFFOLD STUDENT-DRIVEN, INQUIRY-BASED LEARNING EXPERIENCES
- TO PREPARE STUDENTS FOR INDEPENDENT LEARNING

PROPOSAL
INDEPENDENT DIRECTED STUDY: STUDENT-DESIGNED INQUIRY- OR PROJECT-BASED LEARNING
- TO OFFER STUDENTS THE OPPORTUNITY TO DEMONSTRATE CURRICULAR COMPETENCIES THROUGH INDEPENDENT DIRECTED STUDY
- TO OFFER STUDENTS OPPORTUNITY TO COMPLETE COURSE HOURS INDEPENDENTLY, AS PLANNED AND AGREED ON WITH AN ACADEMIC COACH OR ADVISOR
- TO ASSIGN CREDITS AND/OR MEASURES OF ASSESSMENT OF COMPETENCIES OUTSIDE OF CLASS- OR DISCIPLINE-SPECIFIC CONTEXT

WHAT IT LOOKS LIKE
- INDEPENDENT STUDY PREPARATION DONE IN SMALL GROUPS WITH CLASS TIME
- STUDENTS IDENTIFY INQUIRY TOPIC OR PROJECT TO COMPLETE
- TEACHERS ACT AS SUPERVISORS AND COACHES:
  - SCAFFOLDING OF EXECUTIVE FUNCTIONING SKILLS (planning, organizing, …) AND HIGHER-LEVEL SKILLS (synthesizing, applying, creating…)
- STUDENT HOURS PER COURSE COMPLETED OUTSIDE OF STANDARD CLASS SCHEDULES

STUDENT EXPERIENCE
- STUDENTS WILL DEMONSTRATE INCREASED ENGAGEMENT IN AND MOTIVATION FOR AUTHENTIC AND RELEVANT LEARNING EXPERIENCES
- THE STUDENT IN THIS ENVIRONMENT WOULD BE A SELF-DIRECTED LEARNER WHO EXPLORES THEIR IDENTITY THROUGH A SERIES OF PROJECTS, PRODUCTIONS, AND INTERVENTIONS – COLLABORATING WITH THEIR PEERS, SIGNIFICANT ADULTS, AND THE WIDER COMMNUITY
- STUDENTS ARE NO LONGER SUBECT TO ALL THE PREVIOUS BOUNDARIES OF TIME, SPACE, AND LIMITED CURRICULUM RESOURCES
- STUDENTS WILL DEVELOP POSITIVE RELATIONSHIPS WITH TEACHERS AS MENTORS AND COACHES
- SKILLS AND INFORMATION WILL BE TAUGHT AS AGREED ON BY STUDENT(S) AND TEACHERS: LABS, TECHNOLOGY AND RESEARCH ARE ALL AVAILABLE
- HOMEWORK WOULD BE REPLACED BY 'RESEARCH' THAT IS REQUIRED TO ADVANCE THE ACHIEVEMENT OF OBJECTIVES OF THEIR CURRENT INITIATIVE

START-UP CONDITIONS
- COMPETENCIES IN LANGUAGE THAT IS DEVELOPMENTALLY APPROPRIATE FOR STUDENTS
- SIGNIFICANT PROFESSIONAL DEVELOPMENT:
  - COACHING SKILLS
  - SCAFFOLDING OF EXECUTIVE FUNCTIONS
  - SCAFFOLDING OF COMPLEX SKILLS
- FLEXIBILITY IN TEACHER SCHEDULE FOR PLANNING, COACHING, AND ASSESSMENT

FINDINGS
- STUDENTS FEEL THAT LEARNING WITHIN SCHOOL IS DISCONNECTED FROM THEIR DAILY LIVES AND FUTURES
- STUDENTS ARE DEMANDING MORE RELEVANT LEARNING EXPERIENCES THAT HAVE VALUE FOR THEIR DAILY LIVES AND THEIR FUTURES
- MANY STUDENTS ALREADY ENGAGE IN INDEPENDENT LEARNING OUTSIDE OF SCHOOL, FURTHERING ACHIEVEMENT GAPS AND PERFORMANCE

