iHub

INNOVATING EDUCATION

iHub Learning Inc.

iHub Impact Report 1.0

General Grants 2018-2019

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iHub Impact Report 1.0

General Grants 2018 – 2019

Introduction to iHub General Grants 2018 - 2019

Over the 2018 – 2019 school year, iHub Learning Inc supported more than 4500 students and 129 teachers in 83 schools to become involved in more than 160 innovative educational projects across the Anglophone K to 12 educational system, province wide. These projects included vermiculture adventures with early child-care students, technology stations, wellness projects, life interviews with elderly-care patients, culinary skills mentorships, a Hero program, circuit creations, flexible classrooms, logic games for critical thinking, a media center, an escape room, and over 100 entrepreneurial projects that saw students learn from and connect with hundreds of community and business members. Students also created anthologies, grew food in towers and in planters, learned about permaculture, created songs and jingles, filmed, developed food services, crafted and developed buttons, shirts, hats, took apart motors, built sheds, bird, and dog houses, reimagined learning, flew drones to do vector analysis, and generally worked with their hands, minds, and passions to create, develop, prototype, test, fail, and succeed.

> *I feel that my team skills and leadership skills have improved.*
>
> Student Response

Data from our first year is extraordinarily clear: students are highly engaged with schooling when they are involved in solving problems and completing projects that are real, relevant, and passion driven. Experiential, personalized, entrepreneurial, problem and project-based learning methods are powerful. There is no doubt about this conclusion; and these learning methods are creating a positive dialogue in New Brunswick education.

Focus of this Research Report

This report is focused on the answers 1150 students and 35 teachers gave to several questions about experiential, personalized, entrepreneurial, problem and project-based learning methods and how they 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, locally overseen by the Research and Ethics Board of UNB – (REB 2018 – 053). To participate, all Anglophone teachers in the province were provided the opportunity to visit www.ihublearningnb.ca and fill out a grant application. Grant applications detailed the parameters of an acceptable project, such as involving a group of students over time and focusing on the development of the Global Competencies (see Appendix A) through innovative learning methods. A listing of the essential criteria for each $1000 general grant is as follows:

- HOW: Techers must use 'innovative learning' methods (experiential, personalized, entrepreneurial, problem and project-based) to deliver and provide learning opportunities for students during this project.
- WHAT: Teacher 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 students will be involved in the learning opportunity.
- WHEN: the project should last longer than one month and up to (but within) the current school year.
- WHERE: at school and in the community.
- 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.

Student Survey

Students were asked 14 question before beginning the grant project and were asked the same questions post-project, with one additional question about new skills learned (see Appendix B). The 14 questions query the students' personally determined knowledge of the Global Competencies both pre and post project.

> *They were engaged in their own learning and most were motivated to find knowledge and understanding.*
>
> Teacher Response

Teacher Survey

Teachers were asked three questions before and five questions post-project (see Appendix C). These questions queried teachers' evaluation of their classes familiarity and use of the target competencies they designed into each project as well as about their understanding and competency with innovative learning methods.

Results

The data from students and teachers was grouped and analyzed through the following three lenses to create this report:

(i) **Student Survey Response Comparison**: student pre and post survey response comparison (14 questions – see Appendix B);
(ii) **Teacher Project Evaluation**: teacher post-project questionnaire responses (see Appendix C);
(iii) **Student Qualitative Response**: student post-project responses to the qualitative question: "Please write down three things you feel you got better at by doing the iHub Innovative Education project" (question number 15 specifically – see Appendix B).

Detailed results from these data, within these groupings, are supplied below; additionally, an interpretation of the data is provided within each section.

Student Survey Response Comparison

Each of the 14 questions (see Appendix B) asked students to rate themselves using a Likert scale (see an example in Table 1 below) in relation to questions that ask their feelings about their own levels of efficacy with the Global Competencies. In the sample question below, Collaboration is the Global Competency being queried and students can answer each question with one of the five choices offered.

Collaboration	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
9. I like to learn from others when I am working on a team					
10. I build trust whin I am working with others on a team					

Table 1. Example Question from Student Global Competency Survey

In the data collected from 1150 students, a distinct pattern emerged in all of the 14 questions asked of all 1150 students surveyed: the aggregate of their answers resulted in LOWER ratings post-project than pre-project in all but ONE category: Agree (See Figure 1 below). This means that student results for each question dropped in 'strongly disagree', 'disagree', 'neither agree nor disagree', and 'strongly agree'. Two interpretations of this data are offered: (i) the lower rated responses are indicative of authentic learning gained through authentic experience, and (ii) the higher rated 'agree' category is indicative of authentic learning gained through authentic experience. Further explanation is offered below Figure 1.

