

El Sistema *Student Compass*

Your GPS to improved student wellbeing, musical excellence, and retention.

GLOBAL LEADERS PROGRAM, 2022 COHORT
CAPSTONE CHALLENGE PROSPECTUS

PRESENTORS

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TEAM

**Alberto Acquilino**

Alberto has a Masters degree in Energy Engineering and Music Performance, and is a PhD student in Computational Acoustic at McGill - ETH - Santa Cecilia Music Academy.

**Claire Ahern**

Conductor, flautist and educator Claire Ahern is a freelance musician and teaching artist with Sistema New Brunswick. Her on-the-ground knowledge of Sistema programming and instruction add to the team's expertise in crafting this venture.

**Daniel Montes**

Daniel has a Bachelors degree in Orchestral and Choir Conducting, and Master course in Innovation and Educational Management. He received from the Bolivian Embassy the appointment of Bolivian Cultural Ambassador in Italy.

**Katie McDermitt**

Katie McDermitt is a professional flutist and educator. In addition to a full-time private flute studio, she is the Executive Director and founding member of El Sistema Indianapolis, and is the Quality Assurance Manager at Salesvue, an application on the Salesforce.com platform.

**Kelly Suthers**

Site Manager of the Ravinia Lawndale Programs has extensive experience managing, implementing, and teaching for El Sistema-inspired programs around the Chicago area. She has launched 2 programs from scratch, and is knowledgeable in serving diverse, bilingual communities.

ROADMAP



Aug 2022 Begin Student Compass design and development.

Aug 2023 Beta testing in Sistema New Brunswick.

Feb 2024 Improvements made to Student Compass continually.

Jun 2024 Market Launch.

EXECUTIVE SUMMARY

PROBLEM

Children experience a multitude of challenges in their daily lives, which can often be a barrier to their emotional and academic development. Examples include poverty, adverse childhood experiences, loneliness, etc. Children participating in music education programs in the US and Canada often experience these barriers, and do not have the individualized help and attention they need to overcome them, leading them to give up on their musical journey. Furthermore, there is a lack of data tracking and programmatic awareness regarding the musical and personal development and wellbeing of students in music education programs. Many music education programs, especially El Sistema-inspired programs geared towards social change in under resourced communities, do not have the financial or physical resources to conduct the necessary studies to collect this data, and understand ways they can adjust curriculum and activities to better serve their communities.

SOLUTION

Developed by El Sistema-inspired and music education professionals and in partnership with McGill University music education and well-being specialists, Student Compass (SC) presents an accessible, holistic application to measure student well-being in music education programs across North America. This customizable evaluation tool facilitates long term data tracking and multi-site data collection, allowing for regional comparison and long term analyses of student well-being and engagement. SC also alerts program administrators and teachers in real time to the needs of students that otherwise are overlooked and unheard, thus allowing program operators to tend to issues as they arise, and furthermore maintain retention and relationship with their students and families.

PRODUCT & TECHNOLOGY

Implemented as a web-app, SC can be easily distributed and run as both an iOS and Android mobile app as well as Mac and PC software. It is coupled with a user manual that guides users through the different sets of features offered, which can be customized by the program organization. Based on validated scientific methods and the PERMA model, SC offers students quick and intuitive surveys during musical, gamified activities to assess their subjective health and well-being. The data, collected anonymously, is automatically analyzed through statistical models that provide the music program with objective reports on the effectiveness of its activities in order to identify weaknesses and celebrate strengths with all stakeholders. Developed as an interactive customizable video game, SC celebrates the incremental and long term growth of students, giving them the scaffolding necessary to achieve their goals without losing self-confidence and motivation.

BUSINESS MODEL

The Student Compass web-app will operate as a subscription service. Organizations will pay a monthly fee, with El Sistema-inspired organizations receiving a discounted rate. Different plans will be available to meet the various needs of organizations. As Student Compass has two primary features: a tool to measure student wellbeing structured on the PERMA model and e-activities based on musical curriculum, organizations will be able to choose a plan of either feature, or a plan of both features. The use of both features will be especially useful for new organizations who are in need of support as they establish their program. Meanwhile, many existing organizations may already have structures in place for measuring the impact their program has on the wellbeing of students, or they may already have a preferred teaching method. The option of subscribing to only one feature will be more attractive as they will not be left paying for the feature that they do not need.

Overview

Mission Statement: To improve student wellbeing, musical excellence, and retention in music education programs.

Vision Statement: To improve and sustain music education programs, ultimately allowing students to flourish into fulfilled, contributing members of their communities.

Value Proposition: The voices of all students are recognized as an integral part of the music curriculum. Parents regularly receive the wellbeing profile of their child, so that they can be more involved and provide support. Teachers receive targeted reports with indications about their class effectiveness, check if the delivered concepts are well understood, and if there are students that are struggling or feeling behind. School administrators obtain general reports summarizing the collected data to gain awareness of their program's impact and effectiveness, so that they can share the anonymous results with donors and funders, and can better implement strategic decisions.

Core Values:

Open minds - open ears: Hearing, understanding, and empowering the student voice.

Collaboration: A working team that thrives on creativity, honesty, and respect.

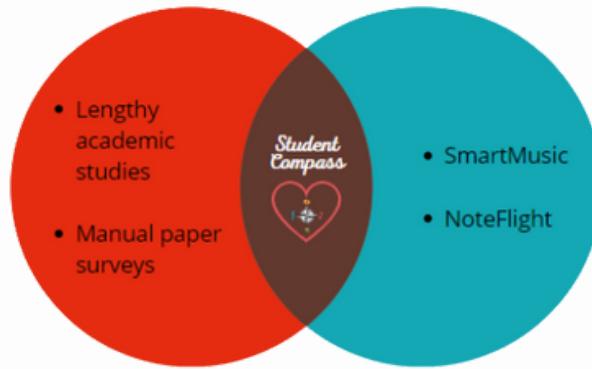
Trust: Communicative, reliable, and accountable teammates who take pride in their role.

