

HUNDRED RESEARCH REPORT #001

# Every Child to Flourish

Understanding Global  
Perspectives on  
Improving Education

INSIGHTS FROM A STATE OF THE DEBATE  
REVIEW & GLOBAL YOUTH SURVEY

HUNDRED.ORG

**hundrED**



EMOTIONS  
relaxed  
nervous  
energetic  
sleepy  
excited  
happy  
panicked  
spectacular  
stressed  
absent-minded  
cranky  
angry  
frightened  
bouncy  
confused  
restless

## Acknowledgements

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First and foremost, we would like to thank all the experts who participated in our vision interviews and young people from across the world who responded to our survey. Without your support and collaboration in sharing your valuable insights on what you perceive needs to be improved in education, none of this would have been possible. We extend our thanks to the wonderful editorial team, Josephine Lister and Lauren Wilson during the copy-editing process, as well as all our colleagues at HundrED, Saku Tuominen, Lasse Leponiemi and Natalie Day, who provided invaluable feedback and comments. Additionally, Kate Robinson, who conducted many of our HundrED vision interviews included in this report. The conclusions and recommendations of any HundrED publication are solely those of its authors.

HundrED also gratefully acknowledges the support of our global partners, Supercell and Nokia.

HundrED is a not for profit organization committed to discovering, researching and sharing inspiring innovations in K12 education. Our goal is to help improve education and foster a movement; encouraging valuable, impactful & scalable innovations to spread, mindful of context, across the world.

**Suggested citation:** Spencer-Keyse, A. Jessica & Warren, Frederika (2018), "Every Child to Flourish: Understanding Global Perspectives on Improving Education. Insights from a state of the debate review & global youth survey." HundrED Research. <https://hundred.org/en/research>

**Date:** June 2018

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## WHAT IS INCLUDED IN THIS REPORT?

- **Section 1:** Overview of HundrED
- **Section 2:** Multi stakeholders perceived needs on improving education
- **Section 3:** Youth perspectives of what needs to improve in education & what they currently value
- **Section 4:** Mapping of perceived needs with definitions, evidenced value and innovation examples
- **Section 5:** Discussion and future directions for the multi stakeholder education community

## HOW CAN THIS REPORT BE USED?

This report enables stakeholders to understand:

- Perceived needs across the community and education ecosystem
- The value and findings of youth perspectives
- How innovation can address education needs

This type of information may be particularly useful to: Educators, School Leaders, Youth, Innovators, Thought leaders, Systems Level, NGOs, Parents and Carers and anyone involved or interested in education to: 1) Celebrate areas of strength 2) Consider areas to improve 3) Re-evaluate current approaches to address education more holistically and inclusively 4) Guide collaboration locally and globally with stakeholders 5) Consider implementation of innovations that best meet needs.



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# Abstract

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For many children around the world today, the education they receive is insufficient and incompatible with the 'real world'.<sup>1</sup> While ways to improve education are continuously grappled with, there is a lack of research exploring the opinions held by the many stakeholders in K12 (4-18 years) education with regard to possible improvements. Although many approach this from a sole-stakeholder or thematic perspective, it was the focus of this research to understand both the breadth of perceived needs, and key concepts surrounding education improvement, from a global multi-stakeholder perspective. As young people are too often excluded from educational change, a core part of this exploration examines youth opinion. This research seeks to understand 1) the breadth of areas stakeholders perceive as a need for improvement. We term these 'perceived needs' 2) perceived needs from a youth perspective, as well as what they currently value in education. Additionally, a final motive of this research was to map the breadth of educational needs identified to guide research processes at HundrED, share findings relevant to all stakeholders in the wider education community and identify ways to get involved with HundrED and beyond.

The research was approached using a mixed methodology via two foci: a state of the debate review of both formal and informal sources (including interviews conducted by HundrED) and a Global Youth Survey. The review included the following education stakeholders: Systems level, School leaders and Educators, Thought leaders, Academics, Non-Governmental Organizations (NGOs), Employers, Parents/

Carers, Youth, and General Population. In total, 322 responses to the survey were received from young people, aged 13-18 years, educated in nineteen countries. Data was analyzed quantitatively and thematically, to inform these findings. Findings gave rise to key themes and highlighted a wide scope of perceived needs for improvement across the breadth of education. The implications and considerations of the methodology, including future directions, are discussed in further detail throughout. Recommendations based on the findings suggest the importance of understanding and considering all areas of education, and are mapped out in this report. This is necessary when seeking to implement and reflect on education innovations to create the change necessary today. Collaboration should also include youth, embracing change from a Children's Rights perspective and supporting Article 12 of the United Nations Convention on the Rights of the Child.<sup>2</sup> Ultimately, inclusivity and collaboration between all stakeholders is necessary for effective change, otherwise key insights and needs risk being missed in the education ecosystem as it is developed.

## KEY WORDS

Education, Innovation, Needs, Thematic Analysis, Youth, Survey, Multistakeholder, Children's Rights, Ecosystem

# Foreword

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The world today is in a fast-paced state of constant change, with this acceleration there is a growing complexity of social and technological processes which result in new and currently unresolved issues directly affecting the evolving education ecosystem.<sup>3</sup> Consequently, in many areas of the world education is struggling to keep up. A deep 'learning crisis' has been highlighted, showcasing that many are leaving years of schooling with little outcomes to show for it.<sup>4</sup> While education ultimately varies based on context, there appears to be shared frustrations and stresses, both locally and globally, that need to be understood and addressed.

In my time researching at HundrED, it has become evident that many individuals across the world are deeply passionate about improving education, expressing a multitude of reasons specifying its importance. Yet, due to the disconnect of insights and information in education, they are too often unaware of other stakeholder perspectives and innovations that are working impactfully, committed to scale and addressing key needs. Educational stakeholders are often unable to take into account global perspectives and insights in education, hitting language or financial barriers that prevent them from tapping into global knowledge bases and exploring practical examples: to understand, seek, implement and reflect for improvement locally. Understandably, many initially believe that innovations and changes being made in different countries could not and do not apply to their situation, yet it appears that across the world common issues and goals do arise. This does not mean there is necessarily a cut and paste

solution for education, but there is an opportunity to bridge understanding and work together to make adaptations that fit within each individual context. If we are not making this knowledge base and community accessible, and celebrating their tremendous value, we are ultimately hindering opportunities for the world's children. Essentially, everyone has a role to play in improving education, from policy makers to students, to academics and teachers. It is time to engage all stakeholders, everywhere, to understand that we can utilize deep insights and change from around the world in our continuously interconnecting global community.

In conducting this research we strove to feature the perspectives of youth, which are too often excluded from debate and action.<sup>5</sup> We asked what they value about their current education and one young person said **nothing**. Whilst in our respondent sample this is just one voice from 322 perspectives, and may hypothetically be an anomaly, what if one in 322 young people do truly value **nothing** about their current education? If we applied that to a global context, based on an approximate sample of 4-18 year olds<sup>6</sup>, then nearly three million young people value nothing about their education. In exploring their perceived values and needs for improvement in education, it became clear that for many, learning ultimately feels inauthentic and irrelevant, disconnected from the 'real world' and their future.<sup>7</sup>



It is vital to gain further insight, into what young people today want to improve in education.

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However, there is hope, with a vast growing community of innovation across the education system, identified by HundrED and other education innovation spotters worldwide<sup>8</sup>, rethinking and implementing educational change. Much has been done to improve and explore skills<sup>9,10</sup> for example, to understand how our young people can be better prepared for the future. Yet, we

must look beyond the typical trends to see if the innovator and stakeholders in education are addressing the breadth of needs necessary to create faster and valuable education evolution. Thus, it's imperative that we strive to understand young people's perceived needs, both locally and globally, to develop insights and practical solutions together. We hope in the future, that more can be done to engage youth within the array of stakeholders to bridge the gaps in educational insights. This will allow us to move forward together, innovating for an education that **allows every child to flourish, no matter what happens in life**. It is this goal that drives us forward and into the education innovation space.

We would like to acknowledge that this initial research is a stepping stone in creating a global, multi source, multi stakeholder vision for education as we aim to be the world's leading experts of impactful and scalable education innovations by 2020. We hope to create a global community and make the world of K12 education truly inclusive. This research is simply one step of many in helping us to support and improve education, it is by no means a fully comprehensive or complete global overview, detailing the intricacies of everything that needs to improve. The notion of capturing a extremely detailed global representation of where education is today is much too broad and variegated and, as always, time and resources play their part. A goal of ours in the future though will be to capture even deeper insights, to include both primary and secondary, formal and informal sources in various languages, and to be as inclusive and encompassing as possible. This report does, however, indicate perceived needs, as well as common themes

across multiple stakeholders in education. It also highlights perspectives using a variety of sources which are frequently omitted in research. The report has action points throughout, located at the end of each of the three sections ending with a final mapping of perceived needs. Tackling innovation in K12 education requires clarity, so based on these insights we can now ensure innovations researched and selected at HundrED showcase examples improving the breadth of education. We hope it will prove useful for multiple stakeholders, to encourage wider discussion, consideration and implementation of innovation in education worldwide.



Jessica Spencer-Keyse

HundrED

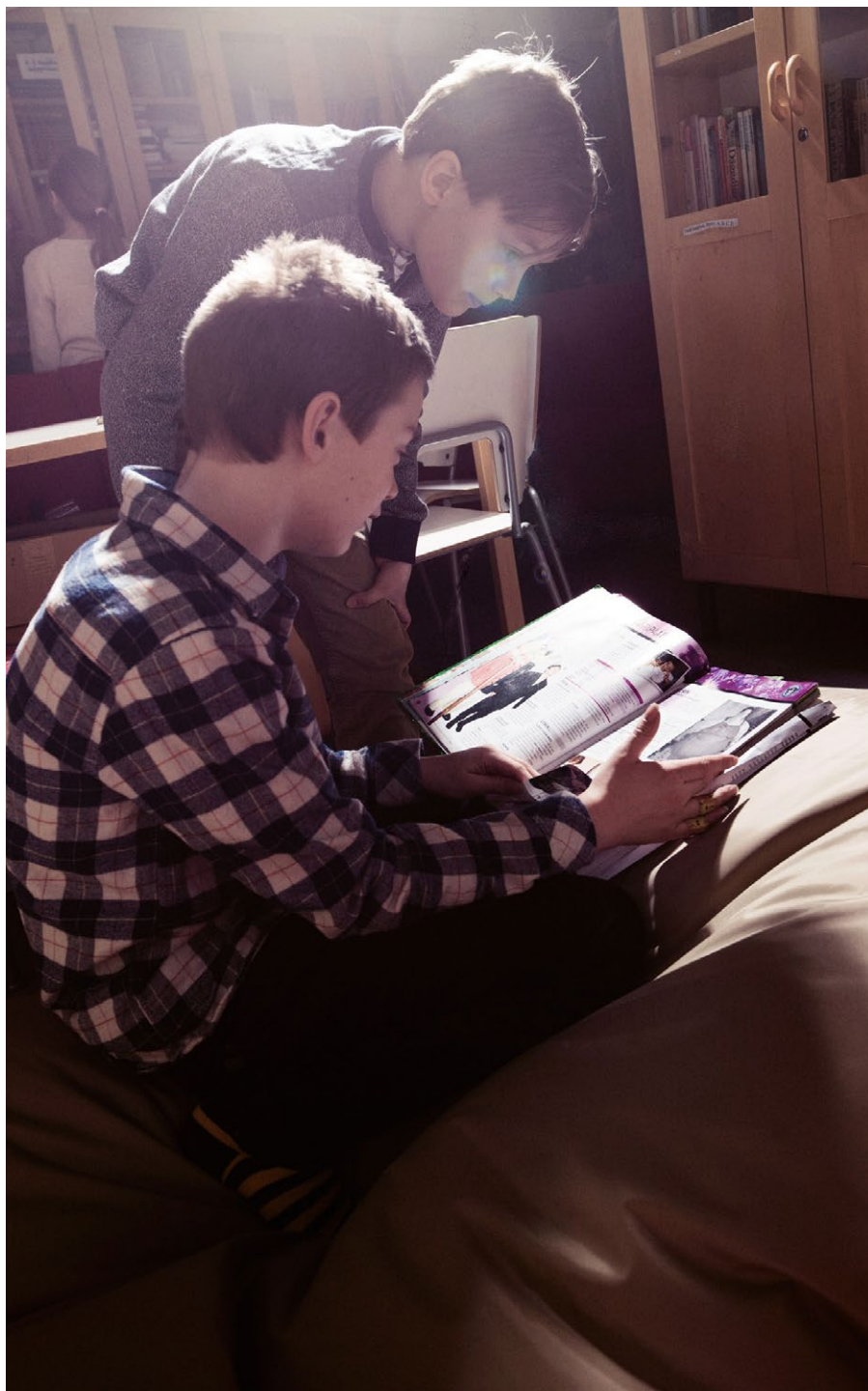
# Executive Summary

## Overview

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This research was conducted by HundrED to examine perceived needs of multiple stakeholders in education globally. While education is upheld as a fundamental area for improvement, enshrined in the United Nations Sustainable Development Goals<sup>11</sup>, many are unsure of how to secure equity in education. Our goal was to understand the breadth of areas and key themes that arise. Our work at HundrED, amongst the top education innovation spotters in the world<sup>12</sup>, has highlighted the scope of impactful education innovation happening worldwide. Yet, there are barriers to transformation and no clear guidance for innovators to focus their efforts to ensure no parts of education are left behind. We hope that by identifying these perceived needs, we can highlight how innovation can be used to improve areas of education as highlighted by what stakeholders would like to see change. We also hope to draw together key findings, to identify more effective ways to collaborate and build a sustainable education innovation community.

Based on extensive research, that attributes successful change to engaging multi stakeholders<sup>13,14,15,16</sup>, we have pieced together visions and hopes from our existing work, original research and youth survey. It was this motivation that encouraged us to examine insights of perceived improvements across the dynamic, organic ecosystem of education. As a result, we hope to inspire action-oriented stakeholders to seriously consider the valuable nature of collaborating to implement nonlinear educational change utilizing innovation.



Our work at HundrED, as one of the top education innovation spotters in the world, has highlighted the scope of impactful education innovation happening worldwide.

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Our report is split into five sections: HundrED's background, State of the Debate, Global Youth Survey, Mapping and Evolving Ecosystems - where we share our final thoughts.

## HundrED

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This section of the reports features HundrED's motivation, journey and contribution to the education innovation world. We share our insights and processes from our conception; as a Finnish-based educational project, receiving applications from across one of the most revered countries for their standard of education in the world, to our current global model. We highlight the successes and insights from Finland 100 and how this work prompted HundrED to adapt this model to support international change.

We will share the various ways HundrED supports education globally; through celebration, recognition, visibility and connections for innovations, and inspiration, reliability, simplicity and community for implementers. As well as the building of an accessible, usable global platform of innovations, providing free to use step by step toolkits, alongside inspirational media. All highlight our inclusive stakeholder approach, harnessing the power of international change to improve education, mindful of context, worldwide.

We highlight the successes and insights from Finland 100 and how this work prompted HundrED to adapt this model to support international change.

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At HundrED we are committed to ensuring all innovations are valuable, supporting clear needs, and demonstrate evidence of impact and scalability to highlight our evolving, in-depth research practices. All research is supported by feedback for selection, engaging multi stakeholder opinions to showcase innovation relevant to a breadth of contexts and stakeholders worldwide. We also highlight the importance of innovation and invite all those who are developing and working in this area to utilize our platform to share their work, for both global recognition and to explore the various ways to be involved at HundrED.



## State of the Debate

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This section of the report explores multiple stakeholders' perspectives to understand perceived needs of what should improve in education across the global ecosystem. It showcases that by tapping into multiple stakeholder sources, it is possible to gain key insights into an overview of the multitude of areas deemed necessary for improvement in education.

To do so we undertook a quantitative and qualitative thematic analysis of primary and secondary sources. The state of the debate review on perceived needs in education improvement, included the perspectives of nine different education stakeholders: Systems level, School leaders and Educators, Thought leaders, Academics, NGOs, Employers, Parents/Carers, Youth and General Population. Sources were then coded based on an initial 50 themes to understand how often stakeholders referred to these across sources.

Whilst some perceived needs in education were consistently mentioned and referred to more often than others, findings suggest that similar issues exist for many

We can take lead  
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transformation  
across the  
community.

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stakeholders across the dynamism that is education. Whilst solutions must be adapted or created for local context, this showcases the necessity and usefulness of learning from and supporting a global education innovation community.

With examples of progressive education innovators, also utilizing multi stakeholder insights and action effectively, we can take lead from current examples to support further transformation across the community. The future of education innovation has the potential to continue to grow and support multiple insights to ensure the community are addressing the breadth of needs necessary for local and global contexts.

## HIGHLIGHTS

- Stakeholders identify a great breadth of areas in education as perceived needs for improvement.
- Different stakeholders often highlight certain areas when talking about what needs to improve in education, focusing predominantly only on a few themes.
- Engaging and utilizing the community, through increased partnerships and family involvement, is mentioned as an integral area to improve in education by all stakeholders.
- All stakeholders commented on the negative effects of current assessment.
- In relation to improving achievement of literacy and language vs. numeracy, all stakeholders (except employers) were more concerned with literacy than numeracy.
- Parents and carers focused heavily on themselves as a stakeholder, with 44.67% of their focus drawn to what their role can be in relation to education, highlighting how isolated they may feel from current opportunities.
- Schools leaders and educators focused on the importance of improving assessment, budgets and funding, the role of policy and systems level, their role and how to improve the learning environment. Surprisingly, improving literacy and numeracy skills were of the lowest priority to this stakeholder.
- Health and mental wellbeing, except by youth, were not prioritized across the sources as a perceived need.

- No stakeholder prioritized youth as a theme, despite the importance placed on student centered learning, this concept was barely acknowledged by stakeholders.
- Youth focused heavily on the importance of children's rights and participation, comparably four times higher than other stakeholders.
- In line with other research, a student's relationship with their educator was highly valued, however, it was noted that this was in relation to the educator being a better facilitator, allowing them to share their opinion and thrive.

Trying to gauge how stakeholders prioritize areas for improvement in education is difficult when attempting to utilize sources which offer overviews of education. We are aware that many stakeholders create reports focussing on key educational issues, however at HundrED we believe that, although these in-depth reports are of value, the breadth of perceived needs must also be incorporated into reports which aim to create a 'current' overview of global education. This will support understanding and collaboration towards transforming the entire ecosystem.

# Global Youth Survey

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Whilst much has been written internationally about approaches to educational change<sup>17</sup>, there have been few attempts to ensure young people have an opportunity to share their views and witness change based on their input<sup>18</sup>. At HundrED we believe youth voice is vital for changing the status quo in education. There are so many ways to engage young people in the decisions that affect their daily lives, from figuring out whether a new educational tool is engaging, to trying to understand the breadth of what needs to improve in education. As young people are the most impacted by ever-changing educational policies, they deserve the right to voice their opinion and include their perspective in the conversation.

Reaching voices around the globe is a challenge, particularly the ones who feel and are most unheard, so we designed an online survey to understand both what young people would like to see improved in education, as well as what they currently value. They were presented with eighteen youth relevant options for selection, based on our preliminary thematic analysis conducted in November 2017. The results provide a fascinating and rich insight into the opinions of young people from nineteen countries aged 13-18 years regarding their perceptions of education.

## HIGHLIGHTS

- 83% of youth believe learning skills to help them in their future career would improve their education.
- Young people feel unprepared for the 'real-world' and frequently share their concern for a lack of preparedness for what they will face after formal education.
- Following this, youth were most concerned with improving: their physical learning environment (61%), learning life skills such as empathy, collaboration & communication (58%), their education being tailored and personalized to their needs (56%) and learning how to live a sustainable lifestyle (53%).
- Sustainability, in the state of the debate, showcased its importance to only general population at 2.78%, yet in the global youth survey over 50% of youth highlight this as an area to improve.
- Ultimately, all 18 options for selection were deemed relevant to youth. On average, choices were selected by half of all respondents and even the least selected option was selected by one quarter of respondents.
- The most common themes in regards to what youth value highly in their current education was: the importance of meaningful relationships with staff, developing a global outlook and being prepared for their future.
- Youth also explicitly demonstrated their gratefulness in having the opportunity to access education throughout the written comments.

These findings suggest that many youth do not typically have the opportunity to consider or share their views for direct influence in relation to education and they welcome the chance to expand further on their thinking. Open-ended questions were particularly useful in the survey to further elicit in-depth information. Future research should continue to utilize their perspectives to accelerate change and address specific concerns.

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## Mapping

It can be difficult to make sense of the full scope of education and which areas need attention currently. At HundrED we wanted to understand and map perceived needs, especially those that many are only acutely aware of. We have realized being immersed in the education innovation world that it is important to understand the variance of the ecosystem to ensure innovation can address education's deepest, most relevant needs. As the state of the debate findings highlighted, when multiple sources from multiple perspectives are pieced together there are many commons areas for improvement. The global youth survey also reinforced this finding; particularly highlighting a deep disconnect between young people's current education and their real world future.

Consequently, we have shared perceived needs, with updated language based on our findings, as an overview containing definitions, evidence of importance and innovative examples. To deepen our knowledge surrounding needs we have created an evidence base chronicling the latest education research on all areas and we intend to grow this to ensure all innovations selected are based on extensive, relevant evidence. The goal is also to support development of a shared language, as well as highlight reasons for their importance and practical examples of innovations for consideration.



## Evolving Ecosystems

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At HundrED our goal is to celebrate and empower all stakeholders to create the changes necessary in education together for today, and the future, utilizing collective intelligence, a global platform and community, within their local ecosystems. This section of the report discusses overall findings, future directions and ways to get involved at HundrED. With evidence to suggest perceived needs across the ecosystem, it is important to utilize the power of the collective to solve them.

Based on the overall findings of this research it can be suggested that:

- All stakeholders, particularly youth, should be consulted and engaged to ensure change is developed and supported by all.
- Stakeholders must strive to be more collaborative, building both local and global multi stakeholder relationships.
- We should continue to both deepen and broaden our understanding of the education ecosystem by mapping perceived educational needs to provide clarity and stimulate improvement.
- Stakeholders can consider the ways innovation can support identified needs, when utilizing the mapping section of the report. They can also seek to address needs more holistically.
- It is likely that, to see education transformation, we must empower all stakeholders and ensure bottom-up stakeholders and approaches are empowered to be masters of their own change based on their expertise.

# HundrED

## Background

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HundrED is a non-profit organization that discovers, researches and shares inspiring innovations in K12 education. HundrED was born from the notion that in a world becoming increasingly connected and globalized, education can still be very local and isolated in its practices. Our goal is to support improvement in education and inspire a movement, opening up valuable innovations to spread across the world. The goal is to be the world's leading expert on scalable education innovations by 2020. HundrED is unique in its positive outlook on education. We go beyond just identifying problems by highlighting solutions already improving education worldwide. Whereas other educational resources, databases and media can be negative about the outlook of education, HundrED focuses on celebrating, inspiring and empowering all stakeholders to create positive change in education, we strive to keep the conversation open. Everyone's voice is welcome as we realize that no singular point of view can change education for the better. What we share through our media is grounded in HundrED's research and only shares innovations and ideas that have been identified as innovative, impactful and scalable.

## Finland

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HundrED's story began as a part of the Finland 100 project, the official celebration programme for Finland's centenary of independence in 2017. Finland has long been recognized in the world of education, coming top of Pisa's international results table in 2000, 2003 and 2006.<sup>19</sup> Despite Finland's reputation for being a trailblazer in successful education, in more recent years Finland's position in education has been questioned as recent data has shown their place in PISA has fallen.<sup>20</sup> Whilst Finland's education system has much to be admired for, ultimately all countries have the potential to lose their foothold in more ways than one and require continual development and innovation to improve. Finland has taken a proactive approach in engaging with educational innovations as a means to close this gap in attainment. The country's centenary provided a perfect opportunity for an education themed initiative with the aim of creating a vision for change nationally, as well as globally, through finding innovations to share with the world for free. HundrED gained funding from the Finnish government to analyze and prepare for the next 100 years of education, continuing to improve the Finnish education strategy based on the excellence the country already has.

“The Finnish way of thinking is that the best way to address insufficient educational performance is not to raise standards or increase instruction time (or homework) but make school a more interesting and enjoyable place for all. Raising student motivation and well-being in school in general are among the main goals of current education policy in Finland.”<sup>21</sup>

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– Pasi Sahlberg

The call for submissions began in December 2015, with the first round ending in April 2016. HundrED advocates for a multi stakeholder approach, therefore anyone from teachers to school leaders, from policy makers to for profit organizations, could apply to take part in HundrED's Finnish 100 education experiments. Over 750 applications were received in 2016 from across the entire country, with themes spanning the whole spectrum of K12 education, tackling the diverse multitude of problems and aspects of education that need innovating. It was highlighted that submissions could range from a brand new concept, to excellent existing practices, and if selected their work would be showcased with the world for free.

To analyze and select the submitted 750+ initiatives, we assembled an advisory board of Finnish education specialists to evaluate many facets of their work such as scalability, community benefits and valid pedagogy of the experiments. The advisory board met throughout the Spring of 2016 to make their final selection in April 2016. The Finnish HundrED advisory board consisted of thirteen experienced members from different areas in education, ranging from politicians, to researchers, to teachers. The members were Jouni Kangasniemi, [Anneli Rautiainen](#), Jaakko Salo, [Kristiina Kumpulainen](#), Tiina Silander, Leena Pöntynen, Harri Rinta-Aho, Kari Kumpulainen, Anna-Mari Jaatinen, [Jani Toivola](#), Maurizio Pratesi, [Pekka Peura](#) and Sampo Lokki. The advisory members offered invaluable insights and feedback throughout the selection process.

On April 27th 2016, 75 Finnish experiments were selected for trialing throughout the 2016-2017 school year across Finland, a further 25 were selected on 7th December 2016. Each experiment shared their findings in real time throughout the process. During the experiments all updates could be found on [project pages](#) in the form of videos, photos and blog texts. The participants challenged themselves to trial new educational ideas that were based on Finland's new core curricula and its renewed broad-based competencies, to create learning tools for teachers and students in preparing them for the future workforce. Upon completion of this process all experiments were formatted and packaged into toolkits, so that anyone, anywhere in the world could access the projects for free and use them in their K-12 classrooms all around the world. You can explore them on [HundrED's site](#) within the Finland 100 collection. All were celebrated in various events around Finland and in December 2017 all were invited to a Gala Summit and thanked publically by the Minister of Education, for their outstanding contributions in the development of education.

As part of the celebrations, HundrED gained insights from a number of education experts, querying what they thought the next 100 years of Finnish education should look like. The quote below, from Dr Orlando, summarizes some of the key motivations behind the next steps in HundrED's journey towards global outreach.

“The next 100 years of Finnish education should... continue to be a great example for education in the world, and continue to connect with education systems around the world, so that it isn't so siloed between countries, but is more of a global network enterprise where we are enjoying and using the great ideas that are coming out of each. Finland has got a wonderful reputation in terms of education, but there are also great things happening in other countries. So pulling that knowledge is really important direction, not just for Finland, but for other countries as well.”

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– [Dr. Joanne Orlando](#)

**So, let's go global.**





## Global Research

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HundrED Global was born from the initial education innovation project conducted in Finland. Whilst this has been a fantastic opportunity to review and celebrate education innovation nationally, a key insight highlighted by those who took part, was the amazing opportunity it created to break down barriers in education. In the classroom it can be so rare to know what is happening in another classroom in your own school, let alone in classrooms around the country or world. At HundrED, we wanted to change that, recognizing the value that this model could have globally. We began by interviewing globally focused thought leaders in education to understand their visions for the future across five encompassing areas: skills, assessment, learning environments, leadership and teaching. Their expertise, passion and inspiration, as well as the common theme that much needs to be done to improve education worldwide, solidified the urgency to adapt the model from Finland for a wider audience.

The Finnish research process was adapted and developed to become our global research process which results in

What we learned during our first year of research, is that there is no shortage of innovation in the education sector.

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the selection of 100 education innovations, showcasing the breadth of incredible work happening across the scope of education, to share and spread worldwide. From October 2016-2017, we researched over 1000 innovations, chronicling them based on over 150+ categories in education, tagged for ease of access on our site today. We shortlisted potential innovations based on their innovativeness, impact and scalability to schedule and conduct in-depth, semi-structured interviews with 200+ innovators. We define these terms as: Innovativeness: Valuable improvement within the context, Impact: Established for at least one year with demonstrable evidence and Scalability: Adaptable in new environments with commitment to scale. We created an advisory board of fourteen experts to support analysis and selection, sharing over 150 innovations. The advisory board provided feedback using our online voting tool, making the final selections between July and September 2017. The Global HundrED advisory board consisted of fourteen experienced members, from multiple areas in education, situated across the globe. The members were Xavier Araguay (Spain), Shukla Bose (India), Hanna

Sarakorpi (Finland), Yaacov Hecht (Israel), Ghada Amer (Egypt), Valerie Hannon (UK), Connie Chung (USA), Pasi Sahlberg (Finland), Shafika Isaacs (South Africa), Sandy Speicher (USA), Pak Tee NG (Singapore), Andrew Mangino (USA), Anthony MacKay (Australia) and Ingvi Hrannar Omarsson (Iceland).

What we learned during our first year of research, is that there is no shortage of innovation in the education sector. What is lacking, however, is a way for those ideas and initiatives to be packaged, so that they are accessible, easy to follow and more easily discoverable. Toolkits are one way in which we can provide access to the best education innovations globally, so we worked closely with selected innovators to develop the toolkits you will see on our site today. Additionally, we recognized the need for a passionate, motivated network, consisting of all stakeholders across the globe, key components which aid the opportunities for innovations to spread, mindful of context. All selected innovations were celebrated at our HundrED Innovation Summit in October 2017. We facilitated a three day event, with activities taking place across Helsinki, exploring the future of education and unveiling our first annual collection of 100 Global Inspiring Innovations, from over 40 countries across the world. The summit played host to a series of inspiring keynotes from influential leaders invested in reshaping education including Shukla Bose, Founder of Parikrma Humanity Foundation and Olli-Pekka Heinonen, General Director of FINEDU.

Since the celebration of the first annual global collection, the HundrED research team has reflected on the research process, on its strengths and weaknesses, and noted that whilst the initial review had highlighted a large scope of education, certain areas were potentially missing from the database. Thus, we identified the need to conduct a state of the debate mapping review, understanding the areas in education that are a perceived need for improvement, alongside a global youth survey. This process has supported the refinement and development of our education database of worldwide innovations, building an evidence base of research literature to grow and archive on educational change. To seek innovations we conduct desk based research, to further understand innovations for selection we have continued to conduct in-depth qualitative research, alongside a working scales prototype to gain a current and potential data capture point of innovations in relation to their innovativeness, impact and scalability. We aim to develop these scales for validation in 2019. All of this is supported by our growing HundrED Academy replacing the previous advisory board model. The Academy is compiled of 100+ stakeholders in education and consists of one third experts, one third educators and one third young people to engage multi level stakeholder feedback.



## Why innovation?

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Education is an indispensable part of every society<sup>22</sup>, but for all too many it does not address the multifaceted needs of our students, with 264 million children and youth not in school.<sup>23</sup> Furthermore, worldwide hundreds of millions of children reach young adulthood without even the most basic life skills<sup>24,25</sup> and those in the Global South in particular continue to receive poor quality education, with around 250 million children identified as functionally illiterate and innumerate, despite 50% of them having spent at least four years in school.<sup>26</sup> Countries in the Global North also identify with similar issues, even if they are on a smaller scale. There has been an increasing focus on issues with segregation in schools and the impact this has on attainment.<sup>27</sup> Mental health and wellbeing has also been prioritized, as children across the world are increasingly reporting higher levels of unhappiness and distress.<sup>28,29</sup>

In order to be successful, education should be continuously evolving, recognised as a dynamic system to meet the needs of all students globally. The latest research highlights that one way to do this is through innovation. The International Commission on Education Financing, when examining how we can transform learning in only one generation, outline that innovation is one of four pillars necessary to succeed and improve the education sector.<sup>30</sup> Additionally, in Brookings latest report, *Can we Leapfrog?: The Potential of Education Innovations to Rapidly Accelerate Progress*, they demonstrate the vital part innovation in education plays to accelerate education progression and address skills uncertainty in a rapidly

changing world.<sup>31</sup> Beyond the research, there are also organisations who are committed to supporting change through innovation. The not for profit, Ashoka, for example, cultivates and inspires a movement of changemakers by identifying and supporting the world's leading social entrepreneurs; learning from patterns in their innovations and mobilizing a global community to embrace these new frameworks and build an "everyone a changemaker" world.<sup>32,33</sup> The Global Education Innovation Initiative at Harvard Graduate School for Education support the development of global education leadership for 21st century education by conducting research on innovative practices, training leaders, and creating a dynamic learning network of global partners interested in educational innovation<sup>34</sup>, while Big Change are a social impact accelerator, who back big ideas that help young people to thrive in life not just in exams<sup>35</sup>. As well as World Innovation Summit for Education (WISE), an international, multi-sectoral platform for creative thinking, debate and purposeful action hosting a biennial Summit and a supporting a range of ongoing programs<sup>36</sup>. These are just a few examples that highlight the support and action surrounding the role of innovation in changing education. While the definition of innovation varies, and the stage and types of innovations worked with differ, the importance of innovation does not.

Innovation in education should develop continually to create sustainable and relevant practices.<sup>37</sup> This is not to say that everything is frequently untested and changes hugely all the time, at a rate impossible for educators and leaders to



keep up, rather that innovation has the potential to support both incremental and transformational changes for education. Sometimes hugely valuable small improvements, have the potential to improve education transformationally. Innovations from around the globe have been shown to have numerous benefits, such as learning outcomes, quality of education provision, motivation, efficiency and interpersonal skills. This has been showcased in the impact sections of the HundrED Global toolkit collection.<sup>38</sup> There are thousands of examples, that have and continue to create tremendous change. With over 17 years of research yielding consistent results, Roots of Empathy<sup>39</sup>, demonstrates impressive outcomes for their students noting decrease in aggression, including bullying, increase in prosocial behaviour, an increase in social and emotional understanding & an increase in knowledge of safe parenting.<sup>40,41</sup> Then there is Design for Change<sup>42</sup> who empower students to be socially aware and proactive change agents in their community. Through undertaking self-directed community projects, children shift their mindset from "can I?" to "I can!" Design for Change has received over 20,000 stories of change from 45 countries and has impacted 2.2 million students. Research conducted by The Good Project at the Harvard Graduate School of Education, shows significant attitudinal shifts: most students begin the sessions feeling frustrated and helpless and the majority leave feeling motivated, hopeful, proud and excited to make a change.<sup>43</sup> Both of these examples of innovations selected by HundrED, are valuable innovation are committed to transforming education at scale.

To support widespread change, we must commit to both identifying and understanding how innovations that are valuable, impactful & scalable create much needed change in education. As identified by the collaborative open access book: "Breaking the Mold: An Educational Perspective on Diffusion of Innovation", there are both theories, examples and practical advice showcasing how innovation has the potential to diffuse, based on Roger's theory in understanding the innovation-diffusion-adoption process.<sup>44</sup> Future research at HundrED will increasingly focus on how and why innovation spreads in education, drawing upon insights from our in-depth interviews conducted with all innovators during the selection process and new research to provide practical insights for all stakeholders in education. As part of this process, we will now share our insights from the state of the debate and global youth survey, exploring the perceived needs examining what needs to improve in education. This ultimately leads into our overall insights when making sense of how and why innovation spreads as a key factor is its perceived desirability from the stakeholders perspective.<sup>45</sup>

At HundrED we are committed to this vision through discovering, researching and sharing inspiring innovations in K12 education. Our goal is to help improve education and foster a movement; through encouraging valuable, impactful & scalable innovations to spread, whilst being mindful of context, across the world.

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# State of the Debate

## Purpose

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As a society we strongly believe education is of utmost importance; so much so, that we have declared it a human right.<sup>46</sup> This was established by the Universal Declaration of Human Rights<sup>47</sup> in 1948, based on the growing movement outlining its vitality, and since has been followed by a wave of programmes and support, from those who strive to ensure every child has the right to a valuable education. We value education for a multitude of reasons, such as its development of knowledge and skills that contribute to personal growth and community, for its capacity to develop social justice and civic engagement, for its opportunities to cultivate cultural and artistic eminence, but also in the greatest sense of its ability to facilitate human flourishing. With its chronicled multitude of benefits from developing basic skills, such as literacy that enable us to work, to how pedagogical practice can enhance both structural and physical developments<sup>48</sup> to enhancing our cognitive abilities such as higher memory capabilities in later life<sup>49</sup> enabling greater life satisfaction and lifelong learning. Thus, we must continue to ensure it serves the purpose of today's rapidly changing world.

Due to the complexities of the dynamic system, with research highlighting the many ways in which education is still yet to benefit many worldwide, it is unsurprising that global leaders now identify education as the top priority of the world's development agenda,<sup>50</sup> aware that millions of children cannot read, write or do basic math, despite several years of school<sup>51</sup>.

With a multitude of issues surrounding education highlighted in the public eye such as educator retention and recruitment<sup>52,53</sup> there is much for systems level stakeholders to improve. Concern is felt by all as parents are conscious that it's more difficult for their children in many ways after school<sup>54</sup> and young people are expressing their lack of preparedness for the future.<sup>55</sup> Educators and leaders struggle to make sense of how best to approach their practices, with Lucy Crehan's book, *Clever Lands* a timely acknowledgement of one ex-educator's pursuit to understanding what makes an education system successful<sup>56</sup> and employers are demanding schools provide young people with a better skill set required for today's workforce and an unknown future. Parent engagement also remains a major challenge for schools.<sup>57</sup> Ultimately, it can be difficult to understand how to know what others perceive needs to change, and to forge meaningful partnerships to create change.

At HundrED we are particularly concerned with the question of how innovation can create faster and more valuable education evolution. In a global pursuit, we began by conducting in-depth interviews with nearly 100 education experts to gain their insights into the current state of education. All were asked the following question:

## **Do you feel that current education methods fully prepare students for the needs of the 21st century?**

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Not one person said yes.

So, if we do not believe current education around the world prepares our children adequately, we need to both outline and continue to understand what we need to do to improve education to enable this to happen. The purpose of this report is not to detail the vitality of an education, as we believe wholeheartedly in its necessity, but to explore and understand what may need to change so innovators and other stakeholders, can focus their efforts and forge effective partnerships to best improve education from the multi-source, multi-stakeholder perspective it deserves. Too often the guidance to change comes only from systems level stakeholders, and whilst there have been efforts to include multiple voices, it can be hard to pinpoint what exactly needs to improve and how we can make sense of these numerous perspectives together to create an international ecosystem in education. This lack of collaboration can hinder progress and create barriers to innovation as we struggle to make sense of a fast changing world.

From our research seeking innovations in Finland and globally we have gained valuable insight from chronicling and interviewing innovations. We define innovation as a valuable improvement within the context, that can be created by all stakeholders, and focus on both 'small' incremental aspects of education, to whole school approaches, from not for profit programmes to whole system transformations and more. Yet much of innovation relates to improving one, or only a few, individual aspects of education, whilst dynamic approaches that take a whole systems or big picture perspective are lacking in development. This may typically be governments or schools who map curricula or non profits who focus on how one aspect, such as how social emotional learning can be incorporated into schools. While this is particularly useful for developing specialist knowledge and highlighting gaps, it can result in a sense of overburdening, with no room left to add more into the day.<sup>58</sup> Is it possible to bridge and connect innovation and stakeholders in a more effective way, supporting mediation and growth across the sector?

We found there to be a distinct lack of literature considering the education ecosystem holistically and those who do, tend to focus primarily on the Global South, or the Global North.<sup>59</sup> The World Development Report 2018 Learning to Realize Education's Promise<sup>60</sup>, however, was one example of research that provided an in-depth overview highlighting the 'learning crisis' as many schools continue to provide learning which is not meaningful or improving youth outcomes. This report suggests that the best way to equip children and youth for the future is to place their learning at the center and that stakeholders need to explore: 1) education's promise; 2) shining a light on learning; 3) understanding how to make schools work for learners; and 4) understanding how to make systems work for learning.



Whilst they highlight three valid and important actions: 1) **Assessing learning**: gaging whether it is well-designed to support learning to spotlight hidden exclusions, make choices, and evaluate progress, 2) **Acting on evidence**: to make schools work for all learners, making better use of this evidence to support implementation and change through innovation and 3) **Aligning actors**: developing stakeholders to support innovation by reducing real-world barriers and mobilizing all. This research is ultimately aimed at policy and system levels. It does not map or identify areas what all stakeholders have identified or how to develop education together. Other research and organisations also provide useful details on how to deliver improved outcomes for school systems but typically exclude certain stakeholders, particularly the role of youth and parents<sup>61</sup>.

So why have stakeholders struggled to cooperate in the past? The World Bank in Figures 1 and 2 highlight the many competing interests which typically occur governing education stakeholders which can hinder progression, as people act in reaction to the choices of others throughout the system. Misalignments are unsurprising. Systems level face political complications as they attempt to preserve power, acting in the interest of certain groups. Whilst For profit innovators may prioritize monetary goals over the needs of young people, often in the instinct to survive, and educators autonomy is often limited due to teaching to the constraints of assessments, curricular and accountability.<sup>62</sup> Though the overall intention of improving education is positive,<sup>63</sup> ultimately other competing interests and goals act as barriers. Therefore it's imperative overcome pressures and competing objectives to celebrate and support implementation in a way that acknowledges all. By understanding these perspectives we hope to increase collaboration and support amongst all.

FIGURE 1

**Figure O.7 Why learning doesn't happen:  
Four immediate factors that break down**



Source: WDR 2018 team.

FIGURE 2

**Table O.2** Multiple interests govern the actions of education stakeholders

Stakeholders	Examples of . . .	
	Learning-aligned interests	Competing interests
Teachers	Student learning, professional ethic	Employment, job security, salary, private tuitions
Principals	Student learning, teacher performance	Employment, salary, good relations with staff, favoritism
Bureaucrats	Well-functioning schools	Employment, salary, rent-seeking
Politicians	Well-functioning schools	Electoral gains, rent-seeking, patronage
Parents and students	Student learning, employment of graduates	Family employment, family income, outdoing others
Judiciary	Meaningful right to education	Favoritism, rent-seeking
Employers	Skilled graduates	Low taxes, narrowly defined self-interests
Nongovernment schools (religious, nongovernmental, for-profit)	Innovative, responsive schooling	Profit, religious mission, funding
Suppliers of educational inputs (e.g., textbooks, information technology, buildings)	High-quality, relevant inputs	Profit, influence
International donors	Student learning	Domestic strategic interests, taxpayer support, employment

Source: WDR 2018 team.

While all are striving towards the same goal it can be difficult to make sense of what needs to improve individually, let alone together. As different stakeholders focus on pushing forward areas they believe most need improvement such as increased representation for the arts, therefore, mapping up and joining all these areas in our global world is not an easy task. This can, unintentionally, particularly alongside international league tables, create competitiveness for countries and regions, as well as a feeling of being overwhelmed in respect to educators, leaders and schools as they feel disrespected and receive direction for improvement in an unconnected way without consultation.<sup>64</sup> With a focus on 'trends', instead of how to improve the whole, in a strategically connected approach, it can often feel to educators that they are expected to do more and more, with no more time to do it in; at the detriment to themselves, and of course the young people it is for.<sup>65,66</sup>

An example of this, would be the digital skills movement following the identified gap in technology skills for students and teachers.<sup>67</sup> While in some ways this was beneficial in moving the issue into the public eye, with many innovative solutions created for this need, it did so in a narrow, subject specific way due to the lack of perspective regarding the whole. This is where the innovators of the time concentrated much of their energy, channelling creativity to focus on only one solution rather than across the board. Whilst this is a great step toward creating opportunities in this area, it did not incorporate identifying students holistic needs in line with the widely accepted 'Whole Child, Whole School, Whole Community approach' which has demonstrated notable success.<sup>68,69</sup> To support a whole picture of education for all stakeholders to understand, a picture must be built of the needs perceived by multiple stakeholders, for a truly collaborative solution. To do so requires a framework and mutual understanding of areas to improve, goals and differences.

There are examples, throughout the literature chronicling the benefits and successes of engaging different stakeholders; typically referred to as either 'partnerships' or the 'community' to improve education. While it does not come without complications<sup>70</sup> there are many examples of success stories. The Department for International Development identifies that parents and communities should be empowered to hold schools and policymakers accountable for low quality education, if we can expect all children to even achieve the basics by 2030<sup>71</sup>. Promoting community participation in school management, for example, has demonstrated that to gain idealized results, knowledge in the community is vital.<sup>72</sup> Additionally, NGOs across India have demonstrated success through engaging local communities innovatively in school, functioning through information dissemination and capacity building efforts in rural and urban contexts.<sup>73</sup> In many of these instances, however, the 'community' refers to empowering select stakeholder involvement so we must strive to find ways to understand and include all. Yet, without intentional design

of collaboration it rarely happens. To do so we need to work together to create a viable, feasible solutions by understanding what is desirable.<sup>74</sup>

To understand the stakeholders through a review process a multisource approach is valuable to gain a deeper understanding of current issues in education by drawing upon the many types of outlets individuals use. Stakeholders in education use various platforms to voice their concerns, and it is important that these arenas are acknowledged and incorporated. With the increasing dominance of digitized expression through social media, it is vital to not discount these avenues due to them not fitting the traditional paradigms of academic research. During the state of the debate review 109 sources were analyzed, covering academic papers, reports, journalistic articles, academic blogs, books, blogs and a variety of social media platforms (Twitter, Facebook & Instagram). Each of these sources has value in offering different perspectives, be it formal or informal, and allowing us as researchers and the public to gain an overview of the current state of the debate on education in 2018.

It can be difficult across education, due to the number of stakeholders involved, to navigate the minefield of terms, as well as to identify how all the stakeholders can work together to improve education as a whole. It will be a continued mission of ours to make sense of these terms and definitions, and to build a shared terms and definition database, based on our research and practice in the field, with input from all stakeholders.

