



A Cross-cultural Study of Student Leadership in Round Square Schools



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Executive Summary

Most educators would agree that leadership is a valuable skill for young people. Yet there remains a lack of understanding about how students articulate, experience, and perceive leadership. A missing lens on student leadership is significant, given that it should not be assumed that adult leadership theories and perspectives are applicable to young people. The current research explored student leadership across the global network of Round Square schools. The participants were students aged 14 to 18 and their teachers. On the one hand, the geographical scope of Round Square schools, covering more than 200 schools in over 50 countries, enabled an exploration of student leadership across diverse cultural contexts. On the other hand, the educational mission of Round Square is particularly well suited to investigate student leadership. Inspired by educationalist Kurt Hahn, Round Square schools share a commitment to character education and experiential learning to build skills such as leadership. An explanatory sequential mixed-method research design (Creswell & Creswell, 2017) involved quantitative online survey data collected from 6,760 students and 1,695 teachers across 34 countries. This data informed the framing, collection, and analysis of qualitative interview data from 93 students and 21 teachers at 12 schools worldwide. The findings provided a holistic understanding of student leadership by illuminating answers to three research questions:

- How do students at Round Square schools conceptualise leadership as an abstract concept?
- How do students at Round Square schools build leadership?
- Who can be a leader at Round Square schools and what is the impact of student leadership?

In the below, we summarise the major findings in relation to the three research questions and present a series of propositions that concisely capture the significance.

How do students at Round Square schools conceptualise leadership as an abstract concept?

- *The most important qualities of an effective leader:* For students, the most important qualities of an effective leader were confidence, communication, honesty, responsibility, and listening

skills. These qualities were discussed as valuable by enabling leaders to support and positively influence others whilst working collaboratively towards a shared objective.

- *The prevalence of systemic leadership attitudes and beliefs:* The students reported more systemic than hierarchical leadership attitudes and beliefs. They believed that effective leadership involves collaboration, ethical conduct, and service, which contrasted with a 'boss' who has absolute authority and dictates instructions to others.
- *A 'Round Square effect'?:* The students demonstrated shared perspectives of effective leadership across age, gender, and cross-cultural contexts. The findings point to the potential of a 'Round Square effect' related to how a common educational philosophy and commitment to student leadership in Round Square schools may cultivate common leadership perspectives.
- *Leadership role models: Family, school, and global youth leaders:* The students discussed their role models who encapsulate their perspectives on effective leadership. They drew inspiration from family, peers and teachers in school, and global youth leaders. They admired and sought to emulate their capacity to overcome adversity, work collaboratively, and enthuse others.
- *Perceptions and realities of an inter-generational leadership gap:* For teachers, an effective leader's most important qualities were communication, integrity, empathy, vision, and compassion. Teachers reported higher levels of systemic thinking and lower levels of hierarchical thinking than students. Despite this, the students often perceived an inter-generational leadership gap with adults believed to display more hierarchical thinking.

Proposition One: What it means to be an effective leader

'The students believed that communication, confidence, honesty, responsibility, and listening skills are the most important qualities of effective leaders. They also reported holding more systemic than hierarchical leadership attitudes and beliefs. Although many perceived an inter-generational gap with adults, there was more that united students and teachers than separated them in conceptualising leadership. Both groups valued leaders who support and positively influence others whilst working collaboratively towards a shared objective.'

How do students at Round Square schools build leadership?

- *Building leadership skills inside and outside the classroom:* The top five activities reported by students for building leadership were groupwork, projects, presentations, hobbies, and sports. For teachers, the top activities were groupwork, volunteering, projects, sports, and presentations. Both groups emphasised learning through experiences, inside and outside the classroom, that involved leadership responsibilities whilst working collaboratively towards a shared objective.
- *Experiences and benefits of formal leadership roles:* Two-fifths of students reported holding a formal leadership role, including with sports, clubs/societies, class, student council, and house activities. They discussed leadership roles as challenging but believed that the experience was valuable for building leadership.
- *Experiences and benefits of leadership training:* Two-fifths of students had participated in leadership training over the past year, including conferences, workshops, and leadership programmes. Although leadership training could be challenging, they believed that the experience of being guided to lead activities in a supportive environment was valuable for building leadership.
- *Demographics, leadership experience, and leadership self-efficacy:* Female students reported higher leadership self-efficacy than their male peers, but there were no significant differences according to age or region. Leadership roles and training were not significantly related to leadership self-efficacy. First, students often built leadership without holding formal leadership roles or participating in leadership training. Second, leadership roles or leadership training were part of a self-discovery process that made students more reflective and self-critical of their leadership.
- *Students' recommendations to schools:* Students recommended that schools expand leadership opportunities and enable all students to experience leadership. They recommended expanding the number and diversity of leadership activities, expanding leadership training opportunities, and expanding opportunities for younger students (e.g., aged 14-15 years) to experience leadership.

Proposition Two: Leadership is built through experience

'Leadership can be built through diverse activities in and outside the classroom that provide opportunities to experience leadership responsibilities whilst working collaboratively towards a shared objective. Although more formal leadership roles and structured training can be valuable for building leadership, they may not increase leadership self-efficacy, as students become more self-aware and self-critical of their abilities. The students called on schools to expand leadership opportunities and to enable all students to experience leadership.'

Who can be a leader and the impact of student leadership?

- *Everyone has the potential to be an effective leader:* Students and teachers were confident that everyone has the potential to be an effective leader. They believed that although leadership comes easier to some students than others, and that leadership styles vary, leadership is a learnt skill that can be built by everyone through experience.
- *Less confidence in adult leaders:* Students were less confident about the effectiveness of adult leaders in their societies. Therefore, they believed that young people have both the potential and responsibility to be leaders to drive positive change. Students with higher leadership self-efficacy and systemic leadership attitudes and beliefs were more likely to be critical of adult leaders, whilst also having greater self-confidence that everyone can be an effective leader.
- *Leadership motivated by personal benefits and contribution to others:* Students were motivated to build leadership for personal benefits (e.g., personal growth, career, further studies, and families) and to contribute to their schools and societies. Those with stronger leadership motivation had higher leadership self-efficacy and systemic leadership attitudes and beliefs. The teachers emphasised that leadership was integral to students' self-discovery and crucial for them to realise their potential.
- *High potential of young people to bring about positive change:* Students and teachers were enthusiastic about young people's potential to bring about positive change. Students with higher leadership self-efficacy and systemic leadership thinking were more optimistic about the power of young people. The students believed that schools provide a platform to practice

leadership and make an impact. They were keen to participate in decision-making processes to highlight problems, identify solutions, and implement change in schools and societies.

- *A commitment to contributing to communities locally and globally:* The students' sense of leadership service extended beyond local communities to wanting to tackle global problems such as climate change, discrimination, and poverty. Teachers reinforced students' leadership potential by emphasising their 'huge power' and 'huge responsibility' to create a better world.

Proposition Three: All students can be effective leaders

'Effective leadership is a learnt skill that can be built by all students over time through experience. Leadership experience should be integral to schools as it provides both personal benefits to students and enables them to contribute to others. Students have significant potential to bring about positive change. Therefore, students should be included in decision-making processes to leverage their potential to make a positive impact on schools, societies, and globally.'

Implications

Overall, the research can inform schools worldwide about (1) what leadership means to young people, (2) the most effective experiences for building leadership skills, and (3) who can be a leader and the potential impact of student leadership. The findings underline Kurt Hahn's beliefs about the value of practical leadership experience, the leadership potential of young people, and young people's capacity to drive positive change. They also point to the importance of schools providing opportunities for *all* students to experience leadership for their personal development and to empower them to contribute to schools, societies, and globally.

Round Square schools have always valued student voice and promoted and nurtured student leadership. We hope that the exciting youth perspectives in this report reinforce the organisation's work to date and provide food for thought as they unite with students to further enliven the *Spirit of Leadership*.

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Chapter One: Introduction

Research background

Leadership encompasses an array of qualities that can be practised by a diverse range of individuals in a wide variety of roles. However, research on leadership has focused mainly on adults, especially men in senior management positions in Western societies. This includes abundant literature on how to define leadership or what it means to be an effective leader. Bass's (1990) statement that: 'There are almost as many different definitions of leadership as there are persons who have attempted to define the concept' (p. 11) is perhaps even more valid today than when written. In schools, most research continues to emphasise leadership by adult leaders, such as school principals. Scholars have identified various analytical and conceptual leadership approaches employed by adult leaders in schools (Bush, 2003) and empirical research has highlighted the significance of adult leaders for school improvement and student learning (Hallinger, 2011). Nonetheless, as Karagianni and Montgomery (2018) sum up: 'Our understanding of leadership is skewed towards the adult experience of leadership' (p. 86).

There remains a lack of understanding of how students articulate, experience, and perceive leadership. The lack of research is particularly acute with regard to large scale, cross-cultural studies that explore student leadership in schools worldwide. Although schools themselves have begun to highlight student leadership, the largely absent empirical lens is significant. It cannot be assumed that adult leadership perspectives apply to young people. As Dempster and Lizzio (2007) argue: 'It would be too easy to assume that using adult leadership theories and adult concepts offers the best routes to an enhanced understanding of student leadership' (p. 278). Instead, they call for: 'The production of credible accounts of leadership from the inside, that is, from the student's point of view' (p. 30). Similarly, Mortenson (2014) contends: 'If communities hope to attract and engage youth in significant leadership roles, we need to understand what leadership means to them' (p. 448).

Schools are often the first formal organisation that young people encounter, and they do so at perhaps the most impressionable period of their lives. They are also a site for students to establish leadership role models that provide a foundation for understanding leadership,

developing a motivation to be a leader, and building positive leadership qualities (Bowers *et al.*, 2016). There is growing evidence that 'soft' skills, such as leadership, are malleable and are developed by young people over time with significant impacts on life outcomes (Heckman & Kautz, 2012). Therefore, schools represent a crucial site for forming an understanding of leadership and building leadership skills. Leadership experiences in schools have long-term implications by shaping how young people perceive and practice leadership. This underscores the importance of leadership as an integral part of education. Technological change is leading to the automation of jobs based on routine tasks while intensifying demand for difficult to automate skills reliant on social interaction, such as leadership (Acemoğlu & Autor, 2012; Deming, 2017). Perhaps more importantly, there is evidence that young leaders have the potential to be change agents who can make a positive impact on their schools, societies, and globally. By promoting 'student voice' through involving students in decision-making processes, schools can empower young people to contribute to their communities and lay the foundations for them to become civically engaged adults (Mitra, 2018; see also Putnam, 2016).

There are, however, concerns that schools worldwide are falling short in building leadership skills due to narrow teaching and learning experiences that do not cater to the full spectrum of human talents. Moreover, recent global educational reforms are increasingly 'heading in the wrong direction' by placing greater emphasis on narrow criteria for measuring educational success, especially through standardised test scores (Sahlberg, 2016). To improve standardised test scores, schools and their teachers are under pressure to steadily increase the concentration of time, effort, and resources to ensure all students meet pre-determined criteria for what is tested. This can result in a 'trade off' in terms of taking time, effort, and resources away from the development of other, often more valuable skills, such as leadership, which represents a limitation in a well-rounded education for young people (Zhao, 2015). Consequently, young people may not get the opportunity in schools to build leadership skills to contribute to their personal development and communities. To counter such trends, the current research sought to give a voice to students and teachers worldwide to explore (1) what leadership means to young people, (2) the most effective experiences for building leadership, and (3) who can be a leader and the potential impact of student leadership.

Round Square

The research context was the global network of Round Square schools. The participants were 14- to 18-year-old students and their teachers. Round Square provided a unique opportunity to investigate how students articulate, experience, and perceive leadership during their school years. Round Square schools are not 'typical' schools but were selected for the research due to offering rich insights into student leadership. On the one hand, the geographical scope of Round Square schools, covering more than 200 schools in over 50 countries across the five regions of Africa, the Americas, Australasia and East Asia, Europe and the Mediterranean, and South Asia and the Gulf, enabled an exploration of student leadership across diverse cultural contexts globally. On the other hand, the educational mission of Round Square is particularly well suited to investigate student leadership. Inspired by educationalist Kurt Hahn, Round Square schools share a commitment to character education and experiential learning to build skills such as leadership. The educational philosophy is grounded in an appreciation for the potential of all students to become well-rounded, active, and informed global citizens. To realise this, Round Square schools seek to place students at the centre of learning with the aim of cultivating 'know-how' through personal experience, rather than only the 'know-that' through the study of academic discipline.

Leadership is one of six 'IDEALS' that all Round Square school share a commitment to promoting: *Adventure, Democracy, Environmental Stewardship, International Understanding, Leadership, and Service*. The approach to leadership is based on the belief that: 'Successful leaders are driven by a desire to be of service to others and to nurture, guide, develop and help them to improve and succeed' (Round Square, 2021). Each of the six IDEALS is underpinned by a Discover Framework designed to help schools develop and structure holistic educational programmes to build character, competencies, and life-skills in students. These include 12 'discoveries' that students explore: *inquisitiveness, tenacity, courage, compassion, inventiveness, ability to solve problems, self-awareness, sense of responsibility, appreciation of diversity, commitment to sustainability, communication and team-working skills*. The Discovery Framework sets out the following definition of a '*Spirit of Leadership*':

- A spirit of leadership is found in those whose convictions are rooted in personal responsibility, kindness and justice. It recognises that successful leaders are driven by a desire to be of service to others and to nurture, guide, develop, and help them to improve and succeed.
- A range of leadership skills are marshalled and employed to influence and enlist the support of individuals, teams or communities in the achievement of a shared objective.
- Strategic thinking and analysis of both the current situation and the objective enable the creation of a route map for achieving that objective. Self-belief and an ability to gather and process ideas, set direction, and create and share a vision that is exciting and dynamic, inspires others to take action, and to share ownership. The capacity to generate a sense of belonging in others leads to team members feeling valued for their contributions and taking pride in their efforts and achievements.
- A person living out a spirit of leadership demonstrates personal literacy in understanding and employing both their own skills and abilities and those of their team to the greatest effect. Self-confidence, determination, motivation, intuitive decision-making, persuasion, negotiation, and creative problem solving are all in evidence as is the ability to spot opportunities and take calculated risks. Self-awareness and emotional literacy allow for confident tempering, analysis and expression of emotions both for the leader and those that they lead.

Within the context of leadership, the Discovery Framework outlines 12 ‘discoveries’ that Round Square students, as ‘explorers’, make on their learning journey (see Table 1.1)

Table 1.1 - The Round Square ‘discoveries’ and definitions in the context of leadership

Discovery	Definitions in the context of Leadership
<i>Communication skills</i>	Explorers understand that effective leaders consult with, and listen to, the views of those that they lead. They seek to empower and enable others to communicate, have the capacity to create and share exciting and dynamic vision, and use a variety of communication skills to inspire and encourage action and shared ownership.
<i>Inquisitiveness</i>	Explorers are willing and able to lead others, and create space for others to lead, in a collaborative and co-constructive environment. They ask and answer

	questions of those that they lead, take time to investigate issues and consider all possibilities before making decisions.
<i>Appreciation of diversity</i>	Explorers are committed to ensuring that they promote, lead and model inclusive behaviour. They encourage and celebrate difference and otherness in the teams that they lead, and understand the benefits of building a diverse community
<i>Ability to solve problems</i>	Explorers have the ability and confidence to think clearly and creatively to lead the way in tackling a problem. They Invite, listen to, and act on, the counsel, suggestions and opinions of others, and are ready to collaborate and consider all alternatives to find the best possible solution(s) given the circumstances.
<i>Sense of responsibility</i>	Explorers take responsibility for their own self-management and are ready to be held accountable for their actions or decisions. When leading others they accept their duty to be of genuine service, ensuring their actions and decisions are considered, informed, appropriately collaborative, and in the best interests of those that they lead.
<i>Self-awareness</i>	Explorers develop personal mastery and an understanding of their own leadership abilities in the context of the wider world. Their decision-making, both for themselves and in leading others, is improved through understanding how personal attitudes, biases and beliefs can influence the choices they make.
<i>Tenacity</i>	Explorers develop a steadfast belief, both in their own leadership ability and that of others. They set and focus on realistic goals that require effort, commitment and persistence, leading to optimism and confidence when faced with future challenges.
<i>Courage</i>	Explorers demonstrate courage in their convictions, embracing, initiating and leading action and change where it is needed in order to develop or improve. They encourage feedback and debate (with a preparedness to listen and learn), give credit to others, and are ready to be held accountable for their decisions, and the actions of those they lead.
<i>Commitment to sustainability</i>	Explorers demonstrate a commitment to sustainability through leading by example in their actions, holding themselves accountable for reducing waste and increasing efficiency. They consider how leadership actions and decisions affect people and the environment, and see the capacity of positive leadership to change habits.
<i>Teamwork</i>	Explorers inspire and empower in others a positive team-working style that recognises, values, coaches and respects the personal strengths of team members, combining individual attributes, skills and talents to greatest effect. They invite collaboration, understanding that a team may have many leaders.
<i>Inventiveness</i>	Explorers become innovative leaders: inventive in their own actions and decisions and capable of inspiring, encouraging and acknowledging creativity in others. They are prepared to experiment and try new approaches, seeking input from others to achieve creative solutions to problems and lead the generation of new ideas.
<i>Compassion</i>	Explorers demonstrate compassion in the leadership roles they undertake, by caring about the people they lead, considering their needs, exercising humility and emotional intelligence. They learn that effective leaders inspire people with purpose, hope, optimism and energy because they listen, empathise and connect.