Adaptive: Constantly receiving and adapting to feedback.

Context

Industry Dynamics

Student Compass was born from the idea and professional experiences of a diverse team of experts. It brings together music learning, psychology, performance science, statistics and mathematics within a unique mobile application. Student Compass would have direct competitors if it only addressed one discipline, but as of now, organizations in need of this resource would have to use multiple channels to achieve the same result. According to Lisa Lorenzino, professor at McGill University and El Sistema Specialist, nothing like Student Compass exists to date. There are many mobile applications in existence for music learning, such as SmartMusic and NoteFlight, but those do not measure wellbeing. There are manual paper surveys of wellbeing that organizations can administer, and lengthy years-long academic studies can be held, but are not tied directly to music learning. In both instances, the current available options are costly, not just financially, but also in terms of time and effort. Even the most seemingly successful organizations would have trouble implementing these practices, and ultimately, it has caused the vast majority of music organizations to simply do without.



Music programs that advocate for social change are particularly in need of a product like Student Compass. While limited funding and resources are a common characteristic of these organizations that could hinder the purchase and adoption of the product, the fact remains that these organizations need this data. Funders require proof of impact, and so these organizations will consider it an investment in order to provide concrete data to funders and therefore justify their very existence. Student Compass will allow organizations to measure wellbeing, musical progress, and assist with student retention, all of which will give funders a clear and compelling picture of the organization's impact.

Customers/Beneficiaries

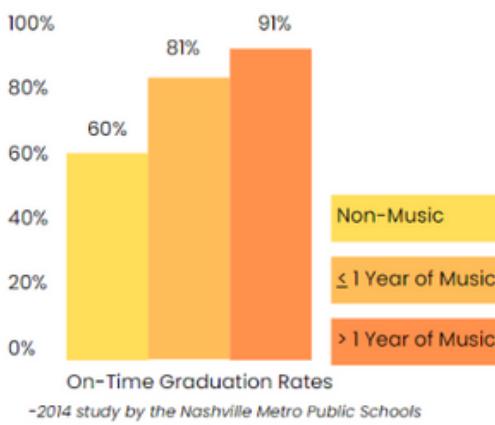
Our primary beneficiary is a music program director, personified by “Ned.” Between being a father of 2 and an associate director of a massive El Sistema inspired program, running in 3 separate nucleos around the Chicago area, Ned suffers from burnout regularly. Despite being exhausted, he gives 150% effort at work every single day. He cares immensely about his organization’s mission to provide accessible music education to all students no matter their background. Additionally, Ned has learned over many years that he feels the most proud of his work when he supports his colleagues to the best of his ability. He notices frequently in 2 of his nucleos that his managers seem to be experiencing the same problems over and over again: student engagement issues, behavioral problems, retention, attrition, and teachers that aren’t sure how to get their students to get past a certain level on their instrument. Ned does his best to provide positive and constructive feedback to his colleagues regularly, but always wonders, “How can we solve these problems more proactively? Why do the same problems persist time after time in 2 of the nucleos, but not the other?”

Our secondary beneficiary is a student participating in a music program, personified by “Lisa.” Lisa is in the 3rd grade, and has been in an El Sistema-inspired program for 7 months. She chose the violin, because she liked the way it sounded and thought it was fun to pluck the strings on the first day of class. Now, she feels like all of her classmates are more advanced than her, and she doesn’t understand why music is so much harder for her than for her friends. She has started to act out in class, speaking and playing out of turn and hiding in the bathroom after break. After music class, she tells her mom she is thinking about quitting because music isn’t fun anymore and the teachers are mean. Her mom says she should keep trying, and also tells her that she needs her to participate in this afterschool program because her mom has to work until late and can’t pick her up from school earlier. Additionally, Lisa’s dad works long hours in his job over 30 minutes from the school, and won’t be able to help with pickup. Lisa begrudgingly continues to attend her music program, despite feeling out of place, insecure, and anxious during program time.

By targeting directors of music programs, Student Compass provides the tools these directors need to then help their students who are struggling, by alerting them to their current wellbeing and understanding of class concepts. Students will receive more timely intervention, which will then lead to a minimized risk of attrition due to unmet student needs.

Problem/Need

Attrition is a problem that every organization experiences. Program participants choose to leave for various reasons, such as loss of interest, schedule conflicts, or simply not being the right fit. Some of this loss is unavoidable, but the marked difficulty faced by music programs working with struggling children is something that can be helped. The more in-tune staff can be with the specific needs and situations of their students, the quicker they can act to intervene. It is widely accepted that music participation has a positive effect on the outcome of a student's life, but what is most important to note is that the duration of participation is a key factor in producing this effect. According to Instructional Science: A study of the International Journal of the Learning Sciences, a research conducted in 2009 proved that the academic achievement of students is most strongly impacted when students practice music for more than one year. A study in 2014 with the Nashville Metro Public Schools shows a leap from a 60% to 91% graduation rate as students spent more time in a music program.



Students who are struggling are often facing challenges beyond the typical childhood experience. It would be difficult for anyone to find the motivation to practice music when facing hunger, absentee parents, and other adverse childhood experiences (ACEs) such as physical, mental, or emotional abuse, domestic violence, substance abuse by a parent, or divorce. Students experiencing ACEs, when left unheard and unsupported, will be more likely to leave a music program. While the study of music cannot stop these experiences from occurring, it can provide a support system for the student in the form of a positive social community, and mental stimulation resulting in the student building a growth mindset - a belief that they can achieve higher goals in life.