“The world is changing extremely fast and schools need to change as well, but it’s not an easy task because, all over the world, education is happening in silos. Every country is a silo, every state is a silo, every city is a silo and every school is a silo. There are gatekeepers everywhere, so it is complicated to make change happen.”

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- Saku Tuominen



The next hundred years of education  
should... take risks and be brave.

– Keri Facer

Thus, HundrED's purpose of this research was to gather perspectives from multiple stakeholders of what the perceived needs are regarding improvement across educational contexts, to gain global insights to support local change. The scope of current activity of those in the education sector on social media, events and personal blogs, alongside the growth of books written by frustrated educational leaders and educators, highlights the timely nature and importance for all involved. The goal of this work was to understand the breadth of those needs, from as many countries of possible, within the scope of this methodology and resource, using multiple sources that consider multiple stakeholder perspectives.

Thus the purpose for this research is threefold.

1. To provide key insights for all stakeholders in education by mapping and synthesising perspectives.
2. To recognise the importance of and share engaging insights from youth, as a major stakeholder, around the world.
3. To guide the research process at HundrED for seeking innovations for potential selection to the global inspiring innovation collection 2019.

As a consequence this report aims to:

### 1. **Promote collaboration**

HundrED believes that only by encouraging these open discussions amongst everyone, can we begin to move forward. By breaking down the current focuses of each stakeholder, we can be empathetic towards others and improve inclusive stakeholder practices in education. Similarities will unify everyone toward a higher goal through multi stakeholder action.

### 2. **Provide clarity**

By identifying the areas of education all stakeholders would like to see improve, in the local and global context, we hope to provide clarity to the debate of how to transform the ecosystem, better share knowledge and support change. At HundrED we are committed to researching the ever-evolving world of education to share a deep understanding of educational needs and solutions.

### 3. Shift mindsets

With an ever-changing world, it's vital that we identify the areas of education that need to improve so we can work together and challenge fixed mindsets to encourage growth mindsets<sup>75</sup>. If we keep things the way they are, things won't get better. It's time to challenge the norm.

### 4. Support implementation of valuable innovation

It is vital to seek innovations that are also multifaceted in their approach and contribute to a wide range of necessary educational outcomes. When innovations focus solely on a current educational trend, they may fail to acknowledge and nurture the multiple benefits their innovation could offer. HundrED therefore, researches innovations in depth, across the spectrum of education, in order to analyse the extent to which their impact is truly changing the face of education today.

### 5. Promote youth engagement

HundrED believes we must empower and consult youth as a major stakeholder when improving education globally. Young people are increasingly impacted by the ever changing educational policies that come into effect and therefore should have the right to voice their opinion. The United Nations Convention on the Rights of the Child (UNCRC) highlights the necessity for children's right to participate.<sup>76</sup> Research has also shown the benefits of including the opinions of students in educational reform, and HundrED found youth's insights into their education invaluable.<sup>77</sup> We hope that by giving young people a platform on which to voice their thoughts and opinions through this report, HundrED is further promoting the necessity of youth engagement to all stakeholders in education.

## Do you feel that current education methods fully prepare students for the needs of the 21st century?

“No, I don't think they do very well. We're in a millennium that's going to be full of surprises, and technology brings a lot of those surprises. Kids need to be able to cope with solely unexpected problems, it's really important. At the moment they probably sit in exam rooms and think 'I hope there are no surprises' while the teacher is outside saying 'I hope I've prepared them for everything.' Nothing could prepare them less well for the world they're going into.”

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– Stephen Heppell



## Approach

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At HundrED, when embarking on our journey to understand the state of education globally, we initially began by interviewing 72 experts in education in 2015 and 2016. Interviews were conducted in a standardized format focusing on 5 areas skills; assessment, leadership, learning environment and teachers. These interviews provided key insights, as well as engaging free-to-access media exploring future visions for education. Before embarking on a mission to seek innovations, this was a vital step of preliminary research to identify key areas in which to research impactful, valuable, innovative solutions.

During 2016-17 we received applications and conducted research on global innovations worldwide, chronicling the themes arising from the innovations. This process resulted in 150+ categories (or tags) (Appendix 1) giving us a clear insight into the breadth of areas innovators were addressing. Now, in 2017-18 we wanted to understand what the breadth of needs identified across the education ecosystem were to seek and research innovation relevant to all. This report combines a State

We made a particular effort to include youth voice through an online survey in a bid to grow understanding of what youth want to improve in education, as well as what they currently value.

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of the Debate review, presenting the status quo, from a wide range of sources and stakeholders, in an effort to understand the breadth of what needs to improve in education today. To support insights we also created a Global Youth Survey. We made a particular effort to include youth voice through an online survey in a bid to grow understanding of what youth want to improve in education, as well as what they currently value. This is vital as young people are consistently targets of educational reform which may have little researched impact. The methodology of the survey will be detailed at a later stage in the report when we focus solely on those findings.



## STATE OF THE DEBATE

When reviewing sources, both formal and informal sources were drawn upon to ensure the breadth of stakeholders perceived needs and perspectives could be identified. A state of the debate literature review was conducted to determine (1) what is meant by an educational need, and (2) to establish the breadth of needs in education in 2018/19 for K12 education.

The first part of the process (1), began by searching 'Need in Education' and 'Definition of Need in Education' in Google Scholar, which led to unrelated results, however, searching 'Needs in Education' was far more successful. For this systematic review 17 papers and books were identified. The inclusion and exclusion criteria were met if the article or book had the following characteristics: (i) it was in reference to K12 education, (ii) it discussed education from a global perspective, (iii) it was published in English, (iv) it was published after 1990. These criterion were chosen to narrow down the texts to wholly relevant academia on what is meant by a 'need in education'.

The second part of the process (2), establishing perceived needs for improvement in education, began by identifying key sources that could highlight current major needs for education; academic research, reports, newspapers & journals, talks & podcasts and social media. The sources can be categorised into both formal and informal. Formal sources consist of academic papers, reports/white papers and books whilst the informal sources consist of mainstream/journalistic articles, talks (found on youtube, TED etc.), social media (twitter, instagram & facebook), blogs and interviews. Desk-based research was then carried out, using key search terms within these categories, to compile an initial list of recurring themes based on these findings the research team created a shortlist of themes to code based on this overview and our insights from global innovation worldwide. This section of the report presents the insights from 109 sources. To indicate the scope of source on the topic we refined search terms to 'improve/needs in education', and followed the same inclusion and exclusion criteria as listed above.

Our sources were drawn from the following countries perspectives, including categories such as 'Global', 'Global South' and 'Europe' as defined by the source. The full list of source origin/perspective is as follows: Global, Europe, Global South, Finland, Taiwan, New Zealand, Bangladesh, UK, Israel, Australia, Malaysia, US, Cambodia, India, Copenhagen, Mexico, Scotland, Latvia, Austria, Belgium, Chile, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, and Canada.

The thematic analysis approach to coding used the 50 codes to encompass the breadth of areas identified initially coding for explicit frequency of themes/key terms to note perceived needs in each source, for each stakeholder. Additionally, to support explicit coding, inferred, implicit themes were drawn from the sources, paying attention to both description and interpretation in data analysis and consideration of context of data when searching and analysing themes. A process of organisation, verification and nomination<sup>78</sup> was undertaken between the HundrED team between November and April following the compilation and analysis of sources. An initial set of themes were decided upon at the end of November 2017 to create selections for the global youth survey. Theme titles were updated four times and finalised during the write up process of the report.

## TERMINOLOGY: IMPROVE VS NEEDS, CHANGES AND PURPOSE

Defining what is meant by a need in education, is an ambiguous<sup>79,80,81,82</sup> and often personal definition of what is deemed as important; this is often dependent on country, context, beliefs and one's own educational journey. Initially research began by attempting to identifying what the major 'needs' in education were for 2018, but it quickly became apparent, that it was vital to change the search terminology from 'needs in education' to 'improve education' or 'change education'. Needs in education often narrowed down the criteria to sources focusing on Special Educational Needs (SEN).

Search terms ranged from improve education, needs in education, future of education and value of education to review work in this area. It was broadened as when seeking commentary and research insights from academics on what needs to improve in education the majority of papers, did not fit the remit of this report. Search terms often pulled up papers on the aims of education and purpose of education.

We finalised on leading with the term 'improving education'. This term was both practical in that it reflected the search terms most often used and highlighted HundrED's belief that there are pockets of great educational innovation globally, and it is HundrED's mission to seek these innovative practices to help every child flourish in life, no matter what happens.

“Whilst innovation in education has been shown to be a gamechanger for education, we shouldn’t forget that, in the long run, we’re striving for coherent and transformative dynamic whole systems approach to education. This involves innovators, policymakers, and practitioners to build a supportive consensus around a vision of progress, to research, understand and implement inspiring and effective models to adapt and incorporate at scale inside to enable our young people to flourish. It’s not about one type of innovation versus another; rather, it’s about developing evidenced examples that can be nimbly deployed by and support by various stakeholders.

The potential to harness what a crowd knows is the single biggest unexplored front that education can make strides with.”

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– Sheizaf Rafaeli

Engaging multi-level stakeholders are vital to improving education.<sup>83</sup> Whilst traditionally many have seen this to be only the government’s role to improve, and is still perceived by some to be, it has been demonstrated that various stakeholders play a key role in change, for example, innovators in the form of social entrepreneurs<sup>84</sup> and young people such as Malala<sup>85</sup> and Kehkashan Basu<sup>86,87</sup>. Thus, we need to identify perceived needs from all stakeholders. It is important to note that we assign no order of importance to each stakeholder in education but recognise the key role each play in supporting and developing change.

A goal of this research was to break down barriers by sharing and mobilising further all stakeholder opinions in an attempt to align actors in the HundrED community and beyond. This, for the purpose of this report we explore and define major stakeholders in education as the following. Of note, whilst typically school leaders and educators can be seen as separate entities involved in developing education, when identifying major areas that need to improve it made sense to group this stakeholder together based on sources.

SYSTEMS LEVEL	<b>ALL INVOLVED AT BOTH LOCAL, NATIONAL AND GLOBAL LEVEL INCLUDING POLICY MAKERS AND INTERGOVERNMENTAL ORGANIZATIONS</b>
EDUCATIONAL LEADERS & EDUCATORS	<b>THOSE RESPONSIBLE FOR LEADING, DEVELOPING AND EDUCATING WITHIN SCHOOLS AND BEYOND</b>
NON PROFITS	<b>ORGANISATIONS THAT OPERATE STRICTLY NOT FOR PROFIT</b>
THOUGHT LEADERS	<b>EXPERTS, CHANGE-MAKERS AND INNOVATORS WHO MAY OPERATE INDIVIDUALLY, AS A BUSINESS OR ARE A REPRESENTATIVE FOR AN ORGANISATION THAT MAY OPERATE AS A NOT FOR PROFIT, FOR PROFIT, SOCIAL ENTERPRISE OR OTHERWISE</b>
ACADEMICS	<b>AN INDIVIDUAL PRODUCING RESEARCH FURTHERING UNDERSTANDING WITHIN THE SCOPE OF EDUCATION</b>
YOUTH	<b>A YOUNG PERSON, UNDER THE AGE OF 18 YEARS OLD</b>
PARENTS/CARERS	<b>INDIVIDUALS WITH ONE OR MORE YOUNG PEOPLE FOR WHOM THEY ARE RESPONSIBLE</b>
EMPLOYERS	<b>AN INDIVIDUAL OR ORGANISATION WHO EMPLOY PEOPLE</b>
GENERAL POPULATION	<b>ALL INDIVIDUALS WITHOUT REFERENCE TO ANY SPECIFIC CHARACTERISTIC</b>

## MULTI-SOURCE MAGIC

Just like innovation in education, it is also important to innovate research practices. As researchers exploring global education we explored alternate research avenues, away from traditional academic practices.<sup>88</sup> It is important to make research accessible for both a wide range of readership, and inclusive for all stakeholders including in the research. By this logic, it is imperative that the research carried out by HundrED is accessible for the youth with whom it engages. Youth globally use social media on a consistent basis, as a means of voicing their opinions as well as conducting their own forms of 'research' to gain insights on opinions and trends.<sup>89</sup> Social media has become omnipresent, and stakeholders have begun to query how it can best be used to further research.<sup>90</sup> Social media offers the most recent insights; a restriction of more traditional academic sources. Anecdotal allowed for incorporating thoughts, opinions and observations of those who were not writing under academic pretenses; such as journalistic articles and online sources created by the general public.<sup>91</sup> New research methods such as social media analysis, are not without their complications, however, by using a multi-source approach, HundrED's research team were able to use the new field of social media research, alongside more traditional approaches. By undertaking action research<sup>92</sup>, HundrED was able to engage with research and explore how this method can be used to bring about positive change in education. Action Research, is 'the systematic collection of information that is designed to bring about social change' (Bogdan and Biklen 1992: 223).<sup>93</sup>

# Findings

## HIGHLIGHTS

- Stakeholders identify a great breadth of areas in education as perceived needs for improvement.
- Different stakeholders often highlight certain areas when talking about what needs to improve in education, focusing predominantly only on a few themes.
- Engaging and utilizing the community, through increased partnerships and family involvement, is mentioned as an integral area to improve in education by all stakeholders.
- All stakeholders commented on the negative effects of current assessment.
- In relation to improving achievement of literacy and language vs. numeracy, all stakeholders (except employers) were more concerned with literacy than numeracy.
- Parents and carers focused heavily on themselves as a stakeholder, with 44.67% of their focus drawn to what their role can be in relation to education, highlighting how isolated they may feel from current opportunities.
- Schools leaders and educators focused on the importance of improving assessment, budgets and funding, the role of policy and systems level, their role and how to improve the learning environment. Surprisingly, improving literacy and numeracy skills were of the lowest priority to this stakeholder.
- Health and mental wellbeing, except by youth, were not prioritized across the sources as a perceived need.
- No stakeholder prioritized youth as a theme, despite the importance placed on student centered learning, this concept was barely acknowledged by stakeholders.
- Youth focused heavily on the importance of children's rights and participation, comparably four times higher than other stakeholders.
- In line with other research, a student's relationship with their educator was highly valued, however, it was noted that this was in relation to the educator being a better facilitator, allowing them to share their opinion and thrive.



## **Systems Level**

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### **SOURCES**

When seeking to understand systems level opinions regarding what needs to improve in education, 22 sources of direct relevance were analysed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of both a combination of reports (11), academic overviews (1) and interviews (10). The main source drawn upon were reports. When coding the sources for common themes and patterns seven themes occurred frequently in the analysis; yet all but one area was mentioned as a perceived need across these sources for Systems Level.

## SYSTEMS LEVEL PERCENTAGE OF TOTAL

POLICY & SYSTEMS	11.36%
UTILIZING DATA & RESEARCH	8.29%
SPACE & ENVIRONMENT	7.81%
FAMILY, CARERS & COMMUNITY	6.41%
CURRICULUM, TOOLS & RESOURCES	5.40%
ASSESSMENT	4.95%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	4.55%
MINDSET, ROLE & RELATIONSHIPS	3.68%
EDUCATORS	3.54%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	3.00%
STEM	2.92%
GENDER	2.85%
LIFE SKILLS	2.74%
EARLY CHILDHOOD	2.68%
INCLUSION & DIVERSITY	2.11%
ACCESS & INTEGRATION TO BASIC EDUCATION	2.10%
HEALTH	2.04%
EDUCATOR TRAINING	1.85%
BUDGETS & FUNDING	1.84%
RURAL, DISTANCE & HOME	1.74%
WHOLE SCHOOL MODELS & CULTURES	1.73%
INTER & INTRA PERSONAL SKILLS	1.64%
PROFESSIONAL DEVELOPMENT	1.35%
RACE, ETHNICITY & IDENTITY	1.11%
PARTNERSHIPS	1.05%

VOICE AND PARTICIPATION	1.05%
TRANSITION FROM K12	0.97%
MENTAL WELLBEING	0.92%
GLOBAL CITIZENSHIP	0.86%
CAREER SKILLS	0.70%
SOCIO-ECONOMIC EQUITY	0.69%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.65%
LEADERSHIP	0.64%
SEND	0.59%
HOLISTIC WELLBEING	0.54%
ACHIEVE NUMERACY	0.52%
INTERCULTURAL & MULTICULTURAL	0.48%
AUTHENTIC EXPERIENCES	0.47%
PERSONALIZED LEARNING	0.39%
ARTS & HUMANITIES	0.38%
MEDIA & DIGITAL LITERACY	0.29%
LGBTQIA+	0.20%
CHILDREN'S RIGHTS	0.19%
MULTILINGUALISM	0.19%
YOUTH LED INNOVATION	0.16%
ADAPTIVE TECHNOLOGIES	0.15%
SUSTAINABILITY	0.13%
BREADTH OF SKILLS	0.08%
INDIVIDUALIZED LEARNING	0.03%
INNOVATIVE ECOSYSTEMS	0.00%

## INSIGHTS

It comes as no surprise, that the most frequently coded perceived need by systems level stakeholders was policy and systems (11.36%). The World Bank in their report, 'Learning to Realize Education's Promise' for example, consistently refer back to the important role policy plays in improving educational outcomes.<sup>94</sup> The high frequency (8.29%) of reference to improving utilization of data and research is also inline with their traditional route to insight. UNESCO in their report 'Accountability in Education: Meeting our Commitments', discuss the value of improving research and data in detail, highlighting gaps in equitable education.<sup>95</sup> These are the types of change that systems level are often focused on, yet due to a limitation of this methodology, themes could only be explicitly coded, thus any inferred needs were not coded for.

Interestingly, they also highlight the importance of the role of family, carers and community in education (6.41%). Sources from the systems level stakeholders showcase the importance of a holistic approach towards education, acknowledging the vital role children's home environments can play in their educational attainment; and the power involving family, carers and community can have. Research by Masino and Niño-Zarazúa, is just one of many examples, that discuss the value of community involvement and interventions in improving education.<sup>96</sup>

In recent years there has been much focus on STEM (Science Technology Engineering Mathematics) education and a push for the number of students engaging with these subjects and skills. Systems level stakeholders also acknowledging the promise they believe STEM holds for providing students globally with the skills they need to function in an unknown world (2.92%). A focus in STEM has also been in relation to the number of girls taking up STEM in education. The 'Education for All 2000-2015: achievements and challenges' report, draws attention to the gaps in participation rates in STEM subjects for girls and its importance for building motivation and confidence.<sup>97</sup> Gender equality was a consistent need of focus throughout the reports (2.85%), reinforcing a global priority in narrowing the gap of educational access and attainment between boys and girls.

It is interesting to note the difference in focus between the reports written by systems level stakeholders, and the interviews with those working at systems level. Reports typically focus on a broad range of themes across a global perspective, aiming to acknowledge and address global issues through evidence-based documents as a source of legitimacy in the field. While the interviews with those working at systems level ultimately answer questions focused on specific areas and hence elicit certain responses. In the interviews initially conducted at HundrED, the

focus was on skills, teachers, leadership, assessment and learning environments. Those at systems level interviewed typically focused on leadership, teaching, assessment and learning environments in their answers. Despite this focus, a broad range of themes were still discussed, usually in relation to the countries within which those interviewed worked.

## OMITTED AREAS

The major stakeholders in education generally omitted, or had minimal reference to many themes; most surprisingly despite these being a large focus of the media, student mental wellbeing (0.92%) and LGBTQIA inclusion (0.20%) were referred to minimally. This is potentially due to the fact that student mental wellbeing and especially LGBTQIA inclusion are still contentious issues in some countries<sup>98</sup>, with further research needed to be done to gain a global perspective on these issues within the parameters of education.





## Educator Leadership & Educators

### SOURCES

When seeking to understand educator leadership and educator's opinions regarding what needs to improve in education, 12 sources of direct relevance were analysed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of both a combination of reports (1), academic papers (3), blogs (1), articles (1) and interviews (6). The main source drawn upon were interviews. When coding the sources for common themes and patterns there were six themes which occurred most frequently in the analysis, yet only six themes that weren't mentioned within sources of overview.

## SCHOOL LEADERSHIP & EDUCATORS PERCENTAGE OF TOTAL

ASSESSMENT	14.35%
POLICY & SYSTEMS	8.48%
EDUCATORS	8.33%
SPACE & ENVIRONMENT	8.15%
CURRICULUM, TOOLS & RESOURCES	7.22%
PROFESSIONAL DEVELOPMENT	7.01%
STEM	4.73%
MINDSET, ROLE & RELATIONSHIPS	4.30%
EDUCATOR TRAINING	3.60%
UTILIZING DATA & RESEARCH	3.58%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	2.88%
LIFE SKILLS	2.80%
BUDGETS & FUNDING	2.65%
TRANSITION FROM K12	2.49%
INTER & INTRA PERSONAL SKILLS	2.27%
WHOLE SCHOOL MODELS & CULTURES	2.22%
VOICE AND PARTICIPATION	1.77%
FAMILY, CARERS & COMMUNITY	1.73%
PERSONALIZED LEARNING	1.70%
EARLY CHILDHOOD	1.33%
CAREER SKILLS	1.19%
AUTHENTIC EXPERIENCES	1.00%
INCLUSION & DIVERSITY	1.00%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.65%
ADAPTIVE TECHNOLOGIES	0.64%

LEADERSHIP	0.60%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	0.58%
PARTNERSHIPS	0.44%
SOCIO-ECONOMIC EQUITY	0.42%
GLOBAL CITIZENSHIP	0.39%
ACHIEVE NUMERACY	0.23%
SUSTAINABILITY	0.23%
INNOVATIVE ECOSYSTEMS	0.18%
YOUTH LED INNOVATION	0.17%
MEDIA & DIGITAL LITERACY	0.17%
ARTS & HUMANITIES	0.16%
MENTAL WELLBEING	0.12%
RURAL, DISTANCE & HOME	0.09%
RACE, ETHNICITY & IDENTITY	0.05%
MULTILINGUALISM	0.03%
HEALTH	0.02%
INDIVIDUALIZED LEARNING	0.02%
SEND	0.01%
GENDER	0.01%
CHILDREN'S RIGHTS	0.00%
LGBTQIA+	0.00%
BREADTH OF SKILLS	0.00%
HOLISTIC WELLBEING	0.00%
INTERCULTURAL & MULTICULTURAL	0.00%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.00%

## INSIGHTS

Leadership in education focused primarily on assessment (14.35%) and improvements that need to be made to education systems and policy (8.48%). While educators focused largely on the impact education systems have on themselves (8.33%). With sixty-nine percent of American teachers believing they are not heard in discussions around education<sup>99</sup>, these sources indicated in particular that educators feel they need to be given greater autonomy. The impact of policy and systems on curriculum input and access to resources (7.22%), as well as space and environment (8.15%), does not come as a surprise as being priorities in discussions amongst leadership and educators.

Leadership and educators are also quite concerned with their own professional development (7.01%), and discuss how they would like much greater access to high-quality professional development.<sup>100</sup> Educators own wellbeing is also consistently highlighted and the impact it is having on job satisfaction. Although highlighted in system levels reports; many countries are currently suffering from: a shortage of those entering educator training, educator retention and hiring quality educators. It is particularly of note that only eleven percent of those working in education would want their own children to follow the same career path,<sup>101</sup> this arguably evidences a disillusion with the potential of a career in education. These issues link heavily with educator job satisfaction and how educators are portrayed in society. It is clear that greater attention needs to be paid to what could improve education for those working within it, as well as improving it for those receiving an education.

Of note, when searching specifically for “what school leaders want to improve in education” the sources predominantly are action oriented, rather than thought oriented as they focused on how they create change rather than what needs to improve. Thus, we did not analyse these types of sources in our report. It is also worth noting that there is a larger focus on educators, due to the fact that there were far more sources available on educators as stakeholders and their opinions than school leaders.

## OMITTED AREAS

As mentioned, leadership and educators tended to focus on the impact of education on themselves (possibly due to bias in sources chosen), and leave out discussions surrounding issues which may holistically have an impact on their students. The role of family and carers' was only discussed 1.73% across the sources, however, a report that became apparent after coding had taken place, highlights how teachers in the UK overwhelmingly believe parental engagement has a positive effect on their school.<sup>102</sup> There was no discussion about Children's Rights (0.00%), which potentially may be due to the fact that certain countries are based on societies where 'elders' and adults are respected and obeyed, and young people engaging with rights and voicing opinions on their education would be deemed inappropriate.<sup>103</sup> However, many of the sources on leadership and educator's opinion, focus solely on the Global North, therefore, this may be due to the fact that Article 42 of the UNCRC (Knowledge of rights)<sup>104</sup> is under taught globally and thus many may not even be aware of Children's Rights and the value of youth voice.<sup>105</sup> Equally, it can be argued that the focus on the Global North has meant that discussion of the impact of conflict on education did not come up (0.00%). Surprisingly, although inclusion generally was discussed across a range of themes (1.00%); the topic of LGBTQIA+ did not come up once (0.00%), despite it currently being a contentious topic.<sup>106</sup>



## Youth

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### SOURCES

When seeking to understand youth opinions regarding what needs to improve in education, 9 sources of direct relevance were analyzed. There was a distinct lack of sources written by youth themselves or that directly quoted their opinion. The sources used were chosen due to the fact that they incorporated youth voice (some more so than others). The types of common sources for this stakeholder fell mainly into the informal source category, consisting of a combination of one formal report (1), interviews (5) and informal blogs/journalistic articles (3). The main sources drawn upon were informal sources with direct quotations from students and a report on student happiness related to education. When coding the sources for common themes and patterns, though there were a fair range of themes which occurred frequently in the analysis, there were also seven clear and precise areas which youth focused on when sharing their perceived needs for education.

## YOUTH PERCENTAGE OF TOTAL

MINDSET, ROLE & RELATIONSHIPS	12.64%
INTER & INTRA PERSONAL SKILLS	8.66%
MENTAL WELLBEING	7.29%
FAMILY, CARERS & COMMUNITY	5.94%
CAREER SKILLS	5.51%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	5.35%
POLICY & SYSTEMS	5.31%
VOICE AND PARTICIPATION	4.23%
LIFE SKILLS	4.21%
SPACE & ENVIRONMENT	4.03%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	3.89%
INCLUSION & DIVERSITY	3.86%
CHILDREN'S RIGHTS	3.54%
PERSONALIZED LEARNING	3.35%
AUTHENTIC EXPERIENCES	2.22%
HEALTH	2.20%
SOCIO-ECONOMIC EQUITY	2.18%
INDIVIDUALIZED LEARNING	1.97%
RACE, ETHNICITY & IDENTITY	1.42%
STEM	1.40%
WHOLE SCHOOL MODELS & CULTURES	1.36%
ASSESSMENT	1.36%
ARTS & HUMANITIES	0.98%
HOLISTIC WELLBEING	0.89%
GLOBAL CITIZENSHIP	0.88%

GENDER	0.81%
EDUCATOR TRAINING	0.79%
PROFESSIONAL DEVELOPMENT	0.69%
TRANSITION FROM K12	0.56%
CURRICULUM, TOOLS & RESOURCES	0.38%
YOUTH LED INNOVATION	0.33%
INTERCULTURAL & MULTICULTURAL	0.33%
EARLY CHILDHOOD	0.24%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.24%
RURAL, DISTANCE & HOME	0.24%
LEADERSHIP	0.19%
BUDGETS & FUNDING	0.19%
UTILIZING DATA & RESEARCH	0.19%
MEDIA & DIGITAL LITERACY	0.19%
ACHIEVE NUMERACY	0.00%
INNOVATIVE ECOSYSTEMS	0.00%
PARTNERSHIPS	0.00%
EDUCATORS	0.00%
SEND	0.00%
LGBTQIA+	0.00%
ADAPTIVE TECHNOLOGIES	0.00%
BREADTH OF SKILLS	0.00%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.00%
SUSTAINABILITY	0.00%
MULTILINGUALISM	0.00%

## INSIGHTS

Students are particularly focused on their relationships with their teachers (12.64%), in interviews carried out by the innovation 'Redes de Tutoria' with their Mexican students, they highlighted how greater impact a good relationship with their educator could have on their attainment in school. Inter and intra personal skills (8.66%), and mental wellbeing (7.29%), were also discussed as top priorities amongst students. Students in the 'Redes de Tutoria' interviews and a PISA study on student happiness, discussed the impact school can have on their anxiety and the stress they are put under through consistent testing.<sup>107</sup> The impacts of bullying, were also referred to as having a large impact on students wellbeing, and the benefits anti-bullying initiatives can have on attainment highlight the necessity for implementing such measures within schools.<sup>108</sup> The possibility to exercise their rights (3.54%) and voice their opinions (4.23%), although not prioritised by students, was discussed far more than amongst other stakeholders. Students relationships with their educators, and specifically the way that educators discipline, is continuously discussed throughout the sources.<sup>109,110</sup> A good relationship with educators is seen by students; as educators listening to their opinions and giving them mutual respect; this links with students wanting to have more opportunity to voice their opinions on their education. The PISA report on student's happiness found correlations between family/parental/career involvement in a student's life and education to have an impact on their educational attainment and their aspirations once leaving K-12.<sup>111</sup>

## OMITTED AREAS

There were a large amount of themes not mentioned, due partially to the lack of sources available and partially due to the fact that the opinions of students included were mainly High School students from the Global North. It is widely acknowledged that those in the Global South have been marginalised when it comes to voicing their opinions on education.<sup>112</sup> HundrED is dedicated to focussing on working with students from the Global South in upcoming research, through student engagement projects developed to incorporate a wider variety of languages. This will allow our research to begin to include student opinions that accurately portray a global perspective. Themes such as basic education (0.24%), early childhood (0.24%), supporting countries in humanitarian crisis (0.00%) and achieving numeracy (0.00%) were minimally, or not acknowledged. This could be attributed to students in the Global North not viewing these themes as key factors currently affecting their education. Students discussed inclusion broadly (3.86%), however, failed to address certain key aspects (SEND - 0.00%, LGBTQIA+ 0.00%). Surprisingly, sustainability (0.00%) which was the fifth most popular choice in the 'HundrED: Your Education - Youth Voice Survey', was not mentioned across the sources in youth as stakeholders.





## Parents and Carers

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### SOURCES

When seeking to understand parents opinions regarding what needs to improve in education 7 sources that were found to be directly relevant were analysed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of both a combination of reports (4), academic papers (1) and journalistic articles (2). The main sources drawn upon were reports and journalistic articles. When coding the sources for common themes and patterns there were a notably lower range of themes which occurred frequently in the analysis, yet four clear areas which this stakeholder focused on when sharing their visions for education.



## PARENTS & CARERS PERCENTAGE OF TOTAL

FAMILY, CARERS & COMMUNITY	44.76%
RURAL, DISTANCE & HOME	11.08%
POLICY & SYSTEMS	8.55%
UTILIZING DATA & RESEARCH	7.76%
STEM	5.44%
BUDGETS & FUNDING	4.03%
CAREER SKILLS	2.44%
CURRICULUM, TOOLS & RESOURCES	2.26%
ASSESSMENT	1.93%
SOCIO-ECONOMIC EQUITY	1.36%
MINDSET, ROLE & RELATIONSHIPS	1.36%
TRANSITION FROM K12	1.02%
SEND	1.02%
ADAPTIVE TECHNOLOGIES	1.02%
INTER & INTRA PERSONAL SKILLS	1.02%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	0.83%
INDIVIDUALIZED LEARNING	0.50%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	0.48%
AUTHENTIC EXPERIENCES	0.48%
INCLUSION & DIVERSITY	0.43%
ACHIEVE NUMERACY	0.38%
HEALTH	0.30%
ARTS & HUMANITIES	0.26%
SPACE & ENVIRONMENT	0.24%
PARTNERSHIPS	0.23%

WHOLE SCHOOL MODELS & CULTURES	0.19%
EDUCATOR TRAINING	0.19%
GENDER	0.14%
VOICE AND PARTICIPATION	0.13%
MENTAL WELLBEING	0.08%
EARLY CHILDHOOD	0.05%
LIFE SKILLS	0.04%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.00%
CHILDREN'S RIGHTS	0.00%
YOUTH LED INNOVATION	0.00%
LEADERSHIP	0.00%
INNOVATIVE ECOSYSTEMS	0.00%
EDUCATORS	0.00%
PROFESSIONAL DEVELOPMENT	0.00%
RACE, ETHNICITY & IDENTITY	0.00%
LGBTQIA+	0.00%
PERSONALIZED LEARNING	0.00%
BREADTH OF SKILLS	0.00%
MEDIA & DIGITAL LITERACY	0.00%
HOLISTIC WELLBEING	0.00%
GLOBAL CITIZENSHIP	0.00%
INTERCULTURAL & MULTICULTURAL	0.00%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.00%
SUSTAINABILITY	0.00%
MULTILINGUALISM	0.00%

## INSIGHTS

Parents tend to focus on what they value in education and schooling and this is the basis upon which they choose schools; providing they are able to choose their child's school.<sup>113</sup> The OECD in their report on school choice, highlight how sixty-four percent of students reported having a choice of more than one school, however, this varied widely depending on location.<sup>114</sup> Parents also tend to highly value the satisfaction of their children and the ability of teachers, alongside distance from school to home, the academic achievement of the school and opportunities for extra curricular activities.<sup>115,116,117,118</sup> These factors all guide the decision of which school parents will choose for their child. Parents spoke about themselves as stakeholders in education (44.76%), far more than other stakeholders. This may indicate a perception of parents feeling left out of discussions in education, and questioning how their role can be more influential. Claudia Barwell in 'No Parent Left Behind' reiterates this when she states: "I want to be able to play an active role in my daughter's learning at school, so that I can support her at home. I want to feel like a critical part of her team, but in reality, I often feel intimidated by the school and redundant in her learning journey."<sup>119</sup> A survey carried out by Parentkind in the UK, found that eighty-one percent of parents would like to be consulted by their child's school<sup>120</sup>.

Parents have particular concerns regarding the way in which their children are assessed (1.93%), parents do not feel like they know enough about the impact of assessment upon their child's development<sup>121</sup> and more generally whether children are being taught the right skills through the best possible curriculum.<sup>122</sup> This is supported by many parents citing career skills (2.44%) as being underrepresented within the curriculum. HSBC in their report "The Value of Education - Learning for Life", highlight how parents feel about potential career paths for their children. With eighty-three percent of parents having a clear idea of which career path they would like their children to go into<sup>123</sup>, it is evident that the career skills students are learning throughout their education is a priority for this stakeholder.

One of the more outspoken groups within the literature were those parents who have chosen alternative means to educate their children, for example; rural, distance and home education was coded 11.08%, the majority in reference to home education. Parents choosing to homeschool their children cite a variety of reasons centred around the theme of their child's wellbeing.<sup>124,125</sup> Many parents are concerned that their children are unhappy at school, are being bullied at school or are just not finding mainstream schooling motivating and inspiring.<sup>126</sup> Some parents also choose to homeschool their child as mainstream schools are unable to cope with the special educational needs of their child.

## OMITTED AREAS

Many themes were not found when coding, or were found infrequently (e.g. access to basic education 0.00% & supporting countries in humanitarian crisis 0.00%). It is possible that this is due to not enough parents having a platform to voice their opinions, resulting in them feeling that they are unable to have real influence over their child's education.<sup>127</sup> This is particularly true for parents in Global South countries, as many of the sources used in the searches primarily brought up mainly British or American examples. The problem with this, is that we are unable to gain the perspectives of parents in the Global South, perhaps due to the lack of available resources for parents within these countries to voice their opinions.<sup>128</sup> For example, many parents within the Global South, do not have the liberty of choosing the school that their children go to, due to factors such as the rurality of their home or their socio-economic positions.<sup>129</sup> Not being able to voice their opinions means that parents within these countries are unable to influence education to the same extent as their parent equivalents in the Global North.



## NGOS

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### SOURCES

When seeking to understand Non-Governmental Organizations (NGOs) opinions regarding what needs to improve in education, 8 sources that were found to be directly relevant were analyzed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of a combination of reports (7) and journalistic articles (2). The main sources drawn upon were reports from Non-Governmental Organizations within specific regions, based upon research conducted within schools. When coding the sources for common themes and patterns, though there were a wide range of themes which occurred frequently in the analysis, there were also eight notable areas which this stakeholder focused on when sharing their visions for education.

## NON PROFIT PERCENTAGE OF TOTAL

STEM	9.73%
GENDER	9.42%
UTILIZING DATA & RESEARCH	7.24%
FAMILY, CARERS & COMMUNITY	5.95%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	5.95%
CURRICULUM, TOOLS & RESOURCES	4.64%
CAREER SKILLS	4.61%
ASSESSMENT	4.09%
POLICY & SYSTEMS	3.90%
HEALTH	3.70%
BUDGETS & FUNDING	3.68%
PERSONALIZED LEARNING	3.63%
RURAL, DISTANCE & HOME	3.20%
ARTS & HUMANITIES	2.15%
EARLY CHILDHOOD	1.94%
SPACE & ENVIRONMENT	1.79%
EDUCATORS	1.72%
PARTNERSHIPS	1.47%
INTER & INTRA PERSONAL SKILLS	1.43%
SOCIO-ECONOMIC EQUITY	1.39%
VOICE AND PARTICIPATION	1.36%
CHILDREN'S RIGHTS	1.27%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	1.18%
SUSTAINABILITY	1.18%
INCLUSION & DIVERSITY	1.12%

EDUCATOR TRAINING	1.04%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	1.03%
LIFE SKILLS	1.02%
GLOBAL CITIZENSHIP	1.00%
SEND	0.95%
WHOLE SCHOOL MODELS & CULTURES	0.85%
MEDIA & DIGITAL LITERACY	0.83%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.80%
TRANSITION FROM K12	0.75%
AUTHENTIC EXPERIENCES	0.62%
RACE, ETHNICITY & IDENTITY	0.62%
INNOVATIVE ECOSYSTEMS	0.62%
PROFESSIONAL DEVELOPMENT	0.55%
ACHIEVE NUMERACY	0.45%
MENTAL WELLBEING	0.39%
MINDSET, ROLE & RELATIONSHIPS	0.26%
ADAPTIVE TECHNOLOGIES	0.23%
LEADERSHIP	0.12%
YOUTH LED INNOVATION	0.07%
MULTILINGUALISM	0.05%
INTERCULTURAL & MULTICULTURAL	0.01%
LGBTQIA+	0.00%
INDIVIDUALIZED LEARNING	0.00%
BREADTH OF SKILLS	0.00%
HOLISTIC WELLBEING	0.00%

## INSIGHTS

The majority of NGO reports used, focussed on the Global South. However, this does not undermine the versatility of data sourced through NGOs, as it can seek to fill a gap in our understanding of the overall landscape of education, as a majority of other educational literature generally tends to focus on children in Global North countries.

Addressing the problem of gender inequality in education (9.42%), is identified as a key failing of education globally. As UNICEF highlight, great progress has been made in improving accessibility to primary education for girls globally. However, UNICEF also identify that 32 million girls are not attending lower secondary education, and note the potential impacts this has on their lifetime earnings, child marriage and child mortality rates.<sup>130</sup> Several reports also commented on the cultural barriers that cause some young girls to miss out on school solely due to their gender, and the detrimental effects that this can have on their well-being and the prosperity of the community around them.<sup>131,132</sup>

Surprisingly, NGOs referred minimally to basic education within countries in the Global South (0.80%), however, particularly focused on a need to improve literacy rates and achieve competency in basic language skills (5.95%) and access to STEM education (9.73%).<sup>133</sup> Access to basic education has long been an aim of NGOs, therefore a lack of reference to this may be due to the progress that has been made over the last twenty years.<sup>134</sup> However, UNICEF in May 2018 highlight how the Millenium Development Goals of reaching universal primary education by 2015 have not been reached, with countries in Sub-Saharan Africa only having a net enrolment rate of seventy-nine percent in 2015.<sup>135</sup> It is plausible that the frailty of some socio-political systems does not allow for structures to be put in place to provide education to certain groups such as those in rural areas, who live far away from educational facilities (3.20%).<sup>136</sup>

NGOs also highlighted student health as a key focus of education (3.70%). Access to healthcare is highly prioritized in areas such as Sub-Saharan Africa.<sup>137</sup> NGOs outlined the negative affect that poor healthcare can have on children, as many are forced to miss out on education due to their own poor health or by becoming carers for family members, who have been affected by life threatening illnesses such as HIV/AIDS.<sup>138</sup> The scope for some education systems to solve this problem is limited due to restricted funding (3.68%), which is often the point at which NGOs intervene in order to encourage access to education for all children. Whilst there are clear areas which NGOs believe need to be improved globally, there evidently needs to be more collaboration between NGOs in the Global South and other stakeholders globally, so as to bridge the educational gap between the South and the North.

## OMITTED AREAS

There are certain themes which were coded less frequently when looking at sources from NGOs in relation to education. This does not undermine the importance of these themes, it does however highlight the areas of education which NGOs are most invested in, due to the nature of their work. As has been previously mentioned, themes which are coded less frequently may be due to methodological restraints, such as: homogeneity of language, inferred rather than explicit reference to a theme, and a potential bias in the choice of sources.

Themes we might expect to find within the purview of NGOs that work in diverse countries, such as multilingualism (0.05%) or global citizenship (1.00%), were minimally referred to. This could be for a number of reasons, for instance it could be due to the particular sources analyzed, or due to methodological restraints as mentioned above. Saskia Witteborn discusses the role NGOs such as Save the Children have played in developing global citizenship skills,<sup>139</sup> this implies that NGOs are encouraging these skills, and that in this case a wider use of coding terminology may have been necessary to highlight this theme amongst NGOs.

We know that there exists a large population of LGBTQIA+ students throughout the world, yet there is little evidence that the NGOs analyzed recognized the issues that LGBTQIA+ students face within their reports (0.00%). As mentioned previously, there are still many countries and areas where discriminatory laws and practices affect individuals based on their sexual orientation.<sup>140</sup> Inclusion of LGBTQIA+ students in education, appears to either be referred to in specific reports published by NGOs,<sup>141,142</sup> or be the foundation for an NGO.<sup>143</sup>





## Thought leaders

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### SOURCES

When seeking to understand thought leaders opinion regarding what needs to improve in education 19 sources of direct relevance were analysed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of both a combination of interviews (13), reports (2), online talks (3) and a book (1). The main source drawn upon to understand thought leaders perspectives were HundrED's research interviews with thought leaders in education conducted around the world in 2015-17. All interviews can be found on our site, or youtube channel. When coding the sources for common themes and patterns there were a vast range of themes which occurred in the analysis yet seven clear areas which this stakeholder focused on when sharing their visions for education.



## THOUGHT LEADERS PERCENTAGE OF TOTAL

SPACE & ENVIRONMENT	10.63%
FAMILY, CARERS & COMMUNITY	8.46%
MINDSET, ROLE & RELATIONSHIPS	7.29%
EDUCATORS	6.73%
BREADTH OF SKILLS	6.63%
POLICY & SYSTEMS	5.29%
ASSESSMENT	5.07%
STEM	4.84%
AUTHENTIC EXPERIENCES	4.00%
CAREER SKILLS	3.68%
INTER & INTRA PERSONAL SKILLS	3.54%
MEDIA & DIGITAL LITERACY	2.87%
INNOVATIVE ECOSYSTEMS	2.86%
UTILIZING DATA & RESEARCH	2.85%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	2.80%
CURRICULUM, TOOLS & RESOURCES	2.78%
PERSONALIZED LEARNING	2.30%
ARTS & HUMANITIES	1.85%
SOCIO-ECONOMIC EQUITY	1.76%
INCLUSION & DIVERSITY	1.74%
BUDGETS & FUNDING	1.69%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	1.27%
ACCESS & INTEGRATION TO BASIC EDUCATION	1.26%
YOUTH LED INNOVATION	1.13%
GLOBAL CITIZENSHIP	0.86%

HEALTH	0.83%
PARTNERSHIPS	0.67%
GENDER	0.67%
INDIVIDUALIZED LEARNING	0.59%
ACHIEVE NUMERACY	0.49%
VOICE AND PARTICIPATION	0.49%
MENTAL WELLBEING	0.48%
WHOLE SCHOOL MODELS & CULTURES	0.40%
LEADERSHIP	0.32%
INTERCULTURAL & MULTICULTURAL	0.21%
LIFE SKILLS	0.15%
SEND	0.14%
SUSTAINABILITY	0.14%
RURAL, DISTANCE & HOME	0.04%
PROFESSIONAL DEVELOPMENT	0.04%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.03%
EARLY CHILDHOOD	0.03%
CHILDREN'S RIGHTS	0.03%
RACE, ETHNICITY & IDENTITY	0.03%
EDUCATOR TRAINING	0.02%
TRANSITION FROM K12	0.01%
HOLISTIC WELLBEING	0.01%
LGBTQIA+	0.00%
ADAPTIVE TECHNOLOGIES	0.00%
MULTILINGUALISM	0.00%

## INSIGHTS

The high volume of codes for Space & Environment, Educators, Breadth of Skills, Policy & Systems, Educator's Mindset, Role & Relationships and Assessment are reflected in response to the questions asked. Yet, almost all areas are touched upon by this stakeholder with many other key themes and insights arising from the analysis.

Almost all sources focused on the role of the educator (7.29%), and that the key area which needed to improve in education, in relation to the educator, was how to change their role. Instead of educators being the 'sage on the stage', thought leaders shared that there was a great need for educators to instead become a facilitator/enabler/coach. The choice of language was not clear, but they conveyed that a teacher's role was not to impart knowledge, but instead to become the 'guide on the side.' The teacher should also be empowered as a learner themselves. Additionally, they highlighted that role of staff in education could stand to improve by hiring/engaging a range of different roles from passionate experts to other types of support and assistance.

Thought leaders frequently commented on the vitality of broadening the range of skills taught in education. This is in line with findings from the 'Leapfrog in Education' report, which highlighted that most innovators focused on this area<sup>144</sup>. Yet, the lack of consensus on what these skills are and what they are called is apparent as they were referred to in many ways such as; 21st century skills, life skills and 4 or 6 C's. Additionally, when referencing subject related skills, search terms usually involved: Science, Engineering, Mathematics or Technology rather than STEM. It was the most frequently referenced skill (4.84%), comparably to the Arts and Humanities (1.85%). Media and digital literacy skills were also referred to fairly frequently (2.87%), particularly in relation to developing tools and technologies was a high interest area. Yet young people's skills relating to their career (3.68%) was less of a focus unless directly linked to STEM opportunities.