Research objectives

This research set out to investigate student leadership at Round Square schools worldwide. It aimed to generate a holistic understanding across different cultures by exploring how students and teachers understand leadership as a concept, before moving on to explore how students build leadership, and concluding by exploring perspectives of who can be a leader and the potential impact of leadership. The research had three overarching questions:

- *How do students at Round Square schools conceptualise leadership as an abstract concept?*
- *How do students at Round Square schools build leadership?*
- *Who can be a leader at Round Square schools and what is the impact of student leadership?*

Overview of the report

The rest of this report is structured as follows. In Chapter Two, we detail the sequential explanatory mixed-method research design, including an online survey completed by 6,760 students and 1,695 teachers, which was followed by in-depth interviews with 93 students and 21 teachers at 12 Round Square Schools worldwide. In Chapter Three, we report findings of how students and teachers conceptualise leadership as a concept or what it means to be an effective leader. In Chapter Four, we explore how students build leadership skills by asking students about their personal leadership development and for teachers to reflect on their professional experience of working with students. In Chapter Five, we investigate perspectives of who can be an effective leader and the impact of student leadership. In Chapter Six, we conclude the report by summarising and reflecting on the overall research. We do this by merging the quantitative and qualitative findings, presenting a series of propositions, discussing the implications for schools, and, finally, sharing our concluding remarks about the bigger picture for student leadership.

Chapter Two: Methods

Research design

The research aimed to bring forward the opinions, experiences, and perceptions of students and teachers about leadership from Round Square schools worldwide. It gave students aged 14 to 18 a voice to express their perspectives on their own leadership and that of their peers. It also drew upon teachers' professional experience by asking them to reflect on leadership development amongst their students. The responses of students and teachers could, therefore, be compared across schools worldwide. The research used an explanatory sequential mixed-method research design whereby quantitative online survey data collected and analysed in phase one informed the collection and analysis of qualitative interview data in phase two (Creswell & Creswell, 2017). The combination or 'mixing' of methods presents advantages for research, given that the quantitative and qualitative phases can complement each other and offset the limitations of a single approach. In the explanatory sequential design, large amounts of quantitative data can identify findings that address the research questions, which can be explained by a more in-depth exploration in interviews.

Prior to the research, student committees in Round Square schools worldwide were invited to submit applications to become Research Ambassador schools. From these applications, 12 schools were selected to provide a broad geographic spread and a diverse cross-cultural profile. The schools were located in Australia, Argentina, Chile, India (two schools), New Zealand, United States, South Korea, Switzerland, Tanzania, and South Africa. Two students and one teacher from each school joined the research project at each Research Ambassador school. On the one hand, they provided invaluable support with feedback and comments for designing the online survey. On the other hand, they contributed to designing the interview protocol and conducting interviews in their school context. Overall, the students and teachers at the Research Ambassador schools offered tremendous support that was crucial for the research project's success.

Phase one: Online survey

Objectives

In phase one, online surveys for students and teachers were distributed to all Round Square schools worldwide. The objective was to gather insights into how students and teachers perceive leadership as a concept, experiences of building leadership, and perceptions of the importance of leadership. The advantages of an online survey were first the opportunity to recruit a large number of participants who could be generalisable to Round Square's global network of schools. Second, the chance to ask standardised questions contributed to the reliability of the data, as the same questions were asked in a systematic way to the participants. Third, the opportunity to gather large amounts of quantitative data provided opportunities for statistical data analyses.

Data collection and research participants

To recruit participants, school administrators were asked to distribute the online survey link to their students and teachers. In total, 6,760 students across 34 countries participated in the survey. Most (94.67%) of the students were in the 14-17 age range. Over half (56.08%) of the students were female, and less than 1% of the students did not state their gender. About 40% of the students were in a school located in the South Asia and Gulf region. The other students were based in Australasia and East Asia (23.76%), the Americas (20.44%), Africa (8.24%), and Europe and the Mediterranean (7.14%). The demographic characteristics of the students are summarised in Table 2.1.

Also, 1,695 teachers across 29 countries participated in the survey. Most teachers were between 35 and 54 years of age (64.90%). Almost two-thirds (63.02%) of the teachers worked for schools located in South Asia and the Gulf, whereas the others were based in the Americas (16.30%), Australasia and East Asia (13.41%), Europe and the Mediterranean (4.49%), and Africa (2.78%). Two-thirds (66.53%) of the teachers were female. The detailed information on the teachers' demographic characteristics is shown in Table 2.2.

Table 2.1 - Demographic characteristics of student online survey participants

Variables	%
<i>Age</i>	
14	23.61
15	25.31
16	26.49
17	19.35
18	5.24
<i>Region</i>	
Australasia and East Asia	23.76
Europe and the Mediterranean	7.14
The Americas	20.44
Africa	8.24
South Asia and the Gulf	40.41
<i>Gender</i>	
Female	56.08
Male	43.33
Did not state	0.590

N = 6,760.

Table 2.2 - Demographic characteristics of teacher online survey participants

Variables	%
<i>Age</i>	
18-34	21.06
35-54	64.90
55 or above	14.04
<i>Region</i>	
Australasia and East Asia	13.41
Europe and the Mediterranean	4.49
The Americas	16.30
Africa	2.78
South Asia and the Gulf	63.02
<i>Gender</i>	
Female	66.53
Male	33.47
Did not state	0.00

N = 1,695.

Online survey content and quantitative analysis

The online surveys for teachers and students were designed by the research team working closely with the Research Ambassadors schools. That is, the online surveys were a collaborative effort that involved gathering feedback and comments from Round Square administrators, teachers,

and students. The students' survey included some additional questions that were not relevant to teachers. Also, the wording of some questions was adapted for teachers to ask them to reflect on their students, rather than their own leadership skills. First, we asked background questions about their school and demographics (e.g., age and gender). Second, the participants were asked 'free write' qualities they believe are the most important for effective leadership, such as competencies, skills, attitudes, or values. This question was exploratory as it did not impose ideas about what leadership 'should be'. Third, the survey investigated activities that help build leadership skills. The students were asked if they had personally built leadership skills through participation in 18 activities in and outside the classroom (e.g., class projects, sports, volunteering). The teachers were asked if their students had built leadership skills through participation in the same selection of activities. Fourth, we asked if the students held a formal leadership role or had participated in leadership training over the past year. We followed up with open questions to ask about the type of formal leadership role and leadership training they had experienced. We also asked the students to write what opportunities for leadership development they would like to see offered or expanded in their school. The answers to these open questions were subsequently categorised by the research team.

In addition, we used established and newly developed survey instruments. This provided more detailed findings and enabled us to analyse relationships amongst the answers. We used six-point Likert scales where the participants were asked to indicate their extent of agreement with a set of statements ranging 'strongly disagree to 'strongly agree'. First, we used the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000). The students and teachers were asked to note their views on 28 statements about leadership under two domains: 14 about 'systemic thinking' and 14 'hierarchical thinking'. Statements of 'hierarchical thinking' referred to leadership attitudes and beliefs that: 'Organisations should be organised in a stable hierarchical manner with power and control focused at the upper levels of the hierarchy'. By contrast, statements of 'systemic thinking' referred to leadership attitudes and beliefs that: 'Organisational success relates to ethics, the need for cooperation of all individuals to help the organisation accomplish its goals, the need for long-term thinking, and the need for organisational learning' (Wielkiewicz, 2000 p. 341). As examples, statements about hierarchical

thinking included *'a leader should maintain complete authority'*, whereas those about systemic thinking included *'leadership processes involve the participation of all organisation members'*.

Second, we investigated students' leadership self-efficacy. Self-efficacy refers to an individual's self-belief in their capacity to carry out behaviours that produce desired a performance (e.g., Bandura, 1997). It is important to note that self-efficacy captures self-evaluations, rather than objective and external assessments of ability. For this project, we used the Leadership Efficacy Scale (Chemers *et al.*, 2000; Murphy, 1992). The students were asked to respond to eight statements on a six-point Likert scale about their own leadership, which were adapted for high school students. Examples of the statements included: *'I know a lot more than most high school students about what it takes to be a good leader'* and *'In general, I am not very good at leading a group of my peers'*. A negative statement, such as the latter, was reversed prior to analysis to allow a high score to reflect a high level of leadership self-efficacy.

Third, the research team developed new questions to explore perspectives on leadership further. Using statements on a six-point Likert scale, we examined students' views on if everyone has the potential to be an effective leader; if adult leaders in society are effective leaders; motivations for building leadership skills (e.g., personal development, further studies, career, improve their school, and improve their society); and if young people have the power to make a positive change in schools and society. Following this, three composite scores were generated by using a mean value of responses to the statements. We grouped the mean value of responses about motivations for building leadership skills into 'leadership for personal development' (i.e., I do leadership for my personal growth, further education, and career) and 'leadership for school and society' (i.e., I do leadership to improve my school and society). We also grouped the mean values of 'young people have the power to change school' and 'young people have the power to change society' into a single item titled 'young people have the power to make a positive change'. The other items were separately used for the analysis.

We conducted quantitative analyses of the survey data to identify leadership opinions, experiences, and perceptions from the students and teachers. Descriptive statistics were used to capture overall findings from Round Square schools worldwide and variations according to the age, gender, and region of the students. We also employed more complex statistical approaches

(e.g., confirmatory factor analysis, multilevel regression) to analyse findings of the survey instruments. The analysis was conducted with inverse probability weighting to represent the global population of Round Square schools.

Phase two: Interviews

Objectives

In phase two, students at the 12 Research Ambassador schools conducted interviews with fellow students and teachers at their school. The schools were located in Australia, Argentina, Chile, India (two schools), New Zealand, United States, South Korea, Switzerland, Tanzania, and South Africa. The objective of the interviews was to gain a more in-depth understanding of leadership, especially by explaining online survey findings. Interviews, as qualitative data, provided several advantages. Most notably, qualitative research aims to: 'Study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them' (Denzin & Lincoln, 2005 p. 3). The approach is valuable for interpreting opinions, experiences, and perceptions by gaining a detailed understanding of leadership from participants' perspective. Through interviews, researchers can gather *valid* findings that are a true reflection of what is being studied by building rapport with participants for detailed and honest answers, illuminate the 'how' and 'why' behind perspectives, gather examples that illustrate findings, and explore issues not thought of by the research team.

Data collection and research participants

The interviews at the 12 Research Ambassador schools were student-led. In preparation, the students completed online interview training led by the research team, including both multi-school and one-to-one sessions. First, these sessions covered an introduction to qualitative research and how interviews could supplement the online survey. Second, the session provided practical guidance about interviews, such as the sampling guidelines, how to recruit participants, and effective interview strategies. Third, they provided an opportunity to underline the importance of research ethics, by ensuring that all participants understand the research and their rights as participants by reading an information sheet and signing a consent form. The rationale

for student-led interviews was twofold. On the one hand, the students had a detailed understanding of their context, which was valuable for discussing leadership in their school. On the other hand, it was an opportunity for students to build leadership skills by taking on the responsibility to coordinate and conduct interviews.

The students were tasked with conducting interviews with students over the age of 14 and teachers in their school. They were also asked to recruit with a diverse range of interviewees according to age, gender, and leadership experience. In total, they conducted 114 interviews, including with 93 students and 21 teachers. For the student interviewees, there were 53 male and 61 female participants. For the teachers, ten interviewees were male, and 11 were female. The interviewee characteristics are presented in Table 2.3.

Table 2.3 - Demographic characteristics of student and teacher interviewees

Country	Students			Teachers		
	Male	Female	Total	Male	Female	Total
Argentina	3	9	12	0	1	1
Australia	8	0	8	2	0	2
Chile	2	4	6	1	1	2
China	0	5	5	1	0	1
India 1	4	4	8	0	2	2
India 2	4	4	8	0	2	2
New Zealand	8	0	8	0	0	0
South Africa	3	5	8	3	1	5
South Korea	2	7	9	2	0	2
Switzerland	3	3	6	1	1	2
Tanzania	2	5	7	0	1	1
USA	4	4	8	0	2	2
Total	43	50	93	10	11	21

Interview content and qualitative analysis

Interview protocols were constructed collaboratively working with the research team, teachers, and students. The final interview questions were subsequently shared with the students and teachers at the 12 Research Ambassadors schools. The student interviewees were mainly asked to reflect on their personal leadership experiences, whereas the teachers were asked to reflect on their professional experience of working with students. The questions included discussion of what qualities make someone an effective leader, leadership role models, views on adult leaders,

experiences that help build leadership, recommendations for schools to support leadership amongst students, the power of young people to bring about positive change, and the extent to which leadership is a learnt skill. At the same time, the interviews were semi-structured, which provided a balance between ensuring that the students covered all relevant issues and a degree of flexibility. In other words, a standardised interview protocol contributed to reliable comparison across the schools, given that all interviews covered the same set of topics. Yet, the semi-structured design created opportunities for interviewees to elaborate on particular topics and to discuss issues not previously thought of by the research team. Also, the process of collecting and analysing interview data was carried out concurrently in an iterative process. This approach enabled new areas of enquiry to be added to the interview protocols based on emerging findings.

To prepare the data analysis, the interviews were transcribed. The data were then qualitatively analysed using the software NVivo. 'First cycle coding' involved the line-by-line reading of the interview transcripts and assigning codes as labels that gave symbolic meaning to chunks of data. Following this, pattern coding grouped the codes into a smaller number of analytical units based on themes that tied different parts of the data together (Miles *et al.* 2014). In the analytical process, we sought to identify common themes across the 12 schools to generate a well-rounded understanding of student leadership. Examples of the themes included: '*Leadership attitudes and beliefs: Differences between a boss and a leader*'; '*Recommendations for schools: Expand leadership opportunities for younger students*', and '*Power of young people to make positive change: Tackle global problems*'. In reporting the findings, pseudonyms are used to protect the identities of the participants.

Finally, the quantitative analysis of survey data in phase one and qualitative analysis of interview data in phase two was merged or 'triangulated' to identify the major research findings. Overall, the research sought to explore patterns in how students articulate, experience, and perceive leadership across Round Square schools worldwide, addressing the research questions related to (1) how students conceptualise leadership as an abstract concept, (2) how students build leadership, and (3) who can be an effective leader and the potential impact of student leadership.

Chapter Three: What it means to be an effective leader

Introduction

This chapter explores the research question: *'How do students at Round Square schools conceptualise leadership as an abstract concept?'* It illuminates how students understand what it means to be an effective leader and how their responses compare with teachers. Our objective was to give students a voice to share their views of leadership without imposing prior assumptions. In part one, we report survey findings of the students' most important qualities of an effective leadership and their leadership attitudes and beliefs. We explore differences amongst students according to age, gender, and region and potential differences to teachers. In part two, we go into more depth to explore interview findings about qualities of an effective leader, leadership attitudes and beliefs, leadership role models, inter-generational differences between young people and adults, and teachers' views. We conclude the chapter by discussing the survey and interview findings.

Part One: Quantitative findings

Qualities of an effective leader

In the online survey, we asked the 6,760 students to 'free write' the most important quality of an effective leader. This approach was exploratory as the research team did not impose any expectations or restrictions on what students could write. The top five qualities reported by the students were confidence (10.58%), communication (9.30%), honesty (5.19%), responsibility (4.74%), and listening skills (3.74). That is, confidence and communication were the most reported qualities, accounting for almost 20 percent of all responses (see Table 3.1).

Qualities of an effective leader by age

We also explored the findings by age. Confidence and communication were the top two choices for all age groups. There were variations in the order of the qualities of honesty, responsibility, and listening skills. Also, the 18-year-old students were the only group to have empathy in the top five qualities (see Table 3.2). The differences across the age groups were statistically significant ($\chi^2(58) = 80.72, p < .05$).

Table 3.1 - Students' top five qualities of an effective leader

Rank	Quality	%
1 st	Confidence	10.58
2 nd	Communication	9.30
3 rd	Honesty	5.19
4 th	Responsibility	4.74
5 th	Listening skills	3.77
	Others ¹	66.42

N = 6,760.

Table 3.2 - Students' top five qualities of an effective leader by age

Group	Quality	%
14-15	Confidence	10.88
	Communication	9.37
	Honesty	5.86
	Responsibility	4.90
	Integrity	3.87
16-17	Confidence	10.75
	Communication	9.08
	Responsibility	4.72
	Honesty	4.52
	Listening skills	3.89
18	Communication	9.12
	Confidence	6.93
	Empathy	4.47
	Honesty	5.11
	Integrity	3.65
<i>Group difference</i>		
<i>p</i> value	0.03	

N = 6,760.