The biggest obstacle of music programs retaining their struggling students is a lack of insight into the student experience, and a lack of resources to check in on their individual progress. In our conversations with Maria Claudia Parias, leader of Colombia's Fundación Nacional de Batuta, a leading organization for social change through music, and Genevieve Cimon of the National Arts Centre of Canada, both expressed a strong desire for the creation of this application. As administrators of their own respective organizations, they immediately saw the value that it would provide not only to their students, but also in their interactions with funders, as increased availability of quantitative proof of their programs' impact will provide a clear picture and give their organizations a competitive edge.

The Service

Theory of Change and Logic Model

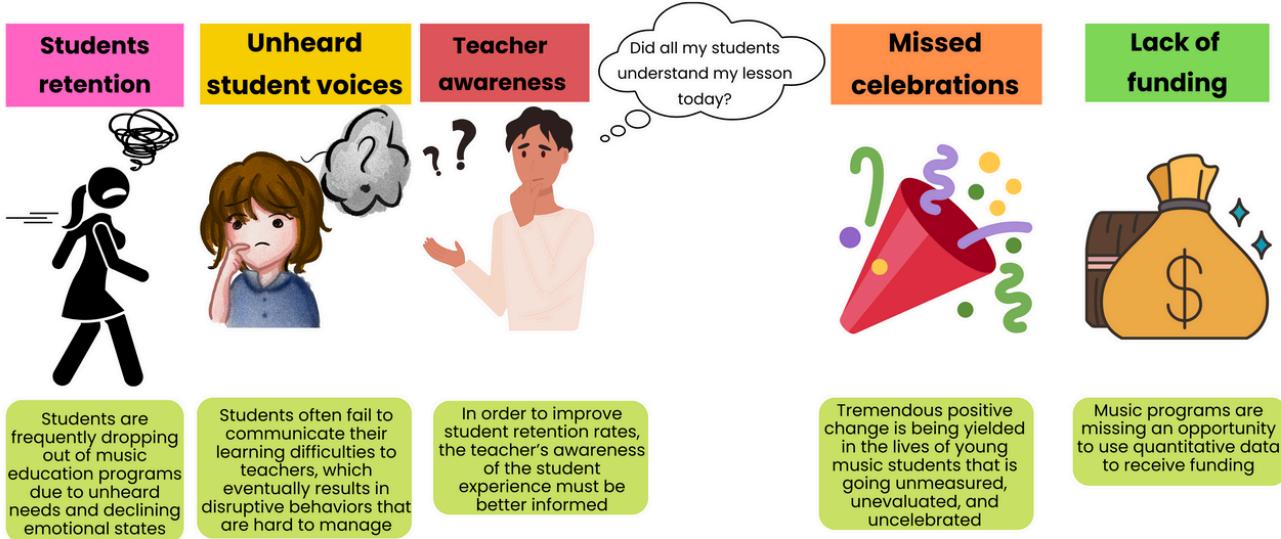
The figure on page 7 illustrates the Theory of Change of Student Compass in a visually simplified way. Please, refer to the attached Logic Model for more information about the implementation.

Student Compass is proposed as a flexible and affordable tool for assessing the impact of music programs on student wellbeing. As discussed at length during Module 1 of the Global Leaders Program, the arts sector is a notoriously challenging context for producing robust evidence of impact, given the often intangible nature of the outcomes they seek and cuts to funding. Despite the benefits demonstrated in multiple studies, many of them reported in Susan Hallam's book *The Power of Music*, it can be complex for many organizations to succeed in generating evidence that both informs their own practice and helps provide funders with the information they need to allocate their investments wisely.

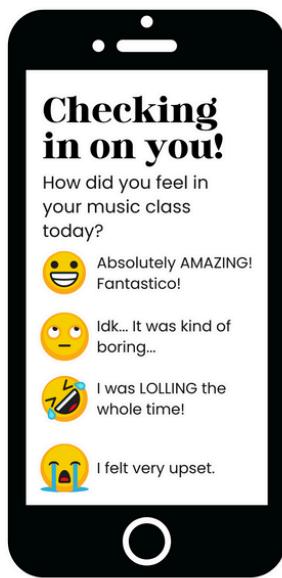
Student Compass offers a flexible, quantitative solution to bridge this gap and help music programs assess whether the expected impact on overall student wellbeing is actually occurring. Its theory of change based on impact measurement and evaluation is important in the music education field as it represents a means for the organizations to assess whether the activities it undertakes are likely to achieve a positive outcome for their students. Thus, it leads music programs to focus and refine the quality and structure of their activities.

Student Compass consists of a mobile application to be integrated into the curriculum of music programs. It offers students very short surveys on a daily basis formulated with questions based on methods scientifically validated by psychologists through academic research and publications designed to measure and track the wellbeing profile of children and adolescents. The surveys are offered in a clear, interactive and fun way to students in order to encourage their motivation toward using the app. Standard questions asked cover physical and psychological well-being, peers and social support, bullying, and so on (for more information we direct the reader to the *KIDSCREEN model* in the Logic Model references). In this way, students, even the most shy and introverted, have a simple and effective way to communicate anonymously about their state of wellbeing during program activities.