All thought leaders referred to testing, assessment and measurement of learning (5.07%). Sharing the consensus that we should move away from the traditional mass standardized assessment, and instead move towards measuring what we value. Examples of methods that could facilitate this improvement ranged across several suggestions: self-assessment, peer to peer assessment, as well as how to use different tools to chronicle and demonstrate learning such as, a blog portfolio. It was also felt that assessment could be personalised to the individual and situation to reflect the complex, inter & multidisciplinary nature of learning, rather than trying to assess learning in isolation.

A clear vision for government, systems and policy makers was highlighted by this stakeholder (5.29%), focusing on developing trust and relationships with other stakeholders. All interviewed shared that their role was to be an enabler, rather than decision makers, which would lead to increased trust from educators across the board. Secondly, thought leaders believed governments and systems focused too much on the basics and/or specifics in education, for example, maths scores, but would benefit from focusing on widening their pursuits understanding how to recruit and get the right people into education, as well as advocating for evidence-based practice and finding out what really works for education in a realistic way. Political stability was also deemed an area in which leadership in education could improve as it provides an important balance for local and national education.

There was a clear consensus that traditional education environments and spaces were no longer fit (10.63%), yet what the ideal environment for education would look like was unclear. Comments included improving the environment through increased access to technology, and the need for more specific developments, such as improving opportunities to interact with digital/AR/VR technologies. Some commented directly on what could improve in the physical environment such as light, temperature, space and sound. Whilst others referenced how crucial it is, to design an environment that works well for project-based learning and authentic, individualised, personalized learning experiences.

Other key areas for improvements focused on the need to implement improved pedagogies and approaches (2.80%), with multiple references to the importance of social learning comparably to traditional, individual learning. There were also frequent references to how personalize learning (2.30%), project based & inter/multidisciplinary approaches could be the foundation of the future of education. Collaboration both in and outside of the community, and recognising the importance of lifelong, as well as informal and formal learning engaging multiple providers was another key area for improvements. To support these changes, thought leaders believe that empowering educators is integral in creating educators who are innovators themselves with more autonomy enabled them to raise ambitions and motivate children in an authentic way.

## OMITTED AREAS

There were many areas that were mentioned only occasionally throughout the sources, as well as a few which were omitted entirely. There was no explicit mention of LGBTQIA+ (0.00%), for example, which appears to run across all stakeholders. Whilst there was some reference to the importance of inclusive education (1.74%), the range of what education might deem vital for appropriate inclusion and diversity in education was not included in the majority of interviews. Areas, such as basic education were less frequently mentioned (1.26%), this is likely because 'thought leaders' are typically concerned with countries in the Global North, comparably to NGOs, who often focus predominantly on the Global South.

There was no mention of young people's role in supporting change, and improving education. So terms such as youth voice or participation (0.49%), as well as their rights (0.03%) or innovations created by them for education (1.13%) barely featured across the sources.

The vitality of a range of skills was clearly mentioned in all sources, however, there was little reference to 'life skills' such as financial literacy (0.15%). Although there has been a push for educating global citizenship skills, thought leaders do not mention this explicitly (0.86%) in interviews but it was marginally present in other types of sources. This includes themes such as sustainability (0.14%), supporting countries in humanitarian crisis (0.03%) and multilingualism (0.00%), as well as intercultural and multicultural education (0.21%) areas also lacking in frequency.

Finally, there was a lack of mention of mental health or wellbeing across these sources (0.48%). Despite the signposting in specialised articles and the media about the importance of student health, and specifically mental health, thought leaders rarely identified this as a key area for improvement in education.



## Academics

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### SOURCES

When seeking to understand academics as stakeholders in education, 12 sources of direct relevance were reviewed. The types of sources consisted of academic papers (2) and HundrED interviews (10). When coding sources, similar to other stakeholders there were some clear common themes, but also a wide range of areas coded for in this stakeholder's section. All interviews can be found on our site and youtube channel.

Academics as stakeholders typically focused on extremely specific topics in education or countries/locations rather, as well as what is relevant to publish due to journal demands and funding. While they may have many important and useful insights, academics are a frequently untapped area of insight on how to improve education through a big picture, whole-systems approach. Academics, unlike other stakeholders, more often reference research frequently in interviews, for example, sharing latest know-how from neuroscience, as well as other variables which affect our capacity to learn. Of note, due to the methodological and resource constraints, we were not able to code many books in this section. Should we have had further time to do so, this section and insights may be different.

## ACADEMICS PERCENTAGE OF TOTAL

ASSESSMENT	14.41%
SPACE & ENVIRONMENT	11.14%
BREADTH OF SKILLS	10.65%
CURRICULUM, TOOLS & RESOURCES	8.64%
EDUCATORS	7.10%
MINDSET, ROLE & RELATIONSHIPS	3.97%
POLICY & SYSTEMS	3.79%
INTER & INTRA PERSONAL SKILLS	2.84%
PARTNERSHIPS	2.54%
WHOLE SCHOOL MODELS & CULTURES	2.47%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	2.38%
PERSONALIZED LEARNING	1.97%
FAMILY, CARERS & COMMUNITY	1.93%
AUTHENTIC EXPERIENCES	1.87%
UTILIZING DATA & RESEARCH	1.87%
CAREER SKILLS	1.84%
STEM	1.49%
MENTAL WELLBEING	1.30%
MEDIA & DIGITAL LITERACY	1.27%
GLOBAL CITIZENSHIP	1.14%
ACHIEVE NUMERACY	1.11%
SUSTAINABILITY	1.06%
VOICE AND PARTICIPATION	1.04%
EARLY CHILDHOOD	1.00%
INNOVATIVE ECOSYSTEMS	0.94%

EDUCATOR TRAINING	0.85%
TRANSITION FROM K12	0.85%
SOCIO-ECONOMIC EQUITY	0.83%
PROFESSIONAL DEVELOPMENT	0.82%
INDIVIDUALIZED LEARNING	0.75%
MULTILINGUALISM	0.74%
GENDER	0.68%
ADAPTIVE TECHNOLOGIES	0.58%
BUDGETS & FUNDING	0.55%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.54%
INCLUSION & DIVERSITY	0.53%
RACE, ETHNICITY & IDENTITY	0.48%
HOLISTIC WELLBEING	0.36%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	0.33%
CHILDREN'S RIGHTS	0.33%
INTERCULTURAL & MULTICULTURAL	0.26%
RURAL, DISTANCE & HOME	0.18%
ARTS & HUMANITIES	0.18%
SEND	0.17%
YOUTH LED INNOVATION	0.09%
LEADERSHIP	0.09%
LIFE SKILLS	0.08%
LGBTQIA+	0.00%
HEALTH	0.00%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.00%



## “Schools of the future will be driven by children's needs, not examination results and targets”

– Bernard Barker

The prevailing and main insights from academic stakeholders is best explained by the most common themes from sources. The main point made by both academic papers was that education must become driven by the child's needs. Barker's paper focuses on multiple areas on the future of education, giving them equal weighting. The list is as follows: 1) Children will learn from 'the heart' - foreshadowing the growing movement in passion-based education, 2) Everyone will work less by studying fewer subjects, taking fewer examinations and completing fewer assignments 3) Course work will be part of the curriculum instead of an imposing additional requirement, 4) Everyone will do experiential learning, 5) Imagination and creative activity, especially in art and drama, will be assigned equal status and time 6) Teachers will not 'deliver' a curriculum of discrete cognitive units, 7) Teachers will become coaches and producers, intervening with constructive suggestions only when needed, 8) Lifelong learning will be recognised and used, 9) Technology will be used frequently and will be adaptive & individualised, 9) Distance and flipped learning will be used 10) There will be frequent public performances through the arts 11) There will be time and equal status for civic learning and engagement, 12) Less concern with authority & judgment, 13) Teachers will be enthusiasts not examiners 14) Learners will not be labelled or re-labelled during their time in education.

His visions ultimately surmise that education should move toward a 'revival of local and national politics so that communities can debate priorities, create visions and engage the reality of contemporary culture and society.'<sup>145</sup> Whilst this piece was written in 1996, reflecting upon the UK education system of the time, it makes deeply relevant global persuasions for education's future, echoing almost entirely the same sentiments being discussed on the global stage today. As can be seen in the tabular and visual representations for this stakeholder, it is common that

leadership is a natural area of focus as much of the change requires deep changes in mindset and operation in this area.

In comparison, Noddings paper<sup>146</sup> explores the nature of needs and ways in which schools might better identify and respond to them. Nodding examines ideas in response to students worldwide querying why they have to study what they've been told to and their lack of interest and motivation. She suggests that we need to improve education by listening to their needs, as their education needs to have meaning, with one core part of requiring development of understanding and caring relationships with teachers. She suggests that researchers might try to find out how often teachers connect learning to the aims of education and expressed needs of students to uncover what one can do instead to personalise, improve and create authentic, exciting experiences for learning.

Academics sharing visions to improve education through HundrED's vision interviews provided contemporary insights from research in a more accessible and wide-reaching way. The range of areas discussed overall was far-reaching, but the most commonly discussed themes were: Assessment (14.41%), Space and Environment (11.14%), Breadth of Skills (10.65%), Curriculum (8.64%) & Educators (7.10%) highlighting frequently how the role of learning and teaching should be more community-focused and collaborative.

Interviews also mentioned room for improvement regarding the role of the educator and their relationship with the young person (3.97%). There was no homogeneity on terms used to describe the educator, referred to as a teacher, facilitator or mentor, but all shared the importance of this change and its connection to an improved learning environment. Ways to improve ranged from ensuring the educator was passionate to the vitality of the relationship. It was shared in one interview, for example, that “typically teachers are not the best professors in the sense of talking, statistically speaking half of them are worse than average”, suggesting that recruitment for educators needs improvement.<sup>147</sup> Teachers were also described with increased leadership responsibility, moving toward collaborating outside of the traditional classroom environment, but to enable them to do this well they would also need to learn different skills. This would include greater autonomy on both the educator and student's behalf. It was mused that “In the future you might also say that the teacher will be a pedagogical leader in collaborating with professionals inside and outside of school.”

Academics acknowledged that there was a need to improve approaches and pedagogies (2.38%), focusing on the importance of personalised (1.97%), and authentic, real-world experiences (1.77%). Similar to the changing role of the



educator, academics referenced the improvement of the environment inextricably with approach, systems and the community. When looking to improve governmental leadership, it was highlighted that assessment and accountability, as well as their ability to listen and bring people together, were noted as vital elements to improve the education ecosystem. It was felt that governments put a lot of investment and resources into technology and creative learning, yet the predominant use of standardised tests, indicate that results are ultimately still highly valued. Similar to thought leaders, the assessment commentary does not have any clear rhetoric of how to improve it, other than it needs to improve and people have varying ideas of how to do so. Additionally, it was felt that innovation and development is not equally distributed to improve equity to develop schools equally and holistically worldwide. Conversations around skills were intertwined with how to also improve content, values, knowledge, attitudes and beliefs; including curricula, resources and pedagogy. This belief overlapped clearly with the importance of focusing on the whole person to include all types of skills and development within the scope of their education. Finally, it was recognised that being able to see children as capable learners was a big part of the change that is needed.

#### **OMITTED AREAS**

There was no explicit mention of LGBTQIA+ (0.00%), which appears to run across all stakeholders. As well as little mention of holistic wellbeing (0.36%) or mental health (1.30%) across these sources. Basic education was not a focus for many academics (0.54%). Similarly, the impact of conflict on education (0.00%) and socioeconomic equity (0.83%) were largely neglected due to Academics focussing largely on the Global North, leaving the Global South to NGOs. Academics generally failed to acknowledge ways in which to improve, issues around teacher training (0.85%) and professional development (0.82%), as well as students transition from K12 (0.85%).



## General Population

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### SOURCES

When seeking to understand the opinions of the general population regarding what needs to improve in education, 11 sources of direct relevance were analyzed. The types of common sources for this stakeholder fell entirely into the informal source category, consisting of a combination of journalistic articles (8) and social media searches (3). The main sources drawn upon were opinion pieces written by journalists on the general perceptions that the public have on education. When coding the sources for common themes and patterns, there were a fair range of themes, similar to parents and carers, which occurred frequently in the analysis, yet five main which this stakeholder focused on when sharing their visions for education.

## GENERAL POPULATION PERCENTAGE OF TOTAL

CAREER SKILLS	9.67%
LIFE SKILLS	7.32%
SOCIO-ECONOMIC EQUITY	7.20%
FAMILY, CARERS & COMMUNITY	6.47%
EDUCATOR TRAINING	6.34%
ADAPTIVE TECHNOLOGIES	5.83%
BUDGETS & FUNDING	5.62%
CURRICULUM, TOOLS & RESOURCES	5.49%
HEALTH	5.19%
VOICE AND PARTICIPATION	3.57%
MENTAL WELLBEING	3.25%
SEND	3.15%
MULTILINGUALISM	2.99%
SUSTAINABILITY	2.78%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	2.42%
SPACE & ENVIRONMENT	2.36%
EARLY CHILDHOOD	2.08%
GENDER	1.69%
PERSONALIZED LEARNING	1.57%
POLICY & SYSTEMS	1.57%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	1.53%
RURAL, DISTANCE & HOME	1.52%
LGBTQIA+	1.30%
PROFESSIONAL DEVELOPMENT	1.24%
INCLUSION & DIVERSITY	1.23%

ASSESSMENT	0.91%
ACCESS & INTEGRATION TO BASIC EDUCATION	0.69%
ACHIEVE NUMERACY	0.62%
GLOBAL CITIZENSHIP	0.62%
INDIVIDUALIZED LEARNING	0.57%
STEM	0.53%
UTILIZING DATA & RESEARCH	0.49%
INTER & INTRA PERSONAL SKILLS	0.49%
INTERCULTURAL & MULTICULTURAL	0.49%
YOUTH LED INNOVATION	0.33%
LEADERSHIP	0.33%
TRANSITION FROM K12	0.29%
RACE, ETHNICITY & IDENTITY	0.25%
CHILDREN'S RIGHTS	0.00%
INNOVATIVE ECOSYSTEMS	0.00%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	0.00%
PARTNERSHIPS	0.00%
WHOLE SCHOOL MODELS & CULTURES	0.00%
EDUCATORS	0.00%
MINDSET, ROLE & RELATIONSHIPS	0.00%
AUTHENTIC EXPERIENCES	0.00%
BREADTH OF SKILLS	0.00%
ARTS & HUMANITIES	0.00%
MEDIA & DIGITAL LITERACY	0.00%
HOLISTIC WELLBEING	0.00%

## INSIGHTS

As a stakeholder, the general population is the largest in terms of the actual number of people within this group. Accordingly, the size of this group means that there is a vast array of themes that the general population deem to be important to education. Individuals within this group who are stakeholders in other areas of society often consider themes to be important that reflect the areas that they are most invested in. For example, a doctor might consider health to be most important, whereas a diplomat might believe supporting countries in humanitarian crisis is the key to education. The lack of homogeneity throughout the general population means that it is more difficult to find general trends. This perhaps makes it even more interesting, that some areas were clearly identified as more important above others.

Above all else, it would seem that the general population believe education needs to teach young people career skills (9.67%) and life skills (7.32%). A number of sources highlighted the need for education to prepare students for adult life more effectively than it does at the present.<sup>148</sup> There was a general narrative surrounding many of the articles analyzed, denoting: “Things I wish I had learnt at school”, which covered a variety of life skills and career skills, such as financial literacy and communication skills.<sup>149</sup>

General population were the only stakeholder to discuss SEND inclusion to a notable extent (3.15%) and socio-economic equity (7.20%) almost three times as much as the other stakeholders. General population were the group most likely to discuss inclusion and diversity broadly across all themes. General population also focused on student health (5.19%) more than any other stakeholder.

Aside from the themes previously stated, the views of the general population are varied in nature due to the diversity of individuals that make up this stakeholder. However, within the wide variety of themes that emerged, the need for funding (5.62%) and resources (5.49%) were consistent. There is an important implication of this perceived need for greater funding, because different stakeholders have differing levels of influence over one another. The general population, being the largest group, has great influence over systems level organisations when working within a democratic structure, thus the general population’s beliefs can be vital for influencing change within education.<sup>150</sup>

## OMITTED AREAS

It is highly plausible to suggest that if a greater number of sources were analyzed then almost all of the identified themes would have emerged, due to the variance of the interests of the general population. There are however, some areas which are more applicable to other stakeholders, such as pedagogical approaches, whole school models and innovative ecosystems; which would be found when approaching education from an academic or an educator standpoint.

In spite of this, there are notable omissions that would have been expected to be seen within the sources analyzed. For example, when searching on social media sites regarding the perceived needs in education it would be intuitive to suggest that media and digital literacy might emerge as a theme (0.00%). The fact that it was not found, could be a result of a lack of homogeneity of language when discussing this theme or perhaps it could be due to a lack of perceived importance.

The same could be said regarding the omission of Arts and Humanities (0.00%). There are a number of possible reasons why they did not emerge when coding. Arts and Humanities are a staple of our modern education system and are therefore perhaps not a ‘hot topic’ on social media. To be able to make a reliable judgement, further sources would need to be analyzed, to truly begin to capture the opinions of such a vast group.



## Employers

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### SOURCES

When seeking to understand the opinions of employers regarding what needs to improve in education, 8 sources that were found to be directly relevant were analysed. The types of common sources for this stakeholder fell into both the formal & informal source category, consisting of a combination of journalistic articles (6) and reports (2) . The main sources drawn upon were articles written by employers, denoting their opinions on the primary areas for improvement in education. When coding the sources for common themes and patterns there were less themes, but still a fair range, which occurred frequently in the analysis, yet seven areas which this stakeholder focused on when sharing their visions for education.



## EMPLOYERS PERCENTAGE OF TOTAL

CAREER SKILLS	20.91%
TRANSITION FROM K12	15.92%
LIFE SKILLS	8.13%
MINDSET, ROLE & RELATIONSHIPS	5.97%
BUDGETS & FUNDING	5.53%
ARTS & HUMANITIES	5.43%
UTILIZING DATA & RESEARCH	5.27%
ACHIEVE NUMERACY	4.63%
INTER & INTRA PERSONAL SKILLS	4.35%
PARTNERSHIPS	4.26%
CURRICULUM, TOOLS & RESOURCES	4.03%
ACHIEVE LITERACY & LANGUAGE COMPETENCY	3.89%
STEM	3.49%
POLICY & SYSTEMS	3.25%
FAMILY, CARERS & COMMUNITY	1.14%
ACCESS & INTEGRATION TO BASIC EDUCATION	1.04%
AUTHENTIC EXPERIENCES	0.95%
INCLUSION & DIVERSITY	0.88%
GENDER	0.69%
GLOBAL CITIZENSHIP	0.14%
PERSONALIZED LEARNING	0.09%
EARLY CHILDHOOD	0.00%
CHILDREN'S RIGHTS	0.00%
VOICE AND PARTICIPATION	0.00%
YOUTH LED INNOVATION	0.00%

LEADERSHIP	0.00%
INNOVATIVE ECOSYSTEMS	0.00%
NEW AND CHANGING PEDAGOGIES AND APPROACHES	0.00%
WHOLE SCHOOL MODELS & CULTURES	0.00%
EDUCATORS	0.00%
PROFESSIONAL DEVELOPMENT	0.00%
EDUCATOR TRAINING	0.00%
ASSESSMENT	0.00%
SEND	0.00%
RACE, ETHNICITY & IDENTITY	0.00%
LGBTQIA+	0.00%
RURAL, DISTANCE & HOME	0.00%
SOCIO-ECONOMIC EQUITY	0.00%
INDIVIDUALIZED LEARNING	0.00%
ADAPTIVE TECHNOLOGIES	0.00%
BREADTH OF SKILLS	0.00%
MEDIA & DIGITAL LITERACY	0.00%
HOLISTIC WELLBEING	0.00%
SPACE & ENVIRONMENT	0.00%
HEALTH	0.00%
MENTAL WELLBEING	0.00%
INTERCULTURAL & MULTICULTURAL	0.00%
SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS	0.00%
SUSTAINABILITY	0.00%
MULTILINGUALISM	0.00%



## INSIGHTS

There were two general trends which perpetuated throughout the sources. The first of which is the role that employers can play in improving the career prospects of young people in education.<sup>151,152</sup> The second is the opinion of employers on what education can do to provide young people with the skills that employers are looking for.<sup>153,154</sup> These two trends are both consistently shown throughout the coding.

Employers believe that they need to take on a greater role in education.<sup>155</sup> They believe that one of the ways to achieve this is through an increase in partnerships between businesses and schools.<sup>156</sup> This can be achieved through employers providing access to work experience initiatives, and apprenticeships, in order to aid the transition process from education to the workplace. Employers recognise that this will be mutually beneficial for both the child and the employer, as children will be more acclimatized to the specificities of the roles required by employers.<sup>157</sup>

Employers believe that as much as they need to take an active role in preparing students for the workplace, education must also cater to the needs that employers require.<sup>158</sup> As mentioned, there are two specific skills sets which employers highlight as being vital for young people to learn in order to be ready for work life. The first skill set desired is career skills (20.91%). Career skills include the ability to communicate effectively, work as part of a team, show leadership and solve problems.<sup>159</sup> Employers believe that many young people leaving education to enter into careers, are unequipped to succeed in a work environment.<sup>160</sup>

Employers particularly emphasized the need for young people entering the workplace to have proficiency in literacy and numeracy, and competency in language skills.<sup>161</sup> Employer surveys show that many employers perceive the literacy and numeracy skills of their workforce to be inadequate, particularly those who have left school within the last few years.<sup>162</sup> This is clearly evident in employers discussing numeracy skills at 4.63% on average, four times higher than the next highest stakeholder.

Of the employers analyzed, career skills was highlighted as the most important. Aside from these skills, there was no particularly identifiable pattern as to which skills employers most value. Many employers believe STEM skills to be important (3.49%), whilst others stated Life Skills (8.13%) and some believe skills gained from Arts & Humanities (5.43%). Interestingly, employers revered Arts & Humanities far more than any other stakeholder. This ultimately suggests there are some areas which employers believe there must be a particular emphasis, but that a wide variety of skills are important for a young person's transition to the workplace.

## OMITTED AREAS

Employers are primarily concerned with what they can do for schools and what schools can do for them.<sup>163</sup> Their vested interests mean their focus revolves almost entirely around how young people transition into the workplace and the skills that they believe are required for the workplace. This results in a number of areas not being mentioned as these areas are more important to other stakeholders, who view education from a different perspective.

There are, however, a number of notable omissions that it could be considered should be more important to employers than the coding suggests. One such omission, inclusion and diversity (0.88%), could be perceived as vital to the workplace<sup>164</sup>, particularly as research has shown there are less females within STEM jobs<sup>165</sup> and that there are less black and ethnic minorities in top positions within businesses.<sup>166</sup>

Equally notable is the omission of global citizenship (0.14%). Businesses have become increasingly globalised<sup>167</sup>, and yet the employers analysed do not highlight global citizenship as a requirement from education. The lack of reference to Mental Wellbeing (0.00%) is also a surprise, as it is being continuously prioritised amongst employers.<sup>168</sup> Early Childhood (0.00%) is also not referred to. This appears to be a newer focus of employers however, with the United States Department of Defence currently prioritizing early childhood education, and gaining recognition for its approaches.<sup>169</sup>

# Discussion

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## SUMMARY

Findings of the state of the debate show that by engaging with and reviewing sources from individual stakeholders in education, it is possible to gain a deeper understanding of the key focus areas, as well as areas omitted by each stakeholder. This review suggests that stakeholders are concerned with a wide range of issues yet they may not be aware of this which could be a barrier to collaboration.

Key findings that should be highlighted are; that youth as a stakeholder discussed Children's Rights and Participation at nearly four times the rate of other stakeholders. Parents were the only stakeholder to focus so predominantly on one theme; the role of family, carers and community (44.76%). Inclusion and diversity across the board was minimally referred to, with the exemption of three stakeholders: General Population prioritised Socio-economic Equity (7.20%) and SEND (3.15%), NGO's prioritised Gender (9.42%), whilst Parents and Carers prioritised Rural, Distance and Home (11.08%), although arguably this was heavily weighted due to a large focus on homeschooling within sources. Interestingly, when the average of all stakeholders for a given theme was analyzed; The role of Family, Carers and Community were consistently discussed the across all stakeholders (9.20%), with LGBTQIA+ Inclusion (0.17%) being discussed by far the lowest.

By reviewing education from a multifaceted, whole ecosystems approach we noted that in our sources the following 13 themes were discussed by all: Achieve literacy and language competency; budgets and funding; policy and systems; utilizing research and data; transition from K12; curriculum, tools and resources; inclusion and diversity; gender; inter and intra personal skills; STEM; life skills; career skills and family, carers and community. This clearly indicates many shared priorities amongst all stakeholders, and the opportunities this presents for collaboration in approaching these targets.

Of even greater interest perhaps; 14 themes were of concern to all except one stakeholder: Early Childhood (Employers), Achieve Numeracy (Youth), Youth Voice and Participation (Employers), Educator Training (Employers), Educator's Mindset, Role and Relationships (General Population), Assessment (Employers), Rural, Distance and Home Inclusion (Employers), Socio-economic Equity (Employers), Personalized Learning (Parents and Carers), Authentic Experiences (General Population), Arts and Humanities (General Population), Learning Space and Environment (Employers), Mental Wellbeing (Employers), Global Citizenship (Parents and Carers). These themes are clearly still top priorities amongst stakeholders in education. It is however interesting to note, that employers as a stakeholder consistently neglected to discuss a wide variety of themes (29 themes at 0.00%).

## Feedback on this report is incredibly valuable to us as a research team

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The stakeholder who covered the least themes, were Employers, who had a clear focus on discussion around career based skills. The stakeholder who discussed the most themes, were systems level. This is not a surprise given that this stakeholder prioritizes engaging with education from a global perspective, attempting to highlight broad educational issues within large reports.

The findings also show that there are areas which are omitted from the discussion, as the Leapfrog report showcased that innovation spotters had not highlighted innovations to fulfil gaps in

teacher and professional development, technology and recognising learning<sup>170</sup>, this review showcases that the following: Youth-led Innovation; Leadership; Innovative Ecosystems; Race, Ethnicity and Identity Inclusion; LGBTQIA+ Inclusion; Individualized Learning; Holistic Wellbeing; Global Citizenship and Intercultural and Multicultural Education were barely spoken about as perceived needs in the community, if at all. However, it was great to see that all themes were discussed by at least two stakeholders. As we have been immersed in the education innovation space for 3 years, growing an evidence base of the latest research, we were able to identify these areas due to insights and expertise in the field. However, if this means that there are themes being missed from the general conversation as a perceived need, we should be mindful of including all. Therefore, feedback on this report is incredibly valuable to us as a research team, so that we can continuously grow our knowledge base and develop our understanding of perceived needs in education.

## LIMITATIONS

As with all research, there are some clear and important limitations to highlight in our methodology. We were currently only able to draw upon sources written in English, we made a concerted effort to seek sources and interview those from across the world. Yet, we acknowledge language barriers and the limitation of not being able to include all countries and territories opinion in this research. Additionally, when searching for documents search engines throw up local sources, deemed relevant. This can be difficult to overcome thus our first state of the debate, although attempting to provide a global oversight, will more often than not be framed through the analysis of those in the Global North. This analysis has allowed us to begin building our insights and following the discourse of those in the education community who have taken the time to share and research their concerns and visions for education. In future research, as our community grows, we are committed to improving our research. We hope that for those reading this report particularly in the many areas underrepresented on the global stage, that you will share your perceived needs of what should improve based on experience and/or research to include in future reports.

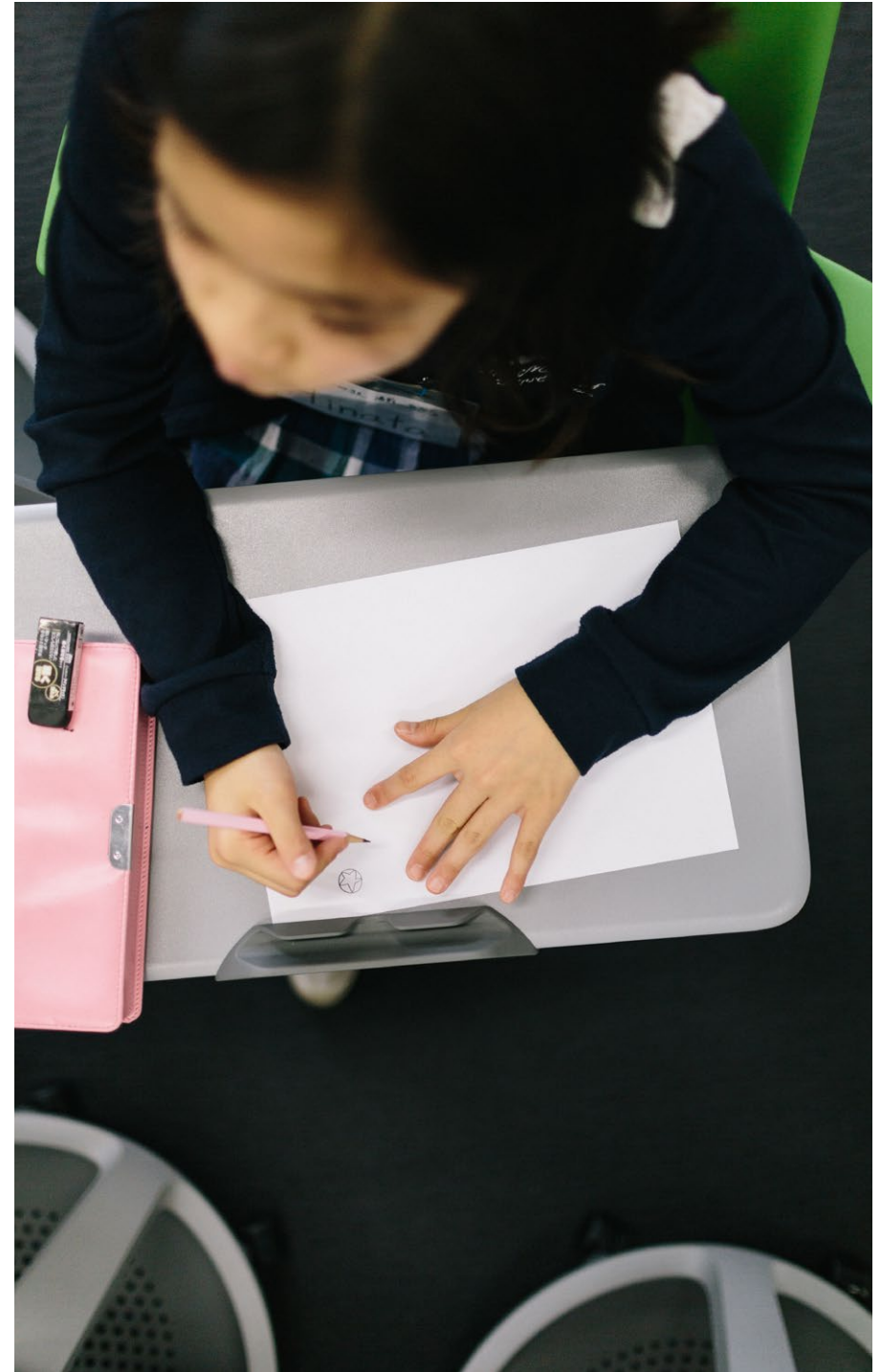
As we were coding, we used similar words to do so in the sources alongside the specific words identified in the mapping during the third section of the report. Whilst this work as a catchall, there are still limitations as other terms may have been missed, due to variance in language. This could have increased the frequency of themes in the sources. Additionally, any large-scale research reports were only coded for explicit themes, rather than explicit and inferred which the rest of the sources were. This may alter the code outcomes slightly due to time restraints.

Part of the state of the debate is made up on our original interviews at hundrED. While they do ensure we gain valid insights from more individuals, they were also conducted in a format which was not initially designed for this research. Thus they focus on 5 broad themes: Assessment, Skills, Leadership, Learning Environments and Teachers to analyse the scope of areas talked about. If we had directly asked questions across all themes then all areas would have been spoken about even more.

## FUTURE RESEARCH

It is necessary at HundrED and beyond to include an increasingly diverse and global voice to transform the education ecosystem together. Thus, we must acknowledge that this report should include increased opportunities for all stakeholders to share their needs and potential innovative solutions first hand. Thus we will strive include more first-hand accounts, alongside the literature, worldwide to increase breadth and acknowledgment. As we growing our research evidence base it is vital that we also increase the variety of sources, with the foresight of introducing documentaries and books in our next research report and an increased and improved use of global social media sources.

To continue to be more inclusive of the Global South<sup>171</sup> we will proactively engage and encourage our HundrED community members to be part of a steering group, opening up language coding and access to sources, to ensure relevance to their own context. By engaging with a plethora of sources this will help to shape the conversation more inclusively to work together for the better. The success of the future of education depends on the cooperation of all stakeholders. Thus, its progression should be shaped not only by policy implementation, but also by educators in the schools, supported by the parents and wider community, including input from young people themselves. Due to a negative rhetoric in education which often leads to isolation of stakeholders this research hopes to identify cohesiveness of opinion to promote discussion and action-oriented outcomes to change.



## CONCLUSION

By reviewing the variety of stakeholders involved with education, this analysis has been able to create a snapshot of the key themes each stakeholder is prioritizing and omitting. This information, although only the beginning of a much needed large scale review in the grand scheme of the amount of sources available, offers invaluable insights into stakeholders over the last 18 years, whose focus has been looking towards education for the future. The fact that a lot of progress over these 18 years has been made, specifically in access to basic education and gender equality, is phenomenal in such a short time period.<sup>172,173</sup> However, the fact that many issues being raised through the 1990s and early 2000s are still areas for improvement today, shows that we all have a way to go. By working together, HundrED believes we will be able to utilize our individual areas of specialty to work together towards the same goal - every child to flourish improving education for all young people globally.

The conversation around education is most often framed by those in the Global North. Despite many of the sources for all stakeholders exploring education globally, when looking at the organizations involved with the research and writing it is frequently framed within the norms of the Global North, despite often referring predominantly to the Global South. We must be careful when discussing young people and their education, that we do not create a 'universal child'. We must acknowledge that education should be geared towards the context where the education is being provided, and what is deemed exceptional educational practice in one location, may not be desirable somewhere else. These traditional ways of viewing education are evidently starting to be broken down; visible in the way the perspectives and solutions address changing education in different contexts. However, ultimately the gap is too large and we need to work together to be mindful of viewing education through certain lenses. Thus, collaboration across all stakeholders, in all nations is key.

There limitations to the process are evidenced above, however, this research offers a synthesis of patterns amongst, and across stakeholders. It has been evidenced that policy and systems, assessment, family, as well as the wider community are discussed by all stakeholders, and prioritised by most. That these were key themes across all stakeholders, does not come as surprise. Arguably, many view the 'top down approach' through policy and systems as the means with which to create big educational change. Yet, based on the perceived needs, and that education is of key importance for all, a 'both ways' or even 'many way's approach is likely best. Stakeholders are keen to see the change happen, with many creating operations to scale, but we need to begin and continue to collaborate together if we truly want to improve education.

On this note, it is important to draw attention to the fact that youth as a stakeholder, have for the greater part been left out of the conversation on how to improve education. In contrast to all other stakeholders (for whom it was one of the least coded themes), youth prioritised youth voice and participation, as well as children's rights. They also valued their relationship with their educators the most. This is heavily linked to student voice, as when youth were discussing the ability to voice their opinion, they argued that teachers with whom they had a good relationship, and who listened to them, were those they were most engaged in learning from. This leads us on to why HundrED decided to engage with youth voice and prioritise it in this report

## Get Involved

- Have your say, share what you think needs to improve in education through our online survey or get in touch! We'd love to hear from you.
- Become a HundrED ambassador to grow global insights and transform education.
- Send us research, particularly highlighting voices that are more difficult for us to reach and are typically less included to help grow and share insights and perspectives.

# Global Youth Survey: Your Education

## **Purpose: Your Voice Counts**

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“There are 2.2 billion children in the world and no one is really asking them how they can make learning better. That’s a waste of an opportunity. Given the number of children we’ve got and the circumstances of the world, it’s very hard to not see education being transformed by children rather than for children.”

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– Stephen Heppell



## YOUTH AS A STAKEHOLDER

Whilst much has been written internationally about approaches to educational change<sup>174</sup> there have been few attempts to ensure young people have an opportunity to share their views and witness change based on their concerns for educational improvements.<sup>175</sup> At HundrED we believe youth voice is vital for changing the status quo in education. There are many ways to engage young people in the decisions that affect their daily lives; from asking for their feedback on the successes and limitations of a lesson, to how they might design their education environment. This was an avenue pursued by the San Francisco Unified School District with the Sara and Evan Williams Foundation (SEWF) and IDEO, who engaged students in designing their own school cafeteria based on their preferences and eating habits.<sup>176</sup> As young people are the most impacted by ever-changing educational policies, they should have the right to voice their opinion and include their perspective in the conversation.

Fortunately, we are not alone in this thinking. The United Nations Convention on the Rights of the Child (CRC)<sup>177</sup>, established in 1989, enshrines the necessity for children's right to participate.<sup>178</sup> It is encouraging to know that all but one nation has ratified the CRC, acknowledging children's right to have an active voice globally.

Article 12 in the CRC states that governments must:

“Ensure that a child, who is capable of forming his or her own views, should have the right to express those views freely in all matters affecting that child, and that the views of that child should be given due weight...”

The significance of Article 12 for education cannot be understated. On average, a young person spends 14,040 hours at school before they are 18 years old, a notable amount of time determined by formal education.<sup>179</sup> As highlighted by the CRC's General Comment on the Aims of Education (2001)<sup>180</sup>, Children do not lose their human rights by virtue of passing through the school gates. Therefore, education

should be provided in a way that respects the inherent dignity of the child, and enables the child to express their views freely in accordance with Article 12.<sup>181</sup> A study in Northern Ireland showcased that the single most important issue for children, was not having a say in matters that concern them.<sup>182</sup> Research also highlights the multiple benefits of including the opinions of students in educational reform, such as, building meaningful relationships with teachers and the promotion of positive prosocial behaviours.<sup>183,184</sup> Even for those who argue against the CRC and children's participation rights, they are ultimately in contradiction with multiple international human rights legislations that afford the same rights.<sup>185</sup> From a Human Rights perspective, students should have the ability to express their opinions freely. The Universal Declaration of Human Rights (UDHR) (United Nations, 1948) in Article 19 states:

“[e]veryone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers”

– United Nations, 1948.

Freedom of expression, is therefore a Human Right, afforded to all citizens without age as a predisposing feature. The CRC has strong links to the UDHR and used Article 19 as its basis for Article 12, as well as others.<sup>186</sup>

Increased involvement of children and young people in decision making in education is ultimately vital in nearly all aspects of a child's life: civil, political, economic, social and cultural.<sup>187</sup> Thus, engaging with Article 12, fosters elements such as: a positive school ethos and greater understanding of marginalised young people's needs and issues. When educators give their time to listening to their students thoughts and opinions, they develop a 'learning partnership' which can foster productive

learning outcomes.<sup>188</sup> It also produces well rounded citizens, with links between youth voice and young people actively engaging with their citizenship, leading to students becoming more deeply involved with democratic practices.<sup>189</sup> Developing active citizenship skills from a young age, is crucial in encouraging young people's engagement in wider global issues.<sup>190</sup>

Whilst there has been research exploring the importance and benefits of youth participation, how they might contribute to change and improve in schools is still limited. Their participation is usually directed towards Student Representative Councils which are often a token gesture, rather than a body that actively engages with students opinions. Membership is typically based on popularity, over democratic competence.

The United Nations Committee on the Rights of the Child<sup>191</sup> regularly publishes reports on the extent to which individual states breach the CRC and makes clear recommendations. Soliciting children's views on their education is one of the areas that states have failed to achieve. For example, In 2002, when sharing concerns regarding the school system in the United Kingdom, the Committee noted that 'in education, school children are not systematically consulted in matters that affect them'.<sup>192</sup> At HundrED we believe that this is not acceptable. We want to bring this issue to attention. HundrED advocate, through research and action, for the acknowledgement of the rights of children across all Articles of the CRC, specifically in this case, Article 12; and the right of children and young people to express their views in both education and our work at HundrED.

## YOUTH VOICE VIA SURVEYS

Previous surveys developed to understand youth in K12 are small in number. One of particular success was done in Ireland, in 2017, exploring students experiences of teaching and learning in secondary schools nationally.<sup>193</sup> The survey reflects the views of more than 3,000 young people (aged 12-18 years). Dáil na nÓg, the national parliament for young people in Ireland, engaged with youth as equal stakeholders in their education system for the first time.

Their findings suggested that students wanted a more stimulating and interesting post-primary education, highlighting their desire for active, hands-on approaches, that support them as they transition through their teenage years. They also highly valued being heard, particularly as 44 % felt they did not have a say in either their classroom or schools. Their findings also suggest that as young people progress through the secondary school system their positive experience of their

school system declines. Alarming, 46% of young people did not feel adequately supported in school. This was attributed by students, to a lack of constructive feedback on their work, the unavailability of teachers to talk to if they are worried about falling behind, dissatisfaction with the levels of their learning and a lack of counselling support for them in schools.<sup>194</sup>

In another survey conducted by The Princes Trust in the UK, including educators, young people, and employers, 72% of educators say that students are ready for jobs.<sup>195</sup> However, only 45% of young people feel that they are ready and most importantly, only 42% of employers see students as ready. Showcasing a gap between perceptions and possible reality. A survey conducted in the US is also in line with this research, the YouthTruth survey, explored students perceptions of college and career readiness. They found that 165,000 high school students, between the 2010-11 and 2014-15 school years did not feel prepared to go to college, even though most wanted to. Worryingly, the survey showed that they feel even less prepared for their future career.<sup>196</sup>

More must be done to understand the diversity of youth perspective in education. With one in five children not in school<sup>197</sup> and high dropout rates,<sup>198,199</sup> we must do more to understand how and why students are not engaged. Surveys, are one way to help us gain insight and capture the voice and opinion of a broad range of students globally. The Youth View Survey, is an example of how surveys can do more to understand their students. The survey was developed to capture social emotional learning results internally, to enable educators to understand their student achievement motivations, aspirations and school climate perceptions.<sup>200</sup> By engaging with young people about their education, we can encourage greater learner autonomy amongst students, as well as developing our own understanding of the ways in which we can improve education.

## YOUTH INCLUSIVE

At HundrED we wanted to begin to understand and communicate young people's opinions and visions for the future of education, so their voices could truly be heard. As we embarked on researching education innovations for potential selection to the global 100 collection in 2018/19, we were adamant that we wanted to grow research insights, for both ourselves as an organisation and for the wider community. Reaching voices around the globe is a challenge, particularly the ones who feel most unheard. So as our first piece of research we designed an online tool to understand both what young people would like to see improved in education, as well as what they currently value. The findings below are insights from this research.

The options they were presented with for selection are based on our preliminary thematic analysis conducted in November 2018. This followed our initial secondary literature review; uncovering multi stakeholder, multi-source perspectives of what needs to improve in education. The results provide a fascinating and rich insight into the opinions of young people from 19 countries, aged 13-18 years. Due to our partnerships at HundrED, we are grateful to our network of innovators and wider community who made it possible to include a multitude of countries. Whilst we do have a notably larger sample size from the USA, due to strong links with educators there, and Taiwan (the Institute for Information Industry, Digital Education Institute, Innovative Learning Center in Taiwan who kindly assisted in the translation of the survey questions & selections), the comments from all countries share valuable viewpoints worldwide.

We hope the findings will inspire you, as much as it has us, to incorporate youth perspectives as a natural aspect of researching key questions and solutions in education. Whilst this is by no means a big data survey, its rich insights from the quantitative and qualitative feedback, undoubtedly show that it is well within their means to contribute to discussions as a key stakeholder. This must be done to develop an education ecosystem that children and young people feel prepares them for the 'real world' so every child can flourish.

## Approach: Reaching Global Voices

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### DESIGN

An online self-report survey was designed using Google Forms to understand what youth today felt needed to improve in education and what they currently value. The questions were designed based on the findings of the initial thematic analysis of the state of the debate review outlined above. 18 of the 45 subcategories which fall into 10 themes, were identified as youth relevant, and included as options for selection. The survey was deliberately designed to include both closed and open questions, as a means of eliciting a variety of responses. The survey was split into three sections to capture youth opinion using one closed question and two open ended questions.

The first close question invited participants to select as many options as they would like from a list of 19 themes, (including an opportunity to add 'other'):

**What do you think could improve your education?  
Please select as many as you would like.**

Secondly, respondents were invited to share in a free text box why they believe these areas would improve their education:

**Please tell us more why these things would  
improve your education?**

Finally, they were invited to share in a free text box what they value most about their education:

**Please tell us what you value most about your  
education? This could be from the list above or  
something else entirely.**

Respondents were also required to complete a demographic questionnaire to report age, gender, ethnicity and country in which they are currently educated. All participant information was anonymous.

At the start of the study it was outlined in simple terms what was expected for participation in this study and what the data would be used for. Respondents were required to consent before the survey began.

## RECRUITMENT METHODOLOGY

Distribution of the survey was conducted in three ways:

1. Shared on social media platforms by HundrED on twitter 6 times, as well as being a pinned tweet for 3 months, and facebook 3 times).
2. To the HundrED community via. Email once in our HundrED newsletter.
3. Direct invitation either via. Twitter or email to take part in the study.

Inclusion criteria included only a guide, that the survey was suitable for around 14-18 year olds, but could be taken by those younger who were in K12 education.

## RESPONSE

In total, we received 396 responses to the survey. Of 396 initial responses, 13 did not consent to share their data and 49 were either: above the age limit of 18 years of age, mistyped age or answered on behalf of a group. Thus, the number of respondents analysed for the youth section of the survey was 322. Participants ranged in age from 13-18 years, with a gender split of 42.86% Male, 54.97% Female, Non-Binary 0.31%, Prefer not to say 0.62%, Transgender 0.93%, Other 0.31%. Individuals identified across 56 different ethnicities, and were being educated in 19 different countries.