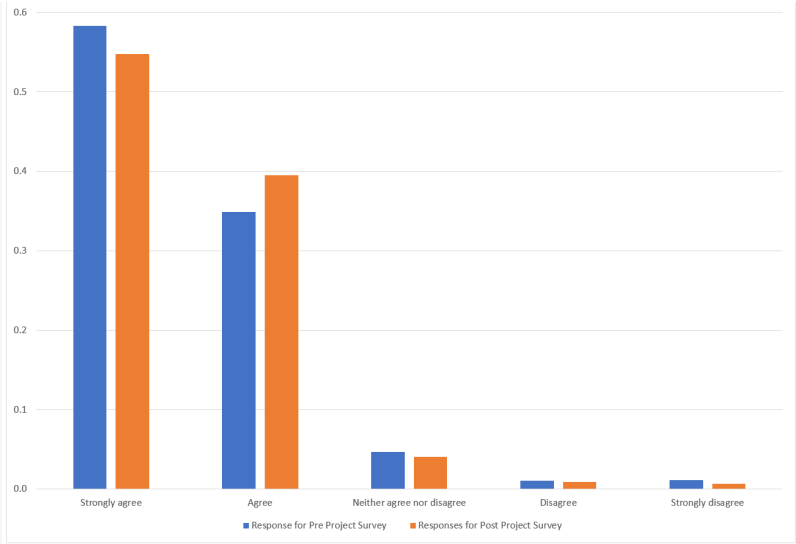

Figure 1. Aggregate of Student Responses

It may seem counter intuitive that this conflicting data could point to the result of authentic learning. However, the explanation that will be offered here has a basis in logic, and of note, this interpretation will be studied closely during the coming school year through case-study analysis. The interpretation offered is that it is possible that students 'over-rated' themselves in the first instance (pre-project) assuming they in-fact were strongly collaborative, for example, but after working in a team on a project they had evidence through authentic experience that caused them to reassess their inflated responses, and so reported this honestly post-project. This would cause a deflation of the 'strongly agree' answers and – in this case – an increase in the 'agree' category. This interpretation is also supported by the 'response-drop' in other categories as well. For example, by learning through authentic experience students would learn about their actual competency in each area and therefore honestly decrease their 'strongly disagree', 'disagree', and 'neither agree nor disagree' answers. The possibility that this interpretation is correct is supported by numerous student qualitative responses.

For example, one student participant said that through their project experience, they got better at "working with others" while another student reported that involvement in their project with their class "helped us with our interactions and it helped us talk better with other people in our groups". Other responses include a belief that their proficiency in "listening to others" improved, while "letting other people speak" and learning about "working together with people" are example responses provided by other students.

Consequently, one interpretation of this data set can be summarized to state that students over-rated themselves pre-project, and when given an authentic experiential opportunity to learn about their knowledge, skills, attitudes, and values related to the Global Competencies, they honestly reassessed their responses to agree with their updated perceived reality. An important note: case-study research is being conducted this 2019 – 2020 school year to fully understand the effect of innovative education on student perceptions, and to understand if the interpretation offered here is substantive.

Teacher Project Evaluation

In each of the general grant projects that occurred last year, 31 participating teachers were asked five questions of research relevance that will be shared here:

- In general, did your project increase your student's familiarity with or use of the global competencies?
- How do you feel your project or your approach to teaching the projects affected your three Global Competency target areas?
- Please state and teacher-based competencies that you have either further developed or learned from this project.
- State any comments you have or understanding you have gained on how best to integrate and assess the Global Competencies into your curriculum.
- Please add any comments you feel are useful to our further development and understanding of Innovative Education.

Notably the responses to each of the questions, by each of the 31 teachers, was 100% in the positive or affirmative. A sample of responses is provided for each question below.

In general, did your project increase your student's familiarity with or use of the global competencies?

- Absolutely, 100%
- YES!! My entire project focused on the competencies
- Yes. Especially with regards to collaboration and citizenship
- Yes, it certainly did. Every one of the global competencies were evident throughout this innovative project. The project is also a sustainable initiative within my school, and the global competencies are included within my assessment plans for next year

How do you feel your project or your approach to teaching the projects affected your three Global Competency target areas?

- My project 100% reached my targeting areas
- We had meaningful class discussions that allowed students to express concepts and ideas in their own words, developing reasoning skills, and hear diverse perspective
- I took a step back, making students take the lead on learning which in turn led students to collaborate with each other
- Through this approach students learned a lot about the social issue they wanted to bring to light and to try to create a positive change
- The students that participated in this project definitely practiced and enhanced their collaboration and communication skills.

