



**iHub Learning Inc.**

**iHub Impact  
Report 2.0**

*Early/Elderly Grants  
2018-2019*

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# iHub Impact Report 2.0

## Early/Elderly Grants 2018 – 2019

### Introduction to iHub Early/Elderly Grants 2018 - 2019

iHub Learning Inc. supported 24 projects involving student engagement with either an elderly care facility or early childhood care facility over the 2018-2019 school year. Over 1050 students from 12 schools across New Brunswick’s Anglophone school districts were involved. Connections were made with 12 facilities as well as numerous seniors living solitarily. All projects involved high school students, and some involved elementary and/or middle school students as well.

Projects included offering food services, arts and crafts yoga activities, building birdhouses, murals, furniture, interviewing, writing and reading books. The purpose of each project was to build connections between high school students and an elderly or early childhood facility to expose them to potentially unexplored career opportunities while measuring the effects of the innovative learning experience.

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*“I think this project has further solidified how important reaching into our community is for our students”*

Teacher Response

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What is clear from this research is that real-world, community-connected, and purposeful projects such as this highly engage students and provide them with the opportunity to develop self-efficacy and self-esteem. Community involvement also assists teachers in further developing their skills, and better equips them the lead their students through new projects. Community engagement is a missing piece in current education models; this research suggests that it offers significant value to student development and should no longer be excluded as a vital element of education.

### Focus of this Research Report

This report is focused on qualitative responses from 24 teachers to several questions about experiential, personalized, entrepreneurial, problem and project-based learning methods practiced through engagement with either elderly or early childhood community members and how the experience relate to the Global Competencies (see Appendix A). The Global Competencies are a set of six categories of knowledge, skills, values, and attitudes that are globally recognized as being fundamentally important to the successful navigation of our collective future. The Global Competencies are listed under the following headings: (i) critical thinking and problem solving (ii) innovation, creativity, and entrepreneurship (iii) learning to learn / self-awareness and directedness (iv) collaboration (v) communication (vi) global citizenship and sustainability.



## Research Methods

### **Application Process**

All iHub Learning Inc. research in the 2018 – 2019 school year was governed by National Canadian Tri-Council standards. To participate, all Anglophone teachers in the province were provided the opportunity to visit [www.ihublearningnb.ca](http://www.ihublearningnb.ca) and fill out a grant application. Projects were assessed for funding on a first come first serve basis.

Grant applications detailed the parameters of an acceptable project, such as involving a group of high school students over time and focusing on the development of the Global Competencies (see Appendix A) through innovative learning methods and community connection.

### **Project Criteria**

Early/Elderly grants were subdivided into two sub-categories: Barrier Mitigation, valued at \$1000 per grant and Multi-Age Experiential, valued at \$2000 per grant. Seven (7) Barrier Mitigation grants were issued and 17 Multi-Age Experiential grants were issued.

Project criteria for the Barrier Mitigation grant are as follows:

- **HOW:** Teachers must use ‘innovative learning’ methods (experiential, personalized, entrepreneurial, problem and project-based) to implement a project involving either an elderly or early childhood care facility in their community.
- **WHAT:** Teachers must focus learning opportunities on students’ development and demonstration of the Global Competencies (critical thinking and problem solving; innovation, creativity, and entrepreneurship; learning to learn / self-awareness and directedness; collaboration; communication; global citizenship and sustainability).
- **WHO:** A group of 15 or more high school students will be involved in the learning opportunity along with an elderly or early childhood care facility.
- **WHEN:** The project should last longer than one month and up to (but within) the current school year and include at least one visit to an eligible facility.
- **WHERE:** At either an elderly or early childhood care facility.
- **WHY:** To provide a research opportunity for iHub Learning Inc to gather data about the relationship between HOW innovative methods affect the ability for students to develop and demonstrate Global Competencies – the WHAT.