From our sample of 322 young people the average number of choices selected by respondent was 9. The range was from 1-18, with the most common selected number of choices being 6 and 2. The breakdown was as follows: One: 14, Two: 24, Three: 19, Four: 22, Five: 17, Six: 24, Seven: 21, Eight: 18, Nine: 21, Ten: 23, Eleven: 17, Twelve: 14, Thirteen: 22, Fourteen: 16, Fifteen: 8, Sixteen: 17, Seventeen: 8 and Eighteen, 17.

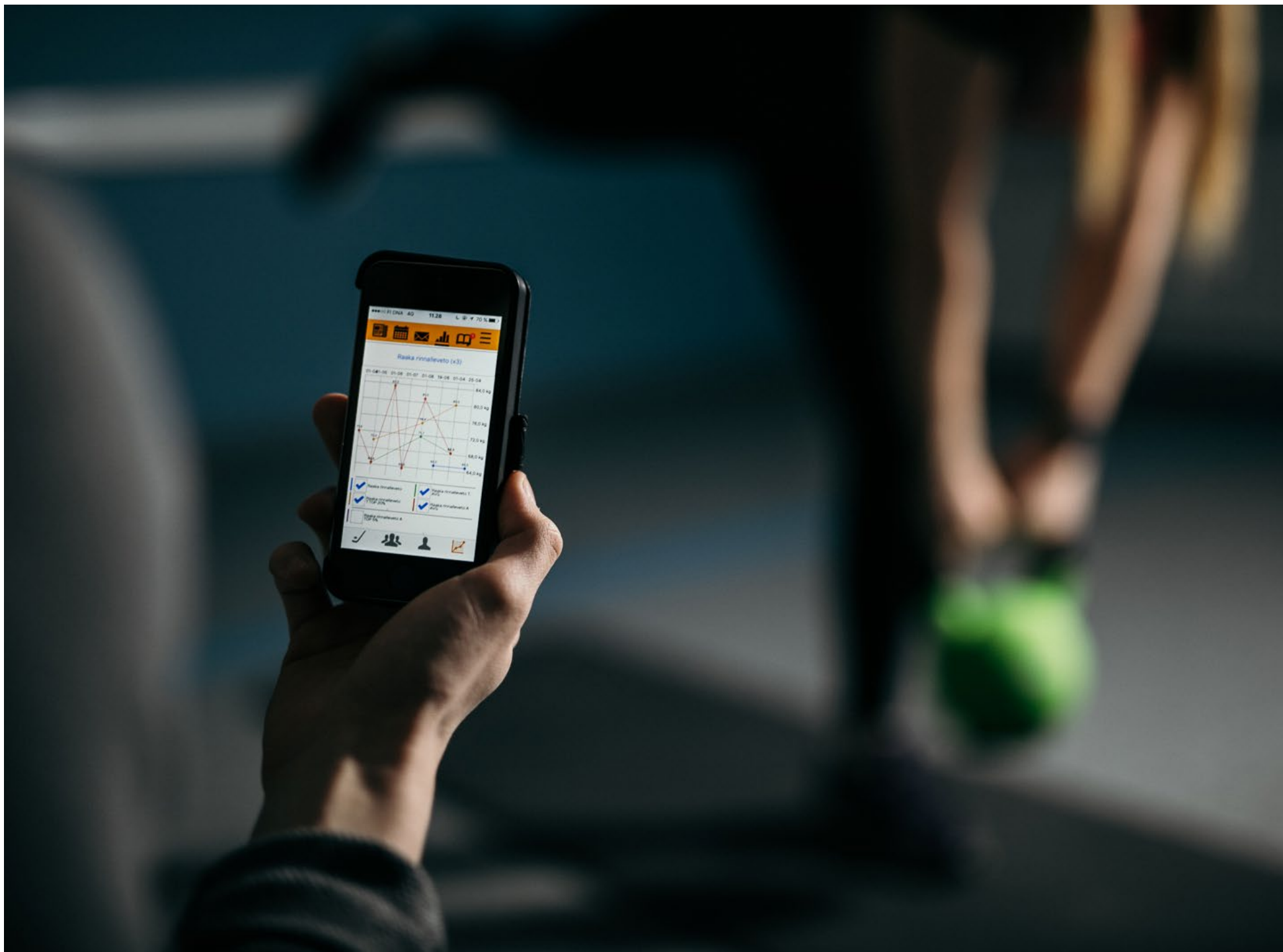
## ANALYSIS

The data was downloaded from Google Forms and analysed using Google Sheets and statistical software PSPP.<sup>201</sup> The respondents who did not consent were removed, as well as any other accidental repetitions in the data.

Analysis began with descriptive statistics. Considering the variation in the sample of respondents countries youth are educated in, age and gender were analysed for statistical differences using a chi-square test. As the goal of the study was to understand what young people think could improve their education, as well as what they currently value, analysis explored the rate of selection using percentages of what young people thought could improve their education.

Profiles were then created to analyse the respondent's open-ended text comments, to identify why they felt these visions could improve their education (79.19% response rate receiving 255 written comments from the first question), as well as what they currently value (71.42% response rate - receiving 230 general comments). This was done by building profiles of each participant who had provided written feedback to draw out key themes. The team then analysed the respondents comments to identify initial themes, and additionally highlight any contrasting opinions between the respondents.

Free text entries were then coded into 10 areas, with 45 different subcategory themes developed by three researchers over four working sessions. The text was non exclusive and could be assigned more than one code. The text associated with the code was then distributed between the team and summarised for the report, highlighting particularly useful quotes to explain the key findings from the data.





## Findings

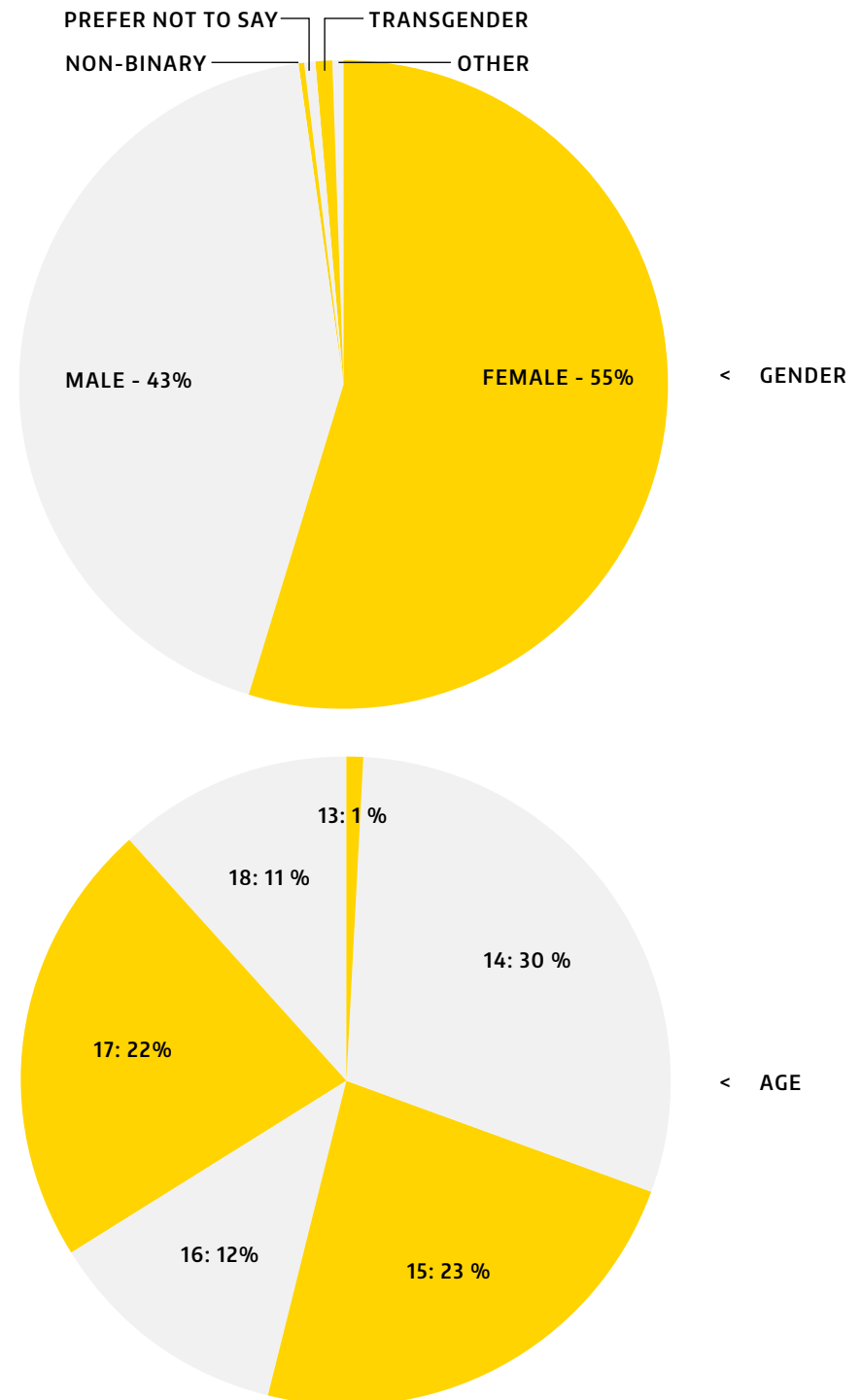
The descriptive statistics below highlight the demographic results of 322 youth participants.

### GENDER

Female 54.97% (177), Male 42.86% (138), Non-Binary 0.31% (1), Prefer not to say 0.62% (2), Transgender 0.93% (3), Other 0.31% (1).

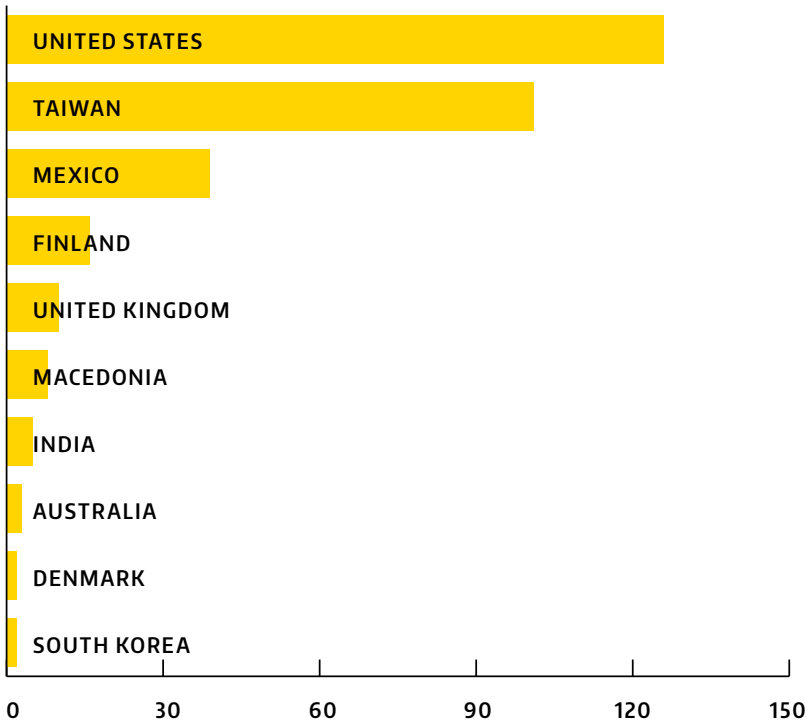
### AGE

The average age of respondent was 15.6 years old. The range age of youth responses were from 13-18 years old. The highest frequency of response was from 14 years old (96 at 29.81%), whilst the lowest frequency was 13 years old (3 at 0.93%).



COUNTRY EDUCATED

The country in which respondents were educated ranged across 19 countries. Respondents were predominantly from 2 different countries: USA (126 at 39.13%) and Taiwan (101 at 31.37%). When sharing the survey with the HunderED community, Smart School Alliance translated and distributed the survey in Chinese resulting in a higher number of participants. The high number of USA respondents is likely due to the English language and having an active community of US innovators at HunderED.

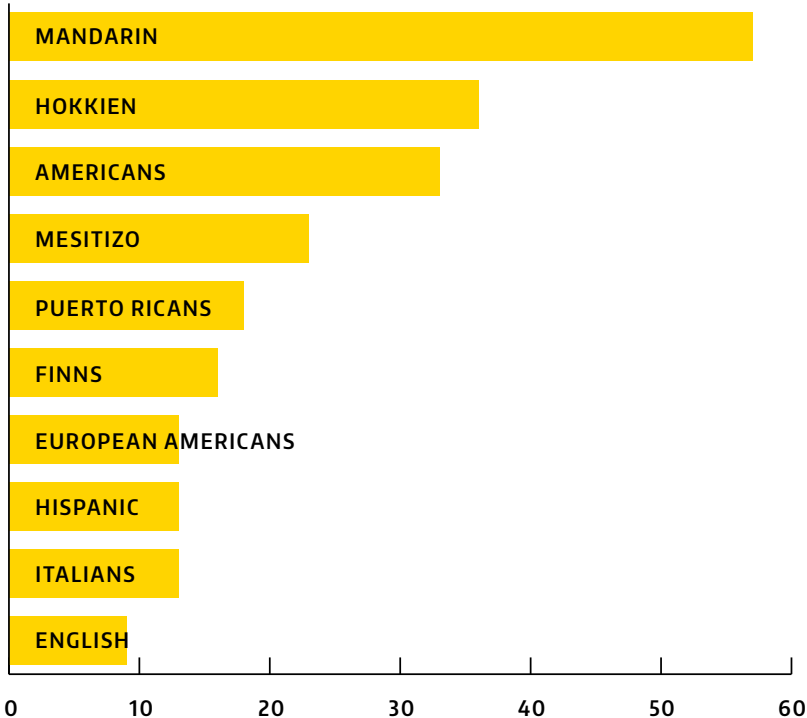


- The remainder of respondents (29.5%) spanned across 17 different countries. The 17 countries, from highest to lowest frequency were: Mexico (39 at 12.11%), Finland (16 at 4.97%), UK (10 at 3.11%), Macedonia (8 at 2.48%), India (5 at 1.55%), Australia (3 at 0.93%), Uzbekistan (2 at 0.62%), Denmark (2 at 0.62%), South Korea (2 at 0.62%), American Samoa (1 at 0.31%), Belgium (1 at 0.31%), Bulgaria (1 at 0.31%), France (1 at 0.31%), Jordan (1 at 0.31%), Malaysia (1 at 0.31%), Russia (1 at 0.31%) and Spain (1 at 0.31%).

ETHNICITY

Respondents identified across a range of 56 ethnicities. The reason for the high number and spread is that we ensured all respondents had an opportunity to select from a list of over 1000 ethnicities and could add their own option. This is vital when researching global populations, who have the right to identify as they see fit. A limitation of this method, however, particularly in young populations, is that some ethnicities may have been 'amusing' and occasionally selected inaccurately for 'fun'.

The 4 ethnicities most commonly identified with were: Mandarin (57 at 17.70%), Hokkien (36 at 11.18%), Americans (33 at 10.25%) and Mestizo (23 at 7.14%).



- The remainder of the respondents (53.73%) spanned across 52 separate ethnicities. The ethnicities, from highest to lowest frequency were: Puerto Rican (18 at 5.59%), Finns (16 at 4.97%), European Americans (13 at 4.04%), Hispanic (13 at 4.04%), Italians (13 at 4.04%), English (9 at 2.8%), African Americans (8 at 2.48%), Albanians (6 at 1.86%), Asian American (5 at 1.55%), Irish (4 at 1.24%), Gujaratis (4 at 1.24%), Hakka (4 at 1.24%), Arabs (3 at 0.93%), Polish (3 at 0.93%), Spaniards (3 at 0.93%), Taiwan aboriginal (3 at 0.93%), White Mountain Apache of Arizona (USA) (3 at 0.93%), Uzbeks (2 at 0.62%), Macedonians (2 at 0.62%), Hindi People (2 at 0.62%), Herero (2 at 0.62%), French (2 at 0.62%), Danes (2 at 0.62%), Bulgarians (2 at 0.62%), Aztecs (2 at 0.62%), Asante (Ashanti) (2 at 0.62%), Afro-American peoples of the Americas (2 at 0.62%), Aboriginal Australians (1 at 0.31%), Achenese (1 at 0.31%), Achang (1 at 0.31%), Anglo-Celtic Australian (1 at 0.31%), Californio (1 at 0.31%), Campa (1 at 0.31%), Cree (1 at 0.31%), Greek Cypriots (1 at 0.31%), Hawaiian (1 at 0.31%), Kale (1 at 0.31%), Korean (1 at 0.31%), Lao American (1 at 0.31%), Malay (1 at 0.31%), Mazandarani (1 at 0.31%), Mewat (1 at 0.31%), Mono (1 at 0.31%), Pueblo people (1 at 0.31%), Russians (1 at 0.31%), Swedes (1 at 0.31%), Skwxwú7mesh (1 at 0.31%), Taiwan & Vietnam Mixed race (1 at 0.31%), Tamil (1 at 0.31%), Welsh (1 at 0.31%), Yehudim (1 at 0.31%) and 1 person answered I don't know (1 at 0.31%).

## HIGHLIGHTS

- 83% of youth believe learning skills to help them in their future career would improve their education.

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- Young people feel unprepared for the 'real-world' and frequently share their concern for a lack of preparedness for what they will face after formal education.

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- Following this, youth were most concerned with improving: their physical learning environment (61%), learning life skills such as empathy, collaboration & communication (58%), their education being tailored and personalized to their needs (56%) and learning how to live a sustainable lifestyle (53%).

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- Sustainability, in the state of the debate, showcased its importance to only general population at 2.78%, yet in the global youth survey over 50% of youth highlight this as an area to improve.

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- Ultimately, all 18 options for selection were deemed relevant to youth. On average, choices were selected by half of all respondents and even the least selected option was selected by one quarter of respondents.

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- The most common themes in regards to what youth value highly in their current education was: the importance of meaningful relationships with staff, developing a global outlook and being prepared for their future.

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- Youth also explicitly demonstrated their gratefulness in having the opportunity to access education throughout the written comments.

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- Themes which were not highlighted explicitly in the options presented to youth, that arose from the written feedback, were improving: Appropriate teaching strategies; hands on, practical learning opportunities; that education should provide a fun, interesting and respectful environment in which to flourish and they prioritise more movement in education.

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- Females were more likely to select life skills, such as empathy, collaboration & communication than males by nearly 10%.

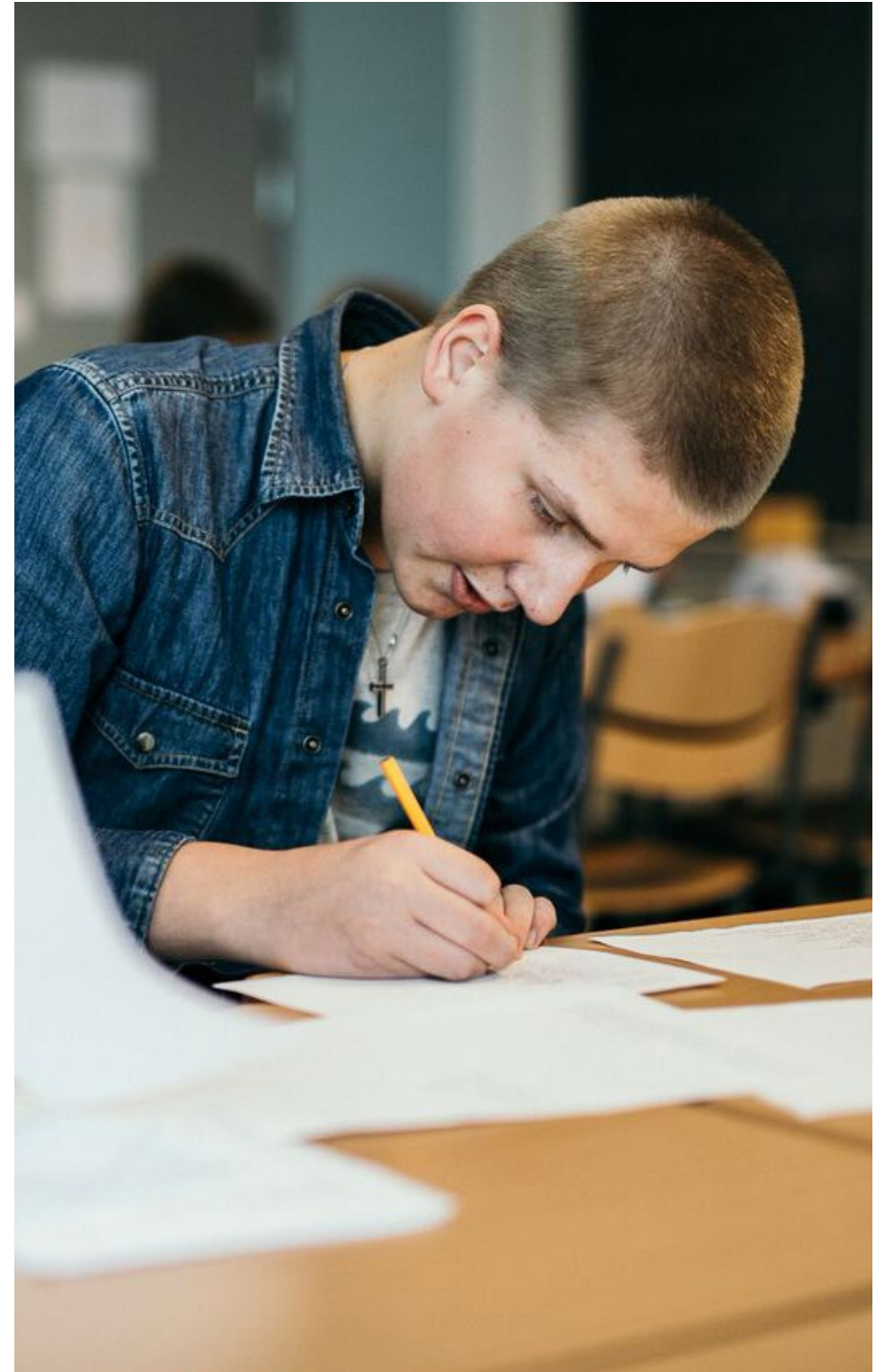
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- 15 year olds were more likely to select the following 11 out of 18 options typically by around a 10% margin: Learning skills to help you in your future career, Opportunities to understand and improve your mental health, The ability to understand and engage your human rights, Learning Intercultural education & developing global citizenship skills, More access to science, technology, engineering & mathematics opportunities, Opportunities to learn about sex education & relationships, A higher quality of educational resources, Having opportunities to voice your opinion, A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation, A well designed environment for learning & Your family/ carers being more involved with your education.

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- 17 year olds, closely followed by 15 year olds, were more likely to select Learning skills to help you in your future career by a 10% margin than other age groups.

- Taiwanese respondents were more likely than those educated in Mexico, and even more likely than those educated in the US, to select the following 11 out of 18 options: A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation, A well designed environment for learning & Your family/carers being more involved, Opportunities to understand and improve your mental health, The ability to understand and engage your human rights, Learning Intercultural education & developing global citizenship skills, A change to the way you are assessed, Opportunities to learn about and improve health & wellbeing, Opportunities to learn about sex education & relationships, Focusing on life skills, such as empathy, communication & collaboration & Opportunities to improve abilities to access, analyze, evaluate, and create media.
- 
- Those educated in Taiwan (75%) were more likely to select A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation: those educated in compared to selection rate by Mexico (41%) and US (26%).

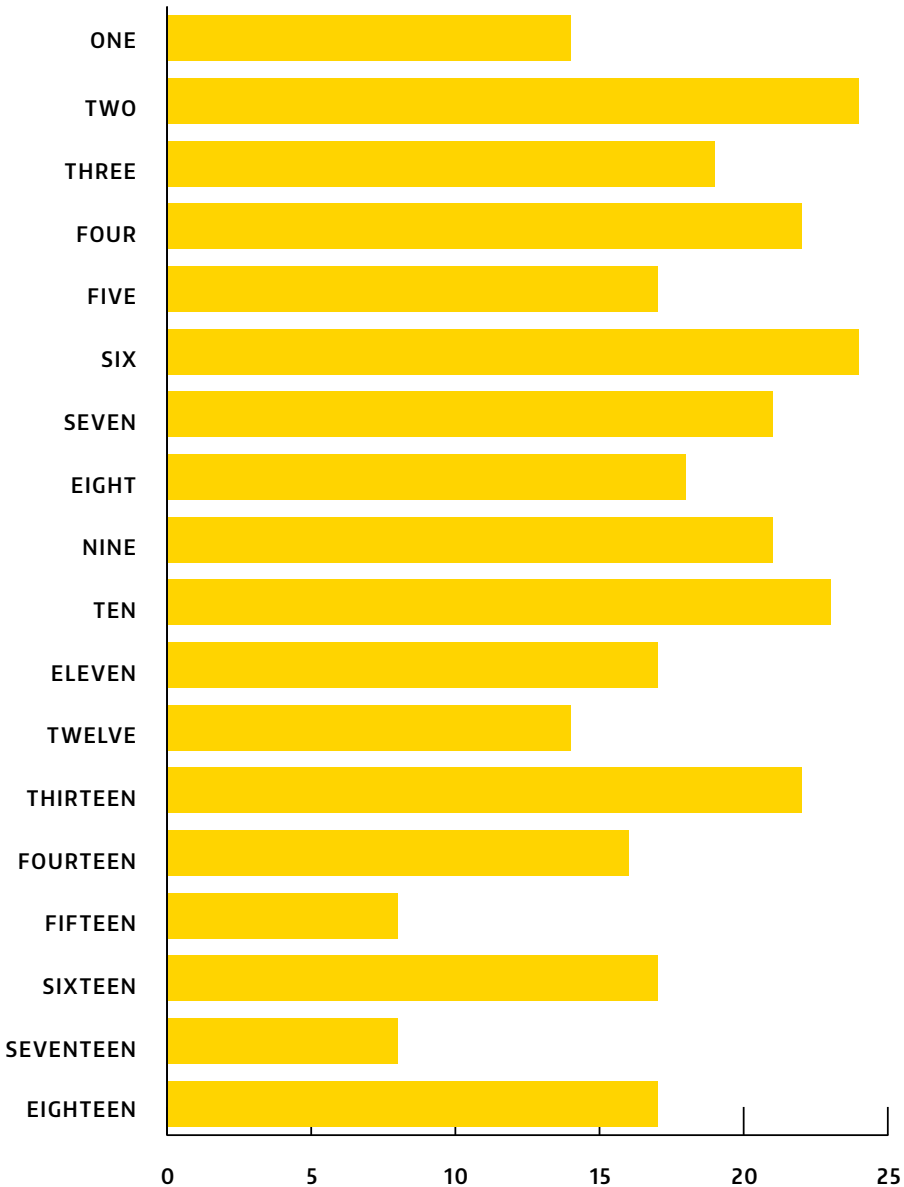


**A TABLE DEPICTING THE SELECTION RATE  
OF YOUTHS AGED 13-18 ON IMPROVING EDUCATION**

WHAT DO YOU THINK COULD IMPROVE YOUR EDUCATION? PLEASE SELECT AS MANY AS YOU WOULD LIKE.	OVERALL PERCENTAGE OF RESPONDENTS CHOICE OF THIS SELECTION
LEARNING SKILLS TO HELP YOU IN YOUR FUTURE CAREER	<b>82.92%</b>
A MORE INCLUSIVE SCHOOL ENVIRONMENT FOR ALL; REGARDLESS OF RACE, GENDER, FAITH OR SEXUAL ORIENTATION	<b>43.48%</b>
A WELL DESIGNED ENVIRONMENT FOR LEARNING	<b>60.56%</b>
YOUR FAMILY/CARERS BEING MORE INVOLVED WITH YOUR EDUCATION	<b>26.40%</b>
BETTER RELATIONSHIPS WITH SCHOOL STAFF	<b>45.65%</b>
TAILORING YOUR EDUCATION TO BE MORE PERSONAL TO YOU AND YOUR NEEDS	<b>56.21%</b>
OPPORTUNITIES TO UNDERSTAND AND IMPROVE YOUR MENTAL HEALTH	<b>51.55%</b>
THE ABILITY TO UNDERSTAND AND ENGAGE YOUR HUMAN RIGHTS	<b>44.72%</b>
LEARNING HOW TO LIVE AND CONTRIBUTE TO A SUSTAINABLE LIFESTYLE	<b>52.80%</b>
LEARNING INTERCULTURAL EDUCATION & DEVELOPING GLOBAL CITIZENSHIP SKILLS	<b>48.76%</b>
A CHANGE TO THE WAY YOU ARE ASSESSED	<b>35.71%</b>
OPPORTUNITIES TO LEARN ABOUT AND IMPROVE HEALTH & WELLBEING	<b>43.17%</b>
MORE ACCESS TO SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS OPPORTUNITIES	<b>44.10%</b>
OPPORTUNITIES TO LEARN ABOUT SEX EDUCATION & RELATIONSHIPS	<b>39.75%</b>
HIGHER QUALITY OF EDUCATIONAL RESOURCES	<b>47.83%</b>
HAVING OPPORTUNITIES TO VOICE YOUR OPINION	<b>51.55%</b>
FOCUSING ON LIFE SKILLS, SUCH AS EMPATHY, COMMUNICATION & COLLABORATION	<b>57.76%</b>
OPPORTUNITIES TO IMPROVE ABILITIES TO ACCESS, ANALYZE, EVALUATE, AND CREATE MEDIA	<b>48.14%</b>



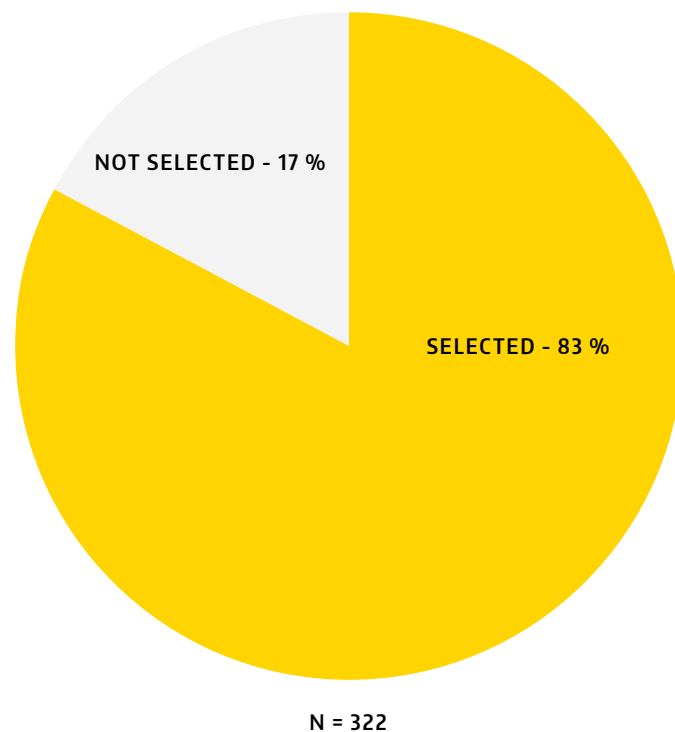
FREQUENCY OF NUMBER OF SELECTIONS CHOSEN BY RESPONDENT



## 1. Future Skills

### RESULTS

82.92% (267 out of 322) of youth from around the world think learning skills to help them in their future career could improve their education.



### GENDER

There were no notable gender differences between Female (150 at 84.75%) and Male (113 at 81.88%) respondents when selecting skills for future career. There was, however, due to the small sample size of Transgender respondents, a gender difference when running chi square tests with a 2 tailed significance of  $p=0.048$  as 1 at 33.33% selected this option, whilst 2 at 66.67% did not, which is a vast difference compared to the female and male response rate.

### AGE

There were significant differences of age at  $p=.004$  for the selection of future careers skills when running a Pearson Chi Square test analysis.

15 year olds were most likely to select this option at 92% and 17 year olds demonstrated a similar response rate too of 91.67%. This selection, whilst still high, seemed to be lower priority to 14 (77.08%), 18 (72.97%) and 16 year olds (71.79%). Of the three 13 years olds who responded 100% selected this choice.

## COUNTRY EDUCATION IN

There were no significant differences of 'country educated in' at  $p=.314$ , for learning skills to help them in their future career, when running a Pearson Chi Square two tailed significance test.

The top 3 countries that respondents were educated in, were: USA (126), Taiwan (101) & Mexico (39). Respondents educated in Taiwan found this of the highest priority at 91.09%, followed by those educated in Mexico at 82.05% with 77.78% of those educated in the USA selecting learning skills for their future career as vital to improving their education. Whilst the remainder of respondents from different countries had notably lower sample sizes (from 16-1), twelve of the countries had between a 70 and 100% response rate for this selection, with the lowest range only being 50% when there were two respondents for that country.

## YOUTH COMMENTS

"I believe that if we had opportunities to understand our future careers we would be more engaged in school activity, but we only get 1 day/limited information to understand our careers more. I understand that we have the resource of the internet, but sometimes it's better to have more options/understanding on potential careers, real time." - 15, Male, Educated in United States, Hispanic

"It would be really helpful if we were able to choose what we want to study based on our career goals for the future since that is not possible in my country, also talking about global issues would open the minds of a lot of people and improve our community." - 17, Female, Educated in Macedonia, Albanians

"We don't learn about the working world everything is very focused on memorising everything that you can, and if you can't then you have the badge "bad student" or "stupid". - 17, Female, Educated in France, French

"From my education I value... The ability to perform the job I will take in the future." - 16, Male, United States, Americans

## YOUTH PROFILE

### 17, Female, Educated in United States, Puerto Ricans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Opportunities to learn about and improve health & wellbeing
- Opportunities to learn about sex education & relationships
- Focusing on life skills, such as empathy, communication & collaboration

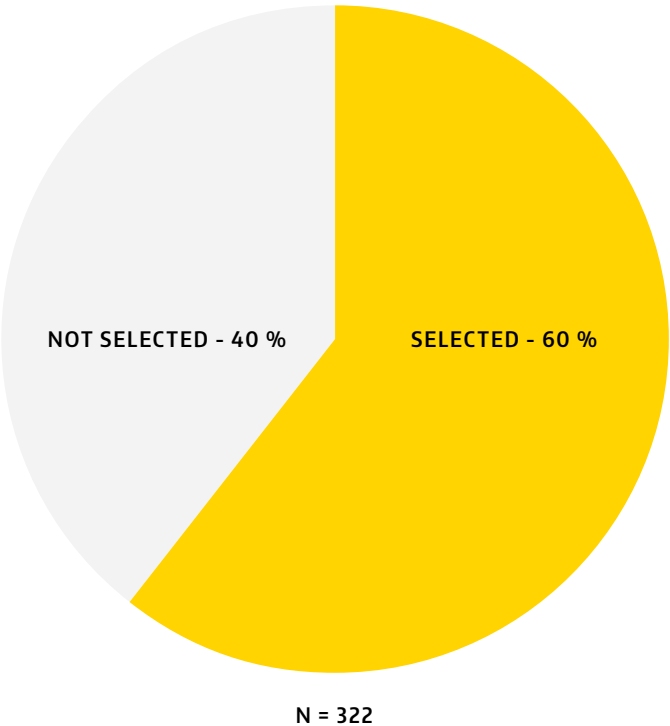
**Because:** I feel that my education is more about getting good grades and graduating but actually understanding and remembering the information and learning more about skills is useful to have as an adult like mental health, regulating stress, fixing cars if they break down and understanding how to do your taxes.

**Values:** How most things are free and that money isn't holding me back from wanting to increase my education and my experiences.

## 2. Well-designed Learning Environment

### RESULTS

60.56% (195 out of 322) of youth from around the world think that a well-designed environment for learning could improve their education.



### GENDER

There was no significant difference between genders, with a Pearson Chi-Square 2-tailed significance level of  $p=.254$ . There was only a marginal difference between female (106 at 59.89%) and male (87 at 63.04%) when selecting that a well-designed environment could improve their education.

### AGE

There were significant differences of age at  $p=.001$  for the selection of a well-designed environment for learning when running a Pearson Chi Square test analysis.

15 year olds were most likely to select this option at 73.33% and 14 year olds held a similar response rate too of 69.79%. This selection, however, was of notably lower priority for 18, (56.76%), 17 (47.22%) and 16 year olds (43.59%). Of the three 13 years olds who responded, two did not select this choice and one did.

## COUNTRY EDUCATION IN

There were significant differences between the country a student was educated in, as the Pearson Chi Square two tailed significance test revealed at  $p=.016$  for the selection of a well-designed environment for learning.

The top 3 countries respondents were educated in, were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 71.29%, followed by those educated in Mexico at 69.23%. Just under half of the US respondents made this selection at 46.03 %. Whilst there is a notable range between Taiwan and the USA nearly 50% of young people ultimately still deem this as an important component for their education.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from 16-1) 14 of the countries had between a 50% and 100% response rate for this selection.

## YOUTH COMMENTS

"An inspirational and healthy place to study would improve my studying results."  
- 18, Female Educated in Finland, Finns

"Because even though the environment is said to be efficient for learning and education, there are other factors that hinder and cleave those visions from being achieved, therefore rendering that goal unfulfilled." - 15, Male, Educated in United States, Hawaiian

"From my education I value... A fun productive environment." - 14, Male, Educated in United States, Americans

"From my education I value... A beautiful environment" - 14, Male Education in Taiwan, Hokkien

## YOUTH PROFILE

### 14, Female, Educated in United States, Hispanic

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Your family/carers being more involved with your education
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** It would make the learning environment much more friendly and approachable.

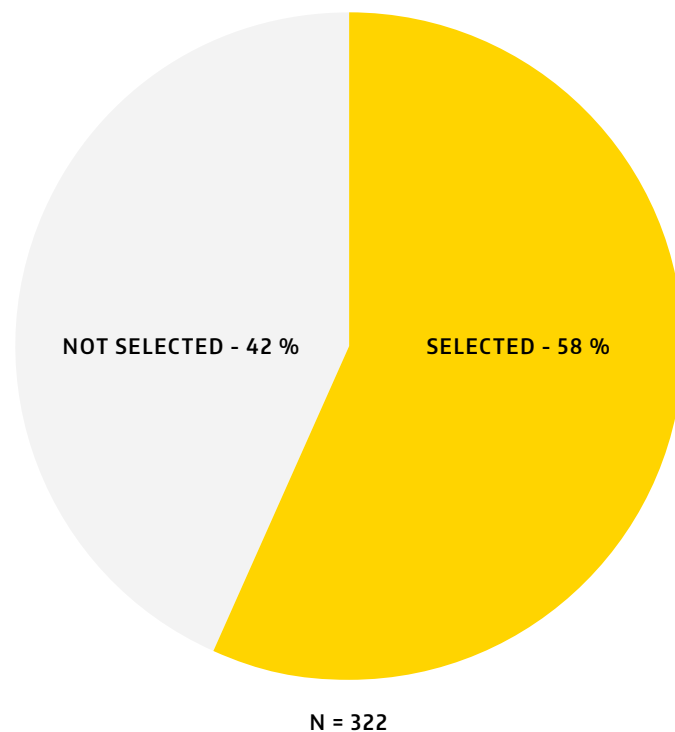
**Values:** I like having hands-on opportunities.

### 3. Life skills such as Empathy, Communication & Collaboration

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#### RESULTS

57.76% (186 out of 322) of youth from around the world think learning life skills such as empathy, communication & collaboration could improve their education.



#### GENDER

There were significant differences between genders for this selection. When a Pearson Chi-Square test was performed it revealed a 2-tailed significance level of  $p=.039$ . The raw data showed just shy of a 10% difference, with females at 62.71% more likely than males at 53.62% to select that learning life skills such as empathy, communication & collaboration could improve their education.

#### AGE

A Pearson Chi Square test two tailed revealed no significant differences of age at  $p=.098$  for the selection of learning life skills such as, empathy, communication & collaboration

All ages valued this selection fairly highly, with the highest ranging from 72% of 15 year olds selecting this option, followed by similar results from the other ages. 55.21% of 14 year olds and 55.56% of 17 year olds selected life skills, and 48.72% of 16 year olds and 48.65% of 18 year olds made this selection.



## COUNTRY EDUCATION IN

There were significant differences between respondents based on the country in which they were educated, when selecting learning life skills such as empathy, communication & collaboration to improve their education, as the Pearson Chi Square two tailed test revealed a significance level of  $p=.002$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

76.24% of respondents educated in Taiwan found this to be of particular importance in improving their education, compared to Mexico at 61.54% and the USA at 46.83%.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) their response rate for this question varied enormously, so bigger sample sizes are required to make sense of the data for this choice.

## YOUTH COMMENTS

**Life skills referred to in this comment such as empathy, communication and collaboration are considered something as vital for future readiness.**

"Whatever you decide to do in your life after high school, life skills are important."  
- 17, Female Educated in United States, Puerto Ricans

"I believe having a more personable education can help students gain more control, do their education and want to learn. I believe that learning about yourself and more social skills help in the real world in the future at jobs or college." - 17, Female, Educated in United States, Polish

"We don't need to know why David has 12 soaps. What we need to know is how to contribute to society. A lot of the things we learn in school cannot be contributed to our life after schooling. These (selections, including life skills) would improve my education because it will provide a better environment in school" - 14, Male, Educated in United States, Americans

"From my education I value... Authentic personal communication with schoolmates and teachers" - 14Female, Educated in Spain, Spaniards

## YOUTH PROFILE

### 17, Female, US, Irish

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Opportunities to understand and improve your mental health
- Learning how to live and contribute to a sustainable lifestyle
- Opportunities to learn about and improve health & wellbeing
- Focusing on life skills, such as empathy, communication & collaboration

**Because:** I feel like we are not prepared for the real world when we graduate.

**Values:** How it is provided to me for free.

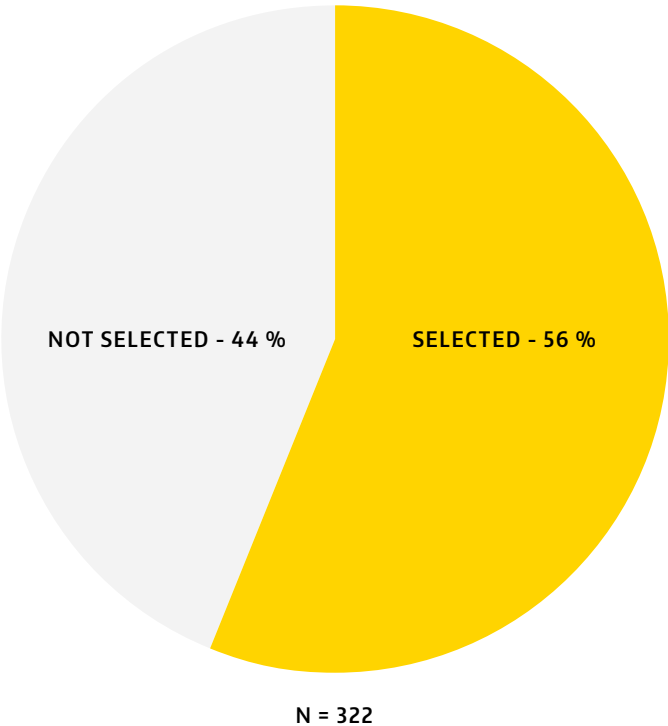
## 4. Personalized Learning

### RESULTS

56.21% (181 out of 322) of youth from around the world think tailoring their education to be more personal to them and their needs, could improve their education.

### GENDER

There were no significant differences based on the Pearson Chi-Square analysis of



gender  $p=.290$ , however, females at 61.02% were more likely than males at 51.45% to think that a tailored education that was more personal to them and their needs could improve their education.

### AGE

There were no significant differences of age at  $p=.271$  for the selection of a more tailored education when running a Pearson Chi Square test analysis.

All ages valued this selection fairly equally. The breakdown is as follows: 15 year olds were slightly more likely to select this option at 65.33% followed by 14 year olds (59.38%), 17 year olds (52.78%), 16 year olds (48.72%) and 18 year olds at (45.95%).

### COUNTRY EDUCATION IN

There were no significant differences of country educated in at  $p=.270$  for the selection of a more tailored education when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan (63.37%), USA (54.76%) & Mexico (46.15%) found this to be a similar priority at .

Whilst the remainder of respondents from different countries had notable lower sample sizes (from 16-1) 9 out of the 16 remainder countries still shared a 50 to 100% response rate for this selection. UK respondents had a particularly high response rate from their sample of 10 with an 80% selection rate. Further research could be done to explore the need to increase this in the UK particularly.

### YOUTH COMMENTS

**Youth comments and profiles demonstrate that whilst the selection is important so were other factors in creating a personalized education. For this section we've shared more examples of profiles as it better demonstrates the vitality of the whole for personalisation from the youth perspective.**

“It’s important that I have a possibility to tailor my education the way I prefer, so that studying stays interesting.” - 18, Female, Educated in Finland, Finns

“From my education I value a... Tailor-made education to better meet my own needs” - 18, Male Taiwan, Hokkien

## YOUTH PROFILES

### 16, Female, Educated in United States, Americans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Tailoring your education to be more personal to you and your needs
- Focusing on life skills, such as empathy, communication & collaboration

**Because:** It is much more personalized

**Values:** Understanding and flexibility

### 17, Female, Educated in Taiwan, Mandarin

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well-designed environment for learning
- Your family/carers being more involved with your education
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing

- Opportunities to learn about sex education & relationships
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** This is a tailored learning environment for individuals, it suits everyone's needs. (translated online)

### 14, Female, Educated in United States, American,

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- More access to science, technology, engineering & mathematics opportunities
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Opportunities to improve abilities to access, analyze, evaluate, and create media

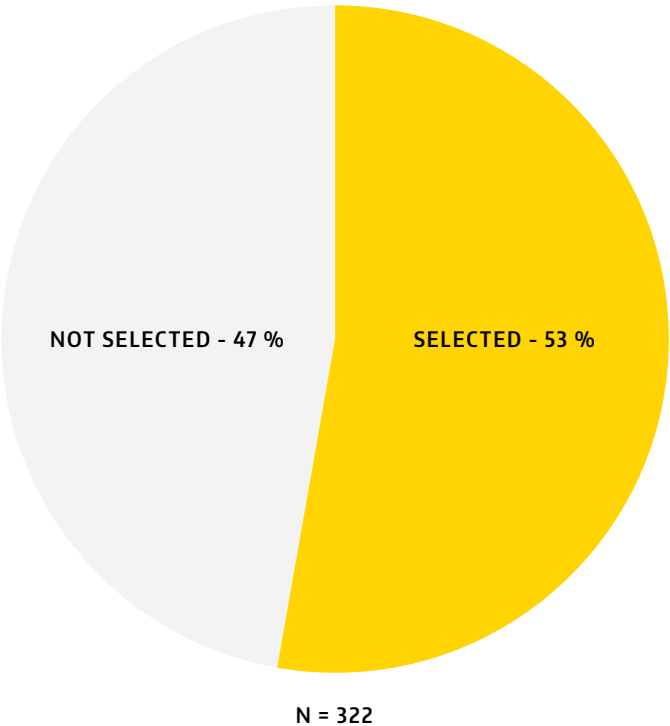
**Because:** They would allow our education to be more personal and allow us to learn more at our own pace to understand things better.