Please state and teacher-based competencies that you have either further developed or learned from this project.

- This project extended my trust of my students. Where they were in charge of how they went about their "business plan", I had to give them less scaffolded instruction and more freedom to try new things
- I learned how to better encourage students when sticking to harder based problems
- I was able to encourage students to take more ownership of the project from start to finish
- Ability is something I have enhanced. I have a greater understanding of linking the curriculum to stations
- This project made me so much more aware of the value of First Nations cultures
- I became a better facilitator

State any comments you have or understanding you have gained on how best to integrate and assess the Global Competencies into your curriculum.

- Kids thrive in situations where they can put their current understanding of the world to test
- I think the best way to let students understand these competencies is to let them actually try to accomplish them. It doesn't come from lecturing them about events, it comes from letting them work on them in projects
- I like starting with a problem, or a direction, and then using the curriculum to address it
- Integrating global competencies is not a "separate" section of teaching the curriculum but simply making small changes to one's approach to the curriculum can make all the difference

Please add any comments you feel are useful to our further development and understanding of Innovative Education.

- I think this opportunity has made me a better educator
- The opportunity to tie in with community in a meaningful way and have students explore an idea for an invention or innovation that is relevant to them makes for incredible learning and teaching opportunities
- I am 100% on board with entrepreneurship with kids
- Innovative education comes from doing
- There is no way that we could ever prepare our students for the future, based solely on curriculum content
- Students need to be provided more opportunities to take what they know and show teachers in a way that is relevant and meaningful to them

An interpretation of data within this section of the report is brief and affirmative: innovative methods directly and dramatically affect not only student development and demonstration of the Global Competencies, but they also affect teacher efficacy. The science of teaching is central to the findings of this section, and this provides vivid support to the contention that meaningful, solid instruction that provides opportunities for authentic, engaged learning is the most important part of a good education. Curriculum content must evolve, Global Competencies are the future, but innovative teaching methods remain essential to New Brunswick creating a world-class education system.

Student Qualitative Response

This final section of 'Research Report 1' involves the thematization and interpretation of 2277 student responses to a single question: "Please write down three things you feel you got better at by doing your iHub Innovative Education project."

Thematizing involves the researcher looking for patterns in responses and grouping these into concepts, then grouping concepts into as few themes as is reasonable. In this way, instead of attempting to discuss 2277 individual answers, the researcher can speak to a few or several themes. In this research there are four areas: three of these are themes and one is a 'discard' category that is not relevant to the research.

First, the discard category will be explained. A total of 12% of responses were either (i) blank; (ii) undecipherable; (iii) or did not make sense in relation to the question. A sample of these types of answers includes 'Yes', 'W' and 'wasn't' and an interesting rendering of a bird's head made from semi-colons and commas. Clearly in some of these responses, creativity was alive and well, but this category of response does not lend to any useful interpretation of results. Thankfully, the other 88% of responses are meaningful and are of great interest.

The three themes discovered through thematizing students' responses are as follows, and are these are explained in greater detail further below:

- Relational Agreement Orientation
- Active Cognitive Orientation
- Relational Action Orientation

Relational Agreement Orientation - (20% of responses): this thematic subset groups response codes that are positively related to a team and group orientation. The codes within this theme are considered to represent an 'agreement' orientation. For example, teams and group and communication are all developed through common agreements to work in teams and groups, and to communicate. Included in this theme are code areas related to the following:

a. Team and group work
b. Working with others
c. Communicating with others
d. Respect / respecting
e. Listening
f. Social comfort
g. Cooperating and collaborating

Active Cognitive Orientation - (46% of responses): this thematic subset groups responses that are positively related to thinking and creating. The codes within this theme are considered of an 'active cognitive' nature. For example, problem solving, thinking, prototyping, coding, and failing are each related to active cognition. Included in this theme are code areas related to the following:

h. Problem solving
i. Thinking
j. Experimenting
k. Growth
l. Pressure
m. Creating
n. Exploring
o. Failing
p. Designing
q. Learning
r. Coding
s. Prototyping
t. Making

Relational Action Orientation - (22% of responses): this thematic subset groups responses that are positively related to relational action. The codes within this them are considered relational and of an 'active' nature. For example, helping, public speaking, marketing, and work each require some form of relational activity. Included in this theme are code areas related to the following:

a. Helping
b. Being responsible
c. Developing/demonstrating confidence
d. Marketing
e. Presenting
f. Taking initiative
g. Public speaking
h. Work

Student responses to "Please write down three things you feel you got better at by doing your iHub Innovative Education project" include phrases similar the following examples: working as a team; working in groups; teamwork; thinking; experimenting; prototyping; solving; I feel that I got better at planning strategies; thinking out of the box; self-esteem; being better around kids; now I attend school and am passing; my team skills and leadership skills; collaboration with peers; resolving conflict; coding; creativity; my ability to think of new ideas to solve problems etc.