Qualities of an effective leader by gender

Male and female students indicated the same qualities of an effective leader with confidence and communication the most reported (see Table 3.3). However, the order of importance was

¹ The other qualities, in order, included respectful, integrity, empathy, team player, compassion, decision making, open minded, understanding, passion, commitment, courage, patience, kindness, humility, inspirational, vision, intelligence, and knowledgeable.

different. More female students reported honesty, responsibility, and listening skills than their male peers. The differences between female and male students were statistically significant ($\chi^2(29) = 76.33, p < .00$).

Table 3.3 - *Students' top five qualities of an effective leader by gender*

Group	Quality	%
Female	Confidence	10.21
	Communication	9.00
	Honesty	5.38
	Responsibility	4.96
	Listening skills	4.14
Male	Confidence	11.11
	Communication	9.71
	Honesty	4.98
	Responsibility	4.49
	Listening skills	4.40
<i>Group difference</i>		
<i>p value</i>	0.00	

N = 6,720.

Qualities of an effective leader by region

We explored the most important quality of an effective leader by region (see Table 3.4). Although confidence and communication were the most popular choices for all regions, there were more variations than gender and age. For example, 'respectful' was chosen by the students from Australasia/East Asia, the Americas, and Africa. In contrast, it was not one of the top five choices by the students from Europe/the Mediterranean and South Asia/the Gulf. 'Empathy' was one of the most important qualities reported by students from the Americas, while it was not the case for the rest of the students. Likewise, 'honesty' was one of the top five choices by the students from Australasia and South Asia/the Gulf, while it was not for the rest of the student groups. These responses across the regions were statistically significant ($\chi^2(116) = 535.52, p < .05$).

Table 3.4 - Students' top five qualities of an effective leader by region

Region	Quality	%
Australasia/East Asia	Communication	11.15
	Confidence	7.06
	Responsibility	5.69
	Respectful	5.01
	Honesty	3.49
Europe/Mediterranean	Communication	12.56
	Confidence	10.00
	Listening	5.90
	Team player	4.36
	Responsibility	4.10
Americas	Confidence	9.46
	Communication	9.11
	Empathy	5.67
	Respectful	5.50
	Responsibility	5.50
Africa	Communication	9.83
	Confidence	7.21
	Respectful	6.33
	Listening	4.80
	Responsibility	4.80
South Asia/the Gulf	Confidence	14.09
	Communication	7.59
	Honesty	6.68
	Team player	5.36
	Responsibility	3.86
<i>Group difference</i>		
<i>p value</i>	0.03	

N = 6,760.

Teachers: Qualities of an effective leader

We asked the 1,695 teachers to report the most important qualities of an effective leader. Like their students, many teachers noted communication. Yet, there were differences between the two groups (see Table 3.5). First, qualities such as integrity, empathy, vision, and compassion chosen by the teachers were not amongst the top five choices by the students. Second,

confidence was the most important quality perceived by the students, but it was not amongst the top qualities chosen by the teachers.

Table 3.5 - Teachers' top five qualities of an effective leader

Rank	Quality	%
1 st	Communication	8.40
2 nd	Integrity	6.08
3 rd	Empathy	6.02
4 th	Vision	5.22
5 th	Compassion	4.30
	Others	69.98

N = 1,695.

Leadership attitudes and beliefs

To further investigate how Round Square students perceive leadership, we used the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000). We asked the students to report their views on 28 statements about leadership using a six-point Likert Scale ranging from 'strongly disagree to 'strongly agree'. The statements consisted of two domains: 14 about systemic thinking and 14 about hierarchical thinking. Statements of hierarchical thinking referred to leadership attitudes and beliefs that: 'Organisations should be organised in a stable hierarchical manner with power and control focused at the upper levels of the hierarchy'. Statements of systemic thinking referred to leadership attitudes and beliefs that: 'Organisational success relates to ethics, the need for cooperation of all individuals to help the organisation accomplish its goals, the need for long-term thinking, and the need for organisational learning' (Wielkiewicz, 2000 p. 341).

The descriptive statistics of the students' leadership attitudes and beliefs are presented in Table 3.6. The findings show that the mean of systemic thinking (4.88) was higher than that of hierarchical thinking (4.06).

Table 3.6 - Descriptive statistics of students' leadership attitudes and beliefs

Variable	Mean	SD	Min.	Max.
Systemic thinking	4.88	0.64	1	6
Hierarchical thinking	4.06	0.75	1	6

Note. SD: Standard deviation. *N* = 6,760.

Empirical analysis

We used multigroup confirmatory factor analysis (MCFA) to determine whether leadership attitudes and beliefs (i.e., systemic thinking and hierarchical thinking) could be considered latent variables and to test measurement invariance across the five regions. It is necessary to test measurement invariance - whether the construct of the instrument functions in a similar way across regions - for a meaningful cross-cultural comparison. A comparison of the instrument and of a relationship between the instrument and other factors would not be meaningful when the construct of the measurements varies across groups. MCFA is the most widely used method to test measurement invariance for cross-cultural studies since it allows simultaneous estimations and direct statistical comparisons of the measurement parameters across groups (see Appendix 1 for details). We also employed multi-level regression modeling in exploring factors that are associated with leadership attitudes and beliefs.

What factors are associated with leadership attitudes and beliefs?

We examined whether students' demographic characteristics were associated with the latent constructs of systemic and hierarchical thinking by using multilevel regression modelling, given that students were nested within schools in terms of data structure. We added the regions as dummy variables, which allowed not only for accounting for region-specific heterogeneity but for estimating inter-regional differences (Hanushek *et al.*, 2013).² The analysis was conducted with inverse probability weighting to represent the global population of Round Square schools. The findings are presented in Table 3.7.

For demographic characteristics, we found that the female students were more likely to have a lower level of hierarchical thinking than the male students. Specifically, the difference was

² The final model is represented as follows:

$$Y_{ij} = \gamma_{00} + \gamma_{10}Female_{ij} + \gamma_{20}Age_{ij} + \gamma_{30}HT_{ij} + \gamma_{40}Region_{ij} + u_{0j} + r_{ij} \quad (1)$$
$$r_{ij} \sim N(0, \sigma^2)$$
$$u_{0j} \sim N(0, \tau_{00})$$

where Y_{ij} is the standardized outcome variables for student i in school j ; $Female_{ij}$ is a dummy variable for student i in school j ; Age_{ij} indicates a couple of dummy variables that equal to one if student i in school j is 16-17 years old or 18 years old or above; HT_{ij} is a latent variable of hierarchical thinking for student i in school j ; $Region_{ij}$ is a series of dummy variables indicating regions for student i in school j ; u_{0j} and r_{ij} are residual error terms at the school and student level, respectively.

between them was 0.16 SD. We could not find evidence that students' age was related to systemic and hierarchical thinking. In addition, there was limited evidence that region was related to systemic and hierarchical thinking. As an exception, students in the Americas scored higher in hierarchical thinking than those in Australasia and East Asia. The difference between them was about 0.16 SD. We discuss the relatively limited differences in leadership perspectives in part three of this chapter with reference to the potential of a 'Round Square effect'.

Table 3.7 - Regression results predicting leadership attitudes and beliefs (students)

	Coefficient	Robust standard errors	p value
Systemic thinking			
Female	-0.08	0.13	0.54
Age 16-17	-0.01	0.02	0.55
18	-0.03	0.07	0.69
Hierarchical thinking	0.34	0.02	0.00
Europe/Mediterranean	0.01	0.12	0.93
Americas	-0.10	0.09	0.30
Africa	-0.16	0.27	0.55
South Asia/the Gulf	0.03	0.08	0.68
Hierarchical thinking			
Female	-0.17	0.05	0.00
Age 16-17	0.03	0.04	0.39
18	0.30	0.21	0.14
Systemic thinking	0.33	0.02	0.00
Europe/Mediterranean	0.04	0.11	0.70
Americas	0.16	0.07	0.02
Africa	0.02	0.29	0.96
South Asia/the Gulf	-0.05	0.06	0.44
Observation			
Individuals		6,698	
Schools		129	

Note. The reference group of age and regions was 18-34 years old and Australasia and East Asia, respectively. The scales of systemic and hierarchical thinking were standardised in the analyses to have a mean 0 and a standard deviation of 1.

Teachers: Leadership attitudes and beliefs

Descriptive statistics

We also used the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000) in the teacher's online survey. The descriptive statistics showed that their mean of systemic thinking (5.24) was higher than that of hierarchical thinking (3.94) (see Table 3.8). In comparison to their

students, the teachers showed a higher level of systemic thinking (5.24 vs. 4.88) and a lower level of hierarchical thinking (3.94 vs. 4.06) in their leadership attitudes and beliefs. These differences are discussed in Part Three of this chapter.

Table 3.8 - Descriptive statistics of teachers' leadership attitudes and beliefs (teachers)

Variable	Mean	SD	Min.	Max.
Systemic thinking	5.24	0.66	1	6
Hierarchical thinking	3.94	0.88	1	6

Note. SD: Standard deviation. N = 1,695.

Empirical analysis

According to the results of measurement invariance, using the same method used for students' leadership attitudes and beliefs, the metric model was adopted for constructing the latent structures of teachers' leadership attitudes and beliefs. This enabled us to compare the latent constructs across the regions, given that partial invariance was met (Milfont & Fischer, 2010). By using the latent variable of systemic and hierarchical thinking and multilevel regression modelling (teachers nested within schools) with region dummy variables, we examined whether teachers' demographic factors were associated with their leadership attitudes and beliefs³.

The findings demonstrate that female teachers were likely to have a higher score of systemic thinking. The difference in systemic thinking between the female and male teachers were roughly 0.16 SD. Conversely, the female teachers were likely to have a lower score for hierarchical thinking than the male teachers (-0.22 SD). The 35-54 and 55 age or above group tended to have a higher score of systemic thinking, compared to the 18-34 age group (0.17 SD and 0.22 SD, respectively). We found no evidence that there was a significant difference in leadership attitudes and beliefs across the regions (see Table 3.9).

³ The final model is represented as follows:

$$Y_{ij} = \gamma_{00} + \gamma_{10}Female_{ij} + \gamma_{20}Age_{ij} + \gamma_{30}HT_{ij} + \gamma_{40}Region_{ij} + u_{0j} + r_{ij} \quad (2)$$

$$r_{ij} \sim N(0, \sigma^2)$$

$$u_{0j} \sim N(0, \tau_{00})$$

where Y_{ij} is the standardized outcome variables for teacher i in school j ; $Female_{ij}$ is a dummy variable for teacher i in school j ; Age_{ij} indicates a couple of dummy variables that equal to one if teacher i in school j is 35-54 years old or 55 years old or above; HT_{ij} is a latent variable of hierarchical thinking for teacher i in school j ; $Region_{ij}$ is a series of dummy variables indicating regions for teacher i in school j ; u_{0j} and r_{ij} are residual error terms at the school and individual level, respectively.

Table 3.9 - Regression results predicting leadership attitudes and beliefs (teachers)

	Coefficient	Standard errors	p value
Systemic thinking			
Female	0.16	0.05	0.00
Age 35-54	0.17	0.06	0.00
55 or above	0.22	0.08	0.01
Hierarchical thinking	0.28	0.02	0.00
Europe/Mediterranean	-0.01	0.13	0.96
Americas	-0.01	0.09	0.90
Africa	-0.05	0.16	0.75
South Asia/the Gulf	-0.02	0.08	0.80
Hierarchical thinking			
Female	-0.22	0.05	0.00
Age 35-54	0.01	0.06	0.93
55 or above	-0.04	0.08	0.62
Systemic thinking	0.28	0.02	0.00
Europe/Mediterranean	0.00	0.16	0.98
Americas	0.00	0.13	0.97
Africa	0.02	0.22	0.92
South Asia/the Gulf	-0.03	0.11	0.78
Observation			
Individuals		1,689	
Schools		128	

Note. The reference group of age and regions was 18-34 years old and Australasia and East Asia, respectively. The scales of systemic and hierarchical thinking were standardised in the analyses to have a mean 0 and a standard deviation of 1. Statistically significant results at $p < .05$ are in bold.

Part Two: Qualitative findings

To expand our quantitative data analysis, the research team analysed in-depth, student-led interviews. The purpose was to examine why students perceive certain leadership qualities as valuable and build a deeper understanding of their leadership attitudes and beliefs. We also explored who students look up to as leadership role models to understand what kinds of leaders they admire. Further, we investigated whether students perceive leadership differently compared with adults. Lastly, we report the findings of interviews with teachers at Round Square schools and discuss them in light of students' responses.

Qualities of an effective leader

The students discussed how effective leadership is multifaceted and requires a range of interrelated qualities. However, when pushed to identify the most important leadership quality,

they often reaffirmed online survey findings regarding confidence and communication. In-depth discussions illuminated the reasons for these choices and the importance of other leadership qualities.

Confidence was often the first quality mentioned by the students. It was associated with self-belief about their abilities and a willingness to put oneself forward in a group. Many students discussed feeling anxious about leadership as it involved stepping outside their comfort zone. However, as William (New Zealand) commented: 'I think confidence is the most important quality for a leader to have because someone who is confident is willing to put themselves out there'. The students also discussed how confidence was valuable for practising effective leadership, for example, by bringing people together to work collaboratively. As Sung (Korea) expressed:

To be a leader, he/she should be confident because although there are many factors to becoming a leader, the most important one is that person should listen to everyone and try to make an agreement on topics amongst different people. For this, the leader should be confident, active, and positive to share their ideas and listen to others without fear of being judged.

The students also emphasised communication for effective leadership. Similar to points made about confidence, communication was highlighted as valuable for working in teams. For Amelia (Chile), communications skills involved 'making sure everybody's involved and everyone can contribute. Jin (Korea) explained that communication was important when collaborating with people with different personalities and values:

Communication skills are most important because a leader must lead people of different personalities and values, so helping the group members cooperate and go forward together is the most important thing, so communication is the most crucial.

The students discussed how communication was not only about conveying the leader's own perspectives. It also involved being approachable, so other people can contribute, share problems, and discuss solutions. Yue (China) explained with reference to a group project:

It's crucial to articulate what you expect from the members, or else they won't be clear about your expectations...Also, communication is not only needed for communicating goals. But the leader also needs to have the ability to set up open communication between members so that they can maintain a good relationship and keep the project going.

Further discussion revealed the importance of other qualities, including honesty, responsibility, and listening skills that were highly ranked in the online survey. Effective leadership was perceived to necessitate that leaders do not abuse their powers by remaining principled and striving to serve others. First, Jackie (USA) noted that, as people often emulate what their leaders do, an effective leader should 'lead by example'. Second, Basham (India) described the value of honesty for building trust:

To be a good leader, you need to show that you care about people and be truly honest with them, so they know that you're really giving it your all and that people know that they're completely straight with you.

Third, Lilia (Argentina) discussed how effective leaders must take responsibility to serve others:

A leader should have a sense of responsibility to serve others. Like if we are doing groupwork in school, the group leader must show responsibility and encourage the other teammates to make the work the best possible while lifting other member's spirits. They can do this by being open to the ideas of other teammates and having fair treatment with others.

Leadership attitudes and beliefs

The leadership qualities discussed by the students may explain why they reported more systematic than hierarchical leadership attitudes and beliefs in the online survey. Their leadership attitude and beliefs consistency placed value on collaboration, ethical conduct, and service to others. This point was further demonstrated by a distinction between a 'leader' and a 'boss', which Michelle (USA) explained:

A boss is someone who sits in the back and says do this and that and orders people around but, a leader is someone who's doing it as well and leading by

example. Although you're directing people, you're doing the things and showing the way instead of just telling people to do stuff.

Building on the distinction, Gloria (Switzerland) emphasised how leadership is about collaborating with others to reach a common goal, rather than a boss with absolute authority who dictates instructions to others:

Leadership is more than just bossing people around. Being someone that they feel represents them and working together with your people to achieve a common goal. For example, we have to have a couple of people to keep things moving along, so in more of a leadership role, but it's a joint collaboration thing, and no one's voice is bigger than anyone else's, but there has to be someone to keep everyone on track.

Leadership role models

The students were asked to discuss their leadership role models that encapsulated effective leadership qualities and that they sought to emulate. The type of role models varied amongst the participants, although there were three main groups: family members, peers and teachers in schools, and global youth leaders.

First, the students cited family members who they could observe and learn from throughout their lives. A close bond enabled the students to develop a deep understanding of their character and an awareness of the adversities they have overcome. As Charlie (New Zealand) explained:

I'd say my dad...To be a good leader, you need to show that you actually care about people, and I have had the chance to observe him closely on a daily basis, so I'd say best leadership role models are people you see up close through their struggles not just when they achieve it all, but the process too.

Second, the students also discussed how their peers and teachers in their school were leadership role models. Peers were frequently mentioned because they demonstrated how someone close to their age and from their school could be an effective leader. This was apparent in Daniel's (Australia) remark regarding a house captain:

He was a great leader, very caring about everyone. He changed a lot of things and pushed for the things we all wanted. Finally, after so many years of asking for small changes, he finally sorted all that out. Most of the time, the leadership group are all year 12s, and they only care about their year, whereas he went and sat with other boys, so he was kind and caring for everyone.