**Values:** I value the learning in general.

## 5. Living a Sustainable Lifestyle

### RESULTS

52.80% (170 out of 322) of youth from around the world think learning how to live and contribute to a sustainable lifestyle could improve their education.



### GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=.353$ . This is reflected in the raw statistics that females at 54.24% were only slightly more likely than males at 52.17% to select learning how to live and contribute to a sustainable lifestyle.

### AGE

There were no significant differences of age at  $p=.181$  for the selection of learning how to live and contribute to a sustainable lifestyle when running a Pearson Chi Square test analysis.

All ages valued this selection fairly equally. The breakdown is as follows: 15 year olds were slightly more likely to select this option at 61.33% followed by 14 year olds (57.29%), 18 year olds (48.65%), 17 year olds (47.22%) and 16 year olds at (38.46%).

## COUNTRY EDUCATION IN

There were no significant differences of country educated in at  $p=.349$  for the selection of learning how to live and contribute to a sustainable lifestyle when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 59.41%, followed by those educated in Mexico at 56.41% with just under 50% of those educated in the USA at 44.44% selecting learning how to live and contribute to a sustainable lifestyle could improve their education.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from 16-1) 11 of the 16 remainder countries had between a 50 and 100% response rate for this selection. UK respondents responded to this at a high 70% rate, whilst Finnish respondents were similar to those educated in the USA at 43.75%.

## YOUTH COMMENTS

"At present, education in Taiwan has made many students become robots who will only answer tests. If education can have more connection with life, I would like to be more able to arouse our willingness to learn and to help or contribute to our lives."  
- 14, Female, Educated in Taiwan, Mandarin (translated online)

"Focusing more on skills needed for everyday life rather than topics not related to what are aspirations are can help you learn how to live a sustainable life in the "real world". - "14, Female, Educated in United Kingdom, English

"In my education I value... learning things from classes like Environmental and English I become more well rounded and culturally informed as we discuss issues around the world in science and read books around the world in english."  
- 17, Female, Educated in United States, Polish

## YOUTH PROFILE

### 17, Female, Educated in United States, Americans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Better relationships with school staff
- Learning how to live and contribute to a sustainable lifestyle
- More access to science, technology, engineering & mathematics opportunities
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

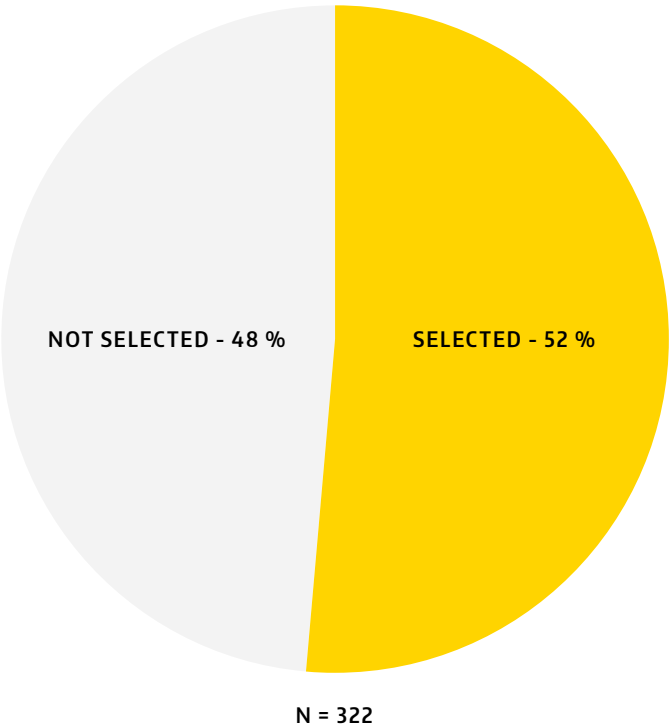
**Because:** these would improve my education because i think we need to learn more about real life skills

**Values:** I value learning about how to live and contribute to a sustainable lifestyle

# Joint 6. Mental Health

## RESULTS

51.55% (166 out of 322) of youth from around the world think opportunities to understand and improve mental health could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis  $p=.092$ . Females were only slightly more likely at 55.93% than males at 47.83% to say that opportunities to learn about and improve their mental health could improve their education.

## AGE

There were significant differences of age at  $p=.041$  for the selection of opportunities to understand and improve mental health when running a Pearson Chi Square test analysis.

15 year olds were most likely to select this option at 66.67%. 14 year olds followed but with over a 10% decrease to rate to 53.13%. There was another drop again in priority for 17 (44.44%), 16 (41.03%) and 18 (43.24%) year olds too. Of the three 13 years olds who responded two did not select this choice and one did.



## COUNTRY EDUCATION IN

There were significant differences for the country youth was educated in response to section of a more inclusive environment for all when running a Pearson Chi Square two tailed significance test of  $p=.003$ .

The top 3 countries respondents were educated in, were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 66.34%, followed by those educated in Mexico at 64.10% compared to a vast difference in the USA with 37.3% selecting this as important for their education.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) 11 of the countries had less than a 30% response rate for this selection with the highest percentage after Taiwan being Spain, France, American Samoa & Russia at 100%, with only 1 respondent per country, so unfortunately this is a limitation of this data set. Whilst the remainder of respondents from different countries had notably lower sample sizes (from 16-1) 9 out of the 16 remainder countries still shared a 50 to 100% response rate for this selection.

## YOUTH COMMENTS

"...Time for mental health would greatly help with student stress levels and students dealing with high levels of anxiety." - 17, Female, Educated in United States, Italians

"I feel that my education is more about getting good grades and graduating than actually understanding and remembering the information and learning more about skills useful to have as an adult like mental health, regulating stress, fixing cars if they break down and understanding how to do your taxes" - 17 Female, Educated in United States, Puerto Ricans

"For my education... I think my mental health is the most important thing. If I learn a lot but my mental health is not good, I still won't be happy." - 13, Male, Educated in Taiwan, Hokkien

## YOUTH PROFILE

### 18, Female, Educated in United States, Puerto Ricans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Better relationships with school staff
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Opportunities to learn about sex education & relationships
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration

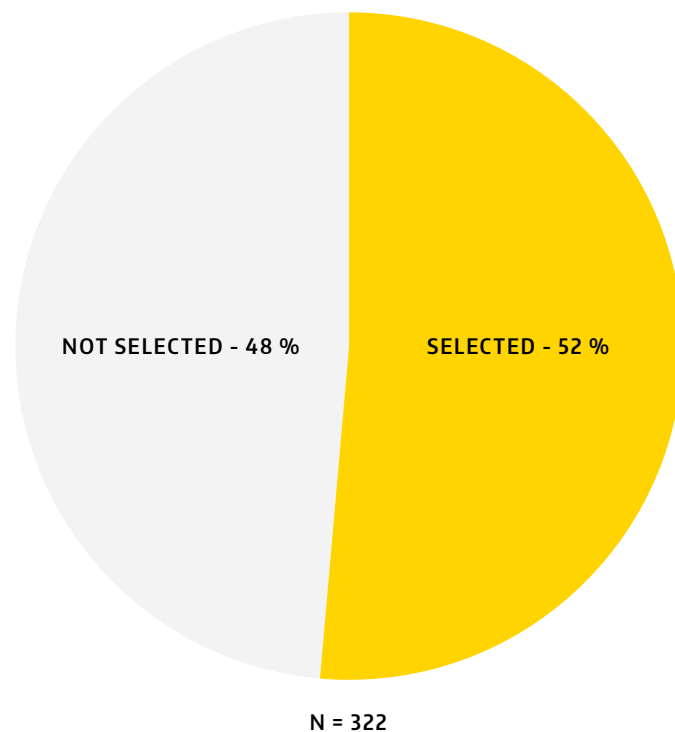
**Because:** Because that is what we're going through in life and we are learning pointless crap in this school. We should be learning about how to communicate, relationships, emotions, jobs, bills, house situation, car situation, and etc. Those would be helpful classes to take

**Values:** Nothing.

## (Joint 6th) 7. Voice Opinion

### RESULTS

51.55% (166 out of 322) of youth from around the world think having opportunities to voice opinion could improve their education.



### GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=.126$ . Nonetheless, reflected in the raw statistics that females at 57.06% were more likely than males at 45.65% to say that opportunities to voice their opinions could improve their education.

### AGE

There were significant differences of age at  $p=.012$  for the selection of opportunities to voice opinion when running a Pearson Chi Square test.

15 year olds were similarly likely to select this option at 62.67%, 18 and 14 year olds responded similarly at 56.76% and 55.21%, 16 year olds response rate fell to 48.72% but there was a large difference between highest response from 15 year olds at 62.67% and 17 year olds at 33.33%.

## COUNTRY EDUCATION IN

There were no statistically significant differences of country educated in at  $p=.091$  for the selection of opportunities to voice opinion when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in, were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Mexico found this of the highest priority at 64.10%, with youth in Taiwan not far behind (56.44%) and it was the lowest concern to youth in US (39.68%), yet still close to the 40% mark.

Interestingly the rest of the countries, 11 out of the remaining 16, selected this option at a rate of 50% and above showing that it is of key importance around the world. Further research & innovation will need to identify how young people can ensure their voice is heard in education both locally and globally.

## YOUTH COMMENTS

"Some teachers tell us our opinions are wrong when they are opinions." - 17, Female, Educated in United States, European Americans

"I think that Taiwan's teaching resources are too autocratic and there is no opportunity for children to find their own future. If we can explore more and learn to express our opinions, I think our development will be limitless." - 17, Female, Educated in Taiwan, Hokkien (online translation)

"In my education... I love when we are able to share our opinion on a selected topic and actually debate with the others in the conversation." - 17, Female, Educated in Macedonia, Albanians

## YOUTH PROFILE

### 15, Female, Educated in Taiwan, Hokkien

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- More access to science, technology, engineering & mathematics opportunities
- Having opportunities to voice your opinion

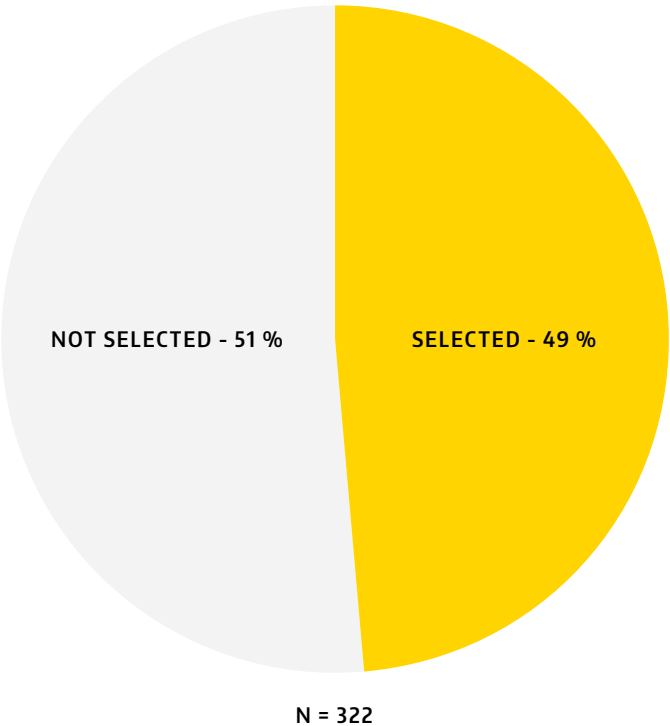
**Because:** They do not listen to our opinions and there are too many courses that do not require them

**Values:** Listening

## 8. Global Citizenship

### RESULTS

48.76% (157 out of 322) of youth from around the world think learning intercultural education and developing global citizenship skills could improve their education.



### GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=0.407$ . This is reflected in the raw statistics that females at 50.28% were only slightly more likely than males at 47.83% to select that learning intercultural education and developing global citizenship skills could improve their education.

### AGE

There were significant differences of age at  $p=0.000$  for the selection of learning intercultural education and developing global citizenship skills when running a Pearson Chi Square test analysis.

15 year olds were most likely to select this option at 68%. There was then over a 10% drop for selection by 14 year olds at 56.25%. This selection, however, was of notably lower priority for 18, (37.84%), 17 (34.72%) and especially 16 year olds (28.21%). Of the three 13 years olds who responded one did not select this choice and two did.

### COUNTRY EDUCATION IN

There were significant differences of country educated in response to section of a more inclusive environment for all when running a Pearson Chi Square two tailed significance test of  $p=0.000$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 71.29%, followed by those educated in Mexico at 69.23% compared to a vast difference in the USA with only 27.78% think learning intercultural education and developing global citizenship skills could improve their education. Those educated in Taiwan also highlighted the importance of this in their comments, recognising the vitality to be part of a global world whilst those educated in the USA did not rank this as a key area for improvement. This could imply that they feel prepared in this area, particularly as they are an english as a first language speaking country or that they don't see the necessity.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) respondents from the UK only selected

this at a 30% rate which is inline with similar arguments for the US response rate.

## YOUTH COMMENTS

Qualitative feedback highlighted 4 major areas of importance to young people in relation to global skills. They want to improve communication & understanding across borders, challenge local issues by relating to a global context, have opportunities to understand and relate to people and issues worldwide, as well as an opportunity to learn languages. Interestingly, despite it being the largest sample, no young people from the US commented on global education.

“Help us to stand on the stage of the world in the future” - 14, Male, Educated in Taiwan, Hokkien

“...talking about global issues would open the minds of a lot of people and improve our community.” - 17, Female, Educated in Macedonia, Albanians

“In education I value... the opportunity to learn about other people's views and general thoughts on any subject and learning about the ethical differences in the world and how they live their lives” - 14, Female, Educated in United Kingdom, English

“In education I value... That I can learn languages” 14, Male, Educated in Mexico, Mestizo

## YOUTH PROFILES

### 18, Male, Educated in Russia, Russians

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- Focusing on life skills, such as empathy, communication & collaboration

**Because:** This will allow me to communicate on an equal footing with all the same people from different countries & better understand the tasks of the world.

**Values:** Technologies and perspectives of engineering and mathematical education, the creation of an educational space and the equality of educational opportunities, extensive opportunities for additional education and upbringing, preparation for entering University.

### 15, Female, Educated in Mexico, Mestizo

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

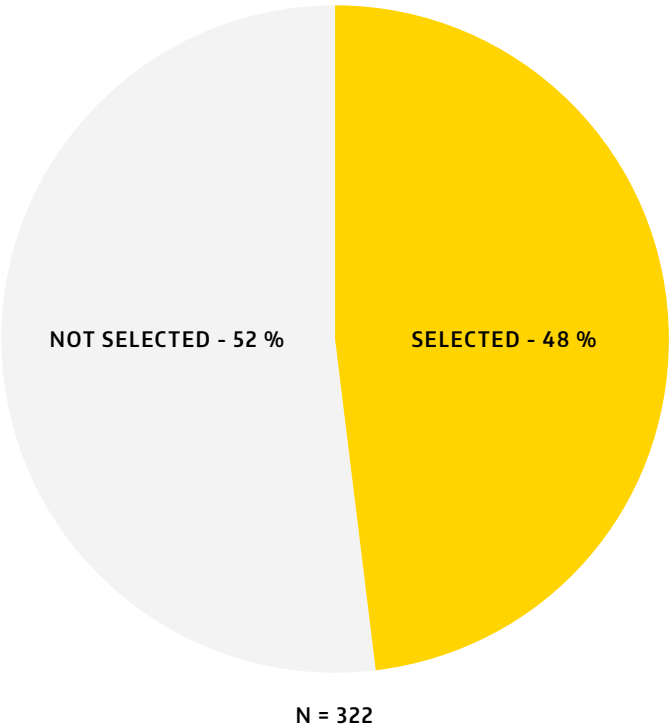
**Because:** it has more opportunities to expand your skills and learn others, it is equal for all and it has actual global themes that could be useful in a future, our future.

**Values:** What I value about my education is the simple fact that I have access to it and I have that privilege because not all the children around the world have this opportunity.

## 9. Media Literacy

### RESULTS

48.14% (155 out of 322) of youth from around the world think opportunities to improve abilities to access, analyze, evaluate and create media could improve their education.



### GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance of  $p=.169$ . When analysing the raw statistics 46.33% of females were less likely than males at 52.17% to select that opportunities to improve abilities to access, analyze, evaluate and create media could improve their education.

### AGE

A Pearson Chi Square test two tailed revealed no significant differences of age at  $p=.168$  for the selection of opportunities to improve abilities to access, analyze, evaluate and create media.

All ages valued this selection fairly with highest ranging from 60% of 15 year olds selecting this option, following by similar results from the other ages. 47.92% of 14 year olds, 43.06% of 17 year olds and 45.85% of 18 year olds. The least likely to select from this range were 16 year olds at 35.90%.



## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section of a more inclusive environment for all when running a Pearson Chi Square two tailed significance test of  $p=.010$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan (60.4%) and Mexico (58.97%) found this to be of notably higher priority compared to those educated in the USA at 36.51%. This is perhaps surprising as many in the USA are focusing on how best to improve media literacy currently. Potentially those educated in the USA from this sample already feel like their education in this area is adequate.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) these countries demonstrated a wide range of response rate for selection this option. This may also be because of varied access to this opportunity/deemed importance currently in education as media has previously been a sideline to mainstream curriculums.

## YOUTH COMMENTS

Explicit qualitative feedback was low in this area with only 2 direct references to 'media', yet it was referred to frequently as a selection for young people who felt that their options would 'prepare them for the future' and the 'real world'.

"With modern information, we can receive tens of thousands of information a day. But is this information true? Not necessarily. If we were trained to have better judgment, we would find that much of the information we come into contact with is illogical." - 14, Female, Educated in Taiwan, Mandarin

"It is important to improve abilities to analyze and create media." - 18, Male, Educated in United States, Irish

## YOUTH PROFILE

### 17, Female, Educated in United States, Puerto Rican

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

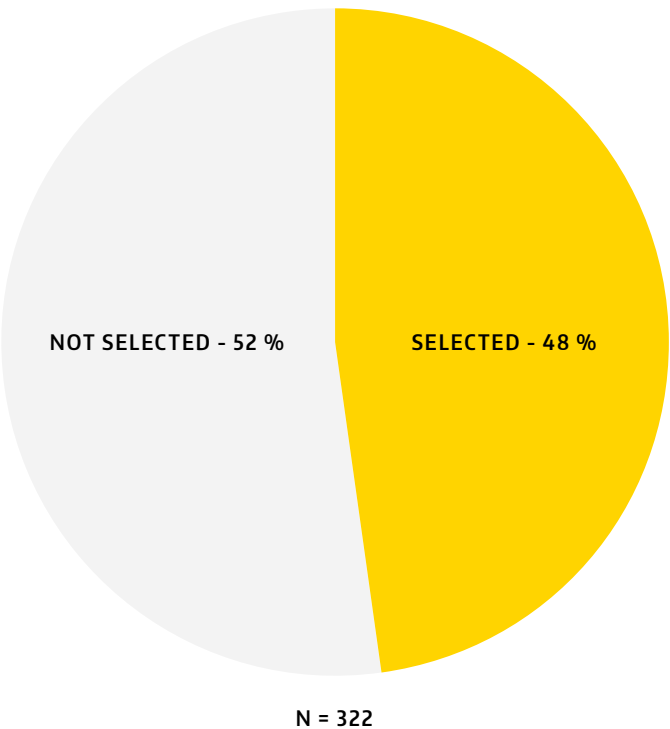
**Because:** these are the basis of what most people should know when they go out into the real world. I believe all of these things are important.

**Values:** Relationships that I've built with teachers

# 10. Quality of Resources

RESULTS

47.83% (154 out of 322) of youth from around the world think a higher quality of educational resources could improve their education.



GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=.224$ . This is reflected in the raw statistics that females at 44.07% were only slightly less likely than males at 53.62% to select that higher quality of educational resources could improve their education.

AGE

There were significant differences of age at  $p=.015$  for the selection of higher quality of educational resources when running a Pearson Chi Square test.

Both 14 and 15 year olds were similarly likely to select this option at 56.25% and 57.33% compared to other age groups. 16 year olds response rate fell at 48.72% with another notable decrease for 17 and 18 year olds similarly at 33.33% and 35.14%.

This likely reflects that younger age groups surveyed have a higher expectation for the quality of resources provided to support them in their learning. This also might be an indicator for a higher variation too as this age group are likely to use various technologies outside of school that are unavailable to many. Additionally, from 17 years onwards this may be less of a priority as education typically becomes more individual and focused with less use of varied resources in a school environment, thus a less notable priority.

COUNTRY EDUCATION IN

There were no statistically significant differences of country educated in at  $p=.206$  for the selection of higher quality of educational resources when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 58.42%, whilst youth educated in Mexico (38.46%) and the US (39.68%) selected this option at a similar rate.

## YOUTH COMMENTS

“Learning skills for the future with a high quality of educational resources” - 14, Female, Educated in United Kingdom, Gujaratis

“For my education I value... higher quality educational resources” - 15, Male, Educated in Taiwan, Mandarin

## YOUTH PROFILES

### 15, Female, Taiwan, Mandarin

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well-designed environment for learning
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** It would improve education quality

**Values:** Learning equipment and a higher quality of educational resources

### 14, Male, Educated in Mexico, Mestizo

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Opportunities to understand and improve your mental health
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration

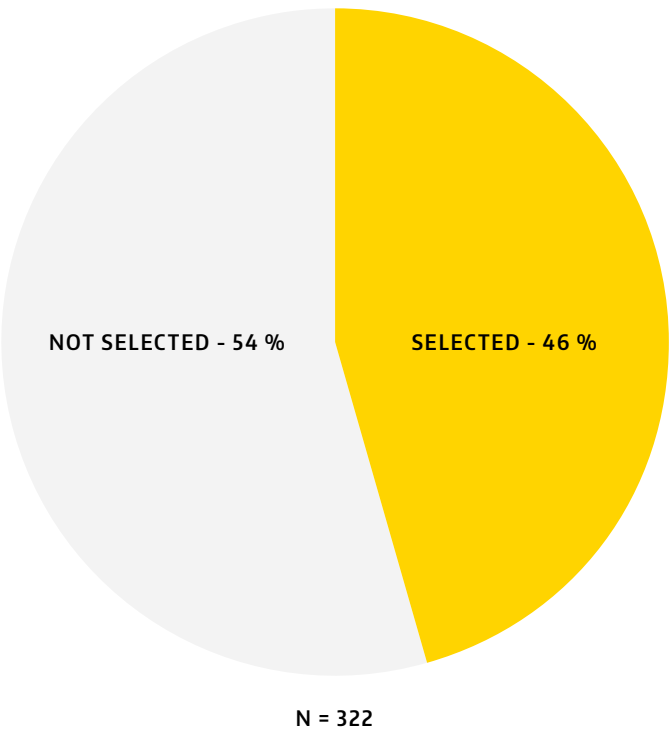
**Because:** I think these the most important ones, to have a good environment to learn, better quality of what we use at school, and also I think that teachers since we are 12 years old, have to prepare us to real life, we have to face challenges and solve them.

**Values:** The tolerance of teachers, the effort they made (not all, the majority) to help us learn what they are teaching us.

# 11. Relationships with Staff

## RESULTS

45.65% (147 out of 322) of youth from around the world think better relationships with school staff could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis  $p=.425$ , when looking more closely at the gender split females at 43.5% were less likely than males at 50% to select that better relationships with staff could improve their education.

## AGE

There were no significant differences of age at  $p=.184$  for the selection of better relationships with staff when running a Pearson Chi Square test analysis.

All ages valued this selection fairly equally. The breakdown is as follows: 15 year olds were slightly more likely to select this option at 58.67% followed by 14 year olds (43.75%), 16 year olds (43.59%), 18 year olds (43.24%) and 17 year olds at (37.5%).

## COUNTRY EDUCATION IN

There were no significant differences of country educated in at  $p=.533$  for the selection of better relationships with staff when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan (53.47%) and the USA (44.44%) found this to be a similar priority, whilst students in Mexico at selected this option at a rate of 33.33%.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from 16-1) 9 out of the 16 remainder countries still shared a 50 to 100% response rate for this selection.

These findings potentially demonstrate that most young people feel like they have positive relationships with many staff, but the fact that it has still been selected on average around the 50% mark shows there is still room to develop these relationships further around the world, especially as we know how highly they are valued.

## YOUTH COMMENTS

Comments about educators occur at a high frequency in written responses. There was reference to 'teacher' 31 x, 'educator' x1 and 'staff' x5. There was a clear sense that the relationships built with educators during their time in education is of utmost importance. Youth share this in both what they highly value from their current experiences, as well as what they desire which is usually even better, closer relationships to feel supported in their journey.

"In my education I value... Teamwork between staff and students" - 14, Male, Educated in Denmark, Dane

"In my education I value... Connection with peers and educators"- 17, Male, Educated in United States, Skwxwú7mesh

"In my education I value... Relationships that I've built with teachers" - 17, Female, Educated in United States, Puerto Rican

## YOUTH PROFILE

### 14, Female, Educated in United States, Italians

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Your family/carers being more involved with your education
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

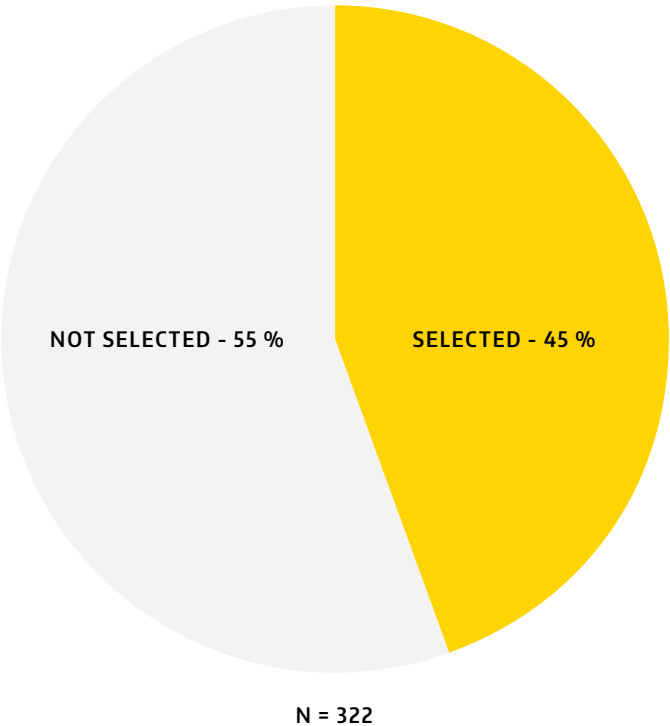
**What would improve your education:** Leaving my current school, and more hands on help from teachers where they talk to you individually and focus on your own needs as a student.

**Values:** I value my education, and hands on help from the teacher.

## 12. Human Rights

### RESULTS

44.72% (144 out of 322) of youth from around the world think that the ability to understand and engage their human rights could improve their education.



### GENDER

There were no significant differences based on the Pearson Chi-Square analysis with a 2 tailed significant of  $p=.738$ . This is reflected in the raw statistics that females at 45.20% were only slightly more likely than males at 43.48% to say that the ability to understand and engage their human rights could improve their education.

### AGE

Upon running Pearson Chi Square test analysis significant differences of age were revealed at  $p=.000$  for the selection of the ability to understand and engage their human rights.

15 year olds were most likely to select this option at 62.67% with 14 year olds following but with over a 10% decrease to rate to 51.04%. There was a notable drop again in priority for 18 (37.84%), and 17 (30.56%) and 16 (28.21%) year olds demonstrating the least interest in this selection for their education. Of the three 13 years olds who responded two did not select this choice and one did.

## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section of a more inclusive environment for all when running a Pearson Chi Square two tailed significance test of  $p=.010$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this to be of notably higher priority at 66.34%, as well as Mexico at 51.28% than the USA at 33.33%. This shows that in areas, such as human rights, education may need to be a key priority to enable young people to feel safe. Young people often do not trust the political decision making processes, and typically feel that their participation does not affect the end result<sup>202</sup>. Furthermore, Finnish teenagers also share that in general they do not discuss about these kind of issues with their parents.<sup>203</sup>

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) more research could be done to understand areas in which human rights education could and should be implemented as a priority. The remainder of the other countries demonstrated a wide range from of rate for selecting this option. This may also be because young people do not associate it with learning as it's seen as the status quo or that they do not understand their rights and do not recognise it as a typical part of education.

## YOUTH COMMENTS

"I value that I know about my human rights thanks to my class of civic and I can give my opinion in class of a theme that we are talking about." - 14, Female, Educated in Mexico, Mestizo

## YOUTH PROFILE

### 14, Female, Educated in Mexico, Mestizo

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** It can help me to learn and develop my skills, aptitudes and abilities and have the opportunity to learn about other cultures, countries, international relationships and actual events around the world, that can help me to be a successful future leader that helps people.

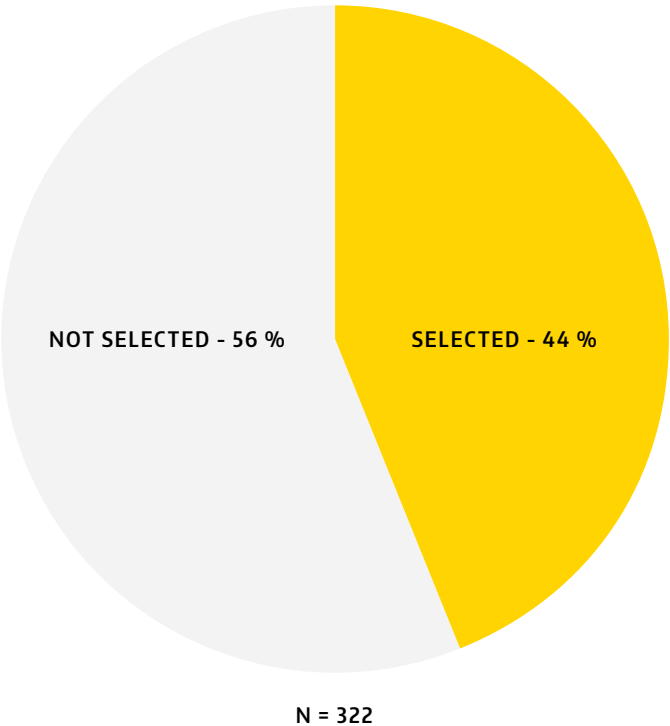
**Values:** In my education I value... that I develop of the knowledge of human rights, communication, and peaceful lifestyle."



# 13. STEM

## RESULTS

44.10% (142 out of 322) of youth from around the world think more access to science, technology, mathematics and engineering could improve their education.



## GENDER

There were no significant differences of age based on the Pearson Chi-Square analysis two tailed significance level of  $p=.432$ . This is reflected in the raw statistics that females were less likely 40.11% than males at 49.28% to select that more access to science, technology, mathematics and engineering could improve their education.

## AGE

There were significant differences of age at  $p=.024$  for the selection of a more access to science, technology, mathematics and engineering when running a Pearson Chi Square test.

15 year olds were notably more likely to select this option at 60% compared to other age groups. There was a large drop to only 41.67 % of 14 year olds, 41.03% of 16 year olds and 40.28% of 17 year olds. 18 year olds were least likely to select this option at 32.43%. This likely reflects the a priority shift, particularly when comparing the 15 to 18 year old response rate for this question. Potentially 18 year olds no longer care as they are about to leave K12 and have already begun to specialise in their fields, which may not be STEM related, so would be little priority to them. Whilst comparably 15 year olds may feel the current STEM opportunities are lacking or are now outdated.

## COUNTRY EDUCATION IN

There were no significant differences of country educated in at  $p=0.187$  for the selection of for the selection of a more access to science, technology, mathematics and engineering when running a Pearson Chi Square two tailed significance test.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Mexico demonstrated the highest rate of selection at 58.97% followed by Taiwan at 46.53%. The US were felt this was least important at 38.1% but still demonstrated a significant number who feel their education could be improved by more access. This is particularly interesting as there has been a huge push for STEM education in recent years yet even in the US, who in recent years have pushed greatly for the improvement and inclusion of STEM, it is not felt by all young people that there is enough.

Whilst the remainder of respondents from different countries had notable lower sample sizes (from 16-1) over 50% of Finnish young people wanted more access compared to the UK with only 30%.

## YOUTH COMMENTS

"The thing I value most about my education is my math and science skills" - 17, Female, Educated in United States, African American

"In Macedonia the education system is so poor and students do not have the ability to use lots of science stuff like labs or technological products" - 14, Female, Educated in Macedonia, Albanian

"More access to resources in science and technology could help us to prepare for college and careers" - 17, Male, Educated in United States, Italian

## YOUTH PROFILE

### 17, Female, Educated in United States, African Americans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- More access to science, technology, engineering & mathematics opportunities
- A higher quality of educational resources

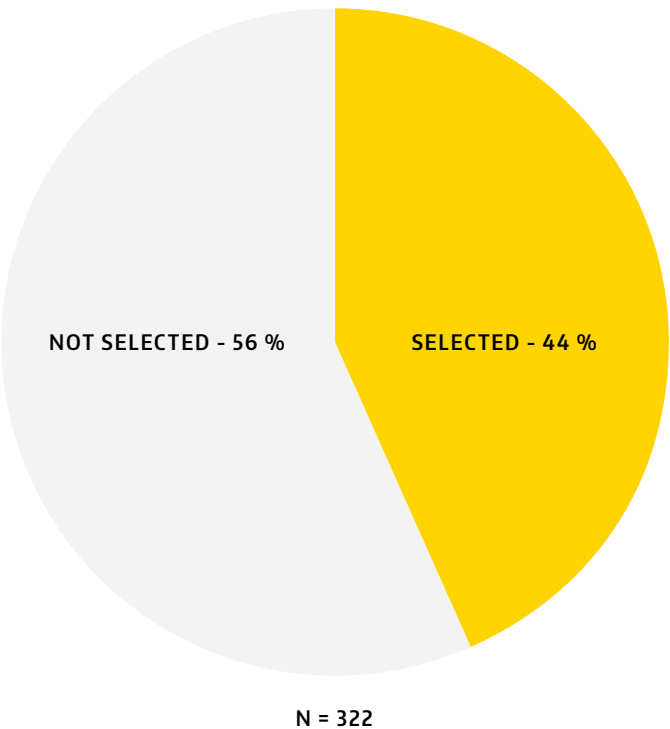
**Because:** They would improve my education because my school does not have requirements that pertain to every students interests and I think a lot of the classes I had to take were a waste. Also my school does not stress math and science as much as it should, which is what I want to go in to. Lastly, my learning environment has a lot of immature students making it hard to learn sometimes.

**Values:** The thing I value most about my education is my math and science skills.

# 14. Inclusive Environment

## RESULTS

43.48% (140 out of 322) of youth from around the world think a more inclusive school environment for all could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance of  $p=.406$ , however when considering the raw statistics 47.46% of females compared to 39.86% of males selected that a more inclusive environment for all could improve their education.

## AGE

There were significant differences of age at  $p=.000$  for the selection of a more inclusive environment for all when running a Pearson Chi Square test analysis.

15 year olds were most likely to select this option at 65% and 14 year olds a fairly high response rate too of 52.08%. This selection, however, was a much lower priority for 16, (25.64%), 17 (23.61%) and 18 year olds (35.14%). Of the three 13 years olds who responded two did not select this choice and one did.

## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section of a more inclusive environment for all when running a Pearson Chi Square two tailed significance test of  $p=.000$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 75.25%, followed by those educated in Mexico at 41.03% compared to a vast difference in the USA with only 26.19% selecting this as important for their education.

This is a particularly interesting finding, as it shows the need for further research and potential implementation of programmes to support this area in Taiwan compared to the USA.

Whilst the remainder of respondents from different countries had notably lower sample sizes (from only 16-1 respondent per country) eleven of the countries had less than a 30% response rate for this selection with the highest percentage after Taiwan being Spain, France American Samoa & Russia at 100% with only one respondent per country so unfortunately this data set is limited.

## YOUTH COMMENTS

"There may be people in the world who are not allowed to be educated because of their race, and I think this is extremely unfair. At school, some people are bullied because of certain personal qualities. This causes students to lose interest in learning." 14, Female, Educated in Taiwan, Mandarin (translated online)

## YOUTH PROFILE

### 14, Male, Taiwan, Mandarin

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation Better relationships with school staff
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

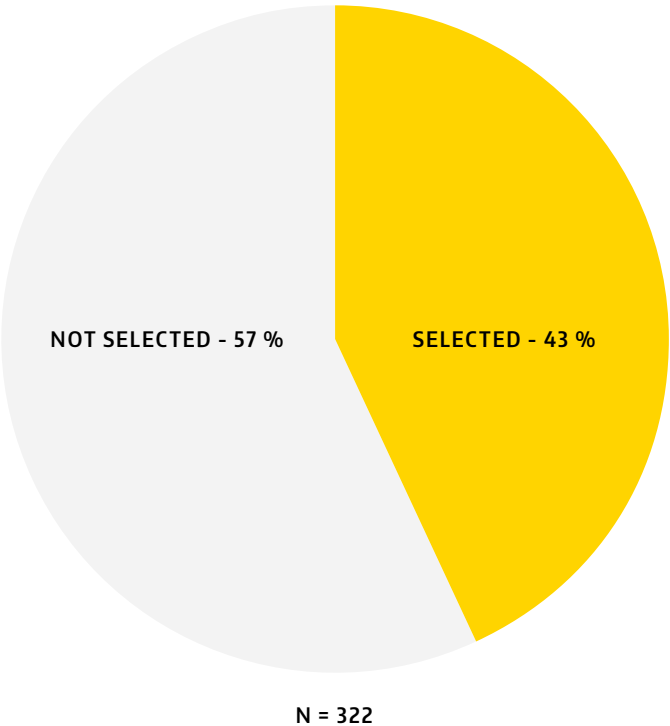
**Because:** Have participation and interaction, and an inclusive learning environment, will have a better learning effect

**Values:** Tailor-made education

# 15. Health & Wellbeing

## RESULTS

43.17% (139 out of 322) of youth from around the world think opportunities to learn about and improve health & wellbeing could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=.407$ . This is reflected in the raw statistics that females at 46.89% were slightly more likely than males at 39.86% to select that learning about and improve health & wellbeing could improve their education.

## AGE

There were no significant differences of age at  $p=.170$  for the selecting learning about and improve health & wellbeing when running a two-tailed Pearson Chi Square test.

All ages valued this selection fairly equally. The breakdown is as follows: 15 year olds were most likely to select this option at 56%, in the raw data there was over a 10% decrease to the next age group with 14 year olds selecting this option at 42.71%, 16 year olds at 41.03%, 18 year olds at 37.84% and 17 year olds at 34.72%. Of the 13 year olds who responded 2 did not select this option and 1 did.

## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section for a change in assessment when running a Pearson Chi Square two tailed significance test of  $p=.017$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan & Mexico shared this to be a similar priority at 55.45% and 51.28%, whilst those educated in the US only selected this at a rate of 30.95%.

Whilst the remainder of respondents from different countries had notable lower sample sizes (from only 16-1 respondent per country) respondents from the UK shared a similar response rate the US at 30%, as did Finland 37.50%.

## YOUTH COMMENTS

"In my education I value... skills useful to have as an adult like mental health & regulating stress" - 17, Female, Educated in United States, Puerto Ricans

## YOUTH PROFILE

### 17, Female, Education in United States, Italians

Thinks the following would improve her education:

- Learning skills to help you in your future career
- Opportunities to understand and improve your mental health
- Learning how to live and contribute to a sustainable lifestyle
- Opportunities to learn about and improve health & wellbeing
- Focusing on life skills, such as empathy, communication & collaboration

**Because:** Giving opportunities to focus on life skills would better prepare students for life after high school. And time for mental health would greatly help with student stress levels and students dealing with high levels of anxiety.

**Values:** I value the opportunity to take ECE/AP classes without having to pay to take them like other schools make students do.

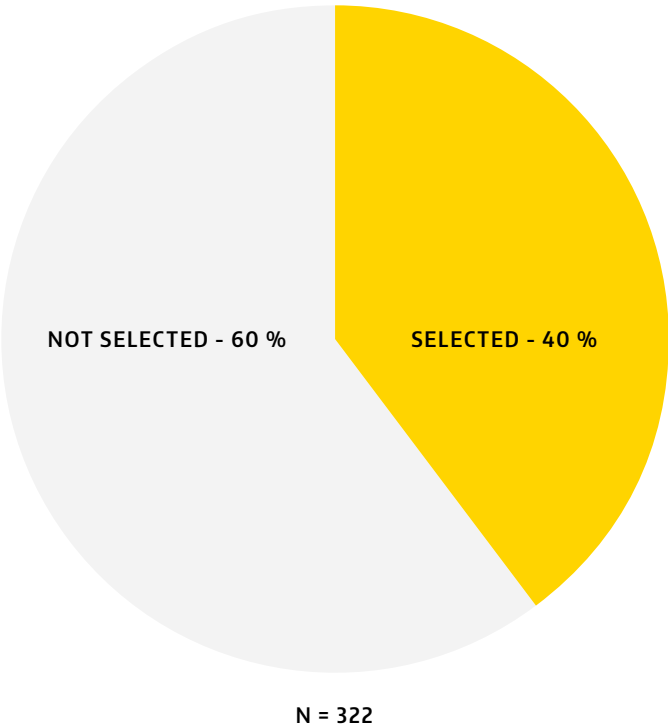
# 16. Sex Education & Relationships

## RESULTS

39.75% (128 out of 322) youth from around the world think opportunities to learn about sex education and relationships could improve their education.

## GENDER

There were no significant differences based on the Pearson Chi-Square analysis two



tailed significance level of  $p=.426$ . This is reflected in the raw statistics that females at 39.55% were slightly less likely than males at 42.03% to select that learning about sex education and relationships could improve their education.

## AGE

There were significant differences of age at  $p=.000$  for the selection of learning about sex education and relationships when running a Pearson Chi Square test.

15 year olds were notably more likely to select this option at 62.67% compared to other age groups. There is a notable drop to only 42.71 % of 14 year olds selecting this, with another drop for 18 (32.43%) and 16 (30.77) year olds with 17 (19.44%) year olds least likely to select this option.

This likely reflects that the younger age groups surveyed are happy to share and willing to learn about this area whilst past 16 years it could become more difficult or uncomfortable to talk about in an educational setting or environment.

## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section of o select that learning about sex education and relationships when running a Pearson Chi Square two tailed significance test of  $p=.000$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority at 67.33%, followed by those educated in Mexico at 41.03% compared to a vast difference in the USA with only 22.22% selecting this as important for their education.

This is a particularly interesting finding, as it shows the desire for this type of education being particularly desired in Taiwan compared to the USA. Is this because young people educated in the USA don't see this as education's role or they feel satisfied with education in this area. It will be vital to find out in future research to ensure education innovation can best serve the needs of the youth.

Whilst the remainder of respondents from different countries had notable lower sample sizes (from only 16-1 respondent per country) 12 of the remainder 16 countries had less than a 40% response rate for this selection so other than in



Taiwan this was not an extremely high response rate choice.

## YOUTH COMMENTS

There were no direct comments relating to this selection yet there were implications of its importance through selection amongst many indicated in the youth profiles.

### YOUTH PROFILES

#### 15, Female, Educated in Mexico, Mestizo

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** These things would improve education because they create a better way of learning and also can be fitting to future generations.

**Values:** I value what I learn and get from that knowledge on my way to my future.

#### 17, Female, Educated in United States, Puerto Ricans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

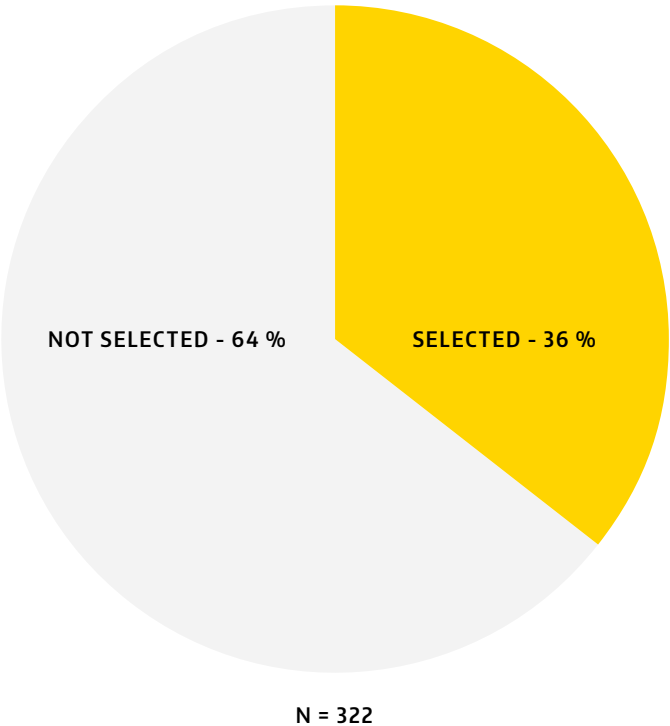
**Because:** These are the basis of what most people should know when they go out into the real world. I believe all of these things are important.

**Values:** Relationships that I've built with teachers.

# 17. Change in Assessment

## RESULTS

Only 35.71% (115 out of 322) of youth from around the world think a change to the way they are assessed could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis two tailed significance level of  $p=.770$ . This is reflected in the raw statistics in an almost equal gender split of females at 35.59% and males at 35.51% selecting that learning intercultural education and developing global citizenship skills could improve their education.