ASSUMPTIONS
- THAT TEACHERS AND ADMINISTRATORS ARE READY TO CREATE NEW PATHS AND FRAMEWORKS FOR LEARNING WITHIN THE CURRENT AND TRADITIONAL INSTITUTIONS AND REGULATIONS
- BY PLANNING AND DIRECTING INQUIRY OR ACTION LEARNING PROJECTS INDEPENDENTLY, STUDENTS WILL DEMONSTRATE INCREASED ENGAGEMENT IN LEARNING NECESSARY COMPLEX SKILLS

OUTCOMES
- STUDENTS WOULD BE BETTER OPREAPARED FOR POST-SECONDARY EDUCATION AND MORE ATTUNED TO CAREER AND LIFE INTERESTS AND PROSPECTS
- STUDENTS ARE BETTER AWARE OF THEIR OWN TALENTS AND IDENTITY
- STUDENTS GAIN INDEPENDENCE IN THE COMPLEX SKILLS THAT ARE INCREASINGLY NECESSARY

REFERENCES
INDEPENDENT DIRECTED STUDY, BC:

https://www2.gov.bc.ca/gov/content/education-training/administration/legislation-policy/public-schools/earning-credit-through-equivalency-challenge-external-credentials-post-secondary-credit-and-independent-directed-studies

https://www2.gov.bc.ca/gov/content/education-training/k-12/support/graduation/getting-credit-to-graduate/independent-directed-studies
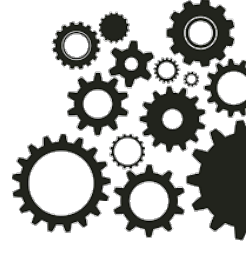
Appendix 2

Readiness Criteria for Qualification as an '*EXPLOREschool' 2018-19*

MISSION:
· *To develop a local NEXTschool prototype for your school and its community by December 2018.*
BASICS:
1. The participation of all stakeholders (students/teachers/parents/administration) is strictly voluntary
2. Staff Conciland Governing Board are informed and approve the project's Exploratory phase
3. Facilitation and support to the cluster's prototype design and development provided by LEARN
4. Stakeholders engage in a '*NEXTschool* mindset': a learning, collaborative, creative and solutions-oriented mindset

TEACHERS:
1. Participation in the Summer Seminar (Jul.30-Aug.1) & August Design Orientation (1 day)
2. Identification of an 'InnoPod' of 8-10 teachers dependent on student numbers (136-170)
3. Participation in the eight-step design process to develop local *NEXTschool* prototypes
4. Exempt from 8 regular pedagogical day activities – replaced by the Design Sessions.
5. 10 release days for external professional activity is covered by the school board

Start-up Conditions for Qualification as a '*LEADschool' 2019-20*

MISSION:
· *To apply the local NEXTschool prototype within your school with the initial junior cluster*
BASICS:
1. The participation of all stakeholders (students/teachers/parents/administration) is strictly voluntary.
2. Governing Board and Staff Council to approve the open-architecture curriculum and 'time-on-subject' modifications
3. Facilitation and support to the cluster's prototype application to be provided by LEARN
4. No master schedule applied to the cluster except for the daily and annual calendar limits
5. Learning time is distributed over three 60-day semesters over 180 days and 900 hrs. of student time
6. Each day consists of 5 hours of student time with period distribution established within the cluster
7. Administrator is assigned to the school for a five-year implementation mandate

TEACHERS:
1. Participation and presentations in the 2nd Summer Seminars (2019)
2. A 'Cluster' of 8-10 teachers dependent on student numbers (136-170)
3. Teachers assigned exclusively to their student cohort – without external assignments
4. Exempt from regularly scheduled school-wide examination periods
5. Exempt from 10 regular pedagogical day activities – replaced by their own.
6. 10 release days for external professional activity is covered by the school board

PHYSICAL:
1. Dedicated classrooms (6-7 connected) allocated to the *NEXTschool* cluster @ with 8 rolling tables
2. Classrooms are equipped with high-speed internet, multiple whiteboards, and projection equipped
3. Implementation of an LMS software system to track student development and curriculum mapping
4. One-on-one device policy in place whether as school-supplied or 'BYOD' or in combination
5. Policy and structures in place to accommodate learning activities beyond the school boundaries