Common problems faced by music programs due to a lack of data collection and analysis of students' wellbeing:



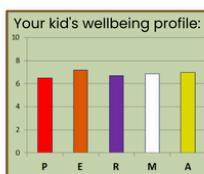
▼ ▼ ▼ **SOLUTION**



*Student
Compass*



▼ ▼ ▼ **OUTCOMES**



Receiving the wellbeing profile of their kid, parents can be more engaged in their lives

Students' voice is recognized as an integral part of the curriculum

Real-time indications of classroom effectiveness lead to improved teaching quality

School administrators obtain proofs and interpretations of program's effectiveness which support implementing strategic decisions and securing funding

Each data collected is forwarded in real time to a web server that manages the data transfer by adopting an SSL encrypted protocol in order to protect users' privacy. The data are then analyzed through the implementation of mathematical statistical models and are organized into several dedicated reports. Specifically, Sistema Compass provides 3 different types of reports:

- An individual wellbeing profile of the student is forwarded weekly to the respective parents (or guardians). The latter are the only ones who obtain the kids' personal data, which are handled anonymously and encrypted in all other information passages. The reports provided allow parents to monitor their children's wellbeing, be informed in real time if there is something wrong, so that they can be more involved in their lives and provide the right support.
- Anonymous collective reports on each class are provided to the teachers at the end of each lesson. They indicate whether the delivered concepts were well understood and whether there are students who are struggling and feeling behind. In this way, instructors can check teaching effectiveness in real time and test different pedagogical strategies to verify which is the most efficient. Also, by becoming aware of the presence of individuals who are struggling (who do not always show overt signs in the classroom), teachers can organize dedicated lessons and targeted meetings with parents in order to prevent physical and/or emotional breakdown of the students.
- Monthly anonymous collective reports are sent to program administrators, summarizing and interpreting all data collected in the school into overall trends and indicators on the impact and effectiveness of proposed activities. This enables them to more consciously and efficiently implement strategic educational decisions. In addition, school directors can share the results with donors and funders and also include successful outcomes obtained in grant applications, strengthening their credibility and rationale.

When budgets are tight, spending time and money on evaluation may seem extravagant. However, with less money available, questions such as "*what works?*", and "*how are we going to get the evidence?*" become all the more important. Music programs need to be able to answer these questions confidently. User-friendly and affordable, Student Compass makes this possible, empowering music organizations to communicate positively the value of their work and increase the likelihood of further funding.

Please, see in the attached appendix the proposed schedule of operations and implementation timeline.

Human Resources/Organizational Structure

Student Compass boasts an interdisciplinary team that covers nearly every stakeholder in the proposed organization: one music program director (Katie), one school administrator (Kelly), one music teacher (Claire), one orchestra director and parent of music student (Daniel), one engineer specialized in data collection and analysis (Alberto). The uniqueness of the proposed project derives precisely from the resonant union of the passions, ideas and interests of each team member. In the following, profiles with corresponding roles and baggage of expertise are outlined in more detail:

- Alberto Acquino (Mobile Application Coordinator, COO): Alberto holds two masters degrees in engineering and one in music performance. He is pursuing a doctorate in music technology working in close collaboration with professors of performance science, music education and wellbeing at McGill University. Alberto has professional experience in the engineering field as researcher, scientific consultant and startup founder. In the musical sphere, he has toured all over Europe as a performer, actor and conductor. Given the interdisciplinary nature of his skills and his experience as a student representative ombudsman at McGill University, Alberto is ideally suited to fill the role of COO, overseeing in detail the operational functions of Student Compass.
- Claire Ahern (Marketing Manager, CMO): Claire is a professional flutist, educator, and performing artist currently based in Saint John, New Brunswick. In 2019, Ms. Ahern moved from her native Halifax, Nova Scotia, to pursue a position as a teaching artist conducting with Sistema New Brunswick. With educational background and experience in social media management, digital advertising, and event organization and promotion, Claire is ideally suited to serve as the Marketing Manager of Student Compass.
- Katie McDermitt (Executive Director, CEO): Katie is a professional flutist and educator. In addition to a full-time private flute studio, she is the Executive Director and founding member of El Sistema Indianapolis, and is the Quality Assurance Manager at Salesvue, an application on the Salesforce.com platform. With extensive experience in music pedagogy and performance as well as software development processes, Katie is uniquely qualified to lead the Student Compass team.
- Daniel Montes (Finance and Accounting Manager, CFO): Daniel is a Choir and Orchestra Conductor, he is currently finishing two master's degrees in Innovation and Educational Management and Music Pedagogy and Didactics. He is currently the Academic Director of the Honduras Crecimiento Foundation and Musical Director of the OAS Program of the OAS in which they are forming the System of Choirs and Youth Orchestras of Honduras with five thousand children currently. He is also the General Director of the Bolivian Bicentennial project together with the Bolivian National Symphony Orchestra and the Ministry of Culture where they are training more than ten thousand children in the country. His many years of experience in managing and planning complex events ensures the expertise needed to excel in this role.
- Kelly Suthers (Mobile Application Director, CTO): Kelly holds extensive experience in teaching for and managing administratively El Sistema-inspired organizations. In her current role as Program Manager of the Ravinia Lawndale Programs, Kelly operates programming for over 180 students and manages a staff of 16 full and part time employees. Kelly currently holds partnerships and builds relationships with the Chicago Public Schools and the Chicago Park District, both integral parts of the Chicago community. Kelly holds a strong working and mentorship relationship with Scott Edgar, Social Emotional Learning specialist in music education at Lake Forest College, an ideal educator to guide the curricular design of the application to best serve the students. With her experience in partnerships, curriculum, and managing teams, Kelly is ideally equipped to guide the development of Student Compass.

The culture of the Student Compass team is defined by open communication, and ongoing innovation. In the spirit of the application itself and the field of data collection, analysis, and holistic evaluation, Student Compass' internal culture will emulate the values of the products and services it offers. Essentially, Student

Compass practices what it preaches- and sells. Within the team structure, there will be a tone of openness and a normalization of non-judgemental dialogue. The posing of questions, seeking of assistance, and being vulnerable and honest with lack of knowledge will not only be promoted, but praised! Furthermore, the team will be continuously learning through professional development, adopting best practices, and staying on the cutting edge of their field. There will be a balance between group collaboration and independent work, allowing for an individual cultivation of ideas and a collective working through of these thoughts when brought to the communal table.