## AGE

There were no significant differences of age at  $p=.126$  for the selecting a change to assessment when running a Pearson Chi Square test analysis.

All ages valued this selection fairly equally. The breakdown is as follows: 15 year olds were slightly more likely to select this option at 44% followed by 14 year olds (39.58%), 16 year olds (38.46%), 18 year olds (27.03%) and 17 year olds at (26.39%).

## COUNTRY EDUCATION IN

There were significant differences of country educated in response to section for a change in assessment when running a Pearson Chi Square two tailed significance test of  $p=.000$ .

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan shared this to be a high priority at 49.50%.

There was a notable drop of selection for those educated in the US (29.37%) and Mexico (20.51%). This could be that whilst we had written the question interpreting that the change would be a positive one, the limitation is that it's not necessarily deemed so. Understandably a change, even if they do not currently like the way they are assessed, could imply a change for the worse as it often has.

Whilst the remainder of respondents from different countries had notable lower sample sizes (from only 16-1 respondent per country) respondents interestingly 90% of respondents from the UK did select this option. Respondents may potentially feel that any change may be good change at this stage compared to Finland with a rate of only 6.25% wanting a change to the way they are assessed (1/16 respondents). Finland is notoriously known for its lack of testing and from this initial small sample they see no need for change. It would be interesting to discover if this applied to a larger sample.

## YOUTH COMMENTS

"The current spoon-feeding test needs to be improved, but how to improve it is a big issue. What we know is that the exam has killed many students' enthusiasm for learning." - 14, Female, Educated in Taiwan, Mandarin

"Sometimes it feels like learning is only for school exams. Enthusiasm is often worn away." - 15 Female, Educated in Taiwan, Mandarin

"In Education I value... the most the opportunity to change your assessment method" - 15, Female Educated in Taiwan, Mandarin

## YOUTH PROFILE

**16, Female, Educated in United States, European Americans**

Thinks the following would improve her education:

- A change to the way you are assessed

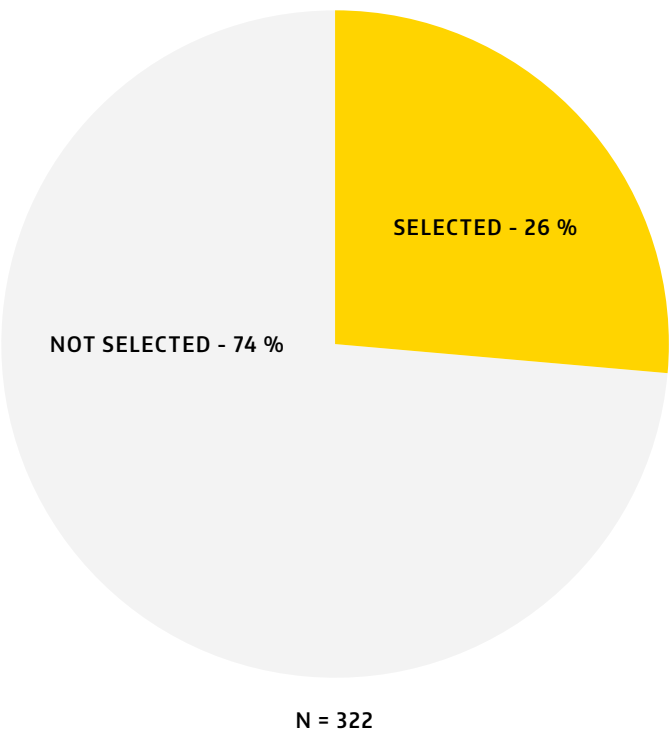
**Because:** Tests don't show the real potential of a person

**Values:** Quality

# 18. More Involvement from Family & Carers

## RESULTS

The least selected option showed that only 26.40% (85 out of 322) of youth from around the world think more involvement from family & carers could improve their education.



## GENDER

There were no significant differences based on the Pearson Chi-Square analysis  $p=.899$ , this is shown as the split was 25.99% and 27.54% of males selected that more involvement from family/carers could improve their education.

## AGE

There were significant differences of age at  $p=.017$  for the selection of more involvement from family/carers when running a Pearson Chi Square test analysis.

15 year olds were notably more likely to select this option at 40% compared to other age groups. 14 (27.08%) and 18 (27.03%)years of age showed similar response levels but another notable decrease is demonstrated by 16 year olds (20.51%) with the lowest selection coming from age 17 (13.89%) perhaps a typical age where many young people want to explore and develop themselves. This likely reflects the different ages involvement can feel more natural and necessary for the child. Further research could explore the relationship between a young person's education and necessary involvement from family/carers at different stages for individuals.

## COUNTRY EDUCATION IN

There were significant differences of country educated in as the Pearson Chi Square two tailed significance test revealed at  $p=.019$  for the selection of more involvement from family/carers.

The top 3 countries respondents were educated in were USA (126), Taiwan (101) & Mexico (39).

Respondents educated in Taiwan found this of the highest priority but still way below 50% at only 39.6%, followed by those educated in Mexico at 25.64% and then an extremely low priority for those education in the US at 16.67%.

Whilst the remainder of respondents from different countries had notable lower sample sizes (from 16-1) all countries, except one, had a response rate of 50% or below for this selection.

## YOUTH COMMENTS

"In my education I value... My family" - 15, Male, Educated in Mexico, Aztecs

## YOUTH PROFILE

### 15, Male, Educated in Mexico, Aztecs

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Your family/carers being more involved with your education
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

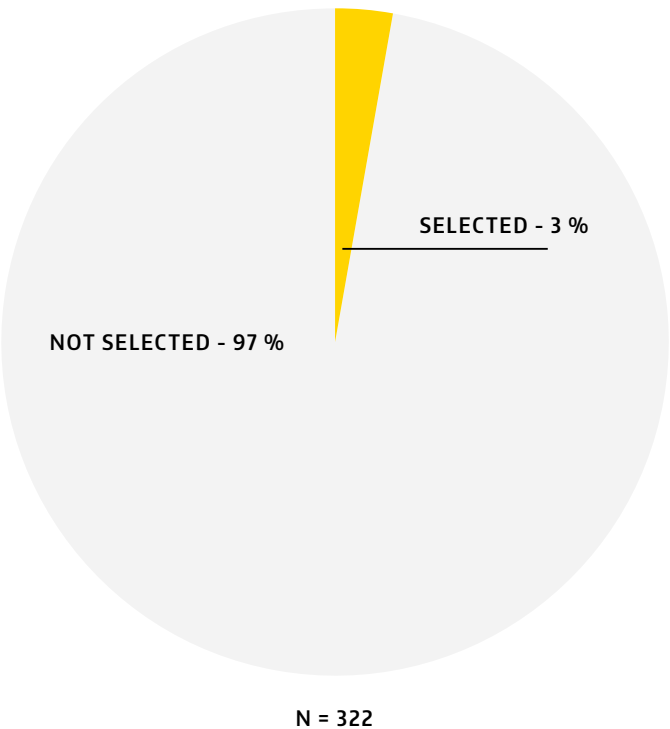
**Because:** I can't learn more thing and share them with the world

**Values:** My family

# 19. Other

## RESULTS

2.8% (9 out of 322) youth from around the world shared comments on what else they felt could improve their education.

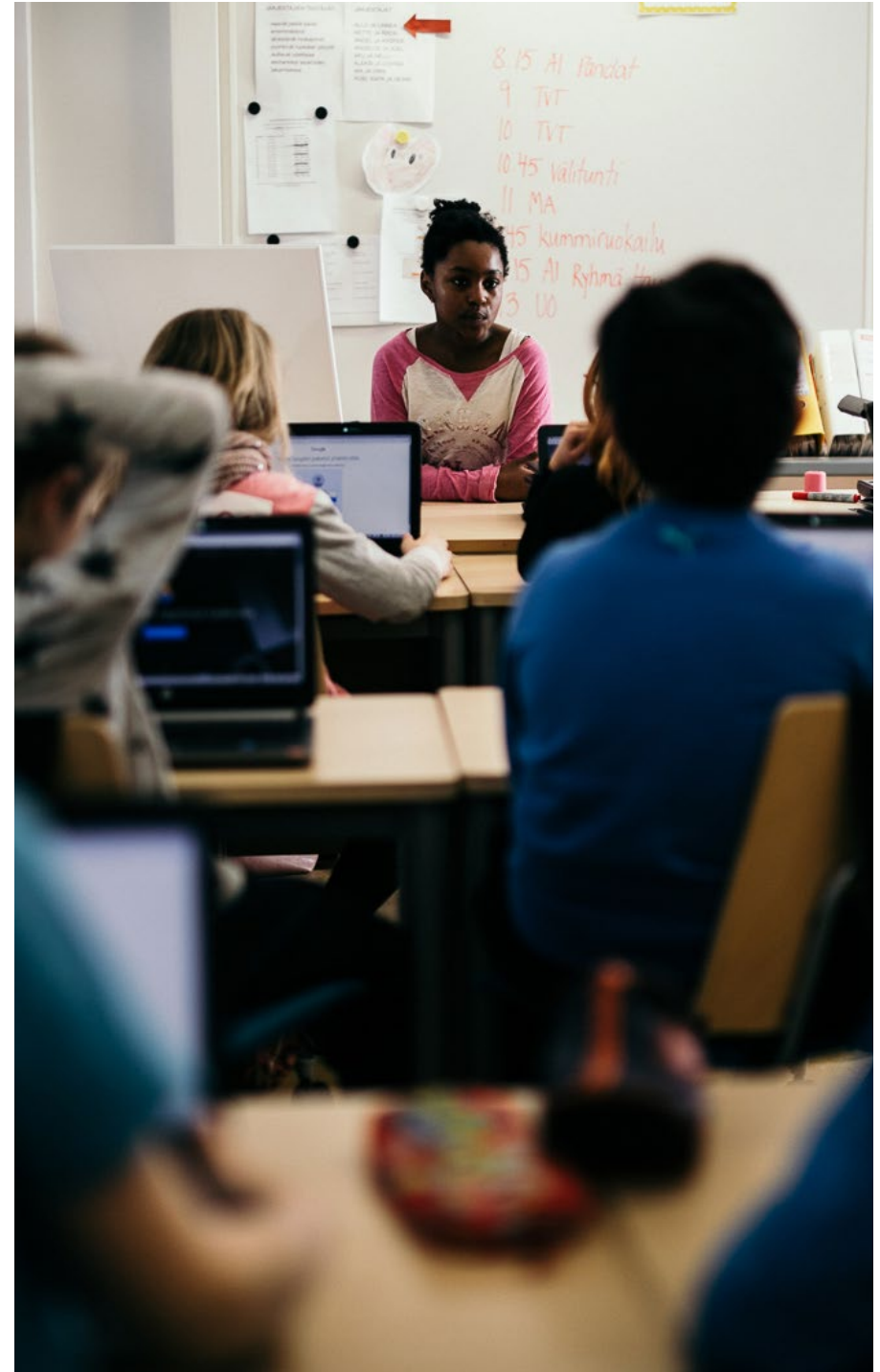


Comments suggest that their education could be greatly improved through greater autonomy, authenticity and personalisation. There is a strong sense in some of the comments that they do not feel valued or recognised as individuals, that no one pays attention to what they are interested in and they do not believe in the way they are educated. They refer to feeling like they are learning many useless/uninteresting elements, they want to understand 'information and truth' and would like more practical life skills. One comment also touched upon support and relationships from staff which is greatly inline with the thematic analysis from comments in the next 2 sections of the survey. Ultimately, that only 9 'other' selections were suggested implies that much of what needs to improve in education from youth perspective was covered by the options presented in the survey.

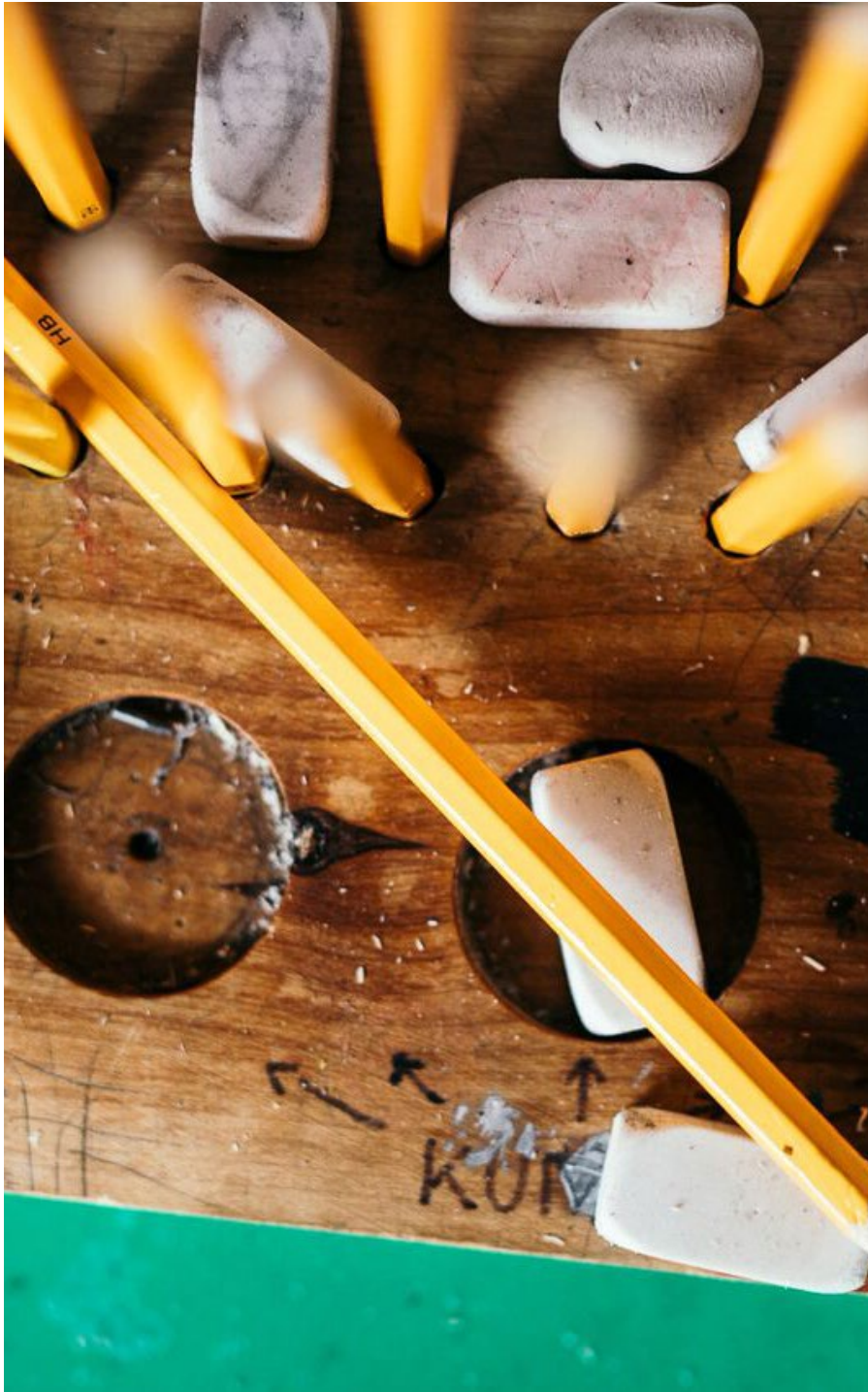
## WHAT DO YOU THINK COULD IMPROVE YOUR EDUCATION?

### Visions for improvements were:

- "More freedom"
- "Teachers who stop asking you to be interested in a topic you couldn't care less about"
- "Less time wasted learning useless information/skills"
- "Education evolving around facts information and the truth."
- "Learn about real-life skills such as how to pay tax and the laws present in the country of residence"
- "Opportunities to use our imagination and opinions in our learning style"
- "Go to school slightly later because having to wake up at 7am to go to school for 8:30 isn't good especially when it has been scientifically proven that our brains function properly after 10am or something along those lines."
- "Having the opportunity to not learn Spanish please god remove this is worse than a lot of things for example I would rather be a devil worshiper than learn Spanish I would rather eat a dog than learn Spanish please god remove this"
- "One period to meet with teachers you need help with or to go to guidance"







## Feedback

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### YOUTH VISIONS

Respondents were then asked to share why they felt the previous selections they made would improve their education.

The majority of responses fell into the following themes.

## Preparation for the future, career & beyond

The feedback provided via comments in the survey relating to their future, including other terms such as real life, career and job appeared over 160 times. The quote from this young man, educated in Macedonia highlights some of this frustration.

“The thing that needs to be improved in our schools is that they don’t prepare you for life. It’s okay, you should learn languages, sciences and art but the school doesn’t teach about things that as an adult everyone should know like paying taxes. Let’s say that you have graduated and feel very intelligent and now what, have you learned how to live by your own? Do you know what to do taxes? Do you get a job? Most of the times the answer to that is no so i guess that’s the thing that needs improvement.”

14, Male, Macedonia, Albanians



### YOUTH PROFILE

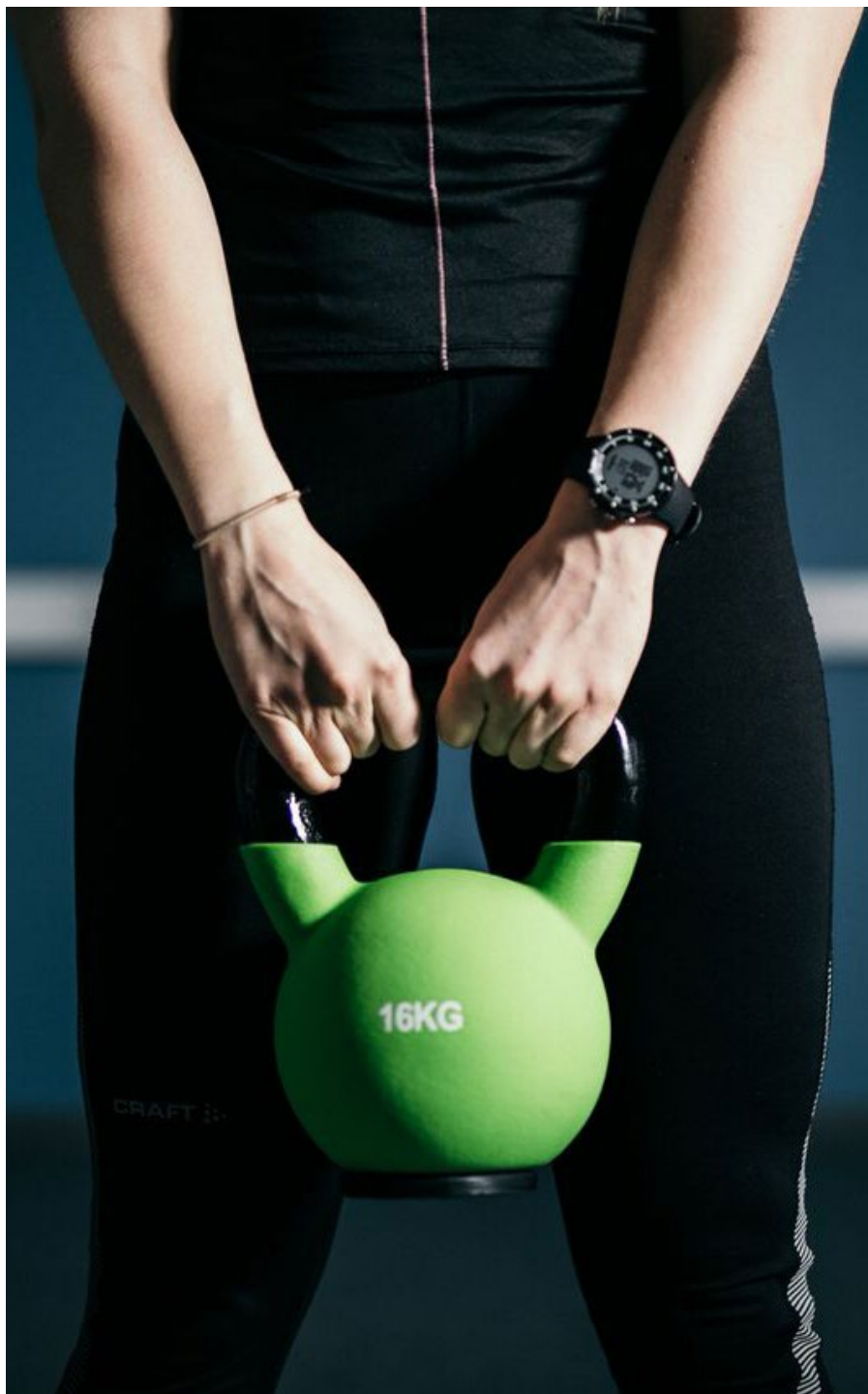
#### 17, Female, Educated in Bulgaria, Bulgarians

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Learning how to live and contribute to a sustainable lifestyle
- A change to the way you are assessed
- A higher quality of educational resources
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** More needed skills for the future

**Values:** It is a capital impossible to lose, that only grows with the age



## Importance of the whole

Interestingly, young people recognised expressly the importance of the big picture approach to improving education. Just as it was recognised in the state of the debate review that the entire breadth of education could stand to improve, young people agreed with this sentiment that it takes multiple and continual iterations to to improve their education fully. This was demonstrated by 56% (163 out of 322) young people who selected at least 9 or more options, 13% selecting between 16 and 18 options and 5% selecting the full 18. The frequencies are again shared in the table below to highlight the prevalence of a high number of selections. The youth profiles below highlight their valuable insights.

## FREQUENCY OF NUMBER OF SELECTIONS CHOSEN BY RESPONDENT

ONE	14
TWO	24
THREE	19
FOUR	22
FIVE	17
SIX	24
SEVEN	21
EIGHT	18
NINE	21
TEN	23
ELEVEN	17
TWELVE	14
THIRTEEN	22
FOURTEEN	16
FIFTEEN	8
SIXTEEN	17
SEVENTEEN	8
EIGHTEEN	17

## YOUTH PROFILES

### 17, Female, Educated in United States, Puerto Ricans

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** These are the basis of what most people should know when they go out into the real world. I believe all of these things are important.

**Values:** Relationships that I've built with teachers.

### 18, Female, Educated in Australia, Spaniards

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Your family/carers being more involved with your education
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** To give a better world view and raise a new generation of smart, empathetic people to change our future for the better.

**Values:** I attended a high school that allowed the students to call the teachers by their first name, the classrooms were designed so that the teacher was never standing over their students, and the school was very small so that the teachers were able to focus on their students and support them through and through. I graduate 2 years ago, and I'm still great friends with 6 of my teachers, and regularly see them at events around my city, and catch up with them every now and then. It's

a fantastic bond, and never felt or feel like I'm below them because I was their student.

### 15, Male, Educated in United States, American

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- A change to the way you are assessed
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- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** It will be a better environment to learn and to just be in for the majority of our entire day.

**Values:** I value more movement and less screen time.





## 16, Female, Educated in United States, Hispanic

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Your family/carers being more involved with your education
- Better relationships with school staff
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** They are all important and ideal to having a well balanced learning environment.

**Values:** You could never learn too much.



## Authentic, relevant & real world experiences

The importance of developing and implementing new pedagogies and approaches to education were highlighted in youth responses, championing synergetic change.

From the standpoint of the child, the great waste in school comes from his inability to utilize the experience he gets outside while on the other hand he is unable to apply in daily life what he is learning in school. That is the isolation of the school--its isolation from life.

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(Dewey, 1915)



## YOUTH PROFILES

### 18, Female, Educated in South Korean, Korean

Thinks the following would improve her education:

- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills
- Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities
- Opportunities to learn about sex education & relationships
- A higher quality of educational resources
- Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** From education students have to be gave a chance to see and experience the REAL world, but now they don't. The school have to start from opening themselves.

**Values:** Change

### 16, Female, Educated in Belgium, French

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A well designed environment for learning
- Better relationships with school staff
- Tailoring your education to be more personal to you and your needs
- A change to the way you are assessed
- Opportunities to learn about and improve health & wellbeing

- A higher quality of educational resources
- Having opportunities to voice your opinion
- Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** They will make my éducation more relevant to my life

**Values:** The general culture

### 15, Female, Educated in Mexico, Mestizo

Thinks the following would improve her education:

- Learning skills to help you in your future career
- A more inclusive school environment for all; regardless of race, gender, faith or sexual orientation
- A well designed environment for learning
- Tailoring your education to be more personal to you and your needs
- Opportunities to understand and improve your mental health
- The ability to understand and engage your human rights
- Learning how to live and contribute to a sustainable lifestyle
- Learning Intercultural education & developing global citizenship skills Opportunities to learn about and improve health & wellbeing
- More access to science, technology, engineering & mathematics opportunities Having opportunities to voice your opinion
- Focusing on life skills, such as empathy, communication & collaboration Opportunities to improve abilities to access, analyze, evaluate, and create media

**Because:** It has more opportunities to expand your skills and learn others, it is equal for all and it has actual global themes that could be useful in a future, our future.

**Values:** What I value about my education is the simple fact that I have access to it and I have that privilege because not all the children around the world have this opportunity.



## What do you value?

The survey ended with follow up question, as we were also interested in finding out the positives youth highlighted about their education. We asked “What do you currently value your education?”, intending to leave the survey with an opportunity to share something positive about education to pinpoint the areas across the world youth particularly appreciate. Due to the language choice, this question appeared to be misleading for some respondents as it was interpreted to mean the continuation of highlighting areas they’d like to change, yet many still did shared what they currently value providing useful insightful. The major notable difference was highlighted between Taiwanese and other countries respondents as they were much more likely to value the development of inter and intra personal skills than other countries in feedback, compared to the US and other countries who focused on the importance of education in preparing them for their future. An additional theme that arose was the importance of learning in general - relating to overall appreciation of the value of learning values, attitudes, skills and knowledge as a whole.

There were 5 particularly major recurring themes within 230 comments.

These were:

- **The importance of their relationship with the staff,**
- **Being prepared for the future**
- **Developing a global outlook, with opportunities to be change makers**
- **Demonstrating gratefulness for their opportunities access to education**
- **Recognition of the importance of learning in general, including skills and values**

Please find all related comments below.

## Relationships with Staff and their Teaching

- "I value my education, and hands on help from the teacher."
- "Having teachers and other adults who believe in my abilities made the most impact on me."
- "Relationships that I've built with teachers"
- "I value teachers that care about the subject they teach and challenging courses that push me to learn more."
- "I think having time to talk to teachers you need help in the class with and time to go to guidance to get help for college would be valuable because throughout the day you have to complete your classes and you can't leave but help from guidance is needed."
- "I value my relationships with the schools staff because they help me out a lot"
- "Teamwork between staff and students"
- "I value my teachers"
- "I like the teachers"
- "My teachers teaching strategies"
- "The fact that the teachers want us to learn"
- "Having a good relationship with staff so I can understand work better and feel less nervous about asking"
- "In my education, I value my ability to learn more. I wish to be able to learn more by gaining a stronger relationship with my peers and teachers so I can learn my about the subjects that I am being taught and so I can learn about how I should take the right paths in life to be a better human being."
- "Authentic personal communication with schoolmates and teachers"
- "The things I value the most are the technology that we are using in my school, because it is easier to learn; and the teachers because they care about us and they teach us really well"
- "The things I value the most are: the technology that we used, because we can be more informed and it can help us with our homeworks or school works; and the other thing are the teachers, because they care a lot of us and the teaches really good"
- "I attended a high school that allowed the students to call the teachers by their first name, the classrooms were designed so that the teacher was never standing over their students, and the school was very small so that the teachers were able to focus on their students and support them through and through. I graduate 2 years ago, and I'm still great friends with 6 of my teachers, and regularly see them at events around my city, and catch up with them every now and then. It's a fantastic bond, and never felt or feel like I'm below them because I was their student."
- "Having good teachers, good spaces to study, have attention and the most important values of the people that surround me."
- "The tolerance of teachers, the effort they made ( not all, the majority) to try that we learn what they are teaching us"

- “The level of the teachers that I have, most of them are totally specialized in their area”
- “I value the teachers who truly care for the students and change their teaching methods so each student can understand in their own way”



Photo: Hands on Learning Photography

## IN PRACTICE

The Australian-based programme, **Hands on Learning** partnered with Save the Children, to organize students into small cross-age groups of 10 who meet for a full day each week. Groups comprise students who have come to the programme for a range of reasons, such as low attendance, challenging

behaviours or kinaesthetic learners who don't often have their needs met in the classroom. Having a mix of ages and backgrounds and ensuring that the Hands On Learning takes place mostly on site means that the students are less likely to be labelled and stereotyped. Spending a whole day each week as a small group helps to build a strong sense of community, so the students feel they have a place they belong and people to belong to. The students cook and eat together to further their sense of community and trust. Importantly, the length of time students participate in Hands On Learning is not prescriptive, allowing students to remain in the programme as long as it is beneficial to their educational journey.

They also ensure that basic needs and relationships thrive by having breakfast together in the morning. It also supports the students' emotional wellbeing by providing adults, in the form of expert artisans, who are not traditional 'teacher' figures and who have the time and space to listen, advise and nurture a trusting relationship. The programme is supported by Focus Plans, which facilitate reflection and target specific areas of student behaviour, enabling students to make important connections between their success in Hands On Learning and their overall education outcomes.

Focus Plans are developed and measured with students' input each morning and afternoon to identify the main issues that they will face that day and plan how they intend to approach them. Crucially, the artisan teachers do the same and this helps to build relationships, model responsibility and show that self-development is a life-long process.

Parents are encouraged to engage with the process and are invited to attend family evenings where they see the work their children are doing, give feedback and encouragement and perhaps share a meal.

## Future Oriented

- "I value being able to transfer what I am learning into a career"
- "The thing I value most about education is how it gives me the opportunity to secure the future I want."
- "I value the fact that with the education that I have I will be able to have a good job in the future"
- "I value subjects where i can learn things that are teaching me, how to be a successful person in the upcoming world. I also value the educations that give me skills to be a better human."
- "I value that what I'm learning will benefit me in the future"
- "I value my education for my future"
- "I value getting somewhere in life" x2
- "I value preparing myself for college"
- "I value chances to do something groundbreaking that will give me skills for later in life"
- "I value getting good grades and actually understand the essentials I need for my career path"
- "I value opportunities that benefit my future given to me by my school"
- "I value learning skills to help you in your future"
- "I value learning things that will help me in the future. Help me to get a job and hopefully one day change the world."
- "I value learning about our career"
- "I value how well it prepares me for life in general, and college"
- "I value what i want to do in the future"
- "I value my life after school"
- "I value the chance I have to make a successful future for myself"
- "I value the opportunity to further my career and success in life"
- "I value graduating"
- "I value how it helps to get into college"
- "I value that I learn enough to be successful in life"
- "I value a learning a variety of skills to better my educational careers"
- "I value learning skills that will help me in the future"
- "I value that it will help me in the future"
- "I value finding a way to become more prepared for my career and future"
- "I value learning skills for the future with a high quality of educational resources"



- “I value what I learn and get from that knowledge on my way to my future”
- “What I value most is having the opportunity to learn different subjects that are very interesting for me and that will also be useful for me in the future”
- “I value that this is my preparation to future, and thanks to this I will have better opportunities to live.”
- “I value learning all the basic things about all the subjects and after learning a little of all, then being able to decide what career to choose”
- “I value the support it will give to my future as an adult and professional person:
- “I value my future”
- “I value future development”
- “Learning skills to help you in your future career”



## IN PRACTICE

Real world learning is best accomplished in the real world. **Big Picture Learning** ensures students intern with experts in their field of interest, completing authentic projects and gaining experience and exposure to how their interests intersect with the real world.

Learning Through Internships is central to the Big Picture Learning approach and aims to make education more relevant and engaging. Students build knowledge, understanding and skills in the context of authentic work. Big Picture students may spend up to two days a week as an intern.

To support the spread of this educational approach, Big Picture Learning has created a toolkit complete with free resources and advice on how to develop meaningful internships within the local community.

Established in Rhode Island, USA in 1995, the very first class of Big Picture Learning school students graduated in 2000 with a 96% graduation rate. 98% of its graduates were admitted to post-secondary institutions, receiving over \$500,000 in scholarships to help fund their college experiences. As well as having 65 schools in USA, the Big Picture Learning philosophy of “one student at a time” has already seen the idea spread to a number of countries including New Zealand, China, Belize and the UK where new schools have been created, existing schools have transformed or national policies have been influenced.

Photo: Big Picture Learning Photography



## Global Citizen Skills

- "I value the opportunity to meet people from different backgrounds and understand society better."
- "I value empathy and tolerance. The ability to take risks and accountability to be the instrument of change."
- "I value my core academics as these are probably the last time I'll take it before college. I'll be going into education, but I believe learning things from classes like Environmental and English I become more well rounded and culturally informed as we discuss issues around the world in science and read book around the world in english".
- "I value most all of the subject where i can learn things that are teaching me, how to be a successful person in the upcoming world. I also value the educations that give me skills to be a better human."
- "I value learning about how to live and contribute to a sustainable lifestyle"
- "I value the opportunity to learn about the world's past and current events"
- "I value the opportunity to learn about other people's views and general thoughts on any subject and learning about the ethical differences in the world and how people live their lives"
- "I value being able to respectfully contribute to society"
- "Facts, rationality and truth are what I value the most in my

education. In today's western society, the focus of education is heading to a dangerous direction of ignoring rationality, facts, truth and challenging the students and instead, it is focusing on feelings, social justice and opinions. The core of education is educating, not pandering."

- "I value the opportunity to develop the knowledge of human rights, communication, and peaceful lifestyle."
- "I value that I have the use of technology in school and also in informatic class I learn more about technologic things, I know about my human rights thanks to my class of civic and I can give my opinion in class of a theme that we are talking about"
- "I value world knowledge, communication and people skills"
- "I value that I can learn languages"
- "I value open thinking"

## IN PRACTICE

In an increasingly globalized world we need to find new ways to understand each other and to inspire a global perspective, so that communities everywhere can work together to find peaceful, innovative solutions to challenging and new situations. **The Global Oneness Project** believes that stories play a powerful role in education. Founded in 2006, the Project is committed to the exploration of cultural, environmental, and social issues. They house a rich library of free multimedia stories comprised of award-winning films, photo essays, and articles, which are accompanied by companion curriculum for educators.

The Global Oneness Project aims to connect, through stories, the local human experience to global meta-level issues, such as climate change, water scarcity, food insecurity, poverty, endangered cultures, migration, and sustainability, among others. Through featuring individuals and communities impacted by these issues, their stories and lessons provide opportunities to examine universal themes that emphasize our common humanity—identity, diversity, hope, resilience, imagination, adversity, empathy, love, and responsibility. The curriculum, available in both English and Spanish, contains an interdisciplinary approach to learning and facilitates the development of students' critical thinking, inquiry, empathy, and listening skills.



Photo by Emmanuel Vaughan-Lee / Global Oneness Project

## Access to Education

- "I value the ability to feel free to ask for help when needed so that I am more comfortable with the subject. But what's more important is to create schools in other LEDC (less economically developed countries) where children don't have the opportunity to go to school even though they have the right. Moreover to allow girls in other countries to join schools because they equally need education as boys do."
- "What I value about my education is the simple fact that I have access to it and I have that privilege because not all the children around the world have this opportunity."
- "Well what I value most of all that in Finland education is free for everybody and teacher's are very well educated too"
- "I value how it is provided to me for free."
- "I value the opportunities it provides me with"
- "I value the ability to have one"
- "I value that we have the opportunity to learn the basics like English, math, science, etc"
- "I value how most things are free and that money isn't holding me back from wanting to increase my education and my experiences."
- "I value the free cost and the staff"
- "I value the opportunity to take ECE/AP classes without having to

pay to take them like other schools make students do"

- "I value being able to go to a school where i can receive a very good education"
- "I value the amount of resources and programs at my disposal to help me learn"
- "I value the opportunity to learn more things"
- "I value that I have the opportunity to be in a private school"

## IN PRACTICE

Worldwide there are 124 million children who miss out on basic education. Often excluded due to conflict, poverty, or discrimination, these children are at risk of being forgotten or ignored as they are assumed to be uneducable.

**Speed School** aims to change community and global mindsets so that it becomes unacceptable for any child to be denied an education and provide tangible evidence that it is possible to enroll and educate all children.

Working in countries with the highest rates of out-of-school children, Speed Schools provide an accelerated learning program that condenses three years of basic education into just 10 months. Having caught up with their peers, children are able to re-enter mainstream education at 4th grade and join the local village schools with children their own age.

Speed Schools also focus on a tight time frame which complements and works alongside government schools rather than establishing a parallel system. Working closely with the national agencies of each country, the program is customized for each national context. While the outcomes may be country specific, the teaching and learning is dramatically different from a traditional government school. Speed School classrooms blend child-centric pedagogy and activity-based learning methods to ensure children not only grasp the minimum learning competencies but also develop a positive experience towards learning. University of Sussex research supports the pedagogical approach employed by Speed Schools.

By hiring local youth to teach in classrooms, Speed Schools also have a positive impact on communities. Teachers have a minimum of a Grade 10 qualification. These facilitators

undergo intensive training to enable them to teach using play-based education and other engaging learning techniques.

The long-term impact of the Speed School program is significant. Speed Schools have enabled over 100,000 students to re-enter mainstream education where, despite being from the poorest households, students progress through their local schools at the same pace as their classmates.



## Importance of Developing Understanding, Skills & Values

- "I value the cultivation of life attitudes, the development of relationships, and the ethical and moral cultivation"
- "Knowledge "
- "I value the learning in general. "
- "What I value most is the ability to learn practical skills, not superficial achievements"
- "In the future, there will be a skill that enables oneself to survive, an interactive relationship between people and a broader perspective"
- "I value thinking ability"
- "We have access to a lot of knowledge even if the way of teaching it is wrong. "
- "Skills"
- "Human relations" x3
- "Learning interpersonal relationships" x2
- "Focus on life skills"
- "Confidence"
- "Attitude"
- "Learning new things" x2
- "Opportunities"
- "The learning experience"
- "Learning how to solve problems and communicate effectively"
- "Human relations"
- "Learning skills"
- "One's character"
- "Most value one's personality"
- "Learning to not be so shy could really help me"
- "I think that the most important of it is that I have a lot of knowledge for the life "
- "Learning, develop skills and more knowledge "
- "Mostly life skills that you don't get to learn in school"
- "Being able to communicate with others and teaching kinds about manners."

“If education is still the same as a hundred years ago, education will never improve.”

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#### ADDITIONAL INSIGHTS

Below are comments that fell outside the five main themes which may be of interest to stakeholders, as they identify the breadth of perspectives shared by youth regarding what they value in and about education. This feedback touches on a few common themes, such as valuing skills such as importance of mental health, changing current assessment methods, ensuring the quality of education is high utilising technology. Also, the importance of a well-designed environment, and a personalized tailored education were reiterated in these comments.

Themes which weren't highlighted explicitly in the options presented to youth that arose from the comments were: appropriate teaching strategies, hands on, practical learning opportunities and that education should provide a fun, interesting and respectful environment in which to flourish. There were also references to the important of moving more physical education and sadly the one young person who currently values nothing about their education.



## PEDAGOGIES AND APPROACHES

- Educational methods and environment
- The future can be used for learning, close to life, not just textbook knowledge
- Interest x2
- Fun
- Learn to use things instead of learning many things that have nothing to do with interest
- I value most the understanding for processing and learning the things we are taught
- Teaching methods
- Spontaneous learning
- The use of technology because it makes that my knowledges improves and to make more didactic the learning
- I love when we are able to tell our opinion on a selected topic and actually debate with the others in the conversation
- Freedom
- I value the interacting thing because this is the form that I learn more
- How our resources used in the classroom
- I like having hands on opportunities
- Teachers who linked the subject to practical were better retained in memory.
- The opportunity to learn something new from different people is very exciting. And it would be even more if we used new techniques to connect with different students who have different dreams
- I value my classes in which the focus is not numbers or statistics. They are classes I enjoy. I also value the teachers' abilities to help us with any inconsistencies in our work

## PERSONALIZED LEARNING

- Tailor-made education to better meet my own needs
- Freedom to develop and learn
- Learner Autonomy
- Tailor-made education, more in line with their own standards
- The most important thing is individual differences

## HOLISTIC WELLBEING

- Value of well-being
- I think my mental health is the most important thing. If I learn a lot, my mental health is not good, I still won't be happy

## QUALITY, RESOURCES AND BEYOND

- Higher quality educational resources
- Quality
- Learning equipment
- A higher quality of educational resources
- Contact and more resources
- I value that I'm getting a well rounded education
- Opportunities to use more imagination and more technological devices and labs.
- We are more informed and we have technology, that will help us an make us certain tasks easier if we know how to use it properly.
- That I get a good one
- The technology
- Music Technology

## MINDSETS, ROLE AND RELATIONSHIPS WITH EDUCATORS

- Courtesy
- Relationships
- I value relationships most
- The respect and the tolerance
- Respect

## ASSESSMENT

- Change your assessment method
- I think that scores are not the first priority. Moral education is also very important, because people with good grades may not always be polite



## LEARNING ENVIRONMENT

- Beautiful environment
- Surroundings
- Learning and learning environment.
- A good learning environment
- A fun productive environment.

## MOVEMENT

- Physical education class
- More physical education
- I value more movement and less screen time.

## OTHER/MULTIPLE

- I value the openness to change happening. Though everybody was too afraid to actually change anything, it is still out there.
- Nothing
- My education is very good and I don't need anything else.
- Family members are more involved in their education
- Girlfriend
- In terms of mathematics, what I focus on is the concept
- Strategies to involve my family, strategies to improve students behavior and wellbeing, life skills
- I value what I am taught because I know i'll need it in later life experiences. I also value the friendships and just being around so many people everyday because you learn that everyone is different and not everyone is who they say they are
- I value that it gives me a social outlet I otherwise wouldn't have.
- I value unbiased information for political views and points in civics/history
- I value time the most during and while I'm getting my education. Being busy with school, work, sports and other activities assembles me to have no time in actually sitting down and having complete focus on what I am endorsing.
- General education, flexibility and tolerance.
- Being able to do something I'm good at.
- My family



## Discussion

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“When it comes to the design of social and societal systems of all kinds, it is the users, the people in the system who are the experts. Nobody has the right to design social systems for someone else. It is unethical to do so,”

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– Bela Banathy <sup>204</sup>

### SUMMARY

The aim of this survey was to capture youth perspectives on what needs to improve in education, as well as what they currently value. The findings highlight perceived needs of young people, particularly those educated in the US, Taiwan and Mexico, capturing voices from nineteen different countries.

Results show that youth desire much greater future readiness, particularly in relation to their career, as 83% of young people selected that learning skills for their future career would improve their education. This finding was in line with that from a previous survey conducted with a US only population.<sup>205</sup> Additionally, inline with previous findings youth both value and would like to see improved meaningful and supportive relationships with educators.<sup>206</sup> They were also vocal about the importance of having authentic, relevant, real world learning experiences that engage with the community at large, sharing a desire to understand and be part of a global world. This only stands to highlight the importance of education reflecting both their increasingly global lives, and their disconnection from reality. To achieve this, both aspects require meaningful provocative partnerships.

The survey, following on from youth concern with future preparedness, highlighted that youth were most concerned with improving: their physical learning environment (61%), learning life skills such as empathy, collaboration & communication

We should strive to be inclusive of those voices who are so often deeply underrepresented in research, such as those with particular special needs or from the Global South.

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(58%), their education being tailored and personalized to their needs (56%) and learning how to live a sustainable lifestyle (53%). This is particularly interesting, as the first is not typically at the forefront of reform by systems level or other stakeholders, although it has been recognised as important by the OECD<sup>207</sup>, with notable developments of interest in New Zealand<sup>208</sup> and Finland<sup>209</sup>. The popularity of Flexible Seating, created by Kayla Delzer,<sup>210</sup> highlights a growing recognition of the importance our environment can have on wellbeing and learning. The focus on skills, such as empathy, collaboration and communication have also been leveraged as vital in education in recent years, with multiple organizations particularly focusing on advocating for their integration into education.<sup>211</sup> Yet, it appears that this respondent sample are still to benefit from this.

Another poignant finding to highlight, is that many acknowledged the importance of a multitude of areas needing to improve in their education. When reflecting upon their selection choices they acknowledged the importance of improving the whole rather than just a few themes. Previous research usually focuses on asking a few areas, but findings could suggest that when respondents are presented with more options, they do find many areas relevant for improvement. Of the choices presented, half of all respondents selected each one, with even the least selected option being chosen by one quarter of respondents. Additionally, over 10% of respondents selected between 16 and 18 choices as they gained insight into the revelation that education could improve in more ways than one.

Furthermore, we learnt through their humble acknowledgement, about their deep appreciation for access to free, high quality education. This opportunity is not taken

for granted and draws attention to the fact that many are acutely aware of the world at large and its vast differences in equity and opportunity. Moreover, young people are also often attuned to their average/traditional county-wide situation, referencing in their comments that 'France', in general needs to improve, acting almost as a spokesperson for their local context. Interestingly, those in the US and Taiwan did not do so, but many from other countries, such as Macedonia and Russia referred to their country of origin. This could imply that they both recognise their lack of representation in global conversations, and feel out of control to influence their situation; perceiving education to be part of a large, nation-wide system that is slow to change, requiring an entire country to act.

A small range of studies in this field have also explored what children and young people would like to see improved in schooling with some similar findings. They highlight the importance of some key areas of a successful education from a youth perspectives: relationships and communication, child-centric approaches and pedagogies, feeling safe, having fun and feeling heard and involved.<sup>212,213</sup> The findings from this research continue to underline these important aspects, but also that the future of education needs to improve in an all encompassing way to allow our children to flourish in life. What is particularly unique about these findings, is the opportunity for reflection of the breadth of areas in education that could improve, from the array of options compared to previous research. It was illuminating to read the high frequency of choices chosen by respondents and their sincere reflections on a whole systems approach to improvement.