Project criteria for the Multi-Age Experiential grant are as follows:

- **HOW:** Teachers must use ‘innovative learning’ methods (experiential, personalized, entrepreneurial, problem and project-based) to implement a project involving either an elderly or early childhood care facility in their community.
- **WHAT:** Teachers must focus learning opportunities on students’ development and demonstration of the Global Competencies (critical thinking and problem solving; innovation, creativity, and entrepreneurship; learning to learn / self-awareness and directedness; collaboration; communication; global citizenship and sustainability).



- WHO: A group of 20 or more high school students and 20 or more middle school or elementary school students will be involved in the learning opportunity along with an elderly or early childhood care facility.
- WHEN: The project should last longer than one month and up to (but within) the current school year and include at least one visit to an eligible facility.
- WHERE: At either an elderly or early childhood care facility.
- WHY: To provide a research opportunity for iHub Learning Inc to gather data about the relationship between HOW innovative methods affect the ability for students to develop and demonstrate Global Competencies – the WHAT.

## Survey

Participating teachers were asked three questions once post project completion (see Appendix B). These questions qualitatively investigated the teacher's perception of the impact the project and their approach to implementing the project had on their teaching competencies as well as the impact on student Global Competencies. Furthermore, the survey invited comments on the topic of innovative education for iHub's future program and research development.

## Results

All 24 teachers who received funding for an Early/Elderly grant, regardless of the sub-category, responded to a series of three questions related to the experience. Teachers were asked to reflect on their student's experiences and development of Global Competencies that occurred over the span of the project prior to responding to the research questions. The following are the three questions which teachers were asked to respond to:

- How do you feel this activity or your approach to teaching the activity affects Global Competencies?
- Please state any teacher-based competencies or understanding that you have either further developed or learned from this activity.
- Please add any comments you feel are useful to our further development and understanding of Innovative Education.

Teacher response submissions ranged from simple short answers to multi-page reflection pieces with pictures, anecdotes and appended student reflections. Because of the varied response composition, data was interpreted as a whole. This data was thematized through multiple assessments of each response. Key ideas were distilled from lengthy or inarticulate responses. These summations were collected with related key phrases and these groupings were iteratively combined until four (4) distinct and separate themes were realized.



The first three themes discovered through thematizing the teacher responses relate to student experience and are as follows:

- Engagement through purpose
- Self-efficacy through real-world experience
- Self-esteem through authentic social connection

The fourth theme discovered through the analysis of the teacher reflections relates to teacher experience and is as follows:

- Further teacher development of Global Competencies through experience

### **Engagement through purpose**

Students acknowledged a deeper meaning to their project which incited enthusiasm, perseverance, care, and focus. Students focused on project goals instead of learning outcomes.

Sample statements supporting this theme include:

- *“The biggest thing that I got out of this as a teacher is a better understanding that meaningful projects, (ie. Ones that aren’t just thrown out at the end of the unit) are an incredibly powerful learning tool for students. Many of my students showed more care and attention in their [Early/Elderly project] than they ever have for other projects.”* (P9, Q1)
- *“The visits to each location far exceeded our expectations. Student engagement was through the roof and the smiles and laughs were aplenty!”* (P13, Q1)
- *“We also found a great sense of ownership and gratification on behalf of the students as they were the ones who put in all the ground work to make this happen.”* (P15, Q2)

Students involved in the Early/Elderly grant were significantly more engaged than in siloed classroom settings. They focused far less on assessment and grading, and were far more thoughtful and intentional with their work both at the facility they visited and in relation to their visits. Through clear purpose beyond assessment, students enjoyed their work, personalizing it, and contributing time outside of required school time.

### **Self-efficacy through real-world experience**

Students processed and applied theory in “real time” where they learned to adjust their plans and approaches as necessary. They made decisions then reflected on the outcomes to develop their skills and form their own ideas, approaches, and opinions.