Financial Plan

The initial funding of Student Compass will come broadly from Foundation Grants (about 88%). In our research for Canadian and US grants from Foundations, we were very pleased to find that many grants are available for social change projects that intersect with technology and the arts. In interviewing Heather McAfee from the Canada Council for the Arts, she explained that they do not fund during or after school (operational) education programs. However, she said the Council regularly funds innovative technology startups in the arts, such as Student Compass. The grant we aim to attain is the *"Cultivate Grant"* from the Canada Council for the Arts, in which we could be awarded up to \$250,000 for the development of Student Compass in year one and help to support our three person staff team. In addition to the Cultivate Grant, we plan a few smaller donations from individuals and corporate sponsors, such as the McCain Family and Scotiabank.

In order to ensure our application surveys are developed to be scientifically validated through the PERMA model, our in-kind partnership with McGill University will also prove to be highly valuable, working with specialists in music performance, psychology, and social workers. Lisa Lorenzino, professor at McGill University, was thrilled at the potential of Student Compass, stating that there are only a couple of El Sistema-inspired programs that have attempted such an in depth level of measuring impact and wellbeing of their students, due to the massive amount of resources this research usually requires. As McGill University highly values performance psychology and the El Sistema philosophy of music education, we are optimistic that their students and professors would benefit from participating in the development and data collection of Student Compass as a part of their educational studies.

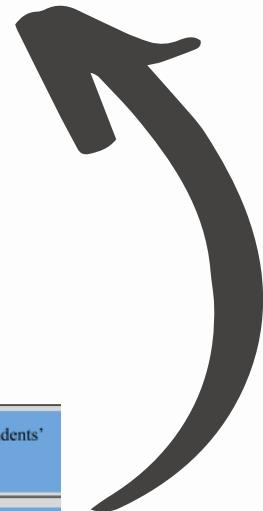
In year two, our project will be funded through several smaller grants from both Canada and the US, such as the Fred Fountain Grant, MusiCounts Grant, United Way Community Fund, Community Grant Project, and the National Endowment of the Arts. These grants would further pay for improvements to our application, and final touches during the beta testing phase, in partnership with Sistema New Brunswick. While Sistema New Brunswick would be able to utilize our application without any financial commitment, we would ask for an in-kind donation of office spaces and amenities at their Moncton Centre, such as internet, electricity, and some office equipment. This would allow us to keep our operating costs significantly lower, and to interact with teachers and students directly to better understand the user experience.

In year three, our positive reputation and impact through beta testing will help us not only to attain repeated donations and grants from individuals, foundations, and corporations, but also to venture into new grants. Some examples include the NAMM Foundation, D'Addario Foundation Grant, and ASCAP Music in the Schools Program, all of which are notorious for providing support to both El Sistema-inspired organizations and to music education in-school programs. With this continued annual additional funding, we will be able to subsidize the cost of our subscriptions for music education programs. The cost of the application for a music education program in-school with over 40 students would cost only \$1.27 per student per month, and the cost for an El Sistema-inspired program with over 40 students would cost only 97 cents per student per month. With the market launch of our application, offering subscription to thousands of in-school music programs and over 180 El Sistema-inspired programs in North America, we will be able to bring in 33% revenue by year three.

Although in year two we will experience a deficit of almost \$48,000, we will be able to cover this expense through our surplus in year one of \$54,000. In year three, Student Compass will create a surplus of over \$38,000, which will be important in order to contribute to our newly appointed Finance and Accounting Manager, Development Manager, Marketing Manager, and increases of salaries for existing staff positions: the Executive Director, Application Director, and Application Coordinator.

The largest challenge we face in developing Student Compass is the initial funding of the project. While there are many technology grants available, there are also many startups seeking and competing for these grants. If we could not attain the Cultivate Grant from the Canada Council for the Arts, there are other options, but perhaps not so many that provide such a large amount of money at the startup level. Additionally, one of the largest expenses we incur is through our staffing. It is risky to begin such a large scope project intended for all of North America with only three team members in year one, and there is a potential chance for the need to contract out additional help than was initially budgeted for. However, we are optimistic that with our specialties in music education and El Sistema-inspired organizations, and our extensive connections with both McGill University and Sistema New Brunswick, that Student Compass will be conceived successfully with the plan already in place.

Cost Structure Year 1	Revenue Streams Year 1
Administration & Benefits = 51.7% Consultancies = 6.6%	Additional Expenses = 12.2% App Creation = 29.5%
Intended Impact To improve and sustain music education programs, ultimately allowing students to flourish into fulfilled, contributing members of their communities.	



Impact Business Model Canvas

Problem Statement	Music education organizations in North America lack an accessible and effective method of evaluating the impact of their programming on their students' well-being and therefore, how to improve the student experience, resulting in students frequently dropping out of these programs.			
Mission Statement	To improve student wellbeing, musical excellence, and retention in music education programs.			
Key Partners	Key Activities	Value Proposition	Stakeholder Relationships	Stakeholder Segments
<ul style="list-style-type: none"> -Sistema New Brunswick -World class music educators -Social workers and child psychologists -McGill University -Government -Donors 	<p>Key Resources</p> <ul style="list-style-type: none"> Social worker and child psychologist consultants (o) App developers (c) Specialized Music Teaching consultants (i) Customer support (c) Social media (o) 	<p>The voices of all students are recognized as an integral part of the music curriculum. Parents regularly receive the wellbeing profile of their child, so that they can be more involved and provide support. Teachers receive targeted reports with indications about their class effectiveness, check if the delivered concepts are well understood, and if there are students that are struggling or feeling behind. School administrators obtain general reports summarizing the collected data to gain awareness of their program's impact and effectiveness, so that they can share the anonymous results with donors and funders, and can better implement strategic decisions.</p>	<p>High-touch, High-frequency, Generally long-term with beneficiaries</p> <p>Mid/Long-term institutional and personal relationships</p>	<p>Music programs' decision makers and music educators (i) Parents/families (i) Students (i)</p> <p>Music programs' directors (o) Local, provincial and federal government agencies (c) Private, family, corporate foundations (c) Individual Donors (c) Corporate Sponsors (c)</p>
Cost Structure Year 1	Revenue Streams Year 1			
Administration & Benefits = 51.7% Consultancies = 6.6%	Additional Expenses = 12.2% App Creation = 29.5%	Foundation Donations = 88% Government Grants = 2% Individual Gifts = 2%	Corporate Donations = 2% In-Kind Donations = 6%	
Intended Impact	To improve and sustain music education programs, ultimately allowing students to flourish into fulfilled, contributing members of their communities.			