The interpretation of this data is brief and affirmative as well: innovative teaching methods provide students with opportunities to grow in orientations that are highly relatable to the skill-sets students need to be future ready learners and future ready citizens.

Final Comments

Research data gathered from general grant projects includes the answers 1150 students and 35 teachers gave to several questions about experiential, personalized, entrepreneurial, problem and project-based learning methods and how they relate to the Global Competencies.

Our findings are clear and concise: students are highly engaged with schooling when they are involved in solving problems and completing projects that are real, relevant, and passion driven. Experiential, personalized, entrepreneurial, problem and project-based learning methods are powerful. There is no doubt about this conclusion; and these learning methods are creating a positive dialogue in New Brunswick education. However, as we move into our second year of operation, we will provide 411 grants in various areas and are going into depth to understand better innovative methods, global competencies, engagement, design thinking, the UN's sustainable development goals, and much more.

Helping educators to explore and experiment with learning and teaching is producing dividends that iHub Learning Inc. will continue to query and report. It is a good time to be working in education in New Brunswick – our collective desire to be a world-class education system begins with doing, and we are doing very well.

Dr. Ross Leadbetter, CEO 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
• Solves meaningful, real-life, complex problems • Takes concrete steps to address issues • Designs and manages projects • Acquires, processes, synthesizes, interprets, and critically analyses information to make informed decisions (critical and digital literacy) • Engages in an inquiry process to solve problems • Sees patterns, makes connections, and transfers learning from one situation to another, including real world applications Connects, constructs, relates, and applies knowledge to all domains of life such as school, home, work, friends, and community • Analyzes the functions and interconnections of social, economic, and ecological systems	• Contributes solutions to complex social, economic, and environmental problems • Enhances a concept, idea, or product through a creative process • Takes risks in thinking and creating • Formulates and expresses insightful questions and opinions to generate novel ideas • Tests hypotheses and experiments with new strategies or techniques • Makes discoveries through inquiry research Demonstrates initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes • Pursues new ideas and shows leadership to meet a need in a community • Leads and motivates with an ethical entrepreneurial spirit	• Learns the process of learning (metacognition) (e.g., independence, goal-setting, motivation) • Believes in the ability to learn and grow (growth mindset) and monitors progress in learning • Develops personal, education, and career goals and perseveres to overcome challenges to reach these • Self-regulates in order to become a lifelong learner • Reflects on thinking, experience, values, and critical feedback to enhance learning • Cultivates emotional intelligence to understand self and others • Adapts to change and shows resilience to adversity • Manages various aspects of life: physical, emotional, social, spiritual, and mental well-being • Develops identity in the Canadian context (e.g., origin and diversity) and considers one's connection to others and the environment • Takes the past into account to understand the present and approach the future
Collaboration	**Communication**	**Global Citizenship and Sustainability**
• Participates in teams, establishes positive and respectful relationships, develops trust, acts co-operatively and with integrity • Learns from, and contributes to, the learning of others • Co-constructs knowledge, meaning, and content • Assumes various roles on the team • Addresses disagreements and manages conflict • in a sensitive and constructive manner Networks with a variety of communities/groups • Respects a diversity of perspectives • Uses a rich variety of technology appropriately to work with others	• Asks effective questions to acquire knowledge • Communicates using a variety of media • Selects appropriate digital tools according to purpose and audience • Listens and shows empathy to understand all points of view • Gains knowledge about a variety of languages • Voices opinions and advocates for ideas • Creates a positive digital footprint • Communicates effectively and respectfully in different contexts in oral and written form in French and/or • English and/or Mi'kmaq or Wolastoqey	• Understands ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies and countries • Acts responsibly and ethically in building sustainable communities • Recognizes discrimination and promotes principles of equity, human rights, and democratic participation. • Understands Indigenous traditions and knowledge and its place in Canada • Contributes to society and the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable and ethical manner • Engages in local, national and global initiatives to make a positive difference • Learns from and with diverse people and develops cross-cultural understanding • Participates in networks in a safe and socially responsible manner
Foundation of Literacy and Numeracy		

