

Board

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Report No. 19-130

Evidence of Practice

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PURPOSE:

1. To present information to the board of trustees on a school's experience in demonstrating evidence of practice in the areas of Culture of Innovation and Social Responsibility.

CONTEXT:

2. Students in multiple programs and courses at Sir Guy Carleton Secondary School are engaged in experiential, relevant and authentic learning that was initiated by a group of teachers who received a 'farm to cafeteria' grant. Learning is demonstrated and expanding in the areas of food planting, fertilizing, harvesting, preparation, and food security. Students and staff in the Urban Farming Specialist High Skills Major (SHSM) and the Advanced Culinary Education SHSM programs, as well as students and staff from the General Learning Program (GLP) specialized classes, and the Woodworking and Construction courses, are engaged in the diverse learning experiences connected to this initiative. Component pieces of the learning experiences have been highlighted publicly through media outlets. An article featuring the aquaponic growing system at Sir Guy Carleton Secondary School is included as Appendix A. Links to other media publications are included at the conclusion of this report for reference.

KEY CONSIDERATIONS:

3. In addition to the cross curricular collaboration, community partners are engaged in supporting this learning with expertise and resources. Partners engaged include:
 - Ottawa Network for Education (ONFE) - Classroom Garden;
 - Boys and Girls Club - summer programming;
 - Ottawa Master Gardener - Tom Marcantonio; and
 - Trondek Farms - farm in Dawson City, Yukon.

4. Learning components

Students experience the following learning opportunities:

Urban Farming SHSM and Green industries course

- design challenge project to build a prototype for a growth system for northern climates in consultation with Trondek Farms in Dawson City, Yukon via Facebook sessions;
- seeding/planting and harvesting of plants using hydroponic towers and aquaponics system in greenhouse;
- maintaining aquaponics system to sustain the greenhouse plants;
- seeding/planting and harvesting of greenhouse and outdoor garden plants for food preparation and sale through cafeteria and use in Culinary SHSM ; and
- guided learning from local Master Gardener about local soil and climate factors.

Advanced Culinary Education SHSM

- Preparing plant-based menus for cafeteria service, school wide events and catering orders.

Woodworking and Construction courses and GLP classes

- designing and building outdoor garden boxes and raised herb gardens;
- designing and making charcuterie boards for presentation of food; and
- weeding and watering and harvesting of plants in outdoor gardens.

Coordination between departments to deliver this learning opportunity for students is demonstrated throughout the multiple activities connected to this initiative, such as teachers coming together to plan and execute the multi-departmental project to build the exterior gardens and raised herb gardens. Another example of departmental coordination and partnership with community is demonstrated in the planting project. Students in the Green Industries course and Urban Farming SHSM program planned and planted the new gardens with the support of Master Gardener and community partner Tom Marcantonio. Students in the GLP classes collaborated with students in the Woodworking and Construction courses to build the outdoor wood garden boxes and raised herb garden boxes, and also helped to plant.

Together, students in the Advanced Culinary Education SHSM and staff in cafeteria services, identified gaps in the cafeteria's food product offerings. They proposed meals and food items that would be desirable and healthier and that informed the students' planting plan necessary to create the new meals and food items. The produce grown and harvested is featured in the cafeteria offerings and in the Advanced Culinary Education program production for whole school events such as farm to cafeteria week and for sale at the Sir Guy Carleton S.S. holiday and spring markets.

5. Impact on students and staff

As a result of consultation with students and staff through a schoolwide survey in the Spring of 2019, the cafeteria services staff have introduced healthy and tasty options for lunch that appeal to the whole school population. There has been a marked increase in the number of students and staff purchasing healthy meals in the cafeteria. The cafeteria menu includes weekly fresh salads and a monthly salad bar that is 80% grown in house through the outdoor gardens, herb gardens, aquaponic powered greenhouse and hydroponic tower plants. Parents and guardians are promoting the cafeteria menu with students as a healthier and less expensive option than nearby fast food outlets. The breakfast and lunch program options, funded by ONFE, and prepared and served by students at Sir Guy Carleton S.S., are now more varied and appealing. Examples of new food items introduced through this initiative for students and staff consumption include fresh lettuce, tomatoes, potato salad, herb infused butters and breads, as well as herbs for garnishes and in salad mixes.

Increased staff collaboration between school departments and central department leads has resulted in improved educator practices and increased innovation in learning opportunities and engagement for students and staff. The collaboration among Sir Guy Carleton S.S. educators engages more than seven staff members, along with leadership support from administration. Extension activities and similar learning activities have percolated as a result of this collaborative.

