Fostering Growth Mindset To Facilitate Learning

By

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Abstract

The culture around success is one that breeds hesitancy among our youth: students seek out opportunities that suit their strengths and shy away from challenges because they view struggle as failure. The growth mindset, a term coined by psychologist Carol Dweck, redefines success. She posits that it is not enough to merely create a successful product; an imperative component of success is the process, which includes perseverance through struggle in order for true success to be achieved. The notion of growth mindset can be difficult to reconcile within the confines of the traditional classroom where student work is assessed, often, based on results and not process. In our ever-changing global society, many parents value grades and view report cards as the epitome of achievement. Interviews conducted with three teachers, coupled with reviews of the literature seek to bring to light how teachers can begin to temper growth mindset ideals with the realities of the classroom. This research explores how classroom teachers can facilitate learning in the classroom through fostering growth mindset ideals.

The interviews with the three teachers yielded some valuable findings, many of which have implications for other practicing teachers. For instance, all three teachers noticed a marked improvement in student participation and learning, after implementing the growth mindset in their classrooms. Similarly, they noticed that these improvements were not limited to “low achieving” students, and in fact had positive implications for all students. The literature review revealed a consistency with the findings, which were gleaned through the teacher interviews. Many of the teacher comments were supported by Ontario Ministry documents such as Growing Success. The research suggests that teachers should bring growth mindset into the classroom to improve student learning.

Key Words: Growth mindset, motivation, success, assessment.
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Chapter 1: INTRODUCTION

Introduction to the Research Study

As teachers, we endeavour in earnest pursuit of inspiring a life-long joy of learning among our impressionable students, brimming with potential; we believe that “education should change students in purposeful ways.” (Whitcomb, J., Borko, H., & Liston, D., 2008) Instead, all too often, students seem disengaged and bored with the prospect of learning in a largely archaic institution; at best, obediently carrying out the tasks necessary for a good grade. (Robinson, Ken, 2006).

Rather than planting the seeds of inquiry or kindling a fire that will burn passionately and lead students to new learning and discoveries outside the classroom, the modern classroom is a place that often extinguishes students’ natural curiosities and instead celebrates “correct” answers and mass thinking, thereby earning the reputation of being “relatively unexciting, boring”. (Apple, W, M., 1977) School becomes a tedious requirement- “many young people find school boring and irrelevant” - and does not compare with more engaging offerings available through modern media and extracurricular activities. (Vergnault, O., 2009) It becomes abundantly clear that school is missing a critical component possessed by those activities students willingly engage in; this issue of disengagement can be addressed through school reform. (Jonson-Reid, M., 2010) Intrinsic motivation to learn is a requisite component of education that is sorely lacking in today’s schools. (Ryan, Richard M.; Deci, Edward L., 2000)

For education to set the foundation for innovative, creative and spectacular thinking, teachers today must consistently inspire students to pursue knowledge and
Carol Dweck’s work around growth mindset suggests that students need to be empowered to make mistakes through celebration of effort and process, in place of product. (Dweck, 2008) This sets the groundwork for authentic learning experiences. Rather than concern themselves with the “right” answer, which facilitates an inauthentic and superficial approach to learning, the growth mindset approach empowers students to be genuinely curious and to ask difficult questions in an effort to discover rich answers and uncover true learning. (Dweck, 2008) Teachers must facilitate this process. Through careful consideration of lesson goals, teachers can structure lessons to address students’ natural curiosities through inquiry-based approaches. Although it takes time to marry open-ended inquiry with curriculum, it is an indispensable tool for students to genuinely engage with content in a meaningful way. Garfield Gini-Newman’s research around “cascading curriculum” (Gini-Newman, 2015) offers a structured inquiry-inspired option, suitable for teachers beginning to take the necessary formative steps toward a more engaging and student-centric curriculum. He posits that lessons ought to simultaneously address curricula while remaining engaging and thus meaningful for students.