Others admired the leadership qualities demonstrated by teachers. Jason (USA) admired his sports coaches' ability to support students, get students motivated and to strike a balance between hard work and fun:

He gets the team to be really supportive and to support each other a lot. And he gets people to be motivated. He knows when it's time to work and knows when to have fun and stuff like that.

Third, the students emphasised global youth leaders as leadership role models. People such as Malala Yousafzai and Greta Thunberg were described as inspirational for demonstrating effective leadership qualities, including confidence, communication, honesty, responsibility, and listening skills. More generally, they were cited as evidence that young people can be leaders on a global stage. As Anvi (India) explained:

Young people definitely can take leadership roles, and we have seen that in today's society, like Malala Yousafzai or Greta Thunberg, who spoke up about subjects they were passionate about.

Student perceptions of adult leaders

Many of the students perceived that young people understand leadership differently than adults. They attributed the differences to an inter-generational gap. Adults were often perceived to value hierarchical leadership attitudes and beliefs based on, for example, exercising authority and delegating duties to others. As Abid described (Tanzania): 'I think we're more open-minded compared to the older generation. They have more of a hierarchy mentality'. Conversely, the students discussed how young people perceived leadership in a more systemic way that emphasised collaboration, ethical conduct, and being of service to others. This view was expressed by Geeta (India):

For young people, leadership is about shouldering a task as a team taking ownership, being responsible and showing accountability. An adult would see it as a task of authority and take the lead. For example, if I would like to build a team right now, I'd make sure everyone's point of view is kept in mind, whereas an adult would lead on their own, what they want to do, and what their opinion is.

Josephine (Argentina) elaborated on a perceived inter-generational shift in leadership attitudes and beliefs:

Before, leadership was understood as someone who could stand up and was just this firm person that directed everything and had no consideration of what people thought. A leader was someone who was strong and big and a man also, and it's not that, you don't need to be bossy or inconsiderate or cold or heartless. I feel like young people understand leadership as something that involves much more than just bossing people around. It is also about listening and helping and this stereotype that only a man can be a leader because only listen to him, that has completely changed too.

Min (Korea) perceived that inter-generational leadership differences were related to different organisational structures between Round Square schools for students and the workplace for adults:

I think young people put more focus on cooperation and communication, but I feel like adults work in companies and these companies have hierarchies and their positions matter, but for students, with student councils, despite there being a head chair or deputy chair, we all have equal positions and all are free to speak their opinions.

Leadership qualities: Teacher perspectives

The interviews with teachers explored their perceptions of leadership and how they compared with students. Like the students, the teachers emphasised communication as an important quality of an effective leader, which reinforced the survey findings. Communication was deemed crucial for establishing and maintaining relationships. It was also highlighted as valuable for discussion and understanding others or: 'Seeing both sides of the story to extract the necessary information' (Ms Clement, South Africa). They further discussed how communication

should be supplemented by other qualities for effective leadership, such as integrity, empathy, and compassion in serving others. As Mr Martin, a teacher from South Africa explained:

To build positive relationships as a leader, you have to have integrity, honesty, and you have to build trust between yourself and those you're leading.

Notably, confidence was absent from the teachers' discussion of effective leadership qualities. Some believed that it was a misconception that leaders must have extrovert personalities. Also, a few teachers discussed how it is more important that leaders are humble and show humility. Ms Hermann (Argentina), for instance, reflected that humbleness and humility were important qualities for student council leaders to encourage them to listen to other students who may be 'fairly quiet', which was crucial to representation at school.

Overall, the teachers' responses were well aligned with systemic leadership attitudes and beliefs that celebrated collaboration, ethical conduct, and service to others. Interestingly, these findings contradict the students' perceptions of how the older generation more often held hierarchical leadership attitudes and beliefs. The teachers' discussion of effective leadership was more similar than different to the students. This point was put forward by Ms Kaushal (India), who argued against 'authoritative' leadership styles:

Authoritative is a word that I don't include in my dictionary. I feel that if you are authoritative, you will not be able to communicate, there'll be a boundary or a barrier between your group and you. You must be compassionate. You must work out of altruism, out of kindness, out of a purpose, a focus, be flexible, you should be able to adapt to the changing circumstances.

Part Three: Discussion

This chapter demonstrated how students and their teachers at Round Square schools worldwide conceptualise leadership. Our approach was exploratory and sought to give students a voice to share their leadership perspectives without imposing prior assumptions. Here we report five major discussion points by integrating the online survey and interview findings.

(1) The most important qualities of an effective leader

- The students reported the most important quality of an effective leader in the survey as confidence (10.58%), communication (9.30%), honesty (5.19%), responsibility (4.74%), and listening skills (3.74%). Although there was some variation according to age, gender, and region, these five qualities were consistently reported by students.
- In the interviews, the students reaffirmed the importance of confidence, communication, honesty, responsibility, and listening skills for effective leadership. These qualities were consistently highlighted as valuable for supporting and positively influencing others whilst working collaboratively towards a shared objective. Importantly, these qualities were believed to be most valuable when combined, including (1) confidence or self-belief to put oneself forward in a group, (2) communication to share perspective and listen to others, and (3) honesty, responsibility, and listening skills to remain principled and having the responsibility to serve others.

(2) The prevalence of systemic leadership attitudes and beliefs

- The students reported more systemic than hierarchical leadership perspectives on the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000). They were more likely to agree that organisational success relates to ethics, the need for cooperation of all individuals to help the organisation accomplish its goals, the need for long-term thinking, and the need for organisational learning, compared with organisations should be organised in a stable hierarchical manner with power and control focused at the upper levels of the hierarchy. There were some variations amongst the students. For example, female students noted a lower level of hierarchical thinking than male students. However, there were limited differences according to age or region.
- In the interviews, the students expanded on their systemic leadership attitudes and beliefs by distinguishing between a 'leader' and a 'boss'. They described how leadership should involve collaboration, ethical conduct, and service to others, which contrasted with a boss who has absolute authority and dictates instructions to others.

(3) A 'Round Square effect'?

- The students demonstrated a high level of consistency in perspectives of effective leadership qualities and leadership attitudes and beliefs, even after controlling for age, gender, and region. These findings may be surprising, given that there were 6,760 student respondents to the survey and 93 student interviewees across cross-cultural contexts worldwide (see Hofstede *et al.*, 2010).
- A potential explanation is a 'Round Square effect'. Specifically, Round Square's educational philosophy, demonstrated through the IDEALS and Discovery Framework, may have resulted in the cultivation of shared leadership perspectives. On the one hand, Round Square schools have a commitment to student leadership as part of an objective to build character, competencies, and life-skills. On the other hand, Round Square schools have a distinctive understanding of leadership based on a belief that 'successful leaders are driven by a desire to be of service to others and to nurture, guide, develop and help them to improve and succeed' (Round Square, 2021). This perspective was reflected in the survey and interview findings that emphasised how effective leadership requires supporting and positively influencing others whilst working collaboratively towards a shared objective. However, further research is required to compare Round Square students with other students before drawing firm conclusions.

(4) Leadership role models: family, school, and global youth leaders

- The students discussed their role leadership models. They drew inspiration from a diverse range of people. First, a key site was the family, as many students took inspiration from leadership demonstrated by their parents or siblings. Second, the students also discussed leadership role models in their schools, including their peers and teachers who exhibited effective leadership. Third, global youth leaders were cited as examples of young people's capacity to make a positive change on a worldwide stage. Typical to their discussions was the ability of role models to overcome adversity, work collaboratively, and enthuse others in a team. In many cases, the students discussed how they sought to emulate their role models in their own leadership.

(5) Perceptions and realities of an inter-generational leadership gap

- The teachers reported the most important qualities of an effective leader as communication (8.40%), integrity (6.08%), empathy (6.02%), vision (5.22%), and compassion (4.30%). Confidence was absent amongst their most popular responses, whereas it was the most reported effective leadership quality by students. This was explained by a belief that effective leadership does not necessitate extrovert personalities, whereas qualities such as humility and humbleness can be more valuable. The teachers reported more systemic than hierarchical leadership perspectives on the Leadership Attitudes and Beliefs Scale (Wielkiewicz, 2000). They had higher levels of systemic thinking and lower levels of hierarchical thinking than the students.
- These findings were reaffirmed in the interviews as they emphasised communication for building and maintaining relationships as a leader as well as integrity, empathy, vision, and compassion to serve others. Overall, their leadership perspectives were more similar than different to the students. However, the students often perceived an inter-generational gap in leadership perspectives between young people and adults, with adults believed to have more hierarchical leadership attitudes and beliefs. There may be a misunderstanding in leadership perspectives between young people and adults. Alternatively, a 'Round Square effect' may mean that the teachers at Round Square had similar leadership perspectives to their students compared to other adult leaders.

Chapter Four: How students build leadership skills

Introduction

In this chapter, we explore the research question: *'How do students at Round Square schools build leadership?'*. We asked students about their personal leadership development and for teachers to reflect on their professional experience of working with students. In part one, we investigate the online survey findings. We report the activities that our participants noted as helping students build leadership. We also report the extent of participation in formal leadership roles and leadership training. Then, we examine leadership self-efficacy to measure students' self-evaluated leadership capacities, considering variations according to age, gender, leadership roles, and leadership training. In part two, we discuss the interview findings for deeper insights into the experiences that help students build leadership. In addition, we discuss recommendations from students and the findings from teachers about how students build leadership. We conclude the chapter by integrating the survey and interview findings.

Part One: Quantitative findings

Building leadership skills

We asked the students to report if they had built leadership skills through participation in various activities in and outside the classroom. We also asked the teachers if they think their students had built leadership skills in the same activities. The results demonstrate the wide variety of activities that can cultivate leadership, ranging from hobbies to mentorship to student societies (see Table 4.1). For the students, the top five reported activities were groupwork (94.75%), projects (91.24%), presentations (90.13%), hobbies (82.78%), and sports (76.36%). The top five activities reported by the teachers were groupwork (96.05%), volunteering (92.57%), projects (92.15%), sports (92.15%), and presentations (92.09%).

There were common responses between the two groups. Significantly, a high proportion of both teachers and students reported that classroom-based activities were valuable for building leadership skills, including groupwork, projects, and presentations. Similarly, sports were reported by both groups as providing opportunities to build leadership skills. There were,

however, some variation. For example, more teachers reported that volunteering (92.57%) was valuable for building leadership skills, compared with students (71.30%). More generally, the students reported building leadership through fewer activities than the teachers. These differences likely reflect the question posed: the students were asked if they had personally built leadership skills through the listed activities, whereas the teachers were asked if any of their students had built leadership skills through the same activities.

Table 4.1 - Building students' leadership skills

Activities	Student (Rank)	Teacher	Group difference
Groupwork	94.51 (1)	96.05 (1)	$\chi^2(1) = 61.70, p < 0.01$
Projects	91.79 (2)	92.15 (3)	$\chi^2(1) = 1.12, p > 0.05$
Presentations	89.28 (3)	92.09 (5)	$\chi^2(1) = 47.89, p < 0.01$
Hobbies	83.03 (4)	83.14 (9)	$\chi^2(1) = 0.06, p > 0.05$
Sports	75.80 (5)	92.15 (3)	$\chi^2(1) = 482.41, p < 0.01$
Volunteering	75.00 (6)	92.57 (2)	$\chi^2(1) = 550.86, p < 0.01$
Event planning	70.44 (7)	84.31 (8)	$\chi^2(1) = 126.56, p < 0.01$
Mentorship	70.06 (8)	86.49 (7)	$\chi^2(1) = 205.04, p < 0.01$
Campaigns	56.70 (9)	88.08 (6)	$\chi^2(1) = 408.85, p < 0.01$
Conference	51.88 (10)	81.30 (12)	$\chi^2(1) = 150.05, p < 0.01$
Student society	50.28 (11)	82.77 (10)	$\chi^2(1) = 189.74, p < 0.01$
Interschool	49.59 (12)	80.94 (13)	$\chi^2(1) = 142.65, p < 0.01$
Arts	46.97 (13)	80.71 (14)	$\chi^2(1) = 135.43, p < 0.01$
Gaming	45.09 (14)	43.24 (18)	$\chi^2(1) = 0.09, p > 0.05$
Drama	45.84 (15)	81.65 (11)	$\chi^2(1) = 155.40, p < 0.01$
Internship	41.64 (16)	66.73 (17)	$\chi^2(1) = 5.37, p < 0.05$
Music	40.06 (17)	76.58 (16)	$\chi^2(1) = 54.14, p < 0.01$
Exchange	28.52 (18)	77.40 (14)	$\chi^2(1) = 15.33, p < 0.01$
Other	25.58 (19)	34.16 (19)	

Note. The number is %. Statistically significant differences at $p < .05$ between students and teachers are in bold. $N = 6,760$ (student); 1,695 (teacher).

Experiences of formal leadership roles

We asked the students if had a formal leadership role in or outside of school. The results showed that two-fifths (40.75%) held a formal leadership role, including males (39.57%) and females (41.70%) (see Table 4.2). In terms of region, students in the Americas were most likely to hold a formal leadership role (44.42%), which was closely followed by Australasia (42.65%) and South

Asia/Gulf (41.65%). The most common formal leadership roles by activity were in sports/games (25.13%), followed by club/society (22.52%), class (20.16%), student council (19.76%), and house activities (8.32%).

Table 4.2 - Formal leadership roles

	Yes (%)
Overall	40.75
<i>By region</i>	
Australasia/East Asia	42.65
Europe/Mediterranean	38.10
Americas	44.43
Africa	24.06
South Asia/Gulf	41.65
<i>By gender</i>	
Female	41.70
Male	39.57
<i>By activity</i>	
Sports/Game	25.13
Club/Society	22.52
Class	20.16
Student council	19.76
House activities	8.32
Mentorship	2.56
Hostel	1.03
Work	0.39
Camp	0.12

N = 6,760.

Experiences of formal leadership training

We found that two-fifths (39.48%) of students had participated in leadership training in the past year. Although there was no considerable difference between female and male students, the findings varied by region (see Table 4.3). The students in South Asia/ Gulf were the most engaged in leadership training (43.70%), whereas those in Australasia and East Asia were the least engaged group (34.56%). Overall, the students reported leadership training through conferences (33.22%), workshops (29.26%), leadership programmes (18.61%), and leadership roles (9.31%).

Table 4.3 - Leadership training over the past year

	Yes (%)
Overall	39.48
<i>By region</i>	
Australasia and East Asia	34.56
Europe and Mediterranean	36.85
Americas	39.22
Africa	35.91
South Asia and Gulf	43.70
<i>By gender</i>	
Female	39.49
Male	39.54
<i>By type</i>	
Conference	33.22
Workshop	29.26
Leadership programme	18.61
Leadership role	9.31
Class/ Course	5.05
Seminar	4.55

N = 6,760.

Students' leadership self-efficacy

Empirical analysis

To deepen our analysis, we investigated leadership self-efficacy. As noted in Chapter Two, self-efficacy refers to an individual's self-belief in their capacity to carry out behaviours that produce desired performance (e.g., Bandura, 1997). It is important to note that self-efficacy captures self-evaluations rather than objective and external assessments of ability. For this project, we used the Leadership Efficacy Scale (Chemers *et al.*, 2000; Murphy, 1992). The students were asked to respond to eight statements on a six-point Likert Scale, ranging from 'strongly disagree' to 'strongly agree'. Examples of the statements included '*I know a lot more than most high school students about what it takes to be a good leader*' and '*In general, I am not very good at leading a group of my peers*'.

For a meaningful cross-cultural comparison, we tested measurement invariance to identify whether the construct of the instrument functions in a similar way across the five regions. Multilevel Confirmatory Factor Analysis (MCFA) is the most widely used method to test measurement invariance in cross-cultural studies since it allows simultaneous estimations and

direct statistical comparisons of the measurement parameters across groups. Therefore, we used MCFA to create a latent construct of leadership self-efficacy using the eight statements in the Leadership Efficacy Scale. While the one-factor model was not a good representation of leadership self-efficacy, all fit statistics improved and were acceptable in the two-factor model. With the two-factor model, the scalar invariance was supported, which allowed us to compare the latent constructs of students' leadership self-efficacy across the regions. We coined factor one, 'Leadership Self-Efficacy One' that included statements that were positive self-evaluations of leadership (e.g., '*I know a lot more than most high school students about what it takes to be a good leader*'). We coined factor two, 'Leadership Self-Efficacy Two' with statements that were negative self-evaluations of leadership (e.g., '*In general, I am not very good at leading a group of my peers*'). For a more detailed explanation of the measurement, please see Appendix 2.

Findings

We examined whether the demographic characteristics of the students and participation in formal leadership roles and leadership training effected students' leadership self-efficacy. To achieve this, we employed a multilevel modeling approach while using region fixed effects. We also used inverse probability weighting to represent the global population of Round Square schools⁴.