6. Opportunities through Challenges

Multiple staff members leading this learning requires on-going communication between departments for logistical, operational and instructional coordination. This provides an opportunity for administration to support and facilitate the collaboration by maintaining open lines of communication to promote and empower each staff member to bring their best to the table in their areas of skills, knowledge and through their authentic interest based engagement. Staff follow a common process to order supplies and materials and work together to schedule the student learning experiences in alignment with timelines for desired outcomes and deliverables.

A challenge that creates an opportunity for a community partnership, is consistent maintenance over the summer months to sustain exterior gardens. Youth participating in the Boys and Girls Club summer activities watered and weeded the gardens. Teacher champions came in to the school over the summer months to maintain the gardens during lapses in schedules within the Boys and Girls club programming.

A particular challenge is securing funding sources. In addition to the 'farm to cafeteria' grant, the Program and Learning department K-12 supported this project with money targeted for experiential learning last year. This appears to be an initiative that will continue to be supported through Ministry of Education (MOE) grants and District budgets from the Innovation and Adolescence Learning department and Facilities department. Resource support provided through multiple District departments as well as through community partners and external grant opportunities reinforces the cross-departmental, cross-curricular and community engagement foundation of this initiative. There are multiple

organizations invested in community gardening initiatives within the city of Ottawa. We continue to learn more about how these organizations, such as Just Food and Growing Up Organic, can connect to our classroom learning with their offerings and resources. Discussions have begun to ensure the district can be a more active participant in food security networks to provide opportunities for students and neighbours. It is likely that we will see this active participation first in secondary schools.

One final challenge is one that exists for most students at Sir Guy Carleton S.S. with respect to learning opportunities that can extend beyond the school day. The challenge is access to transportation as students come from a wide geographical area in the west end of Ottawa. Students may miss some opportunities connected to this initiative because of the schedule of their assigned transportation. We will continue to seek support to provide transportation for students for these opportunities through District budgets and also through available community funding and grant sources.

7. Sustainability and Replicability

The 'farm to cafeteria' grant will conclude this school year. OCDSB funding through the Innovation and Adolescence Learning department and relevant MOE Priorities and Partnership Fund (PPF) sources is anticipated to continue. As mentioned above, staff will continue to seek out funding through community partnerships and grant opportunities.

The partnership with ONFE provided resources such as the hydroponic towers as well as curricular materials. The classroom garden project is accessible to other elementary and secondary schools in the OCDSB and is currently in twenty- two OCDSB schools. Every school can access the ONFE classroom garden program resource materials through their [website](#) and can pursue growing experiences in their classrooms in soil based systems.

Components of this initiative can be delivered as isolated experiential learning opportunities. An interested educator in any school could deliver pieces of this initiative and would be able to network with Sir Guy Carleton S.S. staff for support and/or collaboration between schools. At present, Sir Guy Carleton S.S. staff and students are making visits to an elementary school to work with them to support their design and development of growing initiatives in their classrooms.

Schools can connect with the lead for experiential learning in the Innovation and Adolescence Learning department to be guided in selecting resources, materials and partners.

RESOURCE IMPLICATIONS:

8. The resources required for this project include the base funding from the 'farm to cafeteria' grant which was \$7,125.00 in 2018-2019 and an additional \$500.00 in 2019-2020 school year. In addition, the ONFE classroom gardens program provided one hydroponic growing tower and provides ongoing growing materials, such as seeds and hydroponic feed, at no cost. The school purchased two other

towers using the farm to cafeteria grant. Sir Guy Carleton S.S. currently purchases approximately \$200 in seeds and growing produce from seeds yields approximately \$2000 in savings in lieu of purchasing produce over the school year.

The SHSM funding received for both the Advanced Culinary Education program and Urban Farming program supports this initiative in the purchase of seeds in addition to other areas.

The project to build the exterior herb and vegetable gardens received funding through a MOE grant for experiential learning provided last year through the Program and Learning K-12 department. The Boys and Girls Club of Ottawa watered and weeded the gardens over the summer at no cost.

STRATEGIC LINKS:

- 9, The Culture of Innovation and Social Responsibility areas from the multi-year Strategic Plan are reflected prominently in the complement of these experiential learning opportunities.

The following key OCDSB Exit Outcomes: goal-oriented, globally aware, innovative, creative, and ethical decision makers, are also reflected in this learning initiative.

GUIDING QUESTIONS:

- How might this initiative be replicated at other schools in the District? and
- What supports or professional learning would be required?

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Camille Williams-Taylor
Director of Education and
Secretary of the Board

APPENDIX A - Growing with the Fishes

[Our Roots - Farm to School](#)
[CBC article - Tom Marcantonio](#)