Sir Ken Robinson’s infamous TED talk critiques the status quo of the institution of education today. Many of the suggestions contained herein are inspired both by new studies and also by historic researchers such as Vigotsky and Bloom. Motivating students has been a long-standing subject of interest because motivation is the prerequisite to intrinsic motivation, which is the basis for genuine interest and pursuit.

The key to creating engaging classrooms, then, is to utilize strategies such as the growth mindset, cultivated through authentic learning experiences such as cascading
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lessons, inquiry-based, and meaningful learning opportunities. This authentic learning then needs to be assessed in a way that is congruent with Growing Success and, in turn, the tenets of growth mindset. Assessment that contravenes growth mindset inevitably also contravenes the learning itself which is, at best, confusing for students, and at worst, pernicious. By definition, growth mindset fosters intrinsic motivation because it gives heed to effort. Thus, motivation is cultivated, and by extension, a love for learning and a curiosity is borne.

**Purpose of the Study**

The purpose of this study is to explore how teacher attitudes and practices in the classroom benefit students with a variety of needs. This study seeks to explore how intrinsic motivation for learning is fostered through the combined implementation of growth mindset and authentic assessment practices by three teachers in one school. This study is important to the education community because it seeks to reconcile the push for student-centered learning with the need for assessment, all the while encouraging student learning and risk-taking. Many of the techniques, strategies, suggestions and issues raised are important thinking and discussion points for other teachers. Moreover, many of the teachers’ decisions and conversations may help guide other teachers toward improved practices in their own classrooms.

**Research Questions**

My main research question was “how can teachers facilitate growth mindset through cascading lessons and authentic assessments.” My sub questions explored the benefits and detriments of fostering growth mindset – the notion that intelligence and ability are skills rather than fixed traits - in the classroom. I also explored how traditional
lesson and assessment models facilitate growth mindset, and in what ways modification of lessons and assessment can better support growth mindset.

**Background of the Researcher**

In the early months of my first year pursuing the Masters of Teaching program, I had the opportunity to attend the Toronto Symphony Orchestra. After the concert, I reflected, “As I sat listening to the distinct sounds of the instruments, I reflected on the last time I attended Roy Thompson Hall: in elementary school. I realized that many of my fond memories of school dealt with "non-traditional" learning…field trips to the zoo, pioneer village, the science center...labs in science class and "talk show" presentations.” The question, "what do I remember?" yielded recollections of plays that I attended, debate tournaments in which I participated, and opportunities to raise classroom pets. The textbook pages we surely poured over did not come to mind.” It was, perhaps, then that I realized my desire to investigate student motivation for learning. My interest in this topic is informed by my own recollection of elementary school; my experience teaching in various settings; and, of course, by various courses I have had the opportunity to discover, both at the Ontario Institute for Studies in Education at the University of Toronto (OISE at UT) and during my undergraduate degree at Queen’s University in Kingston, Ontario.

These experiences left me curious about alternative methods of learning that existed outside the public school realm. I wondered how moving away from the traditional curriculum-and-evaluation based method of education might impact learning. I questioned whether there was room for a more diversified approach to education where students could pursue their natural curiosities and engage with one another to create a learning community. I sought to discover if there was some way to create a peer-based
education program where children could teach one another as "experts" in their own work. Special needs students have IEP’s and I mulled over whether this concept could be applied more broadly. What would be the effect of moving away from testing and evaluation, in favor of cultivating children’s natural curiosities? I soon discovered that such questions were too broad but I had stumbled upon Carol Dweck’s notion of growth mindset in my quest for answers, and her writing provided some clarity and direction.

Toward the end of my first year in the Master of Teaching program, I had the opportunity to work as a tutor for the York Region School Board. As a tutor, I received training around growth mindset and decided to change my MTRP topic, then and there. I specifically wanted to look at how teachers can facilitate the growth of mindset. In my second year course entitled authentic assessment, my professor Garfield Gini-Newman lectured about some of his research which held very apparent ties to my knowledge of growth mindset. I was immediately intrigued to learn more, and sought to discover parallels between his work and my research.