Sample statements supporting this theme include:

- *“I will say that we (myself included) often underestimate what students are capable of. A large, real-life project like this one can really show how willing and able students are to perform at a high level and do it in a self-directed way.”* (P19, Q3)
- *“They also reflected on their own experiences in relation to their individual values and, in turn, enhanced their learning.”* (P17, R)



- *“These students will be going on to post-secondary and careers next year and have commented that they could see how being self-aware and invested in their learning will provide them with the skills needed to succeed.” (P18, R)*

It is clear from the research responses that when students are faced with a learning experience which results in tangible outcomes, they are naturally driven to process gains and setbacks. Through physical interaction with people, organizations, and design projects, students were better able to see the consequences of their actions and behaviors, or experience unexpected setbacks with little time-lag. This allowed them to make immediate corrections such as following or guiding a conversation with a stranger, quickly changing the activity plan for the day due to weather, or restarting construction on a project after discovering the flaws in their first attempt. With time constraints and real-world impacts, students focused more on growth and improvement, self-regulating to overcome failures with optimism and perseverance.

Students also reflected on their experiences after-the-fact to gain greater perspective. They became aware of others’ experiences, struggles, and joys through empathetically processing their interactions. Students were better able to understand their placement as a member of a larger, diverse, community through the project.

### **Self-esteem through authentic social connection**

Students connected to others by both learning from and being of service to members of their community and peers. Students met and formed relationships with new and different people through their work.

Sample statements supporting this theme include:

- *“As global citizens they learned to connect with others and learned how they can have an effect on others.” (P4, R)*
- *“Relationships within the classroom went from being classmates stuck in the same class to respectful relationships that depended upon trust;” (P16, Q1)*
- *“This gave the students a new appreciation for their surrounding community and many of them expressed that they felt proud to be able to provide the elderly residents with a fun activity.” (P9, R)*

Interestingly, while students developed greater efficacy through these projects in all areas of Global Competencies, they were most impressed by the relationships they formed and their social growth. As each project was linked to partnered community members, students found themselves in the position of giving. Their work, time, energy, creativity, etc. was in the service of others. This dynamic gave students a sense of worth, adding value to their efforts. Students also found themselves inadvertently receiving, as their projects often required them to ask questions of their partners or receive feedback on their work and ideas. And thus, through giving and receiving, students and their partners (either elderly or early childhood) developed authentic relationships. Many expressed intentions on returning post-project to visit.

Students also were able to assist and request help from one another in a safe and open learning environment. Each project was unique to the student due to the uniqueness of their partner, so standard comparisons were not a significant issue. Students who had solved an issue or come



up with a creative idea for their project were eager to demonstrate and share with their peers. This not only supported the self esteem of the mentoring student but created a safe learning space for the struggling student as the interaction expressed authentic, mutual interest.

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*“Our students were provided with an opportunity to share kindness through giving”*

Teacher Response

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### **Further teacher development of Global Competencies through experience**

Teachers experienced new ways to deepen their knowledge and application of Global Competencies within themselves.

Sample statements supporting this theme include:

- *“Creativity – [we] had to think outside the box, be creative, to find a way to get each class two visits to all three sites.”* (P13, Q2)
- *“In doing so we had to be creative and collaborative. Education is always more effective when teachers collaborate and thus funding for activities like this one are essential to foster collaboration amongst Educators.”* (P14, Q3)
- *“We had to learn to trust the experts in a field that we are not accustomed to.....this can be difficult for educators to take the time and truly listen to new information when we are used to giving the information.”* (P13, Q2)

As teachers organized and implemented their innovative projects, they were faced with many of the challenges the students faced. They had to reach out to an (often) unfamiliar facility, creating and developing a new relationship with their partner. They were also initiating something new they had never done before and were unsure of the outcome. Many expressed that their project required an exceptional and unexpected amount of work, but there were no regrets, just revisions to make for the next time.

Through this new opportunity to engage with their community and teach through an innovative project, teachers found themselves further developing their personal set of Global Competencies. They communicated and collaborated extensively with team members and community members, creatively problem-solved when faced with constraints on their visit schedules/transportation/activities, self-directed their lessons and teaching approach there was no model to follow, and overall demonstrated the value of being a global citizen. Through new experiences that engage teachers beyond their classroom, they are presented with an opportunity to further master their competencies and continue to lead by example.