As shown in Table 4.4, we found that female students were more likely to report a higher level of leadership self-efficacy for Leadership Self-efficacy 1 than male students ($p < 0.05$). The difference between the female and male students for Leadership Self-efficacy 1 was roughly 0.21

⁴ The final analytical model is represented as follows:

$$Y_{ij} = \gamma_{00} + \gamma_{10}Female_{ij} + \gamma_{20}Age_{ij} + \gamma_{30}LP_{ij} + \gamma_{40}LT_{ij} + \gamma_{50}LP_{ij} \times Age_{ij} + \gamma_{60}LT_{ij} \times Age_{ij} + \gamma_{70}LP_{ij} \times Female_{ij} + \gamma_{80}LT_{ij} \times Female_{ij} + \theta_r + u_{0j} + r_{ij} \quad (3)$$

$$r_{ij} \sim N(0, \sigma^2)$$

$$u_{0j} \sim N(0, \tau_{00})$$

where Y_{ij} is the standardized outcome variables for student i in school j ; $Female_{ij}$ is a dummy variable for student i in school j ; Age_{ij} indicates a couple of dummy variables that equal to one if student i in school j is 16-17 years old or 18 years old or above; LP_{ij} and LT_{ij} are a dummy variable indicating whether student i in school j holds leadership positions or receives leadership training, respectively; γ_{50} , γ_{60} , γ_{70} , and γ_{80} are interaction terms between leadership position/training, age, and gender; θ_r is a series of region-dummy variables; u_{0j} and r_{ij} are residual error terms at the school and student level, respectively.

standard deviation (SD). Put differently, female students reported higher levels of leadership self-efficacy than their male peers. However, the results showed that there were no significant differences in leadership self-efficacy amongst the age groups.

We could not find a statistically significant relationship between leadership self-efficacy and students holding a formal leadership position or having received leadership training. We conducted an additional analysis to examine whether the effects of leadership roles and training depended on their age groups and gender. In doing so, we identified a positive interaction effect of leadership training with the 16-17 age group on their leadership self-efficacy for both factors of Leadership Self-efficacy 1 and Leadership Self-efficacy 2 (see Model 2 in Table 4.4). In other words, there were positive relationships between leadership training and leadership self-efficacy amongst 16- and 17-years old students (0.09 SD and 0.14 SD, respectively). However, there were no significant relationships amongst the other age groups. We could not find evidence that the effects of leadership roles and training on leadership self-efficacy varied by students' gender. Although these findings initially appeared puzzling, the interviews with students and teachers provided some explanations.

Table 4.4 - Regression results predicting leadership self-efficacy

	Model 1			Model 2		
	Coefficient	Robust standard errors	p value	Coefficient	Robust standard errors	p value
Factor 1: Leadership Self-efficacy 1						
Female	0.13	0.18	0.48	0.15	0.19	0.41
Age 16-17	0.04	0.05	0.36	0.07	0.06	0.23
18	0.08	0.07	0.25	0.13	0.13	0.32
Formal leadership position	-0.01	0.05	0.82	-0.08	0.06	0.48
Leadership training	-0.05	0.04	0.19	-0.08	0.06	0.18
<i>Interaction effects</i>						
Leadership position × Age 16-17				-0.14	0.10	0.15
Leadership position × 18 above				0.07	0.15	0.63
Leadership training × Age 16-17				0.09	0.05	0.08
Leadership training × 18 above				-0.17	0.14	0.23

	Model 1			Model 2		
Leadership position × Female				-0.05	0.08	0.55
Leadership training × Female				0.00	0.08	0.95
Factor 2: Leadership Self-efficacy 2						
Female	0.21	0.10	0.04	0.23	0.11	0.04
Age 16-17	0.04	0.03	0.21	0.01	0.05	0.81
18	0.05	0.07	0.44	-0.01	0.14	0.96
Formal leadership position	-0.01	0.05	0.86	0.03	0.08	0.69
Leadership training	-0.04	0.04	0.25	-0.11	0.06	0.06
<i>Interaction effects</i>						
Leadership position × Age 16-17				-0.08	0.10	0.40
Leadership position × 18 above				0.08	0.17	0.64
Leadership training × Age 16-17				0.14	0.06	0.02
Leadership training × 18 above				-0.10	0.14	0.47
Leadership position × Female				-0.03	0.09	0.76
Leadership training × Female				0.00	0.07	0.95
Observation						
Individuals				5,912		
Schools				109		

Note. The reference group of age was 14-15 years old. The leadership self-efficacy scales were standardised in the analyses to have a mean 0 and standard deviation of 1. Statistically significant results at $p < .05$ are in bold. $N = 6,698$.

Part Two: Qualitative analysis findings

The interviews provided an in-depth exploration of students' experiences with leadership and how they built leadership skills. In this section, we report insights of the value of activities in and outside the classroom. The interviews also illuminated students' participation in formal leadership roles and leadership training. In doing so, we discuss potential explanations for why students who held formal leadership roles and who had received leadership training did not report higher leadership self-efficacy. We also report the recommendation from students for how schools can enhance leadership opportunities for students. We conclude the section by reporting findings from teachers about how students experience and build leadership.

Building leadership skills: 'A way of being'

The students discussed a wide range of experiences that enabled them to build leadership skills. They believed that leadership was not constrained to specific activities but instead could be built through a variety of experiences. Put differently, leadership was 'a way of being' rather than confined to particular activities or roles. Kanoni (Tanzania) explained how she could build leadership through activities where she could delegate, take responsibility, and communicate issues in a team:

Irrespective of the activity, I feel I could build my leadership in the sense that I was able to delegate, take up responsibilities, learn how to communicate issues and you would be working with people in a team which I think is a great step towards good leadership and can be achieved through a variety of activities. You just have to be on the lookout.

Also, Peter (Switzerland) explained that leadership there is not 'one way to develop leadership':

It's not like there's one way to develop leadership in oneself or find these skills. That varies in people. It's more generally knowing how you best learn leadership skills. Just talking to people and building one's values so that even if you're doing a hobby, you can develop skills, values, morals and integrating all those in one's self and one's leadership.

At the same time, the students did discuss their leadership development through various activities, as discussed below.

Building leadership: Participation without formal leadership roles

The students highlighted how they build leadership by participating in activities in and outside the classroom. In many cases, they did not hold a formal leadership role. First, many students discussed classroom activities such as groupwork, projects, and presentations that provided opportunities to take on leadership responsibilities as part of a team to complete a task. For example, Tom (USA) highlighted the value of group projects: 'Group projects, even if they're just small-scale group projects...it's the little things that build up'. Similarly, Sebastian (Chile) discussed building leadership skills through group presentations:

I've always seen group presentations as a way of developing leadership skills, because it requires us to take charge and build a rapport with fellow team members and strain to get the work done.

Second, the students discussed how they built leadership outside the classroom. Many students highlighted how sports provided opportunities to demonstrate leadership whilst working as part of a team. For example, Henry (South Africa) believed that he could learn to be a leader despite not being the team captain:

Playing with a team, you get the opportunity to voice your own opinion of what to do and what not to do. There is a captain, so even if you can't say something for yourself, you can speak to the captain. The captain will do it for you, and everyone can take it into consideration.

Third, the students reported building leadership through various other activities without holding formal leadership roles, including student councils, community service, and conferences, as examples. Vicente (Chile) discussed his experiences of a Round Square International conference:

A good example was the Round Square international conference held in India, in which I travelled with a group of seven people. That was a very good opportunity for me to build leadership because I had to constantly be with groups, in some occasions, I had to move forward in a group and take responsibilities.

Leadership experiences without formal roles were noted as especially valuable for younger students, given that formal leadership roles can be limited to more senior students. As Joseph (New Zealand) explained:

Leadership positions are often reserved for older people in school, like you've got the prefects, and those opportunities are few and far between [for younger students], so you need to take opportunities wherever you can to be a leader. Then, those experiences will set you up for positions later without the stress to be responsible for a group or team.

Building leadership: Formal leadership roles and training

The students discussed the value of formal leadership roles and leadership training for building leadership. Formal leadership roles included students who had been given a position in an organisation or group, such as sports team captain or event organiser. In many cases, formal leadership roles were described as highly challenging and requiring a steep learning curve. Yet, the students also described how the opportunity to put their leadership skills into practice was valuable for building leadership. Ji-hoon (Korea) discussed his leadership position at a Model United Nations conference.

We were able to host an entire conference. When you have to deal with a bunch of people younger and older than you, and you have to coordinate and do all of that, I was responsible for the success of the event. I feel like the experience has taught me so much more than I could even describe because there are just so many things that go into organising an event, and I was responsible for that. I feel that was one of the best experiences I've had.

The students also highlighted their experience with Round Square leadership roles. Sanjiv (India), for instance, described building leadership in his role as a Round Square leader:

Round Square has really helped me build leadership because whenever there is an event, I work with all the students, my juniors and my batch mates, which helps me with coordination and learn how to treat everyone equally.

Leadership training involved participation in activities where students learnt about leadership, including through leadership conferences, workshops, and programmes. These experiences were described as valuable for reflecting on what it means to be an effective leader and have opportunities to put leadership into practice. As an example, Adam (New Zealand) described overcoming initial anxiety about leadership during a leadership week at school:

I was really shy at talking to people when we had leadership week. Because my group wasn't the best at talking in public, so I had to put that behind me and just try to lead the group and show them it's alright, and it's not that scary in a way, so that kind of helped me.

Relatedly, Paula (Argentina) described building leadership skills through participation in leadership training at a Round Square international conference:

I went to the Round Square conference in India last year. It was a great experience. They had five main topics, one of them is leadership, so they made us a lot of activities of leadership. We were divided into different groups called 'barazas'. I was the leader, and we had to design a logo for our group and as I'm artistic, I was the one who took the leadership in that activity. I had to help everybody and get everyone's ideas and combine them into one.

Overall, the students were positive about formal leadership roles and leadership training on their leadership. The survey findings that experience of both types of activity was not significantly associated with higher leadership self-efficacy may, thus, appear puzzling. However, further analysis of the interview data identified explanations. On the one hand, the students described how they built leadership skills through experiences without holding formal leadership roles or attending leadership training. On the other hand, students who did hold formal leadership roles and attended leadership training often described how they developed a deeper appreciation of the challenges of effective leadership. Put differently, their experience encouraged the students to be more reflective and self-critical whilst also building leadership skills. Emilia (Chile), for example, described the challenges of taking on the captaincy of the volleyball team:

When my teacher named me volleyball captain, I thought I'd just help her decide who goes where. But then people started coming up to me and started asking for help. When we lost the game, I had to look at them and say, it's alright and you know develop all of this way of interacting with my teammates that I never really knew before.

Although such experiences were challenging, they provided rich opportunities to become a better leader. As Rachael (USA) explained:

In the school council, I had to think about how we can get things done more effectively in a stressful or difficult situation...It's a big step up, and I think you

can get a better understanding; I think that was my big turning point for my leadership understanding.

These interview findings suggest that as students experienced leadership roles and training, they may have become more self-aware of the difficulties of effective leadership, which was reflected in their self-evaluations in the leadership self-efficacy instrument.

Recommendations

Most students were satisfied with the opportunities to experience and build leadership. Many commented on the privilege of their education at Round Square schools, and how students at other schools may not have the same leadership opportunities. As Ben (Australia) reflected:

We're all relatively privileged, we go a school like [redacted] and we're put in a position where so many opportunities are thrown at us, particularly in the realm of leadership.

Nonetheless, the students were also keen to make recommendations about how leadership opportunities could be expanded in schools, including more leadership roles, more leadership activities, and more leadership opportunities for younger students. They argued that leadership experiences were crucial not only to build skills but also to enable students to contribute to their schools and communities, which is further discussed in Chapter Five.

First, the students recommended schools to expand opportunities for students to experience leadership. On the other hand, they called for a greater number and more diverse activities in schools where students can build and practice leadership. On the other hand, they called for more leadership roles in schools. To achieve this, the students suggested making leadership a more inclusive experience that involves multiple people with different positions, responsibilities, and tasks, rather than a single leader holding a figurehead role. As Seo-yoon (Korea) put forward:

Instead of putting a single individual as a leader, I would like the school to give an opportunity to all the students and let them know what the qualities are for becoming a leader and what a leader is, like its true definition and not just

being the head of the group, but a person who can lead and motivate others to move on and go forward. I feel like the opportunity for every student to learn how to become a leader is something that the community needs the most.

Similarly, Lucy (USA) called for more 'little opportunities' for students to experience leadership, which is especially valuable for students who do not want to take on formal leadership roles:

I know there are students who don't want to apply to be a club president...so the little opportunities are really important too, for everyone to have the chance to be a leader at some point even if it's just for like a day.

Second, some of the students suggested more opportunities to learn about leadership. This included calls for more leadership training through leadership conferences and workshops that encouraged students to reflect on what it means to be an effective leadership and gain practical experience of leadership. As Juan (Argentina) suggested: 'I would love to have a workshop on leadership with maybe a keynote speaker of a good leader.'

Third, younger students, particularly those aged 14-15 years, often described how they did not have the same opportunities to participate in leadership building activities as their older peers. In response, these students recommended more leadership opportunities to be given to young students. As Nathan (Australia) stated:

I guess only being able to start in year 11 and 12 seems unfair, it is a bit of a shame. But, if there were options in year 9 and 10, it would be better because there's less opportunities there. There are some opportunities where you can do leadership, but none of them focus on it. I guess that's an area lacking.

Teacher perspectives on building leadership skills

The teachers shared how their professional experience of how students build leadership. In many cases, they reaffirmed students' responses regarding the significance of practical experience to build, apply, and reflect on leadership. They typically did not believe that leadership was constrained to particular activities, holding a particular role, or receiving a particular type of

training. At the same time, they shared examples of instances where their students were exposed to leadership and how that contributed to building leadership skills.

Similar to the students, the teachers highlighted the value of classroom-based activities, such as projects, groupwork, and presentations for building leadership. As Ms Swartz (Switzerland) noted: 'In school projects and groupwork, there's a lot of indirect leadership or at least qualities that a leader would require'. Others emphasised participation in sports, student councils, community service, and conferences as providing opportunities for students to grow as a leader. Common to their responses were that students should be given opportunities to experience leadership to build the skills and confidence over time. As Mr Williams (China) described:

You can't just develop leadership overnight. You have to take baby steps and give people opportunities to develop their self-confidence and their ability to set a goal and achieve it, overcoming the hardships.

In the survey, a high proportion of teachers highlighted volunteering for building student leadership. They reaffirmed this point in the interviews. As an example, Mr Muller (Switzerland) explained how student volunteers took a range of 'little roles', each with individual responsibilities, to work for a larger community service project:

Events like the food drive, where everyone has little roles there, whether it's contacting the organisation, setting up the correspondence of the parents' association, enhancing information with students and staff, all these are small but very pivotal and important leadership opportunities.

Furthermore, the teachers strongly believed that leadership was a quality that could be developed and applied in the overall school environment. That is to say, leadership could be practised holistically and built by all students every day, rather than being something that is segmented into a particular activity. As Ms Kapoor (India) explained, the 'whole school ecology' is designed to provide opportunity for students to build leadership:

The whole school ecology is designed in such a way that there are enough opportunities for them to volunteer, to help out, to work in cooperative groups and all these are various ways of building leadership. Cooperation again, teamwork, very important points in leadership building and when they participate in small, say inter-house events in the school, and they take part in conferences, in debates, these are all various experiences that the school provides where children can build on and showcase her leadership skills

Part Three: Discussion

In this chapter, we illuminated the perspectives of students and teachers on how students build leadership skills. We considered a wide range of activities that contribute to leadership development, including experiences in and outside the classroom. In this section, we reflect on the key online survey and interview findings:

(1) Building leadership skills inside and outside the classroom

- The top five activities noted by students for building leadership in the online survey were groupwork (94.75%), projects (91.24%), presentations (90.13%), hobbies (82.78%), and sports (76.36%). Similarly, the top five activities for students building leadership noted by teachers were groupwork (96.05%), volunteering (92.57%), projects (92.15%), sports (92.15%), and presentations (92.09%).
- The interviewees emphasised how leadership is built through experiences that offer leadership responsibilities whilst working collaboratively to achieve a shared objective. Their perspectives are well aligned with experiential education, championed by Kurt Hahn (van Oord, 2010), that prioritises learning by doing and reflection on practical experience. On the one hand, they believed that leadership could be built every day irrespective of the activity, as it was ‘a way of being’ and part of ‘the whole school ecology’. On the other hand, they cited examples of leadership development through various activities, which often did not require that students held a formal leadership role.
- Classroom activities, such as groupwork, projects, and presentations, were consistently highlighted as providing valuable leadership experience of completing a task as part of a team. They also discussed the value of leadership experience through responsibilities held in

activities outside the classroom, especially through sports, student councils, conferences, and volunteering.