Communications Plan

The communication plan is based on two stakeholders personas who have the need to use this app.

Our first beneficiary is a student in a music program, personified here by “Lisa.” Lisa is a 3rd grade student who has been participating in the music program on violin for 7 months. Lisa has begun to feel left behind in class, and has started to act out because she is embarrassed at not being as good as her peers. Lisa wants to quit the music program because she is no longer enjoying it, but her parents need her to continue in the program because they cannot pick her up earlier. Lisa always arrives to class hungry and fatigued, due to being up late at night on her phone.

Our second beneficiary is an administrator of a music program, personified here by “Ned.” Ned is an associate director of a massive El Sistema-inspired program, and he regularly suffers from burnout due to the intense workload. He cares immensely about his organization’s mission to provide accessible music education to all students no matter their background. Ned notices that his employees seem to be experiencing the same problems over and over again: student engagement issues, behavioral problems, attrition, and teacher lack of knowledge of how to get their students past a certain level on their instrument. Ned does his best to provide positive and constructive feedback to his colleagues regularly, but always wonders, “How can we solve these problems more proactively? Why do the same problems persist time after time in 2 of the nucleos, but not the other?”

Statement for Client, Ned Flanders:

For music program administrators and directors, Student Compass provides an effective, practical, and affordable platform method to measure their program’s impact on their students’ wellbeing, demonstrating the effectiveness of program activities to their supporters while providing valuable feedback about student’s experiences in the program.

Statement for Beneficiary, Lisa Simpson:

For students enrolled in social impact music education programs, Student Compass is an interactive application that step-by-step navigates them towards engagement and wellness, employing state-of-the-art scientific methods to evaluate and address their needs through an engaging and user-friendly app.

Lisa is introduced to Student Compass through her music program. The teachers show Lisa how to use it in class, and then she is encouraged to use the app outside of class. The teachers dedicate five minutes of the lesson time for the students to fill out the survey, and the students will complete it at that time. Based on the results of the survey, teachers will be notified of students in need of support, and will be able to adjust their curriculum to provide extra support. Student Compass needs to also be “sold” to the students, not just the parents and teachers. This can be accomplished by providing an interactive and gamified experience. It needs to be efficient in its activities and games, so as not to lose the attention of students. Teachers should be really versed into the Student Compass so that they can illustrate to students how to use it. The app and teachers need to continue to encourage Lisa and provide a holistic curriculum that pairs with the app so that she can continue to feel excited and inspired to use it. Teachers need training on how Student Compass can be integrated into their daily curriculum and provide valuable knowledge and data in order to constantly improve the program they are providing.

Ned hears about Student Compass through advertising and targeted emails because of his membership with El Sistema USA and by word of mouth from other programs across the country. In order to reach Ned, Student Compass must advertise frequently, and more widespread in different forms of communication to cultivate awareness. On hearing about Student Compass, Ned is interested in the potential benefit to his employees and students, and so responds to the advertisement or email. A meeting is set up between Ned and a Student Compass representative to learn more about Ned's program's needs and which functionalities of Student Compass would be a good fit. Addressing the doubts of potential subscribers is key to bringing them on board. Student Compass's website should include a clear layout with videos that describe the services offered. When Ned sees the value that Student Compass offers his program, he will choose a subscription plan, begin the onboarding process, and implement the app with his staff. The subscription process needs to be easy and efficient, and then to be convenient to share with others who are a part of that program's plan. Student Compass should collect data quickly and seamlessly, reporting findings to the administrator's account quickly and delivering information clearly.

Impact

For our Capstone Project, success looks like a network of clients who are utilizing our app, using collected data to improve their programming, performance, and to access funding and raise awareness of their good work. Essentially, fulfillment of our impact will be attained by proving and improving the impact of music programs worldwide.

Given the critical importance of two different types of Student Compass beneficiaries, we have chosen to implement an evaluation system on both students enrolled in music education programs and program directors. Specifically, the following evaluation questions are intended to be addressed, and the primary evaluation question we would be looking to answer before/during/after a pilot are as follows:

- Are our mobile application and surveys effectively measuring the students' well-being and collecting viable data?
- Are the students actively engaged in the application activities and surveys?
- Are program directors gaining value from the implementation of Student Compass?

These questions matter because they will determine the success of our product. We cannot proceed with our venture until the answer to all three is a solid 'yes.' We will use these questions to inform programming, shaping it to ensure we are imparting as much value to our clients as possible.

Furthermore, we will communicate our measurements of success to the outside world by participating in relevant conferences, networking and tapping into various industries: the technological sector, the music education field, and the evaluation profession. We will advertise our success through marketing campaigns, at once raising awareness and gaining clientele.