In summation, the experience of interacting with an elderly or early childhood care facility through an innovative project gives students the opportunity to engage in their learning through purpose, strengthen their self-efficacy through the real-world timing and impact of their work, and develop their self-esteem through authentic social interactions. Furthermore, as teachers create and implement such projects, they are continuing to explore and develop their own Global Competencies, making them better able to support and lead their students.



## Final Comments

Research data gathered from Early/Elderly grant projects includes open-ended teacher responses to questions about experiential, personalized, entrepreneurial, problem and project-based learning methods in an elderly or early childhood care environment and how they relate to the Global Competencies. Teachers were also welcomed to provide additional reflections beyond the specified research questions for further context and insight.

This research report indicates the long-term impacts of community-driven projects on students. As we approach an uncertain future, students will need the skills to competently navigate what comes before them. Through interacting with diverse groups within their community, students are engaging in their learning while developing determination, confidence, and authentic human connections. Teachers carry the burden of creating these experiences for the students through coordination, however they are gaining valuable and demonstrable skills themselves.

As iHub continues to fund innovative education projects, this report indicates the value of community engagement in the development of Global Competencies and student engagement. We will be expanding our grant offerings to include more opportunities for connect with local communities and collaborate outside of the classroom. As we build stronger community connections, we are building a stronger province.

Michelle Duncan, Communications and Operations Manager, iHub Learning Inc.



## Appendix A

## New Brunswick Global Competencies – Anglophone Sector



Critical Thinking and Problem Solving	Innovation, Creativity, and Entrepreneurship	Learning to Learn / Self-Aware & Self-Directed
<ul style="list-style-type: none"> <li>Solves meaningful, real-life, complex problems</li> <li>Takes concrete steps to address issues</li> <li>Designs and manages projects</li> <li>Acquires, processes, synthesizes, interprets, and critically analyses information to make informed decisions (critical and digital literacy)</li> <li>Engages in an inquiry process to solve problems</li> <li>Sees patterns, makes connections, and transfers learning from one situation to another, including real world applications</li> <li>Connects, constructs, relates, and applies knowledge to all domains of life such as school, home, work, friends, and community</li> <li>Analyzes the functions and interconnections of social, economic, and ecological systems</li> </ul>	<ul style="list-style-type: none"> <li>Contributes solutions to complex social, economic, and environmental problems</li> <li>Enhances a concept, idea, or product through a creative process</li> <li>Takes risks in thinking and creating</li> <li>Formulates and expresses insightful questions and opinions to generate novel ideas</li> <li>Tests hypotheses and experiments with new strategies or techniques</li> <li>Makes discoveries through inquiry research</li> <li>Demonstrates initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes</li> <li>Pursues new ideas and shows leadership to meet a need in a community</li> <li>Leads and motivates with an ethical entrepreneurial spirit</li> </ul>	<ul style="list-style-type: none"> <li>Learns the process of learning (metacognition) (e.g., independence, goal-setting, motivation)</li> <li>Believes in the ability to learn and grow (growth mindset) and monitors progress in learning</li> <li>Develops personal, education, and career goals and perseveres to overcome challenges to reach these</li> <li>Self-regulates in order to become a lifelong learner</li> <li>Reflects on thinking, experience, values, and critical feedback to enhance learning</li> <li>Cultivates emotional intelligence to understand self and others</li> <li>Adapts to change and shows resilience to adversity</li> <li>Manages various aspects of life: physical, emotional, social, spiritual, and mental well-being</li> <li>Develops identity in the Canadian context (e.g., origin and diversity) and considers one's connection to others and the environment</li> <li>Takes the past into account to understand the present and approach the future</li> </ul>
Collaboration	Communication	Global Citizenship and Sustainability
<ul style="list-style-type: none"> <li>Participates in teams, establishes positive and respectful relationships, develops trust, acts co-operatively and with integrity</li> <li>Learns from, and contributes to, the learning of others</li> <li>Co-constructs knowledge, meaning, and content</li> <li>Assumes various roles on the team</li> <li>Addresses disagreements and manages conflict in a sensitive and constructive manner</li> <li>Networks with a variety of communities/groups</li> <li>Respects a diversity of perspectives</li> <li>Uses a rich variety of technology appropriately to work with others</li> </ul>	<ul style="list-style-type: none"> <li>Asks effective questions to acquire knowledge</li> <li>Communicates using a variety of media</li> <li>Selects appropriate digital tools according to purpose and audience</li> <li>Listens and shows empathy to understand all points of view</li> <li>Gains knowledge about a variety of languages</li> <li>Voices opinions and advocates for ideas</li> <li>Creates a positive digital footprint</li> <li>Communicates effectively and respectfully in different contexts in oral and written form in French and/or English and/or M'ikmaq or Wolastogey</li> </ul>	<ul style="list-style-type: none"> <li>Understands ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies and countries</li> <li>Acts responsibly and ethically in building sustainable communities</li> <li>Recognizes discrimination and promotes principles of equity, human rights, and democratic participation.</li> <li>Understands Indigenous traditions and knowledge and its place in Canada</li> <li>Contributes to society and the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable and ethical manner</li> <li>Engages in local, national and global initiatives to make a positive difference</li> <li>Learns from and with diverse people and develops cross-cultural understanding</li> <li>Participates in networks in a safe and socially responsible manner</li> </ul>
<b>Foundation of Literacy and Numeracy</b>		