(2) Experiences and benefits of formal leadership roles

- Two-fifths (40.75%) of the students in the online survey reported that they held a formal leadership role in or outside school, including a similar proportion of male (39.57%) and female students (41.70%). Students at schools in the Americas (44.42%) were most likely to hold a formal leadership position, followed by Australasia (42.65%) and South Asia/Gulf (41.65%). The most commonly noted formal leadership roles were in sports (25.13%), followed by clubs/societies (22.52%), class (20.16%), student councils (19.76%), and house activities (8.32%).
- In the interviews, the students discussed the benefits of formal leadership roles for building leadership skills. The experience and associated responsibilities were deemed to be highly challenging, which required a steep learning curve. They often had to overcome complex tasks that involved planning, problem-solving, and coordinating with others. However, the benefits for building leadership could be considerable, as one student put it: 'I feel like the experience has taught me so much more than I could even describe'.

(3) Experiences and benefits of leadership training

- Two-fifths (39.48%) of the students had participated in leadership training in the past year. There were no considerable differences between male and female students. However, the findings did vary by region, with 43.70% of students in South Asia/Gulf had participated in leadership training compared with 34.56% of students in Australasia and East Asia. The most commonly reported leadership training activities were conferences (33.22%), workshops (29.26%), and leadership programmes (18.61%).
- In the interviews, the students described how leadership training contributed to building leadership skills by encouraging them to reflect on what it means to be an effective leader and providing opportunities to practice leadership. In many cases, the students described leadership training as challenging, especially by taking them out of their comfort zone. Yet,

the experience of being guided to lead initiatives and activities in a supportive environment, such as Round Square conferences, was considered highly beneficial for building leadership skills.

(4) Demographics, leadership experience, and leadership self-efficacy

- We investigated leadership self-efficacy using the Leadership Efficacy Scale (Chemers *et al.*, 2000; Murphy, 1992) to identify self-evaluations of leadership. Female students reported higher levels of leadership self-efficacy than their male peers. There were no significant differences amongst the different age groups or regions.
- We were unable to find statistically significant relationships between students holding a formal leadership role or having received leadership training and leadership self-efficacy. The one exception was for students aged 16-17. The findings may appear puzzling, given that the interviewees were enthusiastic about the benefits of formal leadership roles and leadership training for building leadership.
- The interviews illuminated two potential explanations. First, many students described building leadership in and outside schools without holding formal leadership roles or attending leadership training. Second, those with formal leadership roles or leadership training often described developing a deeper appreciation of the significant challenges of leadership while, at the same time, building their leadership abilities. In other words, these experiences were part of a self-discovery process that made students more reflective and self-critical of their leadership abilities, which could be reflected in their self-evaluations of leadership in the Leadership Efficacy Scale.

(5) Students' recommendations to schools

- Most students were satisfied with opportunities to build leadership skills. Indeed, many commented on the privilege of attending a Round Square school and how students at other schools may not have the same leadership opportunities. However, they also shared recommendations, which focused on expanding leadership opportunities, increasing leadership training, and enabling all students to experience leadership.

- First, they called for more leadership opportunities through a greater number and greater diversity of activities with leadership experiences. They believed that schools should make leadership inclusive by involving multiple people with different roles, responsibilities, and tasks rather than a single leader holding a figurehead role. Second, they suggested more leadership training opportunities, such as leadership workshops and conferences that combine guidance and practical leadership experience. Third, they recommended expanding opportunities for younger students (e.g., aged 14-15 years) to experience leadership in schools, as many believed that they did not have the same opportunities as their older peers.

Chapter Five: Who can be a leader and the impact of student leadership

Introduction

In this chapter, we investigate the research question: *'Who can be a leader at Round Square schools and what is the impact of student leadership?'*. In part one, we report survey findings about the potential of everyone to be an effective leader, motivations for building leadership, and the power of young people to make positive change. We then investigate how these findings relate firstly to leadership self-efficacy and secondly to leadership attitudes and beliefs. In part two, we explore interview findings regarding the inclusivity of effective leadership, including the extent to which leadership is a learnt skill. We then explore why students believe that building leadership skills is important, considering personal benefits and the prospect of driving positive change. We also report teachers' perspectives about why leadership is important for young people. Finally, we summarise the survey and interview findings.

Part One: Quantitative Findings

We investigated how students perceive being a leader, including everyone's potential to be an effective leader and views on adult leaders. Then, we investigated students' motivations for building leadership and perspectives on the potential of young people to make positive change. To achieve this, we presented the students with nine statements and asked them to rate the extent of their agreement on a six-point Likert Scale, ranging from 'strongly disagree' to 'strongly agree' (see Table 5.1).

First, the descriptive statistics demonstrated differences between perceptions of adult leaders and the potential for everyone to be effective leaders. The students were more likely to agree with the statement that 'everyone has the potential to be an effective leader', than 'adults in my society are effective leaders'. Second, we asked students about their motivations for building leadership. The students were most highly motivated by their career, but they were also motivated by personal growth and further education. In addition, they were motivated to build leadership to contribute to their schools and society. Specifically, they reported slightly higher motivation levels for improving their society, compared to their improving their school. Third, the

students reported positive views of young people’s potential to make positive change. Interestingly, they indicated a higher level of agreement in the power to change their school than the power to change their society.

Table 5.1 - Descriptive statistics for being a leader

Variable	Mean	SD	Min.	Max.
Adults in my society are effective leaders	3.69	1.40	1	6
Everyone can be an effective leader	4.77	1.36	1	6
I build leadership to improve my school	4.19	1.34	1	6
I build leadership to improve society	4.47	1.28	1	6
I build leadership for my personal growth	4.49	1.33	1	6
I build leadership for my further education	4.48	1.31	1	6
I build leadership to for my career	4.72	1.23	1	6
Young people have power to change school	5.00	1.12	1	6
Young people have power to change society	4.19	1.34	1	6

Note. SD: Standard deviation. *N* = 6,760.

Perceptions of Leadership and Leadership Self-Efficacy

Measurement

For further analysis, three composite scores were generated by using a mean value of responses to the statements. As noted in Chapter Two, we grouped the mean value of responses to statements about why students build leadership skills into ‘leadership for personal development’ (i.e., I build leadership for my personal growth, my further education, and career) and ‘leadership for school and society’ (i.e., I build leadership to improve my school and society). We also group the mean values of ‘young people have the power to change school’ and ‘young people have the power to change society’ into a single item titled ‘young people have the power to make positive change’. The other items were separately used for the analysis. For a meaningful comparison and interpretation, the values were standardised to have a mean 0 and standard deviation of 1⁵.

We examined whether students’ perceptions of leadership relate to their leadership self-efficacy based on the Leadership Efficacy Scale (Chemers *et al.*, 2000; Murphy, 1992). To achieve

⁵ The matrix of correlations between the variables are shown in Appendix 3.

this, we employed a multilevel modelling approach with fixed region effects. We also employed inverse probability weighting to represent the global population of Round Square schools. The predictors used for leadership self-efficacy (i.e., the demographic factor and leadership positions and training) were included in the model.

Findings

Leadership Self-efficacy 1 and 2 were positively associated with (1) ‘leadership for personal development’, and (2) ‘leadership for school and society’, and (3) ‘power of young people to make positive change’ (see Table 5.2). A one SD increase in ‘leadership for personal development’ and ‘leadership for society and school’ was associated with an increase in Leadership Self-efficacy 1 and 2 of 0.16-0.24 SD. Also, as ‘the power of young people to make positive change’ increased by one SD, Leadership Self-efficacy 1 and 2 increased by 0.17 and 0.09 SD, respectively. These findings imply that students with greater beliefs in young people's power to make positive change and stronger motivations for building leadership tend to have higher leadership self-efficacy.

Table 5.2 - Regression results for being a leader and leadership self-efficacy

	Coefficient	Robust standard errors	p value
Leadership Self-efficacy 1 (Dependent variable)			
Adults in my society are effective leaders	-0.01	0.02	0.73
Everyone can be an effective leader	0.02	0.02	0.14
Leadership for personal development	0.23	0.02	0.00
Leadership for society and school	0.24	0.02	0.00
Young people can make positive change	0.17	0.02	0.00
Demographic and leadership factors		0	
Leadership Self-efficacy 2 (Dependent variable)			
Adults in my society are effective leaders	-0.09	0.02	0.00
Everyone can be an effective leader	-0.03	0.02	0.04
Leadership for personal development	0.16	0.02	0.00
Leadership for society and school	0.16	0.02	0.00
Young people can make positive change	0.09	0.02	0.00
Demographic and leadership factors		0	
Observation			
Individuals		6,698	
Schools		129	

Note. The outcome and the scales of the importance of leadership were standardized in the analyses to have a mean 0 and standard deviation of 1.

Conversely, we found that Leadership Self-efficacy 2 was negatively associated both with students' perception that adult leaders in my society being effective leaders (-0.09). These findings suggest that students who reported a positive perception of adult leaders being effective leaders were more likely to have a lower level of Leadership Self-efficacy 2.

Being a leader and leadership attitudes and beliefs

We examined the relationship between students' responses and their leadership attitudes and beliefs (Wielkiewicz, 2000). We found that systemic leadership thinking was positively associated with (1) perceptions that everyone has the potential to be an effective leader (0.09 SD), (2) leadership for personal development (0.22 SD), (3) leadership for society and school (0.16 SD), and (4) the power of young people to make positive change (0.32 SD). However, perceptions of adults in society being effective leaders were negatively related to systemic thinking (-0.04 SD) see Table 5.3).

Table 5.3 - Regression results for being a leader and leadership attitudes and beliefs

	Coefficient	Robust standard errors	p value
Systemic thinking (Dependent variable)			
Adults in my society are effective leaders	-0.04	0.02	0.02
Everyone can be an effective leader	0.09	0.01	0.00
Young people can make positive change	0.32	0.02	0.00
Leadership for personal development	0.22	0.02	0.00
Leadership for society and school	0.16	0.02	0.00
Demographic and leadership factors		0	
Hierarchical thinking (Dependent variable)			
Adults in my society are effective leaders	0.21	0.02	0.00
Everyone can be an effective leader	-0.02	0.02	0.33
Young people can make positive change	0.02	0.02	0.22
Leadership for personal development	0.09	0.02	0.00
Leadership for society and school	0.08	0.02	0.00
Demographic and leadership factors		0	
Observation			
Individuals		6,698	
Schools		129	

Note. The outcome and the scales of the importance of leadership were standardized in the analyses to have a mean 0 and standard deviation of 1. Statistically significant results at $p < .05$ are in bold.

In other words, students with more systemic leadership attitudes and beliefs were more likely to believe that everyone can be an effective leader, have stronger motivations for building leadership, and were more confident that young people have the power to make positive change. By contrast, students with more systemic leadership attitudes and beliefs were less likely to perceive that adults in their society were effective leaders.

Finally, the relationship between hierarchical thinking and the perceptions of adults in society being effective leaders was positive (0.21 SD), which contrasted with the relationship with systemic thinking. Also, hierarchical thinking was positively associated with 'leadership for personal development' (0.09 SD) and 'leadership society and school' (0.08 SD), but the magnitudes of the relationships were lower than those of systemic thinking.

Part Two: Qualitative findings

Expanding on the survey findings, interviews with students and teachers explored perspectives on everyone's potential to be an effective leader and why it is important for students to build leadership skills from a young age. We illuminated views about if leadership is a learnt skill that can be developed by all students. We also examined perspectives on motivations for building leadership and why leadership is important for young people. In doing so, we considered both the individual benefits to students and the potential of broader benefits of student leadership to bring about positive change in schools, societies, and globally.

Everyone can be an effective leader

We explored the idea that everyone can be an effective leader. In doing so, the students were asked to consider the extent to which leadership is a learnt skill or an innate ability that only a minority of people can attain. Some students believed that personality traits meant leadership came more easily to some than others. Nevertheless, they strongly believed that leadership was a learnt skill that everyone can develop. As Ying (China) explained: 'It depends on your personality a little bit, but I think more importantly it's about the desire to make an action and also what you learn from all the experience.' James (New Zealand) reinforced this point:

It's helpful if you're quite an outgoing person, if you have really good social skills, like that I think it's a lot easier to become a leader, but even if you don't have that I really do think you can become a leader, you can learn those character strengths and also become a leader even if you don't have that.

To become an effective leader, the students emphasised the importance of leadership experience. Jin (Korea) gave the example of a friend who overcame an initial lack of self-belief as he developed leadership skills through experience:

I know someone who is a leader right now but admitted that he didn't have the qualities of becoming a leader in the past. When he was put into that spot of having to become a leader, he thought he would never be able to fit into that kind of leader position, but as time went on, he was able to me more comfortable with the tasks that he had to give out and the things that he had to do and he was able to lead his group with charisma and smart decision making. So, he said that a person changes based on the environment they're presented to and I feel like that's a very god way to say that leadership or any skill can be learnt.

Similarly, Shimla (India) explained that it is only through experience that can students become effective leaders.

I believe that leadership is a learnt skill, and you have to learn how to be compassionate, how to communicate well, because if you take the back seat then you don't start to develop those skills, you won't be able to lead people effectively as if you yourself don't know what you're trying to do, how to take your team forward.

At the same time, the students discussed how students could become different types of effective leaders. That is, the students believed that effective leadership could involve a range of styles, that are related to individual personalities and experiences. As an example, Raj (India) discussed his belief that everyone can become an effective leader 'in their own way', which does not require holding a formal leadership role:

Not everyone can become the leader, but I think everyone can become a leader in their own way. So, they may not be a leader a senior position, it may just be leader for a small group or something like that.

Student leadership for personal development

We investigated motivations for building leadership skills and the impact of leadership. The interviews reaffirmed the findings of the online survey about how leadership offered opportunities for personal development. In some cases, the students described how building leadership skills was a goal in its own right rather than a means to an end. As Martina (Argentina) noted, leadership was an opportunity to ‘grow as a person’:

Leadership is very important because it doesn't only set an example for others but also helps oneself because being a leader sometimes means being a confident person and good for oneself. And leadership is something that makes you grow as a person, as well as helping others.

The students also discussed more instrumental motivations for building leadership skills. Leadership experience from a young age was highlighted as preparation for their futures, including further studies and careers. The students believed that leadership skills are important for diverse roles and positions as adults. For example, Derek (Australia) emphasised the value leadership ‘whichever job you have, whichever career you have’:

At your job you may be responsible for individual sectors wherever you go, even if you're not the president, whichever job you have, whichever career you have, you're still going to need leadership qualities. Just even in making decisions, I think it's very important.

Other students raised examples of the benefits of leadership skills that were not covered in the online survey. Leadership was discussed as valuable for a wide range of domains in young people's current and future lives. As one example, Shriya (India) emphasised how building leadership skills were necessary for raising a family:

It's better to start with the leadership qualities at a young age. For our future, not only in companies, but even in one's family, to lead a good family, even with your own children, you need good leadership qualities to also show them how to be successful at what they're doing and put them on the right path.

Student leadership for positive change in school and society

Apart from personal development, the students were motivated to build leadership to make an impact and drive positive change for others. That is to say, leadership was not only a skill that benefited themselves but could also contribute to their schools and societies. At the school level, the students were enthusiastic about their potential to bring about positive change by driving school improvement. As Ming (China) remarked:

Even at young age, at school, like when you stand up and speak, or be a project or anything like that, it can be one person or working together, but can have a big impact at the school.

They argued that schools are a platform for students to make a positive impact through leadership. They valued opportunities to put their leadership into practice in their school contexts. The example below from Michael (Switzerland) demonstrates how student-led initiatives can empower young people to make a 'big impact' in their school:

I definitely think young people can bring change in their school, I think it's the best chance in a way because we're all part of that, if you have a teacher, they might not understand as much about what change we want to see. Some students are looking at ways about how can we lower our plastic usage or lowering carbon emissions. It might seem small, but I think it still has a big impact when students are taking action.

Moreover, the students believed they are often best placed to understand other students' concerns and how to make a positive impact at school. Divya (India), for example, shared how the student bodies at her school could empathise with and respond to the concerns of junior students:

Our student bodies work in close coordination with juniors facing problems. Often, it has been the case that they were better versed with the problems of juniors than the teachers because they have been through all that themselves, enabling them to address the problems at the grassroots level.

At the societal level, the students expressed how young people can make a positive impact beyond their school. They discussed how building leadership at a young age was crucial for creating an awareness of an individual's responsibility for and a capacity to drive change in the societies where they reside. On the one hand, the students considered leadership skills crucial to improve their societies as adults. On the other hand, they were confident that they could make a positive impact on society as young people. Many believed that young people were more open-minded, adaptable, and passionate about leading change than adult leaders in their society. As Lethabo (Tanzania) argued:

Most change is brought by the younger generation. Older people have the tendency to try and stay fixed in one place. So young people are the people who can actually bring about positive change.

Related to this point, William (New Zealand) noted how young people have a responsibility to be leaders to lead change, rather than leaving it to 'people above us':

We've got to control our future, we can't just leave it up to people above us, because they're not going to be here forever, and we've got to realize it's our future and we have control over it. We've got to pave the way for what we want our society to look like when we're older and what the society should look like for younger people.