Appendix 3
Chronolgy of Design Phase Activities

DATE	ACTIVITY	OBJECTIVE	CONTACT
171020	Presentation	R&D Report & Recommendations	DG's Table
171028	Keynote Address	Parents' Orientation	QFHSA Conference
171111	Presentation	Commissioner Orientation	QESBA Conference
171122	Grant Exploration #!	SCHRC Applications	SCHRC Applications
171206	DSG Meeting #1	*NEXTschool* Design Strategy	Members
171211	Exploration	Government Orientation	Kathleen Weil
171212	Partnership	Summer Seminar Speakers	Alan November
171213	Grant Exploration #2	SCHRC Applications	SCHRC Applications
171210	Compilation	Innovation Literature	CERI / OECD
171220	Partnership	PPI Design Process	Don DeGuerre
180110	DSG Meeting #2	*NEXTschool* Design Strategy	Members
180110	Design Planning	Workshop Design	Don DeGuerre/PPI
180111	Design Lab Intro	Design Lab Introduction	McGill Participants
180115	Presentation	LEARN Orientation	PRT Group
180116	Design Planning	Workshop Design	Design Team
180125	Design Lab #1	'Initiate' Design Session	McGill Participants
180125	Presentation	InnoPods Introduction	Design Team
180126	InnoPod #1	'Initiate' Design Session	InnoPod Participants
180208	Design Lab #2	'Inquire' Design Session	McGill Participants
180207	Presentation	School Orientation	NFSB
180208	Design Meeting	Coordination of Lab & InnoPods	Design Team
180212	DSG Meeting #3	InnoPods & Design Lab Updates	Concordia - CTL
180223	Field Trip	D-Tech High School – San Francisco	Cera
180302	InnoPod #2	'Inquiry' Design Session	InnoPod Participants
180305	Partnership	Concordia D3 Space	Charlie
180308	Design Lab #3	'Prototype' Design Session	McGill Participants
180315	Partnership	Hip-Hop-High School Visit	McGill - Low & Lipset
180316	InnoPod #3	'Imagine' Design Session	InnoPod Participants
180322	Project Update	Project Update	DG's Table
180405	DSG Meeting #4	Readiness and Start-up Conditions	LEARN
180308	Design Lab #4	'Prototype' Design Session	McGill Participants
180416	Conference	Deep Learning Lab	Michael Fullan
180417	Field Trip	SAIL Academy – Surrey - BC	Steve Robertson
180423	Design Lab #5	'Prototype' Presentation Session	McGill Participants
180424	Presentation	NS – Schedule & Workloads	QPAT Executive
180316	InnoPod #4	'Invigorate' Design Session	Concordia – D3 Lab
180502	Meeting	Design Phase Report Drafting	Design Team
180507	Presentation	School Orientation	James Lyng HS
180511	InnoPod #5	'Integrate' Design Session	InnoPod Participants
180515	DSG Meeting #5	*Design Report Review*	LEARN
180516	Presentation	School Board Orientation	Riverside SB
180524	Presentation	Design Phase Report	DG's Table
180525	Presentation	*NEXTschool* Prototypes	QESBA Conference

Appendix 4
NEXTschool – Summer 2018
3 one-day Seminars at McGill's Faculty of Education

July 30th – A WORLD OF POSSIBILITIES…
### Luke Sumich – Principal, Ormiston Junior College, NZ
I come to OJC from a facilitation role at Evaluation Associates where I supported development of Leadership and Assessment within schools across Auckland. I have a particular interest in understanding the neuroscience of the brain to support different learners with their strengths and their challenges. Ormiston Junior College offers a tremendous opportunity and I look forward to working together with our whole learning community.