## New Brunswick Global Competencies Descriptions – Anglophone Sector



<p><b>Critical Thinking and Problem Solving</b></p> <p><i>Involves addressing complex issues and problems by acquiring, processing, analyzing and interpreting information to make informed judgments and decisions. The capacity to engage in cognitive processes to understand and resolve problems includes the willingness to achieve one's potential as a constructive and reflective citizen. Learning is deepened when situated in meaningful, real-world, authentic experiences.</i></p>	<p><b>Innovation, Creativity, and Entrepreneurship</b></p> <p><i>Involves the ability to turn ideas into action to meet the needs of a community. The capacity to enhance concepts, ideas, or products to contribute new-to-the-world solutions to complex economic, social, and environmental problems involves leadership, taking risks, independent/unconventional thinking and experimenting with new strategies, techniques, or perspectives, through inquiry research. Entrepreneurial mindsets and skills involve a focus on building and scaling an idea sustainably.</i></p>	<p><b>Learning to Learn / Self-Awareness and Self-Direction</b></p> <p><i>Involves becoming aware and demonstrating agency in one's process of learning, including the development of dispositions that support motivation, perseverance, resilience, and self-regulation. Belief in one's ability to learn (growth mindset), combined with strategies for planning, monitoring and reflecting on one's past, present, and future goals, potential actions and strategies, and results. Self-reflection and thinking about thinking (metacognition) promote lifelong learning, adaptive capacity, well-being, and transfer of learning in an ever-changing world.</i></p>
<p>Learners will solve meaningful, real-life, complex problems by taking concrete steps to address issues and design and manage projects.</p> <p>Learners will engage in an inquiry process to solve problems as well as acquire, process, interpret, synthesize, and critically analyse information to make informed decisions (i.e., critical and digital literacy).</p> <p>Learners will see patterns, make connections, and transfer what they have learned from one situation to another, including in real world applications.</p> <p>Learners will construct, relate, and apply knowledge to all domains of life such as school, home, work, friends, and community.</p> <p>Learners will analyze the functions and interconnections of social, economic, and ecological systems.</p>	<p>Learners formulate and express insightful questions and opinions to generate novel ideas.</p> <p>Learners contribute solutions to complex economic, social, and environmental problems or to meet a need in a community in a number of ways including: enhancing concepts, ideas, or products through a creative process, taking risks in their thinking and creating, discovering through inquiry research, and by hypothesizing and experimenting with new strategies or techniques.</p> <p>Learners demonstrate leadership, initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes and motivate others with an ethical entrepreneurial spirit.</p>	<p>Learners learn the process of learning (metacognition) (e.g., independence, goal-setting, motivation) and believe in their ability to learn and grow (growth mindset).</p> <p>Learners self-regulate in order to become lifelong learners and reflect on their thinking, experience, values, and critical feedback to enhance their learning. They also monitor the progress of their own learning.</p> <p>Learners develop their identity in the Canadian context (e.g., origin and diversity) and consider their connection to the environment. They cultivate emotional intelligence to understand themselves and others. They take the past into account to understand the present and approach the future.</p> <p>Learners develop personal, educational, and career goals and persevere to overcome challenges to reach goals. They adapt to change and show resilience to adversity.</p> <p>Learners manage various aspects of their life: physical, emotional, social, spiritual, and mental well-being.</p>