New Brunswick Global Competencies Descriptions– Anglophone Sector

Critical Thinking and Problem Solving	Innovation, Creativity, and Entrepreneurship	Learning to Learn / Self-Awareness and Self- Direction
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.	*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.*	*Involves becoming aware and demonstrating agency in one's process of learning, including the development of dispositions that support motivation, perseverance, resilience, and selfregulation. 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.*
Learners will solve meaningful, real-life, complex problems by taking concrete steps to address issues and design and manage projects. 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). Learners will see patterns, make connections, and transfer what they have learned from one situation to another, including in real world applications. Learners will construct, relate, and apply knowledge to all domains of life such as school, home, work, friends, and community. Learners will analyze the functions and interconnections of social, economic, and ecological systems.	Learners formulate and express insightful questions and opinions to generate novel ideas. 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. Learners demonstrate leadership, initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes and motivate others with an ethical entrepreneurial spirit.	Learners learn the process of learning (metacognition) (e.g., independence, goal-setting, motivation) and believe in their ability to learn and grow (growth mindset). 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. 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. Learners develop personal, educational, and career goals and persevere to overcome challenges to reach goals. They adapt to change and show resilience to adversity. Learners manage various aspects of their life: physical, emotional, social, spiritual, and mental well-being.

Collaboration	Communication	Global Citizenship and Sustainability
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.	*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.*	*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.*
Learners participate in teams by establishing positive and respectful relationships, developing trust and acting co-operatively and with integrity. Learners learn from and contribute to the learning of others by co-constructing knowledge, meaning, and content. Learners assume various roles on the team, respect a diversity of perspectives, and address disagreements and manage conflict in a sensitive and constructive manner. Learners network with a variety of communities/groups and use an array of technology appropriately to work with others.	Learners communicate using the appropriate digital tools and create a positive digital footprint. Learners ask effective questions to acquire knowledge, listen to understand all points of view, voice their own opinions, and advocate for ideas. Learners gain knowledge about a variety of languages and understand the cultural importance of language. 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.	Learners understand the ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies, and countries. Learners take actions and make responsible decisions that support quality of life for all, now and in the future. Learners recognize discrimination and promote principles of equity, human rights, and democratic participation. 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. Learners engage in local, national, and global initiatives to make a positive difference. Learners contribute to society and to the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable, and ethical manner. Learners as citizens participate in networks in a safe and socially responsible manner.

Appendix B

iHub Innovative Education Project Student Questions

Engaging the Global Competencies through Innovation

Critial Thinking	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I think about different ways to solve problems.					
2. I can find connections and patterns from one situation to another situation.					

Innovation, Creativity, and Entrepreneurship	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
3. I am good at finding new ways of doing things.					
4. I an curious and like to explore and experiment.					
5. I am good at turning ideas into actions.					

Learning to Learn / Self-Awareness and Self-Direction	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
6. When I have problems, I am determined to find a solution.					
7. I challenge myself to be excellent in everything I do.					
8. I often take action with my work without anyone telling me to.					

iHub defines Innovative Education as experiential and personalized using entrepreneurial, problem and project-based approaches to learning.

Collaboration	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
9. I like to learn from others when I am working in teams.					
10. I build trust when I am working with others on a team.					

Communication	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
11. I encourage others to share their points of view					
12. I am confident in presenting my ideas to others.					

Global Citizenship and Sustainability	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13. I like to know that I can make a difference in the world.					
14. It is important to respect my rights and the rights of others.					

*Above are the 'pre-project' questions for students. Each question will be asked again, post-project. Additionally, post-project students will be asked the following qualitative question:

Please write down three things you feel you got better at by doing the iHub Innovative Education project:

iHub defines Innovative Education as experiential and personalized using entrepreneurial, problem and project-based approaches to learning.

Appendix C

iHub Innovative Education Project Teacher Questions

Engaging the Global Competencies through Innovation

Pre-project:

1. Please speak in general terms about your class and their familiarity and use of the global competencies:

Critical Thinking and Problem Solving:
Innovation, Creativity, and Entrepreneurship:
Learning to learn / Self-Awareness and Self-Direction:
Collaboration:
Communication:
Global Citizenship and Sustainability:

2. Which three (or more) of these global competencies will your Innovative Education Project target?

3. How does your project target these areas?

Post-Project:

1. In general did your project increase your student's familiarity with or use of the global competencies?

2. How do you feel your project or your approach to teaching the project affected your three (or more) target areas?

3. Please state any teacher-based competencies that you have either further developed or learned from this project.

4. State any comments you have or understandings you have gained on how best to integrate and assess the global competencies into your curriculum.

5. Please add any comments you feel are useful to our further development and understanding of Innovative Education.

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