July 31st – GETTING THERE FROM HERE
Justin Reich - Professor @ MIT Learning Lab
Justin Reich is an educational researcher broadly interested in the future of learning in a networked world. His professional work is motivated by a desire to transform the architecture of education away from centralized, hierarchical models of teaching and towards distributed, networked models of learning. He studies, designs, and advocates for learning systems that shift education from something done to learners to something done with learners, from channels of dissemination to webs of sharing.
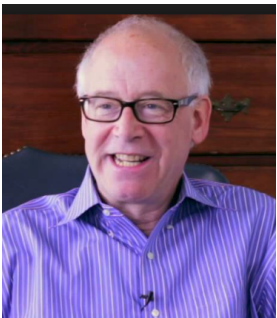
August 1st – THINKING OUTSIDE OF THE BOX
Alan November - Author "Who Owns the Learning?"
Alan was named one of the nation's fifteen most influential thinkers of the decade by Classroom Computer Learning Magazine. In 2001, he was listed one of eight educators to provide leadership into the future by the Eisenhower National Clearinghouse. His writing includes numerous articles and the best-selling book, Empowering Students with Technology. Alan is co-founder of the Stanford Institute for Educational Leadership Through Technology and is most proud of being selected as one of the original five national Christa McAuliffe Educators.

Appendix 5
Members of the DSG, InnoPod Participants, and McGill Design Lab

Design Systems Group (DSG)

Rhonda Boucher	English Parents' Committee Association
Noel Burke	*NEXTschool* / nEDworks
Lynn Butler-Kisber	McGill University
Michael Canuel	LEARN
Rob Cassidy	Concordia University
Don DeGuerre	People Powered Innovation / Concordia
Mike Helms	Directors General Table / NFSB
Debbie Horrocks	LEARN – Project Resource Team
Sebastien Joly	QPAT Teachers' Union
Dan Lamoureux	Quebec Association of School Boards / RSB
Carol Meindl	Quebec Federation of Home and School Assocation
Elaine Roy	Education Mionistry / MEES
Lisa Starr	McGill University
Tom Rhymes	Directors General Table / LBPSB
Avery Rueb	Affordance Inc.
Michael Rice	First Nations / SWLSB
Dennis Smith	Municipal Councillor

Design InnoPods by STARC System

SPATIAL	TEMPORAL	ANDRAGOGICAL	RELATIONAL	COMMUNAL
Victor Abravanel	Nicole Bourassa	Gabrielle Guillon	Lynn Collins	Anurag Dhir
Chelsea Craig	Sam Bruzzese	Kulginder Kaul	Mikaela Goldsmith	Rebecca Esquivel
Laura Derry	Caroline Dupuis	Ben Loomer	Carol Gray	David Hoida
Mathew Kennedy	Norm Gharibian	Bonnie Mitchell	Kim Gromko	Emma Legault
Joanne Malawany	Carol Meindl	Patty Peter	Joe Levitan	Carol Marriott
Mike Nalecz	Kim Meldrum	Aron Rosenberg	Maria Pizzchemi	Daryl Ness
Lee Schaefer	Nancy Pugliese	Avery Rueb	Brenda Smylie	Marc-Andre Paquette
Raea Spencer	Elaine Roy	Lisa Starr	Josee Thauvette	Jennifer Cooke
Tom Rhymes	Melanie Sleep	Jordan Venne	Debbie Horrocks	Dennis Smith
	Sarah Manolson			Joan Zachariou

McGILL DESIGN LAB PARTICIPANTS & CHALLENGES

SPATIAL	CHALLENGE
Alvares, Tanya Mary	Sitting in desks for an entire class does not enhance learning
Buchanan, Patti	Removing the obstacles to Project-Based Learning
Campbell-Guerriero, Vito	How can physical layout of our school to improve student learning?
D'Alesio, Tania	Transitional classroom (Awé:ri Room)
Spetsieris, Steve	Redefining space for a welcoming & stimulating environment
Tudino, Civita	Creating stimulating outdoor classrooms and gardens

TEMPORAL	CHALLENGE
Barker, Danion	Correlation between leadership and educational institutions
Caesar, Amy	How to open school to learning that happens outside of school hours
Nikolov, Nikolay	Helping students (and teachers) with personal growth
Vallelunga, Amanda	How to get students more active in school and community?
Watson, Greg	Getting the teachers to "buy-in" to the NEXTschool timeframes.