<p><b>Collaboration</b></p> <p><i>Involves the interplay of the cognitive (including thinking and reasoning), interpersonal, and intrapersonal competencies necessary to participate effectively and ethically in teams. Ever-increasing versatility and depth of skill are applied across diverse situations, roles, groups, and perspectives in order to co-construct knowledge, meaning, and content, and learn from, and with, others in physical and virtual environments.</i></p>	<p><b>Communication</b></p> <p><i>Involves receiving and expressing meaning (e.g., reading and writing, viewing and creating, listening and speaking) in different contexts and with different audiences and purposes. Effective communication increasingly involves understanding both local and global perspectives, societal and cultural contexts, and adapting and changing using a variety of media appropriately, responsibly, safely, and with regard to one's digital footprint.</i></p>	<p><b>Global Citizenship and Sustainability</b></p> <p><i>Involves reflecting on diverse worldviews and perspectives and understanding and addressing ecological, social, and economic issues that are crucial to living in a contemporary, connected, interdependent, and sustainable world. It also includes the acquisition of knowledge, motivation, dispositions, and skills required for an ethos of engaged citizenship, with an appreciation for the diversity of people, perspectives, and the ability to envision and work toward a better and more sustainable future for all.</i></p>
<p>Learners participate in teams by establishing positive and respectful relationships, developing trust and acting co-operatively and with integrity.</p> <p>Learners learn from and contribute to the learning of others by co-constructing knowledge, meaning, and content.</p> <p>Learners assume various roles on the team, respect a diversity of perspectives, and address disagreements and manage conflict in a sensitive and constructive manner.</p> <p>Learners network with a variety of communities/groups and use an array of technology appropriately to work with others.</p>	<p>Learners communicate using the appropriate digital tools and create a positive digital footprint.</p> <p>Learners ask effective questions to acquire knowledge, listen to understand all points of view, voice their own opinions, and advocate for ideas.</p> <p>Learners gain knowledge about a variety of languages and understand the cultural importance of language.</p> <p>Learners communicate effectively in different contexts in oral and written form in French and/or English and/or Mi'kmaq or Wolastoqey through a variety of media.</p>	<p>Learners understand the ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies, and countries.</p> <p>Learners take actions and make responsible decisions that support quality of life for all, now and in the future.</p> <p>Learners recognize discrimination and promote principles of equity, human rights, and democratic participation.</p> <p>Learners understand Indigenous traditions and knowledge and its place in Canada, learn from and with diverse people, develop cross-cultural understanding, and understand the forces that affect individuals, societies, and nations.</p> <p>Learners engage in local, national, and global initiatives to make a positive difference.</p> <p>Learners contribute to society and to the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable, and ethical manner.</p> <p>Learners as citizens participate in networks in a safe and socially responsible manner.</p>



## Appendix B



## iHub Early/Elderly Project Teacher Questions

### Reflections.

Please take a moment to think about how this experience has affected your **students** in terms of their understanding of Global Competencies, or in other ways...

- Critical Thinking
- Innovation, Creativity, and Entrepreneurship
- Learning to Learn / Self-Awareness and Self-Direction
- Collaboration
- Communication
- Global Citizenship and Sustainability

Further, please take a moment to reflect on **your** experience.

1. How do you feel this activity or your approach to teaching this activity affects Global Competencies?
2. Please state any teacher-based competencies or understanding that you have either further developed or learned from this activity.
3. Please add any comments you feel are useful to our further development and understanding of Innovative Education.