## LIMITATIONS

As with all research, there are limitations. Future research in particular, should aim to capture a greater sample, from more countries, to understand country differences more in-depth. Whilst we gain key insights from many enthusiastic youth worldwide, respondents were predominantly from the US, Taiwan and Mexico. We should strive to be inclusive of those voices who are so often deeply underrepresented in research, such as those with particular special needs or from the Global South. To improve inclusivity, future research should also strive to secure partners that can support with translation where possible, to more easily extend beyond, and penetrate multiple county perspectives. Additionally, future research should address the age imbalance in the respondent sample, while we included results from those aged 13-18, we typically advertised the survey to a suggested age range of 14-18 years, as a consequence the sample for 13 years old was notably small (N=3). Future research should endeavour to understand the relationship between age, by striving for equal sample sizes throughout ages analyzed.

## FUTURE DIRECTIONS

As a key stakeholder in education we should strive to include youth voice, as adults have the authority to change education. The shift must move toward a change in the culture of teaching toward; meaningful, collaborative relationships, this was a clear perceived need by youth and many of the stakeholders outlined in the state of the debate. There are many examples of fantastic initiatives and schools already striving to do this around the world. One example would be Democracy in Practice<sup>214</sup>, founded in Bolivia, who created Student Government Lotteries which replace student elections, giving all students an equal chance to participate in student government and develop leadership and civic skills. Adam Barton shared in his research interview with HundrED that the current student government systems, and the way school does not provide autonomy to the learner, is one the biggest barriers to positive learning outcomes for young people. If they were instead afforded the autonomy, respect and opportunities they deserved, their opportunities for learning, growth and progression would be greatly increased. When asked what the biggest challenges are to implementation, it was always that teachers in the school struggled to surrender their autonomy, and recognise the young person's ability to make their own decisions, and potentially mistakes.

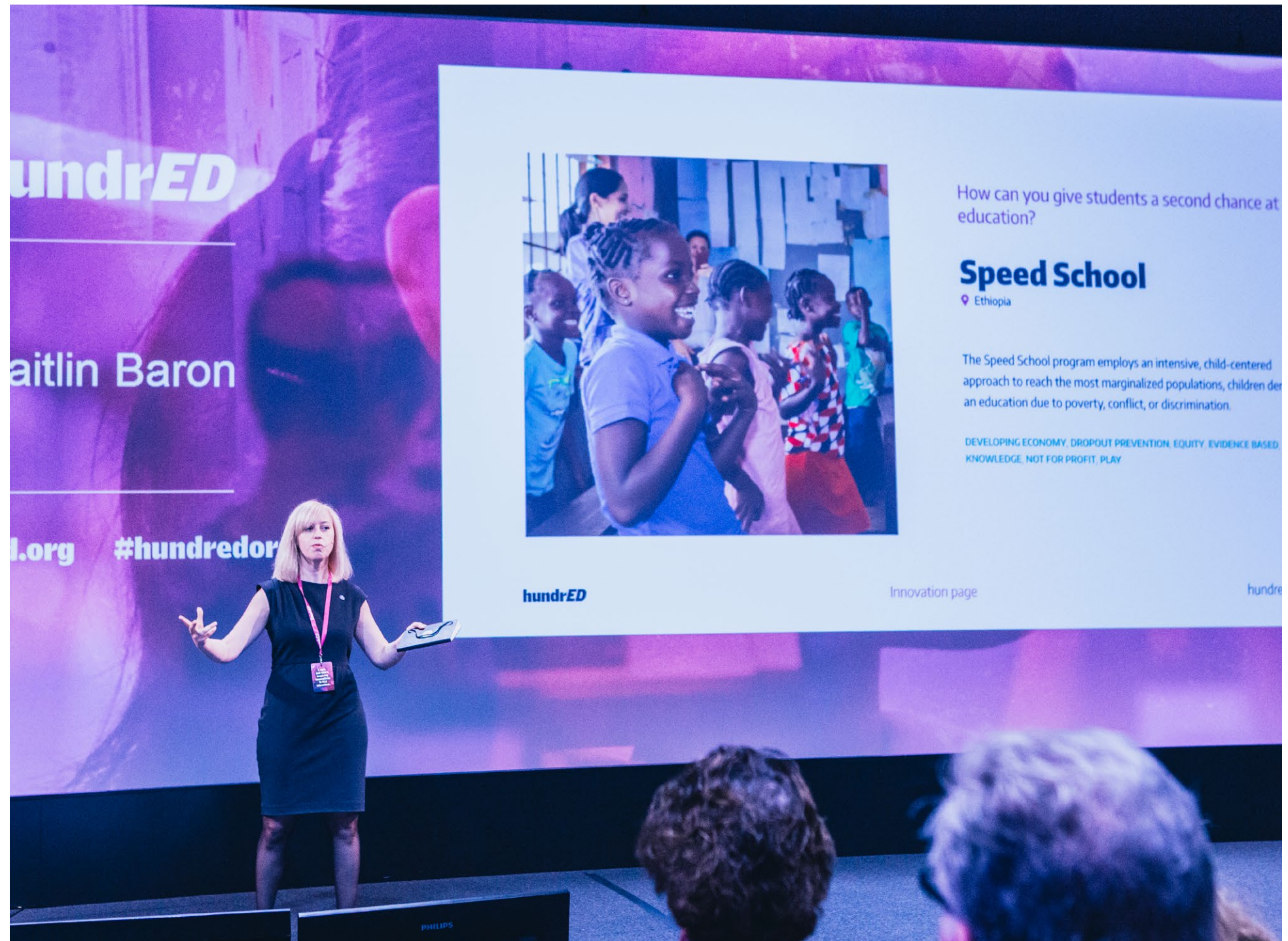
Furthermore, as highlighted by the World Economic Forum's research, children want to be change makers, in their lives and beyond.<sup>215</sup> 84% even consider it their duty to do so, utilising digital tools to do so in a connected world, by holding individuals and organizations accountable and promoting causes they believe in<sup>216</sup>. Thus, if we want to understand youth opinion, we need to find smart ways to tap into this resource. In the future we should make better use of social media in both gathering new and analyzing current data found online.

In the future, all stakeholders in research and beyond should endeavour to better understand how we can involve young people as a key stakeholders to ensure their opinion and perspective are considered non-tokenistically. At HundrED this survey will not be a one-off data collection, as we recognise it would not provide sufficient opportunity for youth to reflect or continually and increasingly contribute. In prioritising youth voice we hope to go some way in ensuring policy, programs and practice remains responsive to the views, needs and concerns of the children and young people whose lives they intend to improve. At HundrED we will conduct global youth research annually to grow these insights into what youth would like to see improved in their education, striving to create tangible outcomes from their input, and forums for them to share.

## CONCLUSION

Recent research shows that young people make being productive changemakers as part of their lifestyle including their career path, product choices and how they spend their leisure time.<sup>217</sup> This is just one of many important and necessary reasons to listen to our youth today. Whilst the UNCRC is clear that children and young people should have a say in matters that directly affect them, it is too often the case that they are not empowered to express their views. The state of the debate, alongside the findings of this survey highlight the lack of voice young people have in education, and the deep willingness they have to share their valuable suggestions and reflections. Despite not actively recruiting cohorts of young people, due to resource constraints, a fairly large number of students responded to this survey and more importantly took the time to provide written feedback reflecting on their selections. This shows how important these issues are to youth, as it can be challenging to encourage participation in research, particularly to receive detailed written feedback. Moreover, there is much evidence to support the importance of recognizing students' basic needs for autonomy in learning environments, students strong psychological evidence to support a more interactive, multidimensional picture of human nature in schools and beyond.<sup>218,219</sup> Understanding young people's desires, has the potential to increase meaningful, and arguably more applicable improvements across education. This will hopefully result in an increase of motivation, decrease in dropouts, as well as numerous other positive impacts, as a product of their rightful ownership and autonomy.<sup>220</sup>









## Get Involved

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By engaging with youth opinion on an international scale, HundrED are developing opportunities to support, engage and share opinions, hopes and concerns in the matter of education worldwide. We recognise the moral imperative and multiple benefits of doing so and will continue to improve our approaches to include youth voice in all matters of our work.

When selecting innovations for the global collection, for example, we are convening a 100+ Academy to gain feedback on innovations from all stakeholders, emphasising the importance of having a third being young people. We openly invite all young people to apply to be part of our Academy as we would love your feedback on education innovations in August and September 2018. You will also be invited to Finland to celebrate the work of these innovations at the second HundrED Innovation Summit 5-7th November in Helsinki.

If you, or someone you know, would love to be more involved with the work we do at HundrED, why not apply to be one of our Youth Academy members! Being a Youth Academy member will give you the opportunity to voice your opinion on

which innovations we should highlight in 2019, and you will be invited to attend our HunderED Innovation Summit in Helsinki, Finland (5-7th November 2019), where you will have the opportunity to listen to fantastic talks from people engaged in changing education around the world; as well as the possibility of joining other Youth Academy members in guiding a discussion on the role of youth voice in education. Last year HunderED led a Youth Voice Survey, asking young people around the world how they feel about their education. Our report 'Every Child to Flourish', highlights

Being a Youth Academy member will give you the opportunity to voice your opinion on which innovations we should highlight in 2019.

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these findings, as we strive to engage young people in all aspects of what we do. We are looking for enthusiastic young people who are currently in K-12 education, who would love to challenge themselves by joining a group of 30 like minded individuals to help shake up the discussion surrounding education. Apply today for a chance to be involved in a global youth movement!

There is also the opportunity to get involved in our community-led Youth Ambassador programme initiative, created by Pero Sardzowski, HunderED Ambassador & Director of Studies at Pegasus English Language School in Tetovo, Macedonia. A group of 23 students applied to be part of this initiative to understand, review and promote innovations of their choice for implementation in their local community and the Ministry of Education. By actively taking ownership of change, and to promote global innovations locally, they can improve education on the ground together. Youth Initiatives like this introduce young learners at a local level to the latest global educational innovations and encourage them to get involved, critique, promote and implement within their educational settings, building co-operation with educators, parents and other necessary stakeholders. The aim is to empower youth to take an active part in educational development through a personalized bottom-up approach, to stimulate innovation within the formal educational systems of local context. Pero Sardzowski and HunderED will go on to analyse the outcome of this initiative to understand how best to involve and engage the youth movement worldwide.



# Mapping: Joining the Dots

## Purpose & Approach

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“The whole is greater than the sum of its parts”

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– Aristotle

At HundrED, we support the improvement of education by seeking, researching and sharing innovations from across the breadth of education and from around the world. As we embarked on a journey to understand the perceived needs across the ecosystem of education we struggled to find access to any open collective mapping of all elements across the global education, making it difficult to seek and categorise innovations across its entirety. This is what sparked our interest and inspired us to pursue our own research using a multi-source, multi-stakeholder approach through a state of the debate review and global youth survey. This research sought to understand and map perceived needs, especially those that many are only acutely aware of. As we immerse ourselves in

the education innovation world, it is important to understand the variance of the ecosystem to ensure innovation can address education's deepest, most relevant needs. As the state of the debate findings highlighted, when multiple sources from multiple perspectives are pieced together there are many common areas for improvement. The global youth survey also reinforced this finding; particularly highlighting a deep disconnect between young people's current education and their real world future.

We have experienced that many stakeholders often focus on specific areas to improve in education, rather than diving deeper into the depth of the ecosystem in both creation and development of their work. Whilst there has been research conducted to understand how we might improve schools, leadership or technology for example, typically the discussion of each theme in isolation of others can leave certain aspects of education lagging behind. Whilst it may make sense to provide a solution to a specific problem within education, for instance a way to make coding accessible for everyone, unless the rest of the system is working to allow every child to flourish we risk focusing only on the short-term need for change, at the expense of many other important areas. These specific changes can result in a spurt of innovation and disruption, as funding and focus is drawn to these areas. This method may be the root of unfulfilled goals for basic education or the deep disillusion from teachers about the profession in many areas of the world. So, if we are trying to improve the education ecosystem as a whole we must work to rectify the entirety. Ultimately the journey of becoming a lifelong learner requires deep understanding and passion. Our education system should enable and reflect that.

Ultimately the journey of becoming a lifelong learner requires deep understanding and passion. Our education system should enable and reflect that.

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While education is very different for all stakeholders in varying situations around the world, with many constrained by factors such as funding, resource or policy restrictions, there is hope. There is a multitude of innovation who, despite such challenging circumstance, have created, implemented and scaled innovations for impact in both incremental and transformational ways. Yet, if we want to support and share innovation that can bring synergy to stakeholders to work together we should move forward with a shared understanding and visions in mind. By mapping the breadth of perceived needs, we can bring clarity to the current situation enabling individuals to take local insights global to feed back into local practices. The identified areas below will be an ever-evolving project as we continue to map, understand and refine how the ecosystem of education continues to evolve through research and input, connecting the dots between networks both locally and globally.

The mapped areas below have been split into ten main themes, with forty-five subcategories supplied with definitions, explanations as to why the literature deems them important and with an example from our innovation database showcasing how someone in the education community is already addressing this need. In this process we researched and chronicled 440 sources to deepen our knowledge across the scope of education to ensure all themes are supported by further documentation and studies from experts. Ultimately, deciding what level to map the education ecosystem is challenging, so the end result we hope is specific enough that each theme and category is clear, rather than a vague concept. We hope to get feedback from the community and ultimately recognize that there can be ever-increased specificity in breaking down certain subcategories further. We do believe that it is the educators and experts position to use the intricacies of the latest research to guide areas, such as how to support the development of phonetics but in our mapping we recognise that overall language and literacy development is a perceived need for improvement across the education ecosystem.

An additional purpose of this mapping is to support categorization and definition of both innovations and strategies for the progression of education. We hope there is a recognition that while an innovation may have a primary focus, their opportunities to create change ultimately overlap in many of the mapped areas. Arguably, the most successful, transformational innovations seek to support the improvement of education as holistically as possible, becoming both locally and globally adaptable across the dynamic ecosystem.

Drawing upon examples for the HundrED Global Inspiring Innovation Collection in 2017/18, Redes De Tutoria<sup>221</sup>, founded in Mexico in 1973, is an educational movement to build networks of learning based in personalized dialogue, reflection,

and community presentations. Here, the teachers and students are all learning community members who indistinctly act as mentors or as apprentices. This is particularly innovative as the typical pedagogical assumption is that educational content, schedules and classroom procedures should be made a function of individual learners, not the other way around. Since 2014, Redes de Tutoría has extended to Singapore, Thailand, Chile, San Diego California and continues to grow beyond and within each of these places. Scale in the country grew enormously with the backing of ministers but then grew exponentially abroad upon the release of a moving documentary in 2013. What is key, is that from educators to students, leaders to community members around the world have been surprised and personally transformed by this growing movement committing to supporting the change in their own local communities and countries. Much of this is rooted in 'seeing is believing' either online or offline.

A second example is Big Picture Learning<sup>222</sup> (BPL), a whole school approach established in 1995, a student-centered learning experience where students are actively invested in their learning. The first BPL school graduated in 2000 with a 96% graduation rate, of which 98% went on to further education

Institutions. There are now over 65 BPL schools worldwide across the US, Belize, New Zealand, China Italy, Canada, Australia, the Netherlands. Big Picture schools, like the students they serve) often look dramatically different to one another. Interestingly, and most importantly, each is unique. Designed to ensure the students in the school can flourish underpinned by the BPL philosophy. Yet, BPL has grown through an organic network driven by leaders who are committed to this authentic school mode to change the way we think about education from the ground up<sup>223</sup>.

Following our purpose and examples we suggest that the information in this section of the report could be used by those interested in changing education for reflective, effective action-oriented purposes.

Inspired by examples, such as the [Great Schools Partnership glossary](#) who map many words used within and across education in the US, as they strive to showcase the importance of communication and language in transformation. The mapping below based on perceived needs could be used also to understand and describe educational needs in accessible ways to increase understanding across the education ecosystem. It must be highlighted that these needs and concepts do not exist in a vacuum, they are always inextricably linked and we should strive to label and synthesise where possible for sustainable practices. For example, when developing innovation for scale and impact on how to improve inclusion and diversity, considering each aspect individually can unintentionally result in a focus

area emerging based on resource and thematic focus, as opposed to how we can make all children feel included as every child ultimately has different needs. The aim of this mapping was to enable users to review all needs and map personally how they link in a celebratory and considered way so over time, these connections can build a more holistic understanding of how to merge needs, exposing their connections to other innovations and strategies.

It is important to note here that this is not intended as a 'how to' guide, but rather as a tool to indicate where improvements could be made at a holistic level for one or more stakeholder groups. We hope that mapping tool helps practitioners to: celebrate local success, consider a holistic viewpoint to support educational transformation, draw upon global perspectives from across stakeholders of what might need to improve and consider adapting or implementing innovations across the world. This all feeds into the importance of creating a sustainable, valuable, education ecosystem for all.<sup>224,225</sup>

Suggestion for use:

## 1. CELEBRATE

### **Identify areas and themes that work well in your context**

Personal to your context map areas you believe are being doing well and enable all children to flourish. You could also map other stakeholders in the local, and/or national system to acknowledge and celebrate their efforts. This may be useful to support further implementation and partnerships at a later stage.

## 2. CONSIDER

### **Identify areas for development**

Being proud of your positives you can now consider across the map which areas may need minor or considerable improvement to enable every child to flourish. You could also map other stakeholders in the local, and/or national system to acknowledge and consider ways they could improve. This may be useful to support further implementation and partnerships at a later stage.

## 3. SYNERGIZE

### **Identify ways to improve areas in an interconnected, holistic child-centred way**

Merge the two lists of areas working well and areas for consideration. This is the join the dots stage, enabling you to build a picture to link up and understand how some of these areas could be improved in a holistic, sustainable way. This could involve utilizing innovation databases and resources, like that at HundrED for inspiration and practical examples.

## 4. IMPLEMENT

### **Identify local or global innovations for implementation**

Now understanding areas you would like to improve in a sustainable way toward transformation you can take the first steps toward implementation and beyond. This may involve identifying stakeholders for partnership, understanding funding sources or reaching out to the innovation directly. At HundrED each innovation comes as a toolkit with implementation steps to assist with the potential adaptation of the innovation for your specific context. There are also contact details for the innovator so you can reach out to them directly and easily. Each innovation page also has a simple Q&A tool where either the HundrED team, the innovator or a member of our community can help out with any question you may have about the innovation and implementing it where you are. It is important to make change as part of a community for support. Feel free to join our [HundrED FB community](#) for questions and support from a network of those committed to improving education to help every child flourish, no matter what happens in life.



## Findings

Below are the perceived needs of stakeholders we found from our research, identifying areas for improvements across the breadth of education. They are displayed in the table below, as well as by theme following sub-categories, with short definitions, how the latest research highlights their importance, as well as an example from the HundrED database from our global and finnish research. Occasionally, there are areas which do not elicit an example, this is a deeply useful outcome of this research as we aimed to identify missing areas to ensure we cover the scope of education when researching innovation for impact and scale.

## MAP

<b>BREADTH OF SKILLS</b>	Inter & Intra Personal Skills	STE(A)M	Arts & Humanities	Life Skills	Media & Digital Literacy Skills	Career Skills		
<b>INCLUSION &amp; DIVERSITY</b>	SEND	Gender	Race, Ethnicity & Identity	LGBTQIA+	Rural, Distance & Home	Socio-economic Equity		
<b>EDUCATORS</b>	Professional Development	Educator Training	Curriculum, Resources & Tools	Mindset, Role & Relationships				
<b>HOLISTIC WELLBEING</b>	Space and Environment	Family, Carers & Community	Health	Mental Wellbeing				
<b>ASSESSMENT</b>	Reflection	Evaluation	Documentation					
<b>PERSONALIZED LEARNING</b>	Individualized learning	Adaptive Technologies	Authentic experiences					
<b>GLOBAL CITIZENSHIP</b>	Intercultural & Multicultural	Supporting Countries in Humanitarian Crisis	Sustainability	Multilingualism				
<b>LEADERSHIP</b>	Budgets & Funding	Policy & Systems Processes	Utilising data & research	Innovative ecosystems	New and Changing Pedagogies and Approaches	Partnerships	Whole School Models & Cultures	Transition from K12
<b>YOUTH</b>	Children's Rights	Voice & Participation	Youth-led innovation					
<b>BASIC EDUCATION</b>	Early Childhood	Achieve Numeracy	Achieve Literacy	Access & Integration				

## Basic Education

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To begin a positive lifelong journey as a learner and beyond, the foundational stages of education must be nurtured and encouraged. Early Childhood Education, achieving numeracy and literacy, and having access to basic education are vital in establishing a positive outcomes for healthy development that stays with children for life.

### EARLY CHILDHOOD

**What:** It is now recognised that our early years are paramount in setting the foundations for lifetime learning.<sup>226</sup> Early childhood focuses on children aged from birth to eight years (although this varies between countries); and it is vital at this stage to begin encouraging children to learn holistically about the world around them. Unfortunately young children are often prevented from access or high quality Early Childhood Education due to cost, access to facilities and a distrust of services.<sup>227</sup>

**Why:** Early Childhood Education has been shown to increase IQ, improve behaviour, improve social skills, enhance attention span, improve high school graduation rates, benefit children

with physical or learning difficulties, and aid problem solving and communication skills.<sup>228,229,230</sup> These skills allow children to continue successfully on their learning paths throughout primary and secondary education, and beyond.

Literacy  
continues  
to appear as  
a key focus  
area across  
educational  
stakeholders.

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**How:** Talking Stickers is unique as it provides children to have physical activity with the stickers while developing their language skills. It provides an immersive experience, encourages peer-learning at centers and supports rich caregiver-child interaction. It also provides an opportunity outside the four walls of the school, connects the school to the home and in the process breaks barriers of accessibility and affordability. Pilot studies suggest that Talking Stickers increased parent-child interaction time each day by an average of 42 minutes. With this increased interaction time and access to educational stickers in their home, children aged 3-4 learned on average 11 new words per week, whereas children aged 5-6 learned 26. Talking Stickers are currently being used in India and Canada and it will be rolled out to Lebanon, Mozambique and Bangladesh over the coming years. Talking Stickers make use of local partners to distribute stickers and enrich existing educational materials.



## ACHIEVE NUMERACY

**What:** Achieving Numeracy means having the skills and confidence to use numbers and mathematical approaches on a daily basis.<sup>231</sup> It is a necessary skill to function in the 21st century, where a lack of numeracy skills can result in vulnerability for young people and adults in the future.<sup>232,233</sup> Not all children are taught numeracy skills and many education systems tend to focus on rote taught mathematics, which has a greater focus on theoretical rather than practical skills.

**Why:** Numeracy skills give children the skills to problem solve, interpret data, use logic skills and process information.<sup>234,235</sup> Numeracy differs from mathematics, in that it teaches children to use mathematical skills in daily life and solving real life problems.<sup>236</sup> The context of real life issues engages children in their learning, exemplifying the positive benefits numeracy skills can offer.

**How:** Tikichuela Maths is a play based approach to teaching mathematics using Interactive Radio to overcome attainment gaps in rural areas. Every lesson is turned into a script and recorded to create an interactive radio programme full of music, theatre, singing, and games. This enables all teachers to deliver a high-quality lesson regardless of their own knowledge or ability. In just the first 5 months, based on an experimental evaluation, this program in Paraguay, now also being used in Panama, saw an increase in mathematics learning of 9.2%. Pupils in rural areas improved even more than in urban areas. The concept is highly scalable as mathematics curricula are broadly similar the world over. The audio recordings would need to be adapted because of some specifically Paraguayan cultural references and to translate it to the language/s used in your school.

## ACHIEVE LITERACY

**What:** Literacy continues to appear as a key focus area across educational stakeholders. Literacy focuses on the ability to read and write, and, included in this definition incorporates cognitive language acquisition. Literacy rates globally have seen an impressive increase in recent years; however, there are still far too many children without the necessary literacy skills to succeed in daily life despite having attended school.<sup>237,238</sup>

**Why:** Literacy is a core skill which enables children to further their education and knowledge across a great expanse of topics.<sup>239</sup> Achieving literacy gives children the confidence they need to succeed in daily life and allows them to access their rights that those without literacy skills can struggle to access.

**How:** Night Zookeeper is an online platform that inspires children to express themselves creatively through writing. Teachers choose from thousands of interactive lessons from a broad curriculum range and children develop literacy skills through a gamified approach to learning. In 2017 Night Zookeeper helped over 300,000 children aged 6-11 to develop their writing, reading and creative thinking skills. For every teacher that signs up to Night Zookeeper, 25 students are registered and they publish an average of 360 stories over the course of a school year. It is already in use throughout the UK and the US. It is also widely adopted in New Zealand and Australia and has been translated for use in Japan.

## ACCESS & INTEGRATION TO BASIC EDUCATION

**What:** Basic Education is vital to assure that all children access the same opportunity to a foundation level of education. Many children currently miss out on their education due to cost, conflict, overcrowded schools, schools being unsafe and poorly equipped, lack of sanitation, disability and inadequately trained teachers.<sup>240</sup> Education is a basic human right and a significant factor in helping to end poverty.<sup>241</sup> Allowing all children to access school, especially girls, will help to end the chains of disadvantage.<sup>242</sup>

**Why:** Basic Education has been shown to; improve child and maternal health, improve gender equality, delay marriage, reduce FGM, reduce femicide, reduce birthrates<sup>243</sup>, reduce the mortality of children (through women's education programmes), increase self-confidence & decision making power, reduce hunger, fight the spread of HIV and diseases common for those living in poverty, spur economic growth, build peace, prevent insecurity, increase employability, provide access to rights and political arena, give skills for the contemporary world, help the formation of personal identities and reduce radicalization.<sup>244,245</sup>

**How:** The Speed School program employs an intensive, child-centered approach to reach the most marginalized children denied an education due to poverty, conflict, or discrimination. Working in countries with the highest rates of out-of-school children, Speed Schools provide an accelerated learning program that condenses three years of basic education into just 10 months. Having caught up with their peers, children are able to re-enter mainstream education at 4th grade and join the local village schools with children their own age. The program is already working in Ethiopia and Liberia, as well as providing the Speed School programme, the company also work with local schools to share their pedagogical approach, and they work with regional and national governments to build their capacity to implement Speed Schools themselves.

## Breadth of Skills

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“We are now clearer than ever about what every young person should know and be able to do. Most people talk about this as being the combination of knowledge, skills and dispositions. We are having global conversations about the cognitive and non-cognitive areas of learning (there are many who resist the word non-cognitive). The question is whether we are seriously embracing what some call the soft skills, the so called non - cognitive domains. Others refer to emotional and social skills, the personal and

interpersonal. Whatever the language, it is clear that we need to attend to an expanded conception of skills and dispositions in addition to knowledge and understanding.”

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– Tony McKay

## INTER & INTRA PERSONAL SKILLS

**What:** Interpersonal competencies refer to relating well to others through good communication skills. Interpersonal skills typically include: Whilst Intrapersonal skills refer to understanding self, typically including self-awareness skills, emotional regulation and intrinsic motivation. Inter and intra personal skills also encompasses social emotional learning, which mean also uses as a terminology in this field. Many young people around the world today do not learn these skills within school, despite their demonstrated importance.<sup>246</sup>

**Why:** Over the past two decades, there has emerged a consensus among those who study child development, education, and health that inter and intra personal<sup>247</sup> skills are key for many areas of development, for learning, health, and general wellbeing.

**How:** Roots of Empathy is an evidence-based classroom program for primary school children that decreases aggression, including bullying, and increases prosocial behaviours such as caring, sharing and inclusion. In addition to scientific university based research<sup>248</sup> on three continents, every child in all 11 countries who participates in Roots of Empathy is invited to evaluate their experience. A great amount of time and expense is directed towards aggregating the feedback and sending reports to all stakeholders in all 11 countries. They also believe in the voice of the children and often change curriculum based on their feedback.

## STE(A)M

**What:** Science, Technology, Engineering & Mathematics (STEM) has been a big push in education since the early 2000s<sup>249</sup>, however, STEM education has not always reached its potential. STEM is based on the idea that students will learn Science, Technology, Engineering and Mathematics, whilst engaging with problem solving and critical thinking skills.<sup>250</sup> STEM's perceived failures have been attributed to poor educator knowledge,<sup>251</sup> poor links between STEM education and transition into the STEM field after K12<sup>252</sup>, and failures in closing the gap between minority and majority students.<sup>253</sup> Despite these pitfalls, STEM or STEAM (Science Technology Engineering Art Mathematics) education, when taught to its full potential has been shown to have countless benefits.

**Why:** STEM and STEAM are often attributed with providing students with the skills they will need to succeed in the future.<sup>254</sup> STE(A)M has been shown to: improve problem solving skills, engage critical thinking, encourage innovative practices, provide engaging and authentic learning experiences, prepare students for the

21st Century, fosters creativity and is currently focused on promoting inclusive educational practices.<sup>255,256</sup>

**How:** MeHackIt provides robotics and programming courses for lower and upper secondary education. Students build technology projects and learn the basics of programming, developing the skills to take control of technology instead of just consuming it. The courses provide opportunities to develop STEM skills in an engaging way that builds self-express and self-confidence effectively. The courses are already used in over 60 high schools in the Nordic countries.

## ARTS, HUMANITIES & SOCIAL SCIENCES

**What:** The arts include all forms within visual art, such as painting and photography, applied art, such as wood craft and fashion design, and performing arts, such as dance and drama. The humanities include all aspects of study within human society and culture typically from a critical and analytical approach, such as history, literature, philosophy and religion; whilst social sciences covers areas typically using a more scientific approach such as, psychology, geography and political science. Ultimately, of course, there are overlaps in all of these areas. The arts in many areas of the world have been given less time in the typical curricular, the UK in particular highlights the importance of arts in schools following recent focus on STEM<sup>257</sup>.

**Why:** The arts, humanities and social sciences allow us to develop and understand what it means to be human. They are vital for developing empathy and the four C's, bridging understanding and supporting social justice, as well as creativity, plus much more.<sup>258</sup>

**How:** 10 Minute Plays develop understanding and knowledge of the humanities through the arts. A Hawaiian-based teacher came up with 10 Minute Plays as a way to engage her students and make them really care about the characters of the past. When learning about the American revolution, she asked her students to collaborate to create short plays about key revolutionary figures. She noted that there was much more critical thinking involved when the students were creating their own plays rather than being given a scene to read. There are more aspects involved in the process when students create their own plays, allowing students to own their work and allowing a wider scope of students to shine in the traditional humanities classroom. While the history curriculum may differ from country to country, the role of key figures can still be explored through the writing and performance of 10 Minute Plays.

## LIFE SKILLS

**What:** Life skills can be defined as all skills relating to preparing young people in a 'practical' way for the 'real-world.' These include: home-based skills, such as cooking and cleaning and financial literacy skills. Whilst many other types of skills could be categorized as 'life skills' and understandably so, to make sense of the confusing rhetoric around this area this is how we will define them for the purpose of this report and our work at HundrED.

**Why:** Life skills, even though we did not define them this way originally, were highlighted repeatedly in the results of our survey by young people as vital to improve their education experience. They feel entirely unprepared for how to function in the world after K12 and unpractised at this skill set, particularly in relation to finances.

**How:** In Japan, schools have reinvented cleaning for school children, using tips and hints that support them to become passionate and responsible students. Although cleaning in school is an old tradition in Japan, modern educational philosophy and method is required to support students today. Observed improvements demonstrated that students become aware of cleanliness and begin to keep the school tidy all the time of their own accord, starting to pick up trash and arranging desks and messy classrooms during the day. This innovation has already spread across other Asian countries such as the Philippines and India, while similar activities are developing in Africa as well.

Media literacy provides a great opportunity to explore stereotypes and misconceptions in the classroom to promote positive attitudes and interpersonal relations.

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## MEDIA & DIGITAL LITERACY SKILLS

**What:** Media literacy is understood as an umbrella term<sup>259</sup> that includes all technical, cognitive, social, civic & creative capacities that allow a citizen to access, have a critical understanding of the media and interact with it. It is considered a 21st century approach<sup>260</sup> to education. It provides a framework to access, analyze, evaluate, create and participate with messages in a variety of forms – from print to video to the internet. It should build an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy. Digital literacy<sup>261</sup> includes the capabilities which fit someone for living, learning and working in a digital society.

**Why:** Media literacy skills have been shown to improve outcomes in many ways, particularly that it showed students how to use media as a tool for lifelong learning. As this is a common way for young people to naturally immerse and engage in content it provides an opportunity to facilitate positive attitudes towards learning and helps to provide an effective means of conveying ideas and information to them. In a world of continual content creation and news-bites, this type of education is vital to help young people learn how to absorb and question media-conveyed news and information. It can also be used as a well-being educational tool, such as an opportunity to analyse counter marketing programs that use young people's insecurities or low self-esteem to promote the use of tobacco, alcohol and other negative behaviors. Additionally, media literacy provides a great opportunity to explore stereotypes and misconceptions in the classroom to promote positive attitudes and interpersonal relations. Digital skills such as coding and programming are also vital for many current and future jobs so it not only teaches key critical thinking skills, but also allows young people to be future-ready.

**How:** The Satakieli News allows students to create media content and work together in an inclusive environment. Young people create news stories about topics they are interested in together to share internationally. They learn to have a voice in the media and society through the news items they create and publish as a team.

“The next 100 years of education should... focus on keeping kids creative and happy so that we are developing a generation of children who hunger and thirst for learning and education, as opposed to being repelled or bored by education.”

– Orlando Bloom

**What:** Employers increasingly see that the educational system needs to develop a new set of 21st century skills for students. These competencies are also often called the 4 C's which include: critical thinking & problem solving, collaboration, communication, and creativity<sup>262</sup>.

**Why:** Research demonstrates that there are a multitude of reasons why the 4 C's are important. Collaboration has shown to be important for higher performance in team settings, more successful in terms of student learning prospects for employment and job advancement and improve students' commitment to civic participation.<sup>263</sup> Strong communication skills are associated with improved interpersonal relationships, a key skill as a job candidate and health outcomes<sup>264</sup>. Critical-thinking skills have been associated with an improved quality of life, allow one to be more prepared for the workforce and can predict academic success in college, particularly in relation to writing and arguing<sup>265</sup>. Creativity as a skill is particularly sought after by employers increasing job prospects for young people and high levels of employee creativity have been associated with high organizational performance. Creativity also improves divergent thinking, can aid higher academic achievement and result in the production of useful and novel ideas.

**How:** Trix and Trax helps students discover and develop talents in arts, music, dance and sports through peer learning. These performances are shared in a controlled social media platform to be recognized amongst their peers! Trix and Trax have case studies that show how students have developed skills in areas such as creativity, communication, collaboration and critical thinking, as well as going on to pursue careers in their passion-area because of their experience.



## Inclusion & Diversity

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Classrooms are diverse and it is important that stakeholders make these learning spaces as inclusive as possible. Exclusive practices against students due to how they identify or their background, will hinder conducive learning environments, it is not enough to be aware of diverse factors that may impact our students, but to encourage inclusivity in daily practice.<sup>266</sup> The urgent need for progress on inclusive education is evident in that it was included in the Millenium Development Goals (2000), and is now still a priority on the Sustainable Development Goals for 2030 (2015).<sup>267</sup> All children have the right to an education, by encouraging inclusivity of marginalized students, it means that all children can access education equally.<sup>268</sup> Inclusive practices should be consistently implemented to provide not just inclusive spaces for children, but for teachers, leadership and school systems as a whole.



## SEND

**What:** Special educational needs and disabilities (SEND) can affect a child or young person's ability to learn. This could range from behavioural challenges, such as struggling to socialize, to literacy difficulties, such as dyslexia.

**Why:** By ensuring young people with special educational needs and disabilities have access to the right education for them we're enabling them to be empowered, feel included, have the best opportunities for life and reduce stigma.

**How:** Through eye tracking and artificial intelligence Lexplore, founded in Sweden, makes it possible to easily and swiftly identify children with dyslexia, allowing for effective early intervention. So far, Lexplore has screened around 8,000 children in the US and in Sweden. Lexplore's screening method has very high accuracy – an impressive 95%. By discovering the children who are at risk of dyslexia early on, dyslexic children can go on to have an educational career that is tailored to their needs before their academic self-esteem is lowered due to continued failure within a system that doesn't suit how they work. The method also eliminates the need for unnecessary, extensive and costly dyslexia assessments of the children who are not at risk, thus saving time and resources.

## GENDER

**What:** Gender inequality is an international issue; despite a lot of progress having been made in recent years, drop-out rates and barriers to girls accessing education is still a pressing issue.<sup>269</sup> A large focus is placed on girls when gender inequality is discussed, however, it is also important to note the marginalization of boys and creating positive and quality learning environments for all.<sup>270</sup>

**Why:** By enabling girls to access the same educational opportunities as boys, we are able to work towards a gender equal society, empower girls and increase the scope of possibilities open to them. Educating girls has also shown to increase the wellbeing of themselves as well as their families, impact levels of maternal health and domestic violence and increase female influence in society.<sup>271</sup> Ensuring equal learning opportunities for boys and girls will encourage the breakdown of gender social barriers allowing everyone the opportunity to pursue their aspirations, no matter their gender.

**How:** SHINE for Girls empowers young women to value their own potential and capabilities within Science, Technology, Engineering, and Mathematics (STEM) by

employing a unique curriculum that blends math with dance. The program also involves mentorship in an environment dedicated to women helping women. The goal is to take girls who may have decided, at a very young age, that they are not capable in the STEM subjects and turn those decisions around. Across the board, SHINE has seen tremendous success in achieving this. Some girls, who join the programme because they are failing in mathematics, later come back as SHINE mentors while completing advanced mathematics courses.

## RURAL, DISTANCE AND HOMESCHOOLING

**What:** Rural and distance education is often acknowledged to be lagging behind education in urban areas.<sup>272</sup> Schools in rural areas are affected by young and inexperienced educators, high turnover rates of staff, school size, a lack of support services and a restricted curriculum. Distance education, where regular access to a school is not possible, is impacted by socio-economic positioning, the type of communication used and a lack of quality resources.<sup>273</sup> Homeschooling is becoming an increasingly popular choice however, there are ongoing debates surrounding the quality of education students learning at home receive.

**Why:** By ensuring that students in rural areas and those learning at home are not being marginalized compared to their urban and mainstream school counterparts, it will be possible to make sure that all children are receiving a quality education. Quality homeschooling allows for curriculums to be completely child centered and the possibility of personalization, more passion based opportunities and other approaches to learning.<sup>274</sup>

**How:** The Smart School Alliance is an online and offline community creating equal learning rights for the next generation in small and remote schools around the world. Smart School Alliance strives for global connected learning, bringing together cultures from around the world to create an inclusive learning experience in remote schools. Lessons are taught in a wide range of languages, including English, Chinese, Vietnamese and 7 indigenous tribal languages. Smart School Alliance is active in 750 schools in Taiwan, reaching 20,000 teachers and students. Traditionally, few teachers are willing to teach in rural areas. This innovation helps to solve the problem.



## RACE, ETHNICITY & IDENTITY

**What:** Race, ethnicity and identity can be problematic terms, with a multitude of definitions provided for them. They most often relate to issues of discrimination, due to (but not limited to): cultural racism, skin colour, inherent bias, attacks on how someone identifies and language barriers.<sup>275</sup> For HundrED, this category also includes inclusive language practices as a means of addressing inequalities experienced by students who may have a different mother tongue to the dominant language of teaching and, therefore, encouraging practices in the classroom that build on bilingualism and multilingualism.

**Why:** By encouraging inclusive practices for those from diverse backgrounds, classrooms will become positive learning environments, where students feel accepted and a part of a wider community. Through encouraging classroom practices that foster diverse languages, we are helping students to improve their literacy, develop problem solving skills and helping students to gain a better understanding of themselves and their community.<sup>276</sup>

**How:** Interactive Diversity Solutions created the (Don't) Guess My Race web-based program to support the teaching of diversity issues. (Don't) Guess My Race is an interactive digital program aimed at teenagers to help them think critically about race and other axes of identity. The program engages students with photos and interesting quotes from real people to help them learn about the sensitive intricacies of race in a safe and informative way as well as the correct language to use in these instances. Based on downloads and tracking of the web based program, more than 100 000 people have used (Don't) Guess My Race. The program creates an inclusive culture, reduces bias, encourages deep critical thinking and stimulates discussion.

## SOCIOECONOMIC EQUITY

**What:** Socioeconomic disparity can have multiple levels of impact on a child's education. Children growing up in poverty are faced with a variety of challenging issues; poor social emotional processing, health and safety issues, poor cognitive development and acute and chronic stressors and high dropout rates, are to name but a few.<sup>277</sup> Schools in low socioeconomic status areas are often lacking resources and quality educators, negatively impacting student attainment.<sup>278</sup>

**Why:** Improving the school systems in areas and communities affected by low socioeconomic status, as well as early intervention programs reduce risk factors and consequently has the potential to increase student's educational attainment.<sup>279</sup> As well as school wide changes, changes to inclusive classroom practices for individual students will again lower risk factors of students falling behind and allow students to increase their physical and mental wellbeing.

**How:** The Museum School reduces educational inequality by bringing school to underprivileged children in the form of their local museums, giving them high quality infrastructure, teachers and materials, as well as access to a whole world of knowledge.

## LGBTQIA+

**What:** Many LGBTQIA students face bullying and discrimination in school. Research has shown that LGBTQIA students who are discriminated against are more likely than their peers to avoid extracurricular activities, miss or skip school, have lower grades, be depressed and turn to substance abuse.<sup>280</sup> These are problems faced throughout the world but can be particularly difficult in countries with religious or cultural barriers which do not allow LGBTQIA students to explore their identity.

**Why:** LGBT students who are treated with respect do just as well as their peers.<sup>281</sup> If a school builds a safe and inclusive environment in which each individual identity is respected, then LGBTQIA students can begin to explore their sexuality openly, which is vital for their development and wellbeing. An important step in creating an inclusive environment is to begin to tackle the inherent biases that exist in many cultures around the world by reconceptualising the stereotypical identities of masculinity and femininity and promoting positive LGBTQIA role models throughout the whole school.

**How:** We are currently exploring examples that improve education innovatively in this area.



## Educators

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“There are expert practitioners with content and pedagogical knowledge. They combine with other educators, fellow professionals and with others who provide support and assistance. In many learning environments there is an increasing shared responsibility amongst educators, with distributed roles and responsibilities, including a range of people who are occupying new roles in the support of learning.

The role of the teacher is increasingly seen as guiding and supporting a personalised approach to learning. To respond to and support each young person's learning needs over stages of learning, from the early years to adulthood, requires much more than individual teachers

in separate classrooms. We are talking about an educator profession that will be working collaboratively, building social capital, and embracing the need to share responsibility with many others who can provide learning support.

In addition to heightened levels of collaboration within and between professionals (health , family services, justice, employment et al,) and between the profession and other learning mentors, coaches and technical supporters - partnerships with the full range of 'players' in education is being embraced.”

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– Tony McKay

Educators have one of the most important jobs in the world – educating and preparing the next generation. Let's dig deep to discover what are the best ways to educate, support, equip and upskill them for the future of education.

## PROFESSIONAL DEVELOPMENT

**What:** Professional development refers to all or any opportunities educators or staff in the education section have opportunities to continue their learning. There is a great demand to support improved professional development for teachers due to it often felt as an add on rather than ingrained as a continual process.<sup>282</sup>

**Why:** Professional development is vital for teachers to develop skills in and out of the classroom. They need to have meaningful opportunities. Educators who do not experience effective professional development do not improve their skills, and student learning suffers.<sup>283</sup>

**How:** The Shadow a Student Challenge, created by Stanford Design School, is a fun, illuminating, and supportive journey where school leaders come together to empathize with their students and take new kinds of action at their school. Educators from 50 states and 61 countries participated in the 2017 Shadow a Student Challenge with over 1,800 people signing up to shadow sharing their insights online. This ensures principals get an authentic insight into the realities of school for their students and this fresh outlook can be used to revolutionize the way school is organized and run.

## EDUCATOR TRAINING & EDUCATION

**What:** Educator training and education refers to the policies, procedures, and provision designed to equip future educators with the skills, knowledge, attitudes, behaviors necessary.

**Why:** Around the world there are 54 million teachers but and to meet the goals of education for children within primary education for 2015 alone there needs to be an additional 10.3 million teachers entering the profession<sup>284</sup>. The importance of both quantity and quality of teacher training plays a key role in improving education, it's important to understand how best to do that going forward to support educators.

**How:** A world-class example of teacher training is that of Finland's.<sup>285</sup> The high level of training is deemed a necessity as teachers due to the importance of autonomy in their profession. For almost all education, teachers are required to hold a Master's degree. Additionally, Pre-primary teachers are also expected to hold a Master's degree.

## CURRICULUM, TOOLS & RESOURCES

**What:** Curriculum, tools & resources refers to the various aspects of a young person's experience that occurs in the educational process, that is either required, or chosen to support learning, by educators, schools or systems. This could include aspects such as a prescribed curriculum to digital tools, game-based learning and lesson plans.

**Why:** The content and what tools we use to educate and support learning are one of the fundamentals in education. Young people who have access to material resources, for example, can be more likely to succeed in terms of outcomes.<sup>286</sup>

**How:** Universe Awareness is an international project that uses astronomy to inspire a love of science and promote tolerance and empathy through a greater understanding of our place within the universe. Universe Awareness offers a unique combination of science and empathy. It is an exciting gateway to critical thinking, while emphasising the importance of being empathetic and protecting our environment. To date, the project has served more than half a million children and 10,000 teachers have participated in teacher training. There are now 63 national programmes worldwide and the ideas can be implemented in any school, anywhere, by anyone.

## MINDSET, ROLE & RELATIONSHIPS

**What:** Mindset, Role & Relationships refers to three main areas: the mindset needed to teach today, what the role of the teacher is and their relationships with young people.

**Why:** With major challenges facing the world today and an outdated education for many, the mindset of teachers, their role and the relationships they build with young people are fiercely debated. With many progressive educators becoming more of a facilitator in the education world such as in the Big Picture Learning model, with examples of models that demonstrate success it's important to query and discover more innovative methods that support our young people to the greatest possibilities. The opposite to leading the discussion and being the loudest voice in the room, a facilitator allows and enables a discussion on a topic to happen whilst remaining neutral themselves. This is important so that children can lead their own learning, and allows the students to deeply engage with what they are studying. Additionally, with the latest research highlighting the importance of teacher connectedness, it's important to understand and support spread of the most effective approaches to building strong, meaningful relationships.