Scalability

Our scalability is outlined in the following graphic, outlining our growth and expansion over a 5 year plan:

Year 1	Year 2	Year 3	Year 4	Year 5
<p>Goals</p> <ul style="list-style-type: none"> • Research & development • Funding, grants, investors • Company culture & values • Know-how development • Core staff hiring • No sales <p>Benchmarks</p> <ul style="list-style-type: none"> • 1 grant receipt • Funders • Core activities covered by team members (hiring) • Minimum Viable Product 	<p>Goals</p> <ul style="list-style-type: none"> • Beta testing with partners • Partners relationships • Ongoing evaluation • No sales <p>Benchmarks</p> <ul style="list-style-type: none"> • Fully adoption in the curriculum by partner stakeholders in beta testing • Final product available in English, French, Spanish <p>Partnership</p> <p>Sistema New Brunswick</p>	<p>Goals</p> <ul style="list-style-type: none"> • Launch on the market • Target on North America • 30% total revenue from sales <p>Benchmarks</p> <ul style="list-style-type: none"> • New clients acquisition • Clients recommendations <p>Partnership</p> <p>El Sistema USA</p>	<p>Goals</p> <ul style="list-style-type: none"> • Expansion in North America • Customer relationships • Full sustainability • Planning customization for South America <p>Benchmarks</p> <ul style="list-style-type: none"> • Collected data show well-being impact of client music programs activities • Partnership with El Sistema USA 	<p>Goals</p> <ul style="list-style-type: none"> • Beta testing in South America • Building profit margin <p>Benchmarks</p> <ul style="list-style-type: none"> • Standard reference for music programs in North America (grants requirement) • Building profit margin <p>Partnership</p> <p>Fundación Nacional Batuta El Sistema Venezuela</p>

Implementation Timeline

- August 2022 Buy a domain name for the website and social media platforms, creating brand history and credibility
- August 2022 Finalize interviews with various stakeholder segments to collect enough data to validate the value proposition
- September 2022 Consult with expert music educators to design the app's musical activities
- September 2022 Formalize partnership with Sistema New Brunswick or other established educational program in North America
- September 2022 In parallel, write grant applications and conduct donor research
- September 2022 Formalize partnership with McGill University (or other relevant academic center) to validate adopted scientific methods (i.e., PERMA and KIDSCREEN models) and establish statistical models to be implemented in the software
- January 2023 Select the choice of survey questions in the model together with social workers and child psychologist
- January 2023 Contact translators to translate Sistema Compass into English, French, Spanish
- January 2023 Hire software developers to create the Compass System platform. This will be supported by consultants for the security of processing and management of sensitive data

- **February 2023** Testing that the webApp is working properly. Debugging process and interface adjustment. Make sure the translation functionality works in the different languages
- **June 2023** Shoot explanatory videos to be uploaded to the app as Youtube links in which disseminators, music educators and teaching artists explain how the app works to different stakeholder segments (e.g., one video for children, one for parents, one for teachers, one for music program administrators)
- **August 2023** Beta testing is launched with music program partners. In-person fieldwork with teachers, students and music program directors. A collection of quantitative (evaluation system) and qualitative (field interviews) feedback is conducted
- **February 2024** The software is adapted iteratively to the needs of users based on feedback gathered in the beta testing phase
- **February 2024** In parallel to the beta testing phase, we work on the first publications on our project and form relationships with El Sistema USA developing a network of contacts with music programs.
- **February 2024** Meanwhile, the website is created and activities are posted on social media platforms
- **June 2024** Promotional campaign is launched with a conference presentation at El Sistema USA. Student Compass is put on sale on Apple App Store and Google Play Store
- **July 2024** Build customer relationship remotely and in person with customized workshops

Future steps (After year 3): development and beta testing of Student Compass System with partner programs in Latin America (e.g., Fundación Nacional Batuta, El Sistema Venezuela) focused on significantly different needs than programs in North America

Conclusion

In conclusion, Student Compass is a venture that addresses a dire problem and proposes an innovative solution. There are music programs worldwide changing the lives of children and improving the social landscape of the communities they serve. Their impact is going unmeasured, and therefore uncelebrated. Furthermore, the wellbeing of their students is going unquantified; this is statistical data which Student Compass will make actionable. We have proposed this project to international musical education leaders who are already keen to make use of our application, and to receive such positive feedback so early in our process is a valuable vote of confidence, and speaks to the viability of our product.

Challenges certainly lie ahead: gaining clients and business traction, navigating working long term as a team, and managing the partnerships that fill gaps of resources and expertise. Certainly, there are ethical matters at stake, collecting and analyzing the social-emotional data of children. Matters of agency, anonymity, and privacy lie ahead and deserve due deliberation. These are known matters: there are also unknown trials that will surely manifest. While this is true, so too is the fact that our team is cohesive, passionate, and dedicated. Our product is essential, and our efforts are intentional: Student Compass is not only an app, but an asset to music education programs internationally.