ANDRAGOGICAL	CHALLENGE
Giannacopoulos, Jimmy	Vocational instructors that are tradespeople 1st and teachers 2nd
Heppelle, Réal W.	To influence lesson design to better include our community partners
Michakis, Despina	How to acknowledge ECAs to benefit student and the curriculum?
Rosenberg, Aron	Engaging in meaningful experiences that connect disciplines?
Sifoni, Gaetano	Physical environments are not conducive to 21st century learning,
Triestino, Lisa	High school curriculum does not include digital citizenship

RELATIONAL	CHALLENGE
Caruso, Assunta	Theme based learning" through curriculum mapping?
Celzi, Cristina	The importance of social-emotional learning in the culture of schools
Fanelli, Grace	Special needs students follow a semi-traditional model of learning.
Gold, Vanessa	How do we foster a climate that convers) resistant teachers?
Tsirkin, Mimi	Are spaces currently designed for collaborative learning?
Zampini, Mauro	The importance of changing roles in student-teacher relationship

COMMUNAL	CHALLENGE
Buttino, Lino Anthony	The present issue is the "Buy In Factor" for the staff as a whole.
MacCannell, Ellen	'Experts and hubs' Relationship to create cohesive community
Mangal, Andrew	Scheduling so students work on projects they are passionate about
Olenik, Craig	Leveraging partnerships for student engagement and retention.
Petrocco, Sabrina	How teacher/student mentorships can foster positive relationships
Ramlakhan, Marilyn	How can more CLC schools increase student engagement?

Appendix 6
McGILL Research Grant Overview
Lisa Starr, Lynn Butler Kisber, Joe Levitan

OVERALL GOAL AND SPECIFIC OBJECTIVES: Through an action research approach, the goal of the current research project is to investigate whether and how a reform movement puts into practice and develops policy to achieve their educational vision and priorities. We wish to document the processes, as well as the ideas, concerns and opinions expressed by the 40-50 stakeholders currently participating in the design of NEXTschool through participant observation and focus group interviews. NEXTschool is led by LEARN (the Leading English Education and Resource Network). LEARN is a non-profit educational organization, funded by money from the Federal Entente, which supports minority language education in Quebec. LEARN brings together the expertise and efforts of educators, students, parents and partners to serve the educational lifelong learning needs of the English-speaking community in Quebec in line with government priorities. LEARN's NEXTschool initiative focuses on system-wide innovation in teaching and learning that will significantly improve how English high school education looks, feels and functions in Quebec. The NEXTschool initiative is prefaced on the belief that in order to navigate the complexity of the world today, students need seven skills: (1) critical thinking and problem solving, (2) collaboration and leadership, (3) agility and adaptability, (4) initiative and entrepreneurialism, (5) effective oral and written communication, (6) accessing and analyzing information, and (7)curiosity and imagination (Wagner, 2008). The NEXTschool project aims to bring about educational change by embedding these 21st century skills into five system drivers *(see following Table).*

LEARN has recruited teachers, administrators, parents, community members and academics to form one larger Design Group. The Design group has five teams of 6-8 participants each focused on developing a prototype for each of the five system drivers. These prototypes will be used to scale up the NEXTschool systems reform in high schools in the nine English school boards.

From the investigation of the vision, priorities and challenges encountered by members of the design groups, the proposed research has three objectives: (a) to provide LEARN with a rich overview of the vision, priorities and challenges that stakeholders have for NEXTschool; (b) to present LEARN with research-based evidence from which they can make effective decisions about the scaling up of NEXTschool into Quebec English High schools; and (c) to contribute a practitioner perspective to research on education change.

Table 1. LEARN's NEXTschool System Drivers		
System Drivers	**Guiding Question**	**FOCUS**
SPATIAL	*Where should learning take place?*	***Focus:*** Where learning takes place: both physically (in school and community), as well as virtually (externally and globally connected)
TEMPORAL	*How should time influence the teaching learning relationship within a scheduled day, year?*	***Focus:*** When learning ideally takes place: time of year, length of time(s)-on-task, developmental age, frequency and duration
ANDRAGOGICAL	*How can curriculum be a living process?*	***Focus:*** What and how of the learner-centered experience: curricular and teaching methods, outcomes, assessment, and organization
RELATIONAL	*Who should we learn from, with, and teach?*	***Focus:*** Who takes part in the learning experience: the emotional and motivational aspects? Who do we learn from, with, and teach? How do we learn and teach?
COMMUNAL	*How should we learn together?*	***Focus:*** Integration of learning within society and the place of the learner in community development and productive citizenship

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