**How:** At Liger Learning Academy in Cambodia, In addition to their regular classes led by trained teachers, Liger invites industry experts from around the world to visit the school either in person or virtually using Skype. At Liger you will find anything from skype guitar lessons to visiting geologists leading geological fieldwork throughout Cambodia. Working with these and many other international experts means there is no end to quality learning opportunities.





## Leadership

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“If you think about government as being less the provider and the regulator, and more the enabler and the broker then you get a sense of how you can create healthy ecosystems of learning. It’s not just government, it’s the authorising environment that supports and enables this work. Government has to also think about the way in which the community, the public, the media, the teacher unions, the corporate sector - all of those people are potentially enablers of (or they could actually make things more difficult), the kind of learning systems that we desire.

So it is a big question about government, but the question is even bigger.”

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– Tony McKay

It is hard to overstate the importance of leadership. School leaders and education ministers have a massive impact on the culture of a school, influencing almost every aspect through their individual outlook, personality and ability to connect with people.

It is important we explore the role leadership plays in education, it seems that most agree that top down leadership model is not effective, so how can we support the roles of school leadership and government to change with the times? Considering how important leadership is, it is vital we seek ways to get it right.



## BUDGETS & FUNDING

**What:** Budgets and funding refers to all monetary flows associated with the education of a child. This is often a source of great strain for all worldwide.

**Why:** This is a key area to consider in education. With many budget cuts and funding constraints we need more innovative ways to improve spending and allocation of funds locally and globally.<sup>287</sup>

**How:** This is currently missing from our database and would love to highlight innovative examples of budgets and funding.

“These are times with immense change and what Finland has evolved over the past forty years is a system that’s highly personalized, highly collaborative and one in which a lot of professional discretion is placed properly in the hands of teachers and of head teachers. I think that’s why Finland has become an exemplary education system for many people around the world - far more effective across a range of measures than most other systems and certainly more so than most school systems in North America.”

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– Sir Ken Robinson

## POLICY & SYSTEMS PROCESSES

“The next 100 years of education should... make itself capable of continuous and rapid change. The process of review and change will not last very long. It must be a system that is capable of continuously changing and updating itself.”

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– Sugata Mitra

**What:** Policy and systems refers to those looking to improve education in government, at a local, national or global level, as well as inter-governmental organisations, such as UNESCO.

**Why:** Policy and systems level are a key stakeholder in education. They have various roles to support the improvements in education, to various extents dependent on country, yet whatever their level of involvement it's key that they continue to both innovate inside their systems, as well as support innovations outside of their work.

**How:** Escuela Nueva transforms the conventional school model by rethinking the teaching and learning processes to ensure that every child, everywhere, receives high-quality, accessible and relevant education. Founded over 30 years ago to improve educational opportunities for the most vulnerable children in rural Colombia. What started as a grassroots project is now a large foundation influencing government policy in several developing countries. Their guiding philosophy is that education should be accessible, high-quality and relevant to students.

## UTILIZING DATA & RESEARCH

**What:** Data and research refers to the need to improve how all levels of the education system and beyond, from educators to policy leaders, utilise the latest techniques and evidence to develop education.

**Why:** Currently many educators and models of education are not implementing and facilitating an education for young people based on the latest research. In Finland, for example, all teachers are educated to masters level to become teacher researchers, whilst many are not aware how to update their practices based on research. Additionally there can be smart use of both small and big data studies to improve practices at all levels of education, particularly in school leadership and at policy level.

**How:** Traffic Agents is a solution that empowers young people and gives them the opportunity to contribute to community solutions using a student designed app. The app was designed for children in Oslo, Norway, taking feedback and suggestions from children, parents and teachers into consideration. Children collect data about traffic safety on their journey to school and the data is then used by the Agency of Urban Environment to aid further traffic and mobility planning.

## INNOVATIVE ECOSYSTEMS

**What:** An Innovative ecosystem is a culture of innovation based on interaction, and openness to international opportunities, which engages a number of diverse stakeholders and participants with the necessary resources required for innovation.<sup>288</sup>

**Why:** To support the change necessary for education, much of the “spread and scale of change has been supported and supercharged by innovation ecosystems in education, which bring together a range of actors and organisations around a common vision and mission for change, and in addressing areas of systemic inequality.”<sup>289</sup>

**How:** We are currently exploring innovations in this area.

## NEW AND CHANGING PEDAGOGIES AND APPROACHES

**What:** New and Changing Pedagogies and approaches are ways educators and leaders are changing the face of education today by implementing new methodologies that improve learning in a multitude of ways. Examples of these pedagogies that strive for deeper learning could be: place-based learning, learning-by-doing, student-lead learning, outdoor learning, blended learning or experiential learning. ‘New and changing’ refer to ways of educating that are yet to be adopted by mainstream education worldwide. Most elements of new pedagogies are not ‘new’ teaching strategies and Many approaches that have been advocated for at least a century by the likes of Dewey, Piaget, Montessori and Vygotsky are beginning to emerge and be embraced.<sup>290</sup>

**Why:** New pedagogies and approaches have the potential to change the way classrooms have traditionally been teaching.<sup>291</sup> Students being disengaged from lessons, and leaving schools without the qualifications for their futures, has led to a big push for changing the ways that educator approach teaching.<sup>292</sup>

**How:** Mantle of the Expert is an educational approach that uses fictional contexts (co-created by the teacher and students) to generate purposeful activities for learning. Within the fiction, students are cast as a team of experts working for a client on a commission. The commission is designed by the teacher to generate tasks and activities which create opportunities for students to collaborate and study wide areas of the curriculum. For example, cast as a team of archaeologists excavating an Egyptian tomb for the Cairo Museum, students research ancient Egyptian history and explore tombs from the period, artefacts, and rituals with the purpose of creating a new exhibition. Meaningful, cross-curricular contexts for learning are created through this process as they study history, geography, art, design and technology as well as developing skills in reading, writing, problem-solving, and inquiry. Feedback for teachers and school leaders who have used Mantle of the Expert is overwhelmingly positive. They have observed how it has changed their practice and has increased engagement and motivation. Children describe how they learn better when they're acting because, while it's work, it's fun work.



## PARTNERSHIPS

“The next 100 years of education should... be participatory, where everybody is involved in its development and in taking things forward.”

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– Rose Luckin

**What:** Partnerships in education can refer to any established cooperation between stakeholders in and outside of schools in either the local or wider community that supports the child to flourish. Partnerships, to be truly effective, often must benefit both sides.<sup>293</sup>

**Why:** A multitude of stakeholders can benefit from partnerships in education, for example, students often gain higher achievement and motivation to learn, teacher's can experience increased morale and decreased stress, the community feel that student's are contributing toward society equally, and systems level create better relationships for the community with an improved use of resource.<sup>294</sup>

**How:** The Mutt-i-grees Curriculum, used in the US, Canada and Japan, was developed as a collaboration between a world-renowned animal welfare organization, North Shore Animal League America and Yale University School of the 21st Century, part of the Yale Child Study Center. Mutt-i-grees strives to create a humane world and provide opportunities for children to grow up learning to be confident and caring – about themselves, other people and animals. 4,000 schools have used the curriculum so far demonstrating a positive impact on all children but especially effective for children with additional needs such as those with autism, ADHD, depression and other conditions. Mutt-i-grees outcome studies have shown significantly higher levels of empathy and pro-social behaviors among students and higher levels of positive school climate (linked to bullying prevention) and parent involvement.

“The next 100 years of education should... proceed towards understanding the strong potential that children and young people have - the most important purpose of school, globally, is to guide each student to find their potential and make use of it.

In the next 100 years, I hope schools everywhere work in a way that encourages each individual to find their passion, the flame within, and through that are able to change their lives and the world. Because without this there will be no change.”

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– Pasi Sahlberg

**What:** A whole school model & culture reflects a cohesive, collaborative strategy to ensure conditions are optimal for children to flourish.<sup>295</sup>

**Why:** Many advocate for individual elements such as environmental sustainability<sup>296,297</sup> or global learning<sup>298</sup> to take a whole school approach to education and recognise its benefit. This takes the importance one step further by encouraging schools to take a whole school approach to all aspects of education to see the benefits of increased student outcomes, and better use of resources,<sup>299</sup> when synthesising education.

**How:** Templestowe is a whole school community founded on the philosophy of empowering students to manage their own learning and turn their ideas into reality. At Templestowe College "Yes" is the default. This school has grown to over 1000 students each with their own individualised Learning Plan. When students start at Templestowe they choose one third of their own learning program, but once they reach functional levels of literacy and numeracy then they can manage 100% of their own learning curriculum. As the school has no year levels, students interact and collaborate within mixed age classes. A student's journey through school may take between 4 to 8 years. They have the freedom to explore their own passions and interests in depth and this personal agency leads to exceptional levels of engagement and achievement. Based on student consultation, TC offers over 150 electives each year for students to choose from. Around 500 students have already completed their education at TC. Students are better equipped to Take Control of their own learning at university and early data suggests far higher tertiary retention and completion rates than the Australian average. It has been adopted by 4 other schools in Australia.

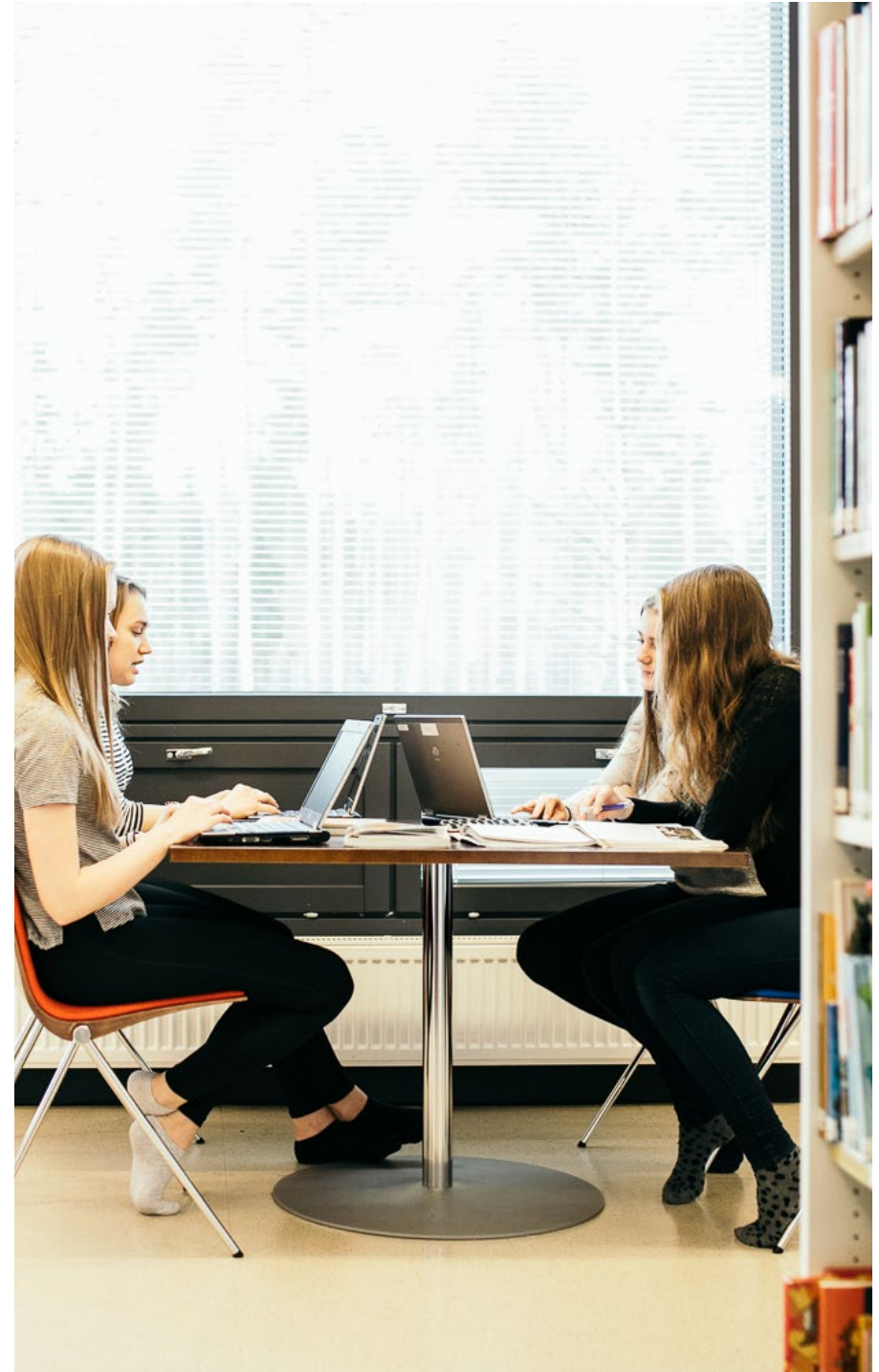


## TRANSITION FROM K12

**What:** No matter how students choose to move forward after completing K12 education, it is important that they are prepared for their futures. As much as education is about providing basic educational skills, a successful school education should also leave students feeling ready to succeed in their chosen path; whether that be further education, training or a career.

**Why:** Preparing students for their futures is paramount. By ensuring that all students receive a broad education (including democratic, cultural and social elements), providing support for students during the time when they are preparing for a transition, involving family, carers and community in creating safe transition environments and providing a wide array of materials and school support to help guide students to potential future choices, will help to demonstrate to students that their choices are far from narrow and they have the potential of working towards what they set their mind to.<sup>300,301</sup>

**How:** Mastery Transcript, an alternative model of assessment, crediting and transcript generation that calls for students to demonstrate mastery of skills, knowledge and habits of mind. They hope to change the relationship between preparation for college and college admissions for the betterment of students.





## Assessment

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Assessment in education exists in many forms and is used for a variety of purposes. Educators collect data and information on students knowledge and skills in order to plan & tailor education and monitor progress. Common forms of assessment in the classroom include formative assessment, involving feedback and reflection, and summative assessment, which tend to be more 'high stakes', formal examination at the end of a topic or unit. Assessment also helps schools measure their performance and set targets and data is also used to establish national and international rankings, such as the Programme for International Student Assessment (PISA).



## REFLECTION

**What:** Reflection is the part of assessment that provides an opportunity to deliberate on successes and areas for improvement during and following the completion of a task.

**Why:** Reflection is central to the process of learning for personal change and growth, for facilitating learning from experience and changing perspectives.<sup>302</sup>

**How:** Blueprints, created by Muse School, is a holistic assessment method that addresses every aspect of a student's learning experience, including their abilities to live and contribute to a sustainable lifestyle. This methodology is built with reflective evaluative practices at its heart addressing student voice through goal-setting and self-reflection, including the breadth of their education from academics to passions, self-efficacy and communication skills to sustainability.

## EVALUATION

**What:** Measurement is the types and way we can measure how learning has taken place.

**Why:** What we measure and how we measure it has a profound impact on both the learning process and what we deem important for education. We need to continue to understand what that is and why it's important.

**How:** Two Rivers School have designed, tested and implemented meaningful assessment of complex cognitive skills through rubrics. These tools are integrated in instructional practices in a deep and meaningful way. Two Rivers school reports have shown growth in problem solving and reasoning skills. Educators are also more effectively able to target gaps and strengths and students' mastery, which ultimately increases the proficiency of learners. The constructs have been carefully designed so any teachers can integrate them into their classrooms.

What we measure and how we measure it has a profound impact on both the learning process and what we deem important for education.

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## DOCUMENTATION

**What:** Documentation is the types and way we can document and chronicle the learning process.

**Why:** What we document and how we do so as part of assessment is key to understanding. Research shows that using an e-portfolio, for example, can boost students' motivation for learning<sup>303</sup>, we need to understand the types and range, increasing personalisation to create the greatest opportunity for learning.

**How:** New Technology High School in California fuses e-portfolios with blogging to create an authentic audience for student work. Students use blog portfolios to document their process, teachers others what they have learned, connect with the outside world and network with experts, including potential future employers. At New Tech High, nearly every student at the school was engaged and excited to share their portfolios with teachers and family. The staff were impressed with the thoughtfulness, professionalism, and genuine excitement of the students. Over 400 students in New Tech High use Blog on a regular basis; some of their Blogs reach over 300 views. This simple technique can be used in any classroom.



## Global Citizenship

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Global citizenship encompasses a variety of skills based on the ideal of creating students who are capable of leading positive future lives. Global citizenship encourages students to create links between their own lives and the lives of others around them; develop the skills and values to bring about positive change; increases understanding of political, economic, cultural and environmental influences which impact people's lives and creating a equitable and sustainable world.<sup>304</sup>

Photo by Diane Barker / Global Oneness Project

In 2016, half  
of all refugee  
children did not  
even attend a  
day of school.

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#### INTERCULTURAL & MULTICULTURAL

**What:** Intercultural education is the process of encouraging students to engage in recognising, respecting and celebrating diversity. It equally promotes human rights and equality as a means of fighting discrimination.<sup>305</sup> Multicultural education is a way of educating about the different values, beliefs, histories, texts and perspectives of people globally.<sup>306</sup>

**Why:** The hope is that promoting intercultural and multicultural education in unison, will encourage students to develop into global citizens; promoting diversity, equality and knowledge about rights.

**How:** Global Oneness Project brings the world to the classroom through free multicultural stories and accompanying lesson plans to explore cultural, social, and environmental issues through a humanistic lens. Through film, photo essays and articles accompanied by resources and lesson plans for teachers, global stories and issues become relevant to students' lives, providing opportunities for them to find their own voices and become active global citizens in our fast-changing world.

#### SUPPORTING COUNTRIES IN HUMANITARIAN CRISIS

**What:** Countries which have been affected by conflict and natural disasters struggle with prioritizing education in the face of adversity. These countries have consistent issues with a lack of resources, a lack of capacity and a lack of educational facilities.<sup>307</sup>

**Why:** In 2016, half of all refugee children did not even attend a day of school.<sup>308</sup> These stark statistics highlight the dire need for supporting countries in humanitarian crisis by providing education. By increasing accountability for providing educational services throughout and post conflict, ensuring learning spaces are provided that are safe and inclusive, and by creating relevant learning opportunities, it will be possible to begin targeting the vast needs of children in countries of conflict.<sup>309</sup>

**How:** Ideas Box is a portable multimedia toolkit designed to bring education, culture and information to vulnerable communities. Set up in just 20 minutes, the Ideas Box contains everything required to create a library, cinema and media centre in some of the most challenging environments worldwide. Each box has its own network and power systems and has furniture integrated into its unique design. Highly flexible, their content is curated to meet the needs and languages of the users. Ideas Box started as a response to educational need in refugee camps. Learning areas provide a safe space for at risk young people and those affected by humanitarian disaster. The potential for education as a force for peace is being explored with boxes sent to the demilitarised zones in Colombia.

## SUSTAINABILITY

**What:** Environmental education has been a feature in educational research for over 40 years as a result of international bodies, such as UNESCO, forwarding the need for education to address global environmental issues. Sustainability in education can take on a number of forms, not least Education for Sustainable Development (ESD) and Education for Sustainability (EfS). This move from 'environmental education' to sustainability characterises the action-need that UNESCO highlighted in their Decade of Education for Sustainable Development report: not simply producing environmentally literate members of society, but empowering them with the knowledge and values in order to realise changes in behaviour and attitudes.<sup>310</sup> Sustainability in education therefore encompasses this goal: faced with current environmental challenges such as exhausting resources, climate change, and global warming, how can we educate our children to be competent in making actionable changes towards sustainable living?

**Why:** The implementation of education for sustainability (EfS) practice results in quality student learning and engagement.<sup>311</sup> EfS helps learners develop values, habits of mind, and character strengths associated with perseverance and a passion for long-term goals, a quality that educational psychologists are calling resilience or "grit".<sup>312</sup> These qualities are often nurtured through project-based learning, and as well as developing the cognitive skills above, academic engagement is reported. Students have been reported to be more motivated, better behaved, and more engaged in classroom activities.<sup>313</sup>

**How:** The Global Learning Project is a project-based learning method that encourages students to work collaboratively and proactively, through engaging with key global issues relating to the United Nations Sustainable Development Goals. Basing projects on the SDGs encourages learners to think creatively about some of the most pressing issues facing society today, promoting awareness and a proactive approach to addressing global challenges. It's also scalable by nature. The project can take place across any number of countries. As the number of countries involved in the project increases, the positive impact becomes even greater.

## MULTILINGUALISM

**What:** Learning a foreign language in an increasingly global society is vital in making sure that students are able to engage with future roles which will require them to communicate with people far beyond their usual place of work.<sup>314</sup> Foreign language teaching is however, not without its challenges.<sup>315</sup> A lack of credit given to the importance of foreign language skills, untrained educators and students who are given no context for the benefits of being multilingual, have led to foreign language lessons often being neglected both by schools and students.<sup>316</sup>

**Why:** Learning a foreign language has multiple benefits for students; opportunities for not only language acquisition, but developing cultural awareness<sup>317</sup>; improves memory and brain power; the first language is improved as well as other improvement in other academic areas; and provides a wider variety of career choices.<sup>318</sup> The earlier students are introduced to language skills, the easier students will acquire the new language being taught.<sup>319</sup>

**How:** NaTakallam connects displaced people – primarily Syrian refugees – with students around the world, to provide affordable, flexible and tailored language practice, as well as intercultural exchange and experiential learning opportunities over Skype.







## Youth

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Young people today are going to be entering jobs that do not exist yet, creating products that we cannot yet comprehend and taking over what are classed as more 'traditional roles' in teaching, medicine and government; shaping both our lives and those of future generations.<sup>320</sup> It is vital that we include young people in shaping their own futures. By promoting children's rights, youth voice & participation and encouraging young people to lead innovation in education; we will be creating an environment for young people to become active participants in their own education and futures.



## CHILDREN'S RIGHTS

**What:** Educating students about children's rights, is an integral aspect of developing students understanding of their legal rights.<sup>321</sup> Students are rarely in a position to stand up for their own rights; through education students will gain a greater understanding of what they are entitled to.<sup>322</sup> Children's rights education is based on the foundation of the United Nations Convention on the Rights of the Child (1989), this document reiterates the necessity for young people to be educated in their rights.<sup>323</sup>

**Why:** A rights-based approach to education has been shown to have positive outcomes for students; increase in tolerance amongst students, better behaviour in class, engagement in school, reduction in teacher job satisfaction, improved well-being, and increased understanding of democratic principles and citizenship.<sup>324</sup> Children's rights education will allow students to become engaged and active citizens in an increasingly changing world.

**How:** Democratic Kindergartens enshrine children's rights into a kindergarten constitution where children use their voice to shape rules and make decisions, guided by understanding and fairness. The constitution of the kindergarten is an open framework and is constantly changing through participation. In a Democratic Kindergarten, the constitution is shaped by the children, with teachers transferring rights to children in an age-appropriate way. The specially trained teachers are equipped to distinguish between opportunities for children to wholly or partially make a decision on something, and to specify when there are times when the educators should take the lead. The focus is on the democratic process itself, not just the vote.

## YOUTH VOICE & PARTICIPATION

**What:** Youth voice and participation, is the creation of spaces where young people can actively engage in discussions around their thoughts and opinions on multiple global issues, including education. Youth voice and participation is linked to democratic skills building, as well as the development of inter and intra-personal skills.<sup>325</sup>

**Why:** Giving young people the opportunity to voice their opinion and begin the process of democratic understanding is integral in creating both students who feel valued, as well as developing invaluable life skills.<sup>326</sup> Encouraging young people to voice their opinion and participate in constructive forums can help to create meaningful experiences for students, instill agency, and help to create relationships between students and adults during periods of time when these relationships often become strained.<sup>327</sup> That young people are being asked their opinion and then listened to, creates a sense of belonging as well as a multitude of associated benefits.<sup>328</sup>

**How:** Democracy in Practice helps schools in Bolivia to implement Student Government Lotteries that replace student government elections. This means there are no candidates, campaigns, or competitions for votes in the school. Instead, willing students enter the Lottery and a small number are randomly selected to form the student government. This approach is fairer than traditional elections, generates higher levels of interest and participation, and results in student governments that are more diverse and representative. All students have the opportunity to develop civic skills including active listening, critical thinking, deliberating, public speaking and leadership.

“The next 100 years of education should... create young people who continue to develop new ideas. For humankind we’ve got to continue to evolve, to develop new technology and I think teachers have got to give children opportunities to be inspired, to be creative and we’ve got to create an environment where children want to come up with ideas and inventions that haven’t been created yet.”

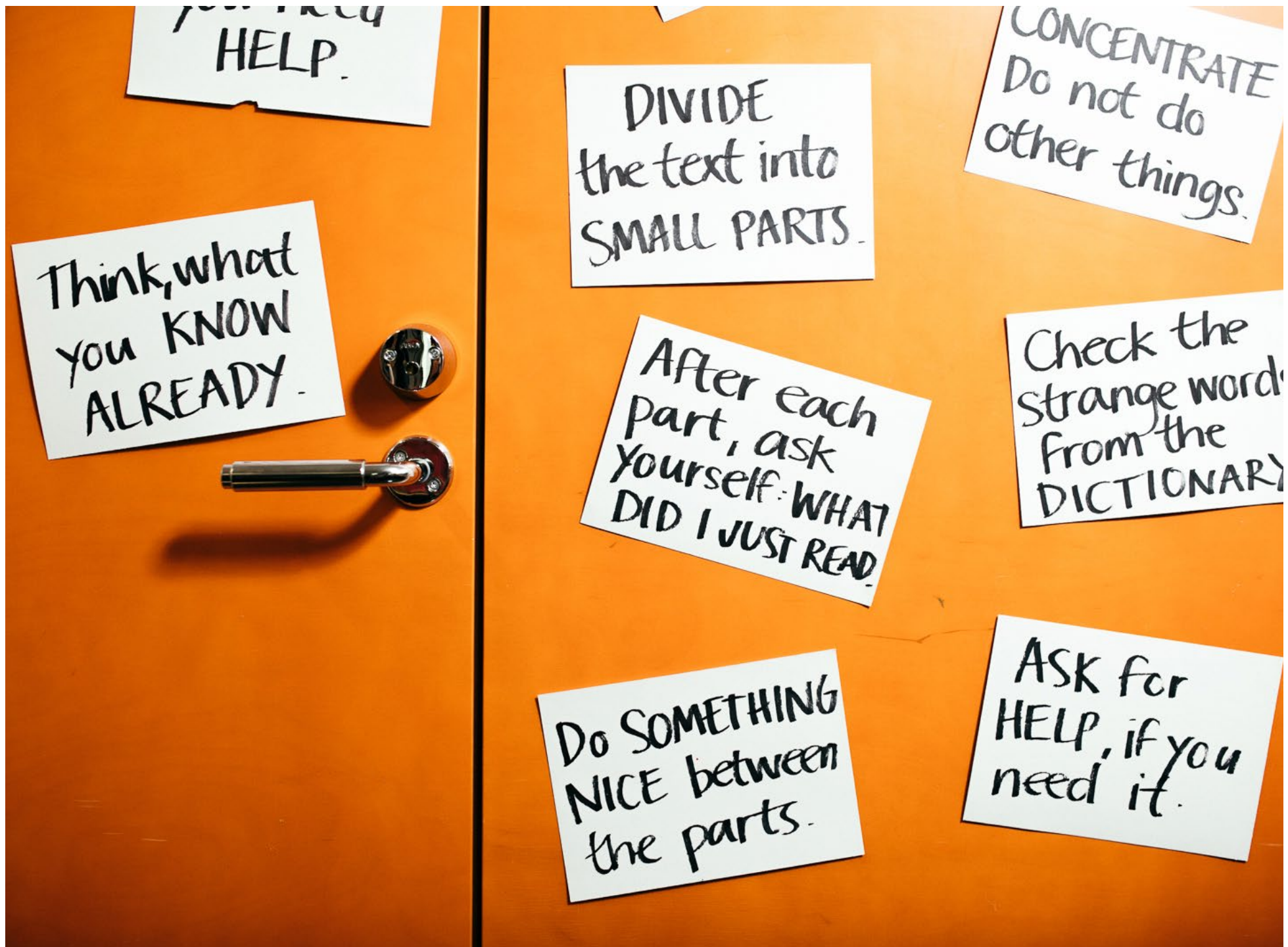
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– Ranjit Singh

**What:** Youth-led innovation, is an approach of learning that encourages students to actively engage with solving global issues using innovative ideas, that they either fully lead or are guided through by facilitators.<sup>329</sup>

**Why:** Young people are going to be faced with increasingly complex global issues, which they will be tasked with solving both on an individual level, as well as in groups.<sup>330</sup> By giving young people opportunities early on to identify challenges and use innovation as a means of solving real world issues, we will encourage young people to feel like their ideas are valued and that they are capable of solving problems without adult intervention.

**How:** United World Colleges (UWC) Initiative for Peace trains young people to become peace-builders and supports them to plan and lead peace conferences for their peers in areas of conflict or post-conflict. Initiative for Peace teaches youth what a functioning, peaceful community looks like, how it is formed, and what sort of behaviour accelerates this process. Many students who have participated in this project have gone on to pursue careers in peace-building or run their own conferences in the future.





## **Personalized Learning**

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Personalized Learning is a student centred approach, often revolving around authentic or project based learning experiences, tailoring learning to each student's unique strengths, needs, preferences and interests. This is a flexible approach to learning in which progression or pace of learning is determined by competency and mastery, rather than age or year group. More than just differentiation, personalized learning gives students agency; student voice helps inform how, when, what, and where they learn.



By connecting students' learning to real world, authentic problems, learners can have a real impact on the outside world.

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#### INDIVIDUALIZED LEARNING

**What:** With individualized learning, the pace of learning is adjusted to meet the needs of individual students. Students can work through a set curriculum at different rates, according to the time they need to master the topic, or adapt the learning to fit their interests.

**Why:** Not every child progresses at the same pace and in a traditional classroom it's easy for children to get left behind or held back from progressing. With individualised material, students can move on from material they've already mastered, or take more time covering a given topic, giving them the time and resources to achieve mastery.

**How:** One example is [onebillion's onecourse apps](#) - full, coherent maths and literacy courses taking learners from the very basics and progressing step by step at the pace of the child. The apps are particularly beneficial in large classrooms where individualized learning is impossible, for example in Malawi where classes can reach 250 pupils. In 2014, BBC Click reported from Malawi, that in just six weeks students using the maths app made the same progress in maths as expected after 12-18 months of teaching. Children with additional needs can also benefit from onecourse, as it facilitates as much repetition and practice as they need.

#### ADAPTIVE TECHNOLOGIES

**What:** Adaptive technology helps teachers to individualize learning in the classroom. Adaptive technology can assign materials and resources to learners based on their unique needs and help teachers to track a student's progress and note the concepts they have mastered and which areas require more work. Software can be used to assign additional lessons on a subject as needed.

**Why:** Adaptive technology can offer a simple tool to assess student progress and gain insights with easy to access data. Students can benefit from real time feedback, helping to make sure that learners don't fall behind.<sup>331</sup> Adaptive technology also offers students the opportunity to take responsibility of their own learning.<sup>332</sup>

**How:** [Newsela](#) is instructional content platform that provides differentiated reading resources in an engaging, digital way. The platform allows teachers to manage and assign their instructional content all from one place and to assess students' abilities in real time and then adjust their instruction right away. Assessments are integrated directly into articles to help students engage with the content and to give teachers and principals actionable insights on students' activity and progress that can be used to improve learning outcomes.

#### AUTHENTIC EXPERIENCES

**What:** Authentic experiences, like those created through project based or passion based learning, can promote student-led inquiry, student agency and self directed learning. By connecting students' learning to real world, authentic problems, learners can have a real impact on the outside world.

**Why:** Students can feel that their learning does not relate to the 'real world' and this could lead to disengagement and lack of motivation. Within authentic learning experiences, like Project and Place Based learning, students can feel their learning relates to real people, places and problems. It can be a medium for deep learning, increasing student autonomy and fostering a greater sense of connection and purpose for students - empowering them to believe they can be changemakers.

**How:** [THINK Global School](#) is a travelling high school where students live and learn in four countries a year, forging connections between their education and the world around them. Through travel, students experience real world issues and engage within the communities that they live in each term. Multidisciplinary projects weave traditional subjects into real world learning, for example students studying indigenous cultures in South America trekked the Inca Trail and visited Machu Picchu, bringing real world significance to their studies.



## Holistic Wellbeing

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As David W. Orr states, learning is the “...complex interplay between the child’s body, diet, family life, security, neighborhood, teachers, school, peers, access to information, and a great deal more.”<sup>333</sup> Education is far greater than simply learning from textbooks, and it is important that we value these other factors when considering how to improve education.

“I’ve been into fifty-five exam rooms in the last year and haven’t found one room that wasn’t damaging the kids prospects. The light levels are too low, the  $\text{CO}_2$  levels were too high, temperature was wrong. We know all the details about this, but we haven’t applied them.”

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– Stephen Heppell



## SPACE AND ENVIRONMENT

**What:** Millions of children globally spend a significant amount of time in classrooms.<sup>334</sup> Learning spaces and environments offer the potential to create stimulating and engaging areas for students to learn. However, far too often they are neglected, under resourced and under utilized.<sup>335</sup> Classrooms are not all meeting or designed to meet, the needs of the students.<sup>336</sup> Learning environments can also exist everywhere and anywhere, the boundaries of education can be challenged and met both in and beyond the typical structures for authentic learning.<sup>337</sup>

**Why:** By changing even small things in the learning space, such as; layout, lighting, access to fresh air or even temperature, can have a big impact on student attainment.<sup>338</sup> You can go even further by involving students in designing their own learning environment, it is also, and most importantly, possible to create a community ethos amongst the educator and students, in turn increasing motivation.<sup>339</sup>

**How:** Flexible Seating is a student centred classroom design, inspired by the flexibility and comfort that coffee shops provide as working spaces. Flexible seating provides a range of seating options to create a dynamic classroom conducive to learning. Students are given the agency to decide where they work best and this has had a positive impact on learning in the classroom, particularly with engagement and motivation. Flexible seating seems to have a positive impact on learning in the classroom, particularly with engagement and motivation. It can also generate more opportunities for movement, improving oxygen flow to the brain, core strength and overall posture. Research shows that learning environments are pivotal in engaging students with their learning; however, this goes hand in hand with changing cultures and practices. Kayla Delzer's original article sharing the approach has been read over 1 million times. She has helped over 30 school districts to develop their own flexible seating classrooms and people from all over the world have contacted her for her suggestions now publishing a book to increase and support scalability.

## FAMILY, CARERS & COMMUNITY

“The next 100 years of education should....  
break down the silos between the formal education environment and the world that we live in outside of that. I mean that more than just connecting with some big industry partners, it needs to be about how are generations talking to each other, how can we use that as a way to educate people, how can we use solving social challenges as a way to educate people? It's all about breaking down those walls.”

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– Dr Becky Sage

**What:** Schools have the potential to be community hubs and the involvement of family, carers, and the wider community can have a positive impact on a child's educational journey, however, opportunities to involve family, carers and the wider community in education are often missed.

**Why:** Family, carers and community have the ability to help a child through K12 with the support and resources they need to succeed. Research has shown that family, carer and community involvement correlates with higher academic achievement, reduced school dropout rates and increased motivation in students.<sup>340</sup> Creating partnerships and engaging with those in the local area of where a school is, are vital aspects of creating a successful school.<sup>341</sup>

**How:** Project DEFY is a system of learning that empowers people to teach themselves by using the internet and the community around them. The community customizes a makerspace to fits their own requirements and develops its own learning space, called a Nook. All community members can learn and contribute and anyone can adopt the role of the teacher and the learner. Project DEFY has more than 400 learners that can create their own learning spaces and define their own education. Learners at Nooks have created their own enterprises, selected higher forms of education, become photographers and freelancers. They have built skills that they find important and created curiosities in knowledge that interests them. Most importantly, they are now making their own choices about their lives, knowing that a space exists where they can always express, experiment, explore, fail and try something else, without needing any money. Given the cost effectiveness of the Nooks and its extremely low-cost operations at \$500/month, (cheaper than Indian Government Schools), it has the opportunity to scale. On a theoretical cost comparison, there can be about 8-10 times as many Nooks as there are government schools in India, at the same cost and accessing the same number of people.

## HEALTH

**What:** Health education is about teaching children to understand the complexities of their own body and the impact that different influences have on their health. Many countries, such as the United States, are facing an obesity crisis amongst school aged children.<sup>342</sup> Schools have the opportunity to play vital roles in obesity prevention through education on healthy eating and exercise.<sup>343</sup> In countries such as, South Africa, as well as many others, sex education and HIV prevention education are key focus areas for promoting healthy student lifestyles.<sup>344</sup>

**Why:** Health education provides students with the skills to make healthy choices throughout their lifetime, lowering the risks of unhealthy elements negatively impacting their quality of life.<sup>345</sup> Promoting a healthy lifestyle also has a positive impact on a child's performance at school. Numerous studies have shown that healthy students have higher attendance, attain better grades and perform better on tests.<sup>346</sup>

**How:** The Daily Mile is a children's health and wellbeing initiative that gets students outside to walk, jog or run for fifteen minutes each day. The initiative is simple to fit into the school day and allows children to benefit from exercising outdoors in a non-competitive, inclusive atmosphere. Children's fitness levels increase significantly and they learn to enjoy exercise and be more aware of healthy lifestyle choices; when the Daily Mile becomes part of the culture of the school, it can inspire lessons on nutrition and other health issues. The Daily Mile was created in the UK and is now being used in over 30 countries.

Numerous studies have shown that healthy students have higher attendance, attain better grades and perform better on tests.

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## MENTAL WELLBEING

**What:** Mental Wellbeing is not just the absence of mental disorder. It is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community<sup>347</sup>. Teaching children about their mental health is just as important as teaching them about their physical health. Half of all mental health problems are established by the age of fourteen, and 10% of children aged five to sixteen have a clinically diagnosable mental health problem.<sup>348</sup> Schools can take a two-pronged approach to tackling this issue by providing effective intervention for students with existing mental health problems and promoting positive character traits such as resilience in order to help students to remain mentally healthy<sup>349</sup>.

**Why:** Being mentally healthy can be defined as a having a state of wellbeing in which individuals realize their own potential, can cope with the normal stresses of life, can work productively and fruitfully and are able to make a contribution to their community.<sup>350</sup> Teaching students about their mental health is about more than just providing coping mechanisms, it is about creating a learning environment in which students can flourish.

**How:** Meetwo is a unique early intervention solution to adolescent anxiety. The MeeTwo app allows young people to post their problems, share solutions, access educational resources and receive expert help. MeeTwo has the look, feel and familiarity of social media, and tweet style messages make it quick and easy to get help. Young people can simply reach into their pocket to receive moderated peer support in a safe, stigma free space. The app is mostly used in the UK but also in US, India and New Zealand.

# Discussion

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## SUMMARY

“You cannot learn without changing, or change without learning”<sup>351</sup>

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To surmise, the culmination of our research and mapping show that there is much to do to continue to improve education, but ultimately there is no end goal we are looking to achieve as all aspects need to evolve and continue to improve together. This will enable the education ecosystem to develop in a more sustainable, child-centric way. Both the state of the debate and youth survey highlight the breadth of areas that need to improve; that more education is not the answer, but must harness the power of combining a bottom-up, top-down approach.<sup>352</sup> This cannot be done in a linear way, so we must learn and recognise each others needs to adapt dynamically together. This research shines a light on much of the overlap stakeholders perceived needs have, as well as their priorities to bridge understanding between stakeholder groups.

## LIMITATIONS

As outlined above, in our state of the debate review, for example, we were only able to draw upon sources written in English. These restrictions in language and the biases that are often found in desk-based research must be bared in mind when reading this report. Similarly in the global youth survey, translation and language must be more widely addressed, as well as continuing to improve methodological decisions to reach all voices, particularly those least heard in society.<sup>353</sup> Finally, in the creation of the mapping, it is important to recognise the potential biases; source bias and coding bias to name a few, and that some of our insights may have come from our knowledge in the field outside of the perceived needs researched.

## FUTURE DIRECTIONS

This research has gone some way to understanding the overlap and perceived needs across stakeholders. We hope the findings and mapping can be used to facilitate and support change utilising innovation. Bearing in mind the following questions outlined by this research, we hope others can support and progress development with openness, especially when attempting to identify potential barriers in an empathetic way. While there are many hubs of practices, communities and private-

public partnerships being utilised to smaller and greater extents many do not include youth voice or all stakeholders, which is of key importance to highlight.

We will go on next year to collaborate on research to understand how and why innovation spreads in education to support insights and change in this field. Additionally, we will continue to conduct youth research to encourage and empower youth voice.

## CONCLUSION

Unless we take the time to understand each other, expanding collaboration and sharing insights we are almost certain to continue to create change incrementally, rather than transformationally. If we do so, as outlined in previous research, aligning actors and meaningful partnerships will provide an opportunity for stakeholders to analyse and improve the scope of education together.<sup>354</sup> This research has highlighted areas of education lacking or sometimes missing entirely in the HundrED Global Collection of Inspiring Innovations in 2018 and potentially beyond as areas stakeholders must be aware of. By learning from the valuable sources and insights we hope this research and mapping can help other stakeholders to identify areas they would like to improve, and ways innovation can support change in more than one area. By showcasing the breadth of perceived needs, we also hope to inspire others to consider areas that are not traditionally talked about in terms of 'innovation', to recognize, share and implement further valuable work worldwide.

As Professor Reimers encouraged at the Harvard Advanced Leaders Convening to keep in mind “the system,” take small steps to connect the dots, find what works and scale it, include best practices from around the world, and build networks that connect with others and create synergies and nurture their ongoing commitment to a public education that truly empowers ordinary people to become architects of their lives and contributing members of their communities, people who can indeed improve the world and reduce human suffering.<sup>355</sup>

Today, from educators to children, systems leaders to NGO's, we all face the major challenge of how to improve education locally and globally. It is vital we build upon each other's insights, listening to each other's needs.

These recommendations, and our work at HundrED aims to help every child to flourish, no matter what happens in life by involving all stakeholders to be part of developing education. Our current work so far has focused on the following:

- In 2015, we received and researched 750 Finnish applications and selected 100 of them. We followed them for one year and tested the concept in multiple of workshops.
- HundrED began its global mission by interviewing global education thought leaders about the future of education.
- We researched over 1000 global innovations from 149 countries and released the first HundrED Global Innovations collection in October 2017.
- Two HundrED Spotlights have been announced. One in the state of Victoria in Australia with the help of Education Changemakers and the second on the theme of Sustainability with support from MUSE school in California (USA).
- The first annual HundrED Innovation Summit (2017) was organized for 150 selected global education innovators and forerunners from 30+ countries in Helsinki.
- We released the HundrED Ambassadors Program in February 2018 with a booming community of more than a hundred education enthusiasts, from over 40 different countries.
- We have held events and workshops in over 20 countries.

We all face the major challenge of how to improve education locally and globally.

## WHAT ARE OUR GOALS FOR THE FUTURE?

Our goal is to be the world's leading expert on education innovations by 2020. We want to create a global community and make the world of K12 education truly inclusive.

## HundrED Global

HundrED Global is a collection of 100 inspiring innovations in K12 education that are researched, interviewed and recognized by our research team as innovative, impactful and scalable. The first selection (HundrED Global 2018) took place in October 2017. The collection is refined annually to share a snapshot of some of the most valuable, impactful and scalable innovations in the world of education.

## HundrED Spotlights

HundrED Spotlights create partnerships between HundrED and local partner organizations to focus on a location or theme to research, understand and share 10 innovations. Each Spotlight is packaged with original content to support spreading and insights on innovation, including a research report and inspirational videos, photographs and interviews.

## HundrED Open

HundrED Open is our open resource platform where anyone can share their innovative work in education for free and enter to be considered for the annual HundrED Global collection.

## HundrED Community

HundrED's community comprises of our innovators, users and supporters. They support our work in discovering inspiring K12 education innovations to be researched by us and helping to spread our annual innovation collections. We have a booming community of Ambassadors, as well as Academy members who provide invaluable support in selecting innovations and growing our outreach.

## HundrED Media

HundrED's media team create news items and articles, and maintain HundrED's social media and website to help our global audience discover innovations from around the world. HundrED Media aims to inspire every stakeholder in education, from teachers to parents to policy makers, to make a positive change where they are in the world to help young people to flourish.

## HundrED Research

HundrED's research team discover and analyze inspirational innovations in K12 education globally to select 100 that are innovative, impactful and scalable; helping young people to flourish. HundrED research also develops new tools and approaches to understanding innovation, as well as publishing original research, such as the 'Every Child to Flourish Report', to understand stakeholders needs and how to support change worldwide.

## HundrED Innovation Summit

To celebrate the release of HundrED's global innovation collection we annually organize a summit for the world's most inspiring education innovators, educators, youth and other engaged stakeholders.









## Get Involved

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Our goal is to be the world's leading expert on education innovations by 2020. We want to support a global community and make the world of K12 education truly inclusive. We look forward to working with everyone who believes in harnessing global potential for local insights together. Let us help every child flourish in life, no matter what happens.

### **Please share with us your thoughts on what needs to improve in education.**

Youth please apply to be part of the HundrED Academy - If you would love to be more involved with the work we do at HundrED, why not apply to be one of our Youth Academy members! Being a Youth Academy member will give you the opportunity to voice your opinion on which innovations we should highlight in 2019, and you will be invited to attend our HundrED Innovation Summit in Helsinki, Finland (5-7th November 2019), where you will have the opportunity to listen to fantastic talks from people engaged in changing education around the world; as well as the possibility of joining other Youth Academy members in guiding a discussion on the role of youth voice in education. Last year HundrED led a Youth

Voice Survey, asking young people around the world how they feel about their education and how they would like to see it improve. Our report 'Every Child to Flourish', highlights our findings, and has led us to want to engage young people in all aspects of what we do. We are looking for enthusiastic young people who are currently studying in K-12 education, who would love to challenge themselves by joining a group of 30 like minded individuals to help shake up the discussion surrounding education. Apply today for a chance to be involved in a global youth movement!

[hundred.org](http://hundred.org)

[facebook.com/hundredorg](https://facebook.com/hundredorg)

[twitter.com/hundredorg/](https://twitter.com/hundredorg/)

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