Appendix

Student Compass Logic Model

Name:	Cusuco Team
Product Name:	Student Compass
Problem Statement: <i>One sentence</i>	Music education organizations in North America lack an affordable, accessible, and effective method of evaluating the impact of their programming on their students' well-being.
Rationale: <i>What facts or logical basis do I have to support my compelling problem? Bullet points required.</i>	<p>Evaluation method in other social music education organizations:</p> <ul style="list-style-type: none"> - Most music education programs do not have a consistently structured method to gather data regarding the social/emotional wellbeing of their students. (Reference:, Conducted interview with El Sistema Program expert Professor Lisa Lorenzino, personal experience) - Music education programs do not have a lean, objective method to compare the wellness of students between classes/centers/nucleos/geographic regions and over time, especially El Sistema-inspired programs. - The scope of an in-depth, widescala, longitudinal study of this topic implemented by researchers is costly and inaccessible to most music programs. - Governments, investors, and funding bodies require proof of impact in order to secure and sustain financial support of music education ventures. - There are few tools for the student and the teacher that can have a great follow-up, both in classes and in their individual study. <p>Effects of Music Education</p> <ul style="list-style-type: none"> - Positive impact of self-esteem attributed to recognition of musical abilities being acknowledged by family and friends - Discipline, positive attitude towards school, concentration and raised aspirations were the most frequently cited positive outcomes for programmes modeled after Venezuela's El Sistema
Program Goal(s): <i>One Sentence</i>	- Researchers reported qualitative evidence demonstrating enhanced motivation, determination, willingness to be challenged, and ability to imagine and achieve goals, particularly amongst the secondary school participants.
Assumptions: <i>What is my informed opinion about why achieving my goal will solve the problem I have identified?</i> <i>Bullet points required.</i>	<ul style="list-style-type: none"> - Through playing together, students will learn interpersonal and motivational study skills thanks to this app. - The children are finding their own capacity experiencing the musical successes derived from investing time, discipline with an accessible and easy methodology. - The subscription method and customization aspect of the app allow it to be crafted to the needs of targeted programs. - The price point is affordable beyond what the cost of a thorough study would require. - Music programs are invested in tracking and evaluating the wellbeing of their students. - Students are willing to engage with Student Compass through gamified data collection surveys; the medium of evaluating and tracking their wellbeing. - Researchers can be involved in the creation of the app, based on research and objectively. - Children are finding their own capacity by experiencing the musical successes derived from investing time, discipline and dedication. - Student Compass offers a safe platform, and the students will answer honestly.
Resources: <i>What partnership, human, capital, community, and financial resources do I have to work with? Bullet points required.</i>	<ul style="list-style-type: none"> - McGill University - El Sistema USA - Sistema New Brunswick - Social workers - Child psychologists - App developers - Academic collaborations (e.g., music education specialists) - Investors and donors

Activities <i>What happens in our program?</i>	Outputs <i>What are the tangible "products" of our activities?</i>	Short-term Outcomes <i>What changes do we expect to occur within the short-term?</i>	Intermediate Outcomes <i>What changes do we want to see occur after that?</i>	Long-term Outcomes <i>What changes do we hope to see over time?</i>
App content development	A web application that measures well being objectively and through gamified surveys	Engagement with researchers, social workers, and teachers to craft the content of the application	Beta testing with students, continual development	Iterative app content development based on emerging research and best practices
Digital app programming and development	A functional application that is supported on multiple devices and is accessible, engaging, and comprehensive	Music students download the app and start testing its functionalities as Student Compass is adopted in the program curriculum	The app collects data and program directors start receiving reports	Program directors have enough data in order to start adjusting and improving the program curriculum for their students
Analyze incoming data from all clients	A collection of data sets tracking student development from client programs	Begin to collect data from initial client programs	Sort, analyze, and assess growing collection of data from growing pool of client programs	Use data collection to evaluate, track, and improve impact Collaborate with research institutions using collected data
Marketing	Advertising and networking that brings more clients on board	Build a strong relationship with partner organizations (beta testers) which can endorse Student Compass	Student Compass starts becoming well-known among music programs	The use of Student Compass becomes standard among music programs for social change to easily assess the impact of their activities and become more interconnected with their students and families
Ongoing Evaluation	Student Compass continuously gathers responses to evaluation surveys	Program directors are able to daily monitor the students activities'	Student Compass sends structured monthly reports of the overall trends of the responses	Program directors can provide donors and funders with concrete data of the impact of their program
Client relationship maintenance	Fostering ongoing and mutually beneficial relationships with client programs	The provision of Student Compass implementation workshops, and consultancy in partnership with social workers and teaching artists	The use of Student Compass provides a community of subscribing organizations	In order to make this community more accessible to more subscribers, El Sistema USA acquires shares of Student Compass, which is sold at El Sistema music programs at a discounted rate

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Schedule of Operations

Year 1	Year 2	Year 3	Year 4	Year 5
<p>Goals</p> <ul style="list-style-type: none"> • Research & development • Funding, grants, investors • Company culture & values • Know-how development • Core staff hiring • No sales <p>Benchmarks</p> <ul style="list-style-type: none"> • 1 grant receipt • Funders • Core activities covered by team members (hiring) • Minimum Viable Product 	<p>Goals</p> <ul style="list-style-type: none"> • Beta testing with partners • Partners relationships • Ongoing evaluation • No sales <p>Benchmarks</p> <ul style="list-style-type: none"> • Fully adoption in the curriculum by partner stakeholders in beta testing • Final product available in English, French, Spanish <p>Partnership</p> <p>Sistema New Brunswick</p>	<p>Goals</p> <ul style="list-style-type: none"> • Launch on the market • Target on North America • 30% total revenue from sales <p>Benchmarks</p> <ul style="list-style-type: none"> • New clients acquisition • Clients recommendations <p>Partnership</p> <p>El Sistema USA</p>	<p>Goals</p> <ul style="list-style-type: none"> • Expansion in North America • Customer relationships • Full sustainability • Planning customization for South America <p>Benchmarks</p> <ul style="list-style-type: none"> • Collected data show well-being impact of client music programs activities • Partnership with El Sistema USA 	<p>Goals</p> <ul style="list-style-type: none"> • Beta testing in South America • Building profit margin <p>Benchmarks</p> <ul style="list-style-type: none"> • Standard reference for music programs in North America (grants requirement) • Building profit margin <p>Partnership</p> <p>Fundación Nacional Batuta El Sistema Venezuela</p>

[Student Compass Impact Business Model Canvas](#) <- Click to view

[Student Compass Financial Budget Years 1 - 3](#) <- Click to view

Implementation Timeline