Significantly, the students' ambition to make a positive impact extended beyond their schools and societies to tackle transnational problems such as climate change, poverty, and discrimination. Tabitha (Tanzania) drew inspiration from youth leader Greta Thunberg to express her confidence about the potential of young people to make a positive impact on a global scale through collective action:

If you see a bee coming at you, you won't be scared, you'd just swat it away. But if you see a swarm, you'd probably have to run. It's the same with our generation. If we stand together against something, we'd probably have a higher chance of succeeding. See Greta Thunberg and her protest against climate change, and it's all a movement of the youth and it's really been taken into consideration by the European Union and perhaps the entire world. She has broadened almost

everyone's perspective so they can broaden people in their communities... Young people have a lot of power that they don't know about. The younger generation is quite strong, together we can make big impacts not just in our school, society or community but in our whole world.

Teacher Perspectives: Why building leadership is important for young people

The interviews with teachers illuminated perspectives about students' potential to be effective leaders and why leadership is important for young people. They generally agreed that some students have a greater inclination than others to take on leadership responsibilities, owing to different personalities and experiences. Nonetheless, they believed that leadership is a learnt skill that all students can build and practice in their own way. Ms Patel (India), for instance, noted how leadership can be developed over time and that schools provide a platform for students to 'test their own boundaries' with leadership:

For me, leadership is a skill that can be acquired and developed over time. I think then young people are given opportunities and encouragement, their confidence is boosted, and I think that's the first step they take towards leadership. I feel that school is the first platform that offers numerous programmes with young people start testing their own boundaries.

The teachers were supportive and enthusiastic about young people building leadership skills. Some teachers focused on the benefits of leadership to their students' personal development through self-discovery and realising their potential. Mr Williams (China) argued that leadership is crucial for students 'to stand up for what is right':

We should be able to stand up for what is right, we should have the confidence to do that and if people don't develop leadership skills they will never be able to stand their ground, they would back down any time someone maybe challenges them about what they think...I think everybody should have some amount of leadership capability or skill so that they can have the strength and the courage to speak up for what is right.

The teachers were optimistic about their students' capacity to put leadership into practice by making a positive impact on their schools and societies. Indeed, they believed that student

leadership was crucial for the future. Ms Chowdhury (India) discussed the ‘huge power’ and ‘huge responsibility’ of young people to bring about change:

Young people have a huge power to bring about change, they are the future. They are the ones who understand each other even more than grownups understand the young. And they have a huge responsibility to bring about positive change in society. Their ideas are fresh and more unbiased... these two things I would say would really help young people to bring about change.

Ms Johnson (USA) believed that student leadership is essential as the next generation will have to overcome a range of global crises to create a better world:

It’s very, very important for young people to build leadership because we’re reaching a tipping point in our world with climate, with certain political situations and with certain civil rights situations. I think that you are the generation that has the most power to affect change in those ways.

Part Three: Discussion

This chapter demonstrated our participants' perspectives about who can be an effective leader and the impact of student leadership. We considered students' views about if everyone has the potential to be an effective leader, their motivations for building leadership skills, and the capacity for student leaders to positively impact schools, societies, and globally. Here, we discuss the key findings from the online survey and interviews.

(1) Everyone has the potential to be an effective leader

- The students and teachers were confident that everyone has the potential to be an effective leader. In the interviews, the students and teachers discussed how leadership came more easily to some students than others. Moreover, they believed that different people could become different types of effective leaders. However, they shared a strong belief that effective leadership was a learned skill that could be developed by everyone.
- To become an effective leader, the participants emphasised the importance of leadership experience and how leadership skills were developed over time. Their responses aligned with

Kurt Hahn's conviction that 'there is more in you than you think', as they emphasised how every student has the potential to be an effective leader, even if it is 'hidden' or they do not realise it (cited in van Oord, 2010 p. 257).

(2) Lack of confidence in adult leaders

- The students were less confident that adult leaders in their society were effective leaders. This belief reaffirms the findings of Chapter Three about a perceived inter-generational gap between young people and adults. In the interviews, the students elaborated on how young people have both the potential and responsibility to take on leadership to make positive changes in schools, societies, and globally, rather than leaving it to adult leaders.
- The survey identified how these perceptions were related to leadership self-efficacy (Chemers *et al.*, 2000; Murphy, 1992) and systemic leadership attitudes and beliefs (Wielkiewicz, 2000). On the one hand, students who reported higher leadership self-efficacy and systemic leadership thinking were more likely to believe that everyone could be an effective leader. On the other hand, leadership self-efficacy and systemic leadership thinking were negatively associated with views that adults in my society are effective leaders. Overall, students who reported higher leadership self-efficacy and systemic leadership attitudes and beliefs were more likely to be critical of adult leaders in their society, whilst also having greater self-confidence that everyone can be an effective leader.

(3) Leadership motivated by personal benefits and contribution to others

- The students were motivated to build leadership for both personal benefits and to contribute to others. For personal benefits, the most important reason was their career, followed by personal growth and further education. They were also motivated to build leadership to improve their society and school. Further analysis revealed that students with stronger motivations for building leadership skills were more likely to have higher leadership self-efficacy (Chemers *et al.*, 2000; Murphy, 1992) and systemic leadership attitudes and beliefs (Wielkiewicz, 2000).

- In the interviews, there was agreement amongst students and teachers about the importance of leadership for young people. Leadership experience was believed to be an integral part of education that supplements the study of academic disciplines. The students elaborated on their motivations for building leadership. For many, personal growth was a motivation in its own right. This perspective was reinforced by teachers who emphasised that leadership was integral to students' self-discovery and crucial for them to realise their potential. The students also noted more instrumental motivations as leadership was considered valuable preparation for their futures, including with further studies, careers, and the family. Also, the students discussed motivations to build leadership to drive positive change and contribute to their schools and societies. That is, they were motivated by the prospect of 'giving back', rather than only the personal benefits of building leadership skills.

(4) High potential of young people to bring about positive change

- The students and teachers were enthusiastic about young people's potential to bring about positive change in schools and societies. In the survey, the students reported slightly higher motivation for building leadership to improve their societies, although they believed that they could make a greater impact at their school. We also found that views that young people have the power to make a positive change were positively related to leadership self-efficacy (Chemers *et al.*, 2000; Murphy, 1992) and systemic leadership attitudes and beliefs (Wielkiewicz, 2000). That is, students who were more optimistic about the power of young people to drive positive change had higher leadership self-efficacy and more systemic leadership thinking.
- In the interviews, the students argued that they should be given a voice to highlight problems, identify solutions, and implement change. First, they discussed their potential to drive improvements in their schools. They emphasised how schools provide an important platform for students to practice leadership and make a positive impact, especially as they can be better placed than adults to understand and address fellow students' concerns. Second, they expressed how students can make a positive impact on their societies. Although some believed that building leadership was important for becoming leaders as adults, more

students emphasised their capacity to positively impact society as open-minded, adaptable, and passionate young people.

- The teachers were optimistic about students being involved in decision-making to impact schools and societies positively. These findings align with Kurt Hahn's description that if a school is a ship, the students should be considered the crew rather than merely passengers (cited in van Oord, 2010 p. 259). Our research findings suggest that this statement could be extended to the societal level.

(5) A commitment to contributing to communities locally and globally

- The findings point to a commitment by students to contribute to communities locally and globally. Their perspectives aligned with Round Square ideals of servant leadership that recognises the importance of leaders having 'a desire to be of service to others and to nurture, guide, develop and help them to improve and succeed' (Round Square, 2021).
- The students' strong sense of service as leaders extended beyond their schools and societies to involve a commitment to the greater good on a global scale by wanting to tackle transnational problems such as climate change, discrimination, and poverty. Many students drew inspiration from youth leaders, including Greta Thunberg, to emphasise young people's power to drive positive change when working collaboratively with others worldwide. Similarly, the teachers stressed the significant potential of students being leaders, given their 'huge power' and 'huge responsibility' to create a better world.

Chapter Six: Conclusion

This research addressed a missing lens on student leadership in schools, especially in large scale, cross-cultural studies. It gave a voice to students aged 14 to 18 and their teachers to express their perspectives of student leadership. The context was the global network of Round Square schools. An explanatory sequential mixed-method research design (Creswell & Creswell, 2017) involved quantitative online survey data collected from 6,760 students and 1,695 teachers across 34 countries. This data informed the framing, collection, and analysis of interview data from 93 students and 21 teachers at 12 schools. The findings provided a holistic understanding of student leadership by exploring the perspectives of students and teachers on (1) leadership as a concept, (2) how students build leadership skills, and (3) who can be a leader and the impact of student leadership.

In this chapter, we summarise and reflect on the research. For each of the research questions, we merge the quantitative and qualitative analyses into a series of tables. We also present three propositions that concisely capture the major research findings. We then discuss the implications of the findings for schools. Finally, we share our concluding remarks about the bigger picture and the significance of the research for student leadership. In doing so, we highlight the importance of schools providing opportunities for all students to experience leadership both for their personal development and to empower them to contribute to schools, societies, and globally.

What it means to be an effective leader

Summary of findings

In chapter three, we investigated how students and teachers understand what it means to be an effective leader. In this process, we seek answers to the research question: *'How do students at Round Square schools conceptualise leadership as an abstract concept?'*. Our aim was to elicit student perspectives on leadership without imposing prior assumptions on the participants. We summarise the findings from the qualitative and quantitative data analysis in Table 6.1.

Table 6.1 - Summary of Chapter Three's findings

Theme	Findings
(1) The most important qualities of an effective leader	<ul style="list-style-type: none"> • For students, the most important qualities of an effective leader were confidence, communication, honesty, responsibility, and listening skills. • These qualities were discussed as valuable by enabling leaders to support and positively influence others whilst working collaboratively towards a shared objective.
(2) The prevalence of systemic leadership attitudes and beliefs	<ul style="list-style-type: none"> • The students reported more systemic than hierarchical leadership attitudes and beliefs. • They believed that effective leadership involves collaboration, ethical conduct, and service, which contrasted with a 'boss' who has absolute authority and dictates instructions to others.
(3) A 'Round Square effect'?	<ul style="list-style-type: none"> • The students demonstrated shared perspectives of effective leadership across age, gender, and cross-cultural contexts. • The findings point to the potential of a 'Round Square effect' related to how a common educational philosophy and commitment to student leadership in Round Square schools may cultivate common leadership perspectives.
(4) Leadership role models: Family, school, and global youth leaders	<ul style="list-style-type: none"> • The students discussed their role models who encapsulate their perspectives on effective leadership. They drew inspiration from family, peers and teachers in school, and global youth leaders. • They admired and sought to emulate their capacity to overcome adversity, work collaboratively, and enthuse others.
(5) Perceptions and realities of an inter-generational leadership gap	<ul style="list-style-type: none"> • For teachers, an effective leader's most important qualities were communication, vision, integrity, empathy, and compassion. • They reported higher levels of systemic thinking and lower levels of hierarchical thinking than students. Despite this, the students often perceived an inter-generational leadership gap with adults believed to display more hierarchical thinking.

Proposition One: What it means to be an effective leader

'The students believed that communication, confidence, honesty, responsibility, and listening skills are the most important qualities of effective leaders. They also reported holding more

systemic than hierarchical leadership attitudes and beliefs. Although many perceived an inter-generational gap with adults, there was more that united students and teachers than separated them in conceptualising leadership. Both groups valued leaders who support and positively influence others whilst working collaboratively towards a shared objective.'

Implications for schools

The findings inform schools about how students conceptualise leadership as an abstract concept.

1. The students underlined the importance of role models for cultivating an understanding of leadership. The most influential role models included teachers and peers in schools, alongside family members and global youth leaders.
 - *Adults in schools need to be aware of their responsibilities as positive leadership role-models – students not only hear what adults say, they watch what they do. Schools can ensure that all adults are aware of this responsibility and communicate the 'right' things to students through their actions.*
 - *Students themselves are powerful leadership role models for their peers. It is important that schools provide avenues for students to engage in meaningful and visible leadership activities which highlight student leadership.*
2. Many students had a shared understanding of leadership, even after controlling for age, gender, and region. We tentatively suggest that the findings may reflect a 'Round Square effect' related to shared educational philosophy and leadership perspectives across the schools. However, before this can be confirmed, further research is required to compare Round Square students with other students.
 - *It is important that Round Square and schools themselves look more deeply, through research, into a possible 'Round Square effect.'*
3. Students perceived an inter-generational gap in leadership, with adults deemed to have more hierarchical attitudes and beliefs. Despite this, the teachers at Round Square schools reported similar leadership perspectives to the students, emphasising qualities such as communication and systemic leadership attitudes and beliefs. A notable

difference was that teachers were less likely to cite confidence as a crucial effective leadership quality, whereas it was the most commonly reported quality by students.

- *Schools can facilitate further teacher student dialogue about the role of confidence in leadership, especially by discussing positive aspects of confidence related to self-belief and how leadership may not be limited to students with extrovert personalities.*

How students build leadership skills

Summary of findings

In Chapter Four, we explored the research question: ‘How do students at Round Square schools build leadership?’. We asked students about their personal experience of leadership development and for teachers to reflect on their professional experience of working with a range of students. In Table 6.2, we summarise the research findings.

Table 6.2 - Summary of Chapter Four’s findings

Theme	Findings
(1) Building leadership skills inside and outside the classroom	<ul style="list-style-type: none"> • The top five activities reported by students for building leadership were groupwork, projects, presentations, hobbies, and sports. For teachers, the top activities were groupwork, volunteering, projects, sports, and presentations. • Both groups emphasised learning through experiences, inside and outside the classroom, that involved leadership responsibilities whilst working collaboratively towards a shared objective.
(2) Experiences and benefits of formal leadership roles	<ul style="list-style-type: none"> • Two-fifths of students reported holding a formal leadership role, including in sports, clubs/societies, class, student council, and house activities. • They discussed leadership roles as challenging but believed that the experience was valuable for building leadership.
(3) Experiences and benefits of leadership training	<ul style="list-style-type: none"> • Two-fifths of students had participated in leadership training over the past year, including conferences, workshops, and leadership programmes. • Although leadership training could be challenging, they believed that the experience of being guided to lead activities in a supportive environment was valuable for building leadership.

(4) Demographics, leadership experience, and leadership self-efficacy	<ul style="list-style-type: none"> • Female students reported higher leadership self-efficacy than their male peers, but there were no significant differences according to age or region. • Leadership roles and training were not significantly related to leadership self-efficacy. First, students often built leadership without holding formal leadership roles or participating in leadership training. Second, leadership roles or leadership training were part of a self-discovery process that made students more reflective and self-critical of their leadership.
(5) Students' recommendations to schools	<ul style="list-style-type: none"> • Students recommended that schools expand leadership opportunities and enable all students to experience leadership. • They recommended expanding the number and diversity of leadership activities, expanding leadership training opportunities, and expanding opportunities for younger students (e.g., aged 14-15 years) to experience leadership.

Proposition Two: Leadership is built through experience

'Leadership can be built through diverse activities in and outside the classroom that provide opportunities to experience leadership responsibilities whilst working collaboratively towards a shared objective. Although more formal leadership roles and structured training can be valuable for building leadership, they may not increase leadership self-efficacy, as students become more self-aware and self-critical of their abilities. The students called on schools to expand leadership opportunities and to enable all students to experience leadership.'

Implications for schools

The findings inform schools about how students build leadership skills.

1. The personal experiences of students and the professional experiences of teachers demonstrated how leadership skills are built through a wide range of experiences. Their perspectives aligned with experiential education, championed by Kurt Hahn and others, that prioritises learning by doing and reflection on practical experience. It is not the activity per se, but rather the value is in the opportunity for students to experience responsibilities whilst working collaboratively to achieve an objective.
 - *Schools can continue and increase collaborative 'real-life' activities in classrooms (e.g., group work, project, presentations), outside classrooms (e.g., sports, volunteering,*

- hobbies), and a more general promotion of leadership as a ‘way of being’ in all activities. They can also provide additional support for students to actively reflect upon the leadership experienced through such activities.*
2. Formal leadership roles and leadership training can make a significant impact on students’ leadership. At the same time, experiences of leadership responsibilities can be challenging for students as they often require a steep learning curve, complex tasks, and stepping out of comfort zones.
 - *Schools can continue to expand student leadership roles and provide formal training which pushes students to critically reflect on their leadership development. This is an important part of a self-discovery process that enhances leadership skills.*
 3. The students put forward recommendations to help students build leadership in schools and that schools expand leadership opportunities for younger students to experience leadership.
 - *Schools can make leadership as inclusive as possible, including for younger students, by creating more activities and roles to experience leadership. Formal leadership training opportunities, including workshops and conferences, that offer leadership guidance and experience should continue to be offered.*

Who can be a leader and the impact of student leadership

Summary of findings

In Chapter Five, we examined the research question: *‘Who can be a leader at Round Square schools and what is the impact of student leadership?’*. We illuminated the views of students and teachers about the role of leadership in the current and future lives of students. A summary of the major findings is presented in Table 6.3.

Table 6.3 - Summary of Chapter Five's findings

Theme	Findings
(1) Everyone has the potential to be an effective leader	<ul style="list-style-type: none"> • Students and teachers were confident that everyone has the potential to be an effective leader. • They believed that although leadership comes easier to some students than others, and that leadership styles vary, leadership is a learnt skill that can be built by everyone through experience.
(2) Less confidence in adult leaders	<ul style="list-style-type: none"> • Students were less confident about the effectiveness of adult leaders in their societies. Therefore, they believed that young people have both the potential and responsibility to be leaders to drive positive change. • Students with higher leadership self-efficacy and systemic leadership attitudes and beliefs were more likely to be critical of adult leaders, whilst also having greater self-confidence that everyone can be an effective leader.
(3) Leadership motivated by personal benefits and contribution to others	<ul style="list-style-type: none"> • Students were motivated to build leadership for personal benefits (e.g., personal growth, career, further studies, and families) and to contribute to their schools and societies. Those with stronger leadership motivation had higher leadership self-efficacy and systemic leadership attitudes and beliefs. • The teachers emphasised that leadership was integral to students' self-discovery and crucial for them to realise their potential.
(4) High potential of young people to bring about positive change	<ul style="list-style-type: none"> • Students and teachers were enthusiastic about young people's potential to bring about positive change. Students with higher leadership self-efficacy and systemic leadership thinking were more optimistic about the power of young people. • The students believed that schools provide a platform to practice leadership and make an impact. They were keen to participate in decision-making processes to highlight problems, identify solutions, and implement change in schools and societies.
(5) A commitment to contributing to communities locally and globally	<ul style="list-style-type: none"> • The students' sense of leadership service extended beyond local communities to wanting to tackle global problems such as climate change, discrimination, and poverty. • Teachers reinforced students' leadership potential by emphasising their 'huge power' and 'huge responsibility' to create a better world.

Proposition Three: All students can be effective leaders

'Effective leadership is a learnt skill that can be built by all students over time through experience. Leadership experience should be integral to schools as it provides both personal benefits to students and enables them to contribute to others. Students have significant potential to bring about positive change. Therefore, students should be included in decision-making processes to leverage their potential to make a positive impact on schools, societies, and globally.'

Implications for schools

1. Students and teachers believed that everyone has the potential to be an effective leader. Although leadership may come easier to some students than others and leadership styles vary, they emphasised that leadership is a learnt skill that can be developed through experience. Indeed, the participants believed that young people have both the potential and responsibility to be more effective leaders than adult leaders.
 - *Schools can cultivate leadership amongst all students, even if they do not realise their leadership potential. The perspective aligns with Kurt Hahn's conviction that 'there is more in you than you think'.*
2. Students have multiple motivations to build their leadership. Leadership skills provide benefits for personal development, further studies, careers, and family. Leadership skills also enable students to contribute to their schools and societies. These benefits are not mutually exclusive, which underscores why schools should provide opportunities for students to build leadership skills.
 - *Schools can recognise that different students are motivated differently to 'learn leadership' and cater to these different motivations and levels of motivation. Leadership learning activities can be geared to cater to different motivations.*
 - *Schools can actively encourage all students to explore their leadership and determine for themselves why leadership is important.*
3. Both students and teachers were enthusiastic about how students can make a positive impact through leadership. Schools, in particular, were highlighted as a valuable platform for students to practice leadership.

- *Schools can maximise students' opportunities to participate in decision-making processes to highlight problems, identify solutions, and implement change. The contribution of student leaders can drive positive change not only in their schools and societies but can extend to the global level to create a better world. Student contributions to leadership and ideas for a better future should be widely highlighted in and beyond schools.*

Concluding remarks

As we wade through the first quarter of 2021, it has never been clearer that our students are our future. It is irrefutable that they will carry the mantle of leadership on their shoulders and determine how our societies and systems address the tangled issues around inequity, climate change, poverty and peace, to name but some. How students define and enact leadership formally and informally must be intentionally embraced by communities, nations, international agencies and, perhaps most importantly, schools.

In basic terms, embracing the power of student leadership entails helping young people reflect upon what good and compassionate leadership look like, why it is so important and what it can achieve in and for the world. The leadership values and frameworks students develop throughout their young lives will shape how and why they lead in the future and drive their positive change agendas. Therefore, it is incumbent on schools to take a purposeful role to support and nurture the development of student leadership in its broadest sense. Before schools can do this, we must have a clearer picture of how students conceptualise leadership, their beliefs about effective leadership, what schools and systems working in partnership with students can do to help student leadership flourish and the possible impact of student leadership. The study detailed in this report set out to explore these issues in Round Square schools worldwide.

This large-scale research is important because it collected student and teacher perspectives specifically on student leadership from schools in 34 countries representing a diverse range of cultures, something as far as we know that has not been attempted before. In doing so, it aimed to give students a louder leadership voice. This voice has provided several key

insights that help us better understand how students see leadership and what we might do in schools to help this blossom.

- ***Students believe they can make a difference to the world through their leadership.*** Students need opportunities to exercise their leadership to reinforce their belief that they can positively impact their schools, communities, and the wider world. Seeing the impact of their leadership serves to build confidence.
- ***All students are leaders.*** Students see leadership in less hierarchical terms than adults. As such, all students hold the potential to be successful leaders in their way and in their own right if provided the opportunity to explore and learn leadership on the ground.
- ***Student leadership benefits the individual and the collective.*** Learning leadership in schools provides for student's personal development and empowers them to contribute to their schools, societies, and globally.
- ***Students learn leadership through multiple pathways.*** Students learn leadership through informal roles and interaction and formal, structured mechanisms. The key to meaningful learning is that students have numerous and diverse opportunities to explore, experiment, experience and reflect upon their leadership throughout their time in school.
- ***Student school partnerships are essential for learning leadership.*** Students cannot explore and learn successful leadership in a vacuum. It is best learned interactively in supportive school cultures and through mutually respectful partnerships with different adult communities.

Round Square schools have always valued student voice and promoted and nurtured student leadership. We hope that the exciting youth perspectives in this report reinforce the organisation's work to date and provide food for thought as they unite with students to further enliven the *Spirit of Leadership*.

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Appendices

Appendix 1

Multigroup confirmatory factor analysis (MCFA) was used to investigate a latent construct of systemic leadership thinking by using 14 items and of hierarchical leadership thinking by using 14 items from Wielkiewicz (2000), on a six-point Likert scale. As a starting point, configural invariance⁶ was assessed on each of the 14 items. The model fit was evaluated by using common criteria (Hu & Bentler, 1999); the chi-square goodness-of-fit statistic (χ^2), the comparative fit index (CFI \geq .90), and the root mean square error of approximation (RMSEA $<$.08). The model of systemic thinking showed a good fit (CFI = 0.911, RMSEA = 0.077). The values of CFI and RMSEA in the model of hierarchical thinking were marginally acceptable (CFI = 0.894, RMSEA = 0.085).

In the second phase of testing measurement invariance, the metric invariance⁷ was evaluated using the changes (Δ) in the fit indices criteria between the preceding model and a more restricted model; $\Delta\text{CFI} \leq -0.01$ or $\Delta\text{RMSEA} \leq 0.015$ indicates invariance (Cheung & Rensvold, 2002; Chen, 2007). Given the large sample of this study, ΔCFI and ΔRMSEA were used apart from $\Delta\chi^2$, since they are not dependent of sample size and model complexity (Cheung & Rensvold, 2002). See Table A1.1 for details.

Finally, the scalar invariance⁸ was examined by using the same criteria above. As shown in Table A1.2, the scalar invariance was supported, as well as the metric invariance for both systemic and hierarchical leadership thinking. The results for the measurement invariance tests allowed us to compare the latent means of the leadership attitudes and beliefs across the regions.

⁶ The condition that the same factor structure is estimated simultaneously across groups.

⁷ An evaluation of the factor loadings of latent constructs are equivalent across groups to check if the measured construct represents the same meaning across multiple groups

⁸ To examine the level of the compared latent construct is equivalent across groups, reflecting that mean differences across groups stem from mean differences in the latent underlying construct.

Table A1.1 - Measurement invariance tests of leadership attitudes and beliefs across regions

Model	CFI	RMSEA	χ^2 (df)	Δ CFI	Δ RMSEA	$\Delta\chi^2$ (df)
Systemic thinking						
Configural:						
Factor structure constrained to be equal	0.911	0.077	3462.970 (385)	-	-	-
Metric:						
Equal loadings	0.910	0.072	3547.101 (441)	-0.001	-0.005	84.131 (56)
Scalar:						
Equal loadings & intercepts	0.910	0.068	3601.210 (455)	0.000	-0.004	54.109 (14)
Hierarchical thinking						
Configural:						
Factor structure constrained to be equal	0.894	0.085	2377.231 (220)	-	-	-
Metric:						
Equal loadings	0.894	0.078	2419.688 (264)	0.000	-0.007	42.457 (44)
Scalar:						
Equal loadings & intercepts	0.893	0.072	2482.943 (308)	-0.001	-0.006	-63.255 (44)

Table A1.2 - Leadership attitudes and beliefs: Standardised item loadings of the scalar model by region

Factor/Item	Factor loadings				
	Australasia /East Asia	Europe/ Mediterranean	Americas	Africa	South Asia/Gulf
Systemic leadership thinking					
'Individuals need to take initiative to help their organization accomplish its goal'	0.61	0.61	0.62	0.61	0.65
'Leadership should encourage innovation'	0.66	0.64	0.66	0.64	0.67
'Everyone in an organization needs to be responsible for accomplishing organizational goals'	0.57	0.58	0.57	0.57	0.58
'Organizational actions should improve life for future generations'	0.66	0.65	0.67	0.66	0.66
'Leadership activities should foster discussions about the future'	0.66	0.66	0.63	0.66	0.65
'Effective leadership seeks out resources needed to adapt to a changing world'	0.72	0.71	0.72	0.67	0.70
'An effective organization develops its human resources'	0.64	0.65	0.67	0.63	0.65
'Anticipating the future is one of the most important roles of leadership processes'	0.51	0.50	0.53	0.49	0.50
'Good leadership requires that ethical issues have a higher priority'	0.49	0.49	0.49	0.48	0.50
'Successful organizations make continuous learning their highest priority'	0.59	0.61	0.64	0.62	0.62
'Environmental preservation should be a core value of every organization'	0.56	0.57	0.58	0.55	0.57
'Organizations must be ready to adapt to changes that occur inside the organization'	0.70	0.71	0.72	0.71	0.70
'An organization needs flexibility in order to adapt to a rapidly changing world'	0.68	0.68	0.71	0.68	0.66

	Factor loadings				
'Leadership processes involve the participation of all organization members'	0.56	0.58	0.56	0.58	0.57
<i>R</i> ²	0.90	0.90	0.90	0.90	0.90
Hierarchical leadership thinking					
'A leader must maintain tight control of the organization'	0.59	0.59	0.59	0.58	0.60
'A leader must control a group or organization'	0.69	0.72	0.70	0.69	0.70
'A leader should maintain complete authority'	0.75	0.73	0.74	0.73	0.75
'A leader should take charge of the group'	0.62	0.62	0.62	0.61	0.61
'The main task of a leader is to make the important decisions for an organization'	0.59	0.60	0.58	0.57	0.58
'The main tasks of a leader are to make and then communicate decisions'	0.44	0.45	0.44	0.44	0.44
'It is important that a single leader emerges in a group'	0.59	0.57	0.58	0.57	0.58
'Members should be completely loyal to the designated leaders of the organization'	0.58	0.58	0.59	0.57	0.58
'The most important members of the organization are its leaders'	0.56	0.55	0.55	0.55	0.56
'Positional leaders deserve credit for the success of an organization'	0.45	0.44	0.44	0.45	0.44
'The responsibility of taking risks lies with the leaders of an organization'	0.46	0.48	0.46	0.45	0.45
'When an organization is in danger of failure, new leaders are needed to fix the problems' ^a	-	-	-	-	-
'Leaders are responsible for the security of organization members' ^a	-	-	-	-	-
'An organization should try to remain as stable as possible' ^a	-	-	-	-	-
<i>R</i> ²	0.86	0.86	0.86	0.85	0.86

Note: ^a Factor loadings lower than 0.40 were not included in the model. *N* = 6,760.

Appendix 2

MCFA was used to investigate a latent construct of leadership self-efficacy by using the statements on using a six-point Likert scale. As a starting point, the configural invariance of one- and two-factor models was assessed on the eight items in the Leadership Efficacy survey instrument (Chemers *et al.*, 2000; Murphy, 1992). The model fit was evaluated by using the common criteria (Hu & Bentler, 1999); the chi-square goodness-of-fit statistic (χ^2), the comparative fit index (CFI $\geq .90$) and the root mean square error of approximation (RMSEA $< .08$). While the one-factor model was not a good representation of leadership self-efficacy, all fit statistics improved and were acceptable in the two-factor model (SRMR = 0.035, CFI = 0.961, RMSEA = 0.063). See Table A2.1.

Table A2.1 - Summary of the model fit indices

Model	CFI	RMSEA	χ^2 (df)
One-factor	0.809	0.137	2655.782 (100)
Two-factor	0.961	0.063	612.490 (95)

Based on the results, we selected a two-factor model for subsequent analyses and summarised the results of MCFA in Table A2.2. All factor loadings were higher than 0.40 and the model explained roughly 92~93% of the total variance in leadership self-efficacy. In the second phase of measurement invariance, the metric invariance was evaluated using the changes (Δ) in the fit indices criteria between the preceding model and more restricted model; $\Delta\text{CFI} \leq -0.01$ or $\Delta\text{RMSEA} \leq 0.015$ indicates invariance (Cheung & Rensvold, 2002; Chen, 2007). Given the large sample of this study, ΔCFI and ΔRMSEA are recommended apart from $\Delta\chi^2$ since they are not dependent of sample size and model complexity (Cheung & Rensvold, 2002). Finally, the scalar invariance was examined by using the same criteria above. As shown in Table A2.3, the scalar invariance was supported and succeeded in meeting the allowed change statistics ($\Delta\text{CFI} = -0.001$, $\Delta\text{RMSEA} = -0.005$), as well as the metric invariance ($\Delta\text{CFI} = -0.001$, $\Delta\text{RMSEA} = -0.007$). The results for the measurement invariance tests allowed us to compare the latent means of student leadership across the regions.

Table A2.2 - Leadership self-efficacy: Standardised item loadings of the scalar model by region

Factor/Item	Factor loadings				
	Australasia /East Asia	Europe/ Mediterranean	Americas	Africa	South Asia/Gulf
Factor 1: Leadership Self-efficacy 1					
'I know a lot more than most high school students about what it takes to be a good leader'	0.47	0.46	0.49	0.48	0.49
'I know what it takes to make a group accomplish its task'	0.67	0.65	0.64	0.67	0.68
'I am confident in my ability to influence a group I lead'	0.70	0.70	0.71	0.71	0.70
'I know how to encourage good group performance'	0.67	0.71	0.68	0.64	0.68
'I am able to allow most group members to contribute to the task when leading a group'	0.57	0.56	0.55	0.56	0.57
Factor 2: Leadership Self-efficacy 2					
'In general, I am not very good at leading a group of my peers' ^a	0.72	0.71	0.69	0.69	0.70
'I have no idea what it takes to keep a group running smoothly' ^a	0.65	0.68	0.64	0.69	0.67
'Overall, I doubt that I could lead a group successfully' ^a	0.71	0.69	0.71	0.74	0.72
<i>R</i> ²	0.92	0.92	0.93	0.92	0.92

Note: ^aThe negative statements were reversed prior to analysis to allow a high score to reflect a high level of leadership self-efficacy.

Table A2.3 - Measurement invariance tests of leadership self-efficacy by region

Model	CFI	RMSEA	χ^2 (df)	Δ CFI	Δ RMSEA	$\Delta\chi^2$ (df)
Configural: Factor structure constrained to be equal	0.961	0.063	612.490 (95)	-	-	-
Metric: Equal loadings	0.960	0.056	667.739 (127)	-0.001	-0.007	55.249 (32)
Scalar: Equal loadings & intercepts	0.959	0.051	710.166 (159)	-0.001	-0.005	42.427 (32)

Appendix 3

Table A3.1 - *The correlation matrix for the key variables (students)*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Adults in my society are effective leaders	1.00								
(2) Everyone can be an effective leader	0.17	1.00							
(3) Young people can make positive change	0.19	0.34	1.00						
(4) Leadership for personal development	0.20	0.23	0.35	1.00					
(5) Leadership for society and school	0.23	0.26	0.40	0.64	1.00				
(6) Leadership Self-efficacy 1	0.13	0.18	0.36	0.46	0.47	1.00			
(7) Leadership Self-efficacy 2	0.00	0.06	0.21	0.29	0.29	0.70	1.00		
(8) Systemic thinking	0.11	0.29	0.48	0.44	0.44	0.44	0.25	1.00	
(9) Hierarchical thinking	0.25	0.06	0.12	0.18	0.18	0.17	-0.05	0.31	1.00

N = 6,760.