The biggest issue I saw with growth mindset was not in the concept itself but in, what I considered to be, the incongruence of implementing such a concept within the confines of the public education system. I didn’t think there was cohesion between the philosophies of growth mindset and the realities of the students and their parents, many of whom were from backgrounds which valued high marks and product, over process. It seemed disconnected to, on one hand, be telling students that it’s ok to make mistakes and to learn, while on the other hand grade their learning as a final judgement of their ability and record that as a grade on the report card, to be sent home. I struggled to understand how two such contrary actions could possibly coexist, and this was the direction my research questions took, as I began my quest for answers. I decided to
investigate how teachers were facilitating growth mindset, particularly looking at their instructional and assessment practices.

Overview

Chapter one includes the introduction and purpose of the study, the research questions, as well as how I came to be involved in this topic and study. Chapter two contains a review of the literature. Chapter three provides the methodology and procedure used in this study including information about the sample participants and data collection instruments. Chapter four identifies the participants in the study and describes the data as it addresses the research question. Chapter five includes limitations of the study, conclusions, recommendations for practice, and further reading and study. References and a list of appendixes follow at the end.
Chapter 2: LITERATURE REVIEW

In student-centered learning environments which are increasingly prevalent (Anderson, M. J., 2010; Baugher, S. L., 2013), the topic of student motivation has become an important consideration. (Goins, B., 1993) The literature review looks primarily at student motivation. In particular, the roles of both assessment and instruction as motivators are considered, with particular attention paid to fostering the growth mindset. Additionally, some consideration is given to planning engaging lessons though such means as the cascading model.

Assessment

The role assessment plays in learning, including the kinds of tasks that are assigned, and the ways in which success and failure are reported send “powerful messages to students not only about their own learning, but also about the nature of learning itself.” (Masters, G. N., 2014).

In order for students to learn successfully, it is imperative to strike a balance between that which is too easy, and that which is challenging enough. This is regarded as the “zone of proximal development” (Vygotsky, 1896-1934; Zaretskii, V. K., 2009). Often, tasks are chosen because they are within the range of a student’s ability, and likely to be completed successfully. “Underpinning this approach is a belief that, if students are given tasks on which they’re likely to succeed, then the resulting success experiences will make learning more pleasurable…in contract, the experience of failure is assumed to be less pleasurable.” (Masters, G. N., 2014) There are, of course, assessment models that marry success and failure in such a way as to change the vocabulary of assessment entirely. One such method is the “second-chance” method which “show[ed] merit in the area of student success when using traditional assessment practices….in light of this
result, instructors employing some form of alternative assessment may have a greater impact on students’ attitude, completion and success by incorporating some type of a second-chance along with one of the alternative assessment methods.” (Jones, Yarema, Windham, 1996) Another typical assessment model is criteria-based. An example of this assessment type can be seen through the use of a rubric tool, whereby a teacher compares student product against a series of predetermined benchmarks. “The appeal of [judging performance against standards method] is that it sets clear expectations for student performance…[but] when students’ performances are graded against year-level expectations, some less advanced students can receive the same low grade year after year. The feedback students receive is that they are consistently performing below standard….when learning expectations are couched only in terms of year-level standards, these common expectations can fail to challenge and extend more advanced students.” (Masters, G. N., 2014).

These issues can best be addressed through another assessment strategy that compares student product against his/her own “previous” submissions, rather than arbitrary, rigid measures that are uniform across the board from one student to the next and do not consider individual students’ needs or accomplishments. In this way, assessment can be made to be more authentic when it is developed to consider a given student’s progress over time. “Assessing growth over time…[is underpinned by the] belief that, at any given time, every student is at some point in his or her learning and is capable of further progress if they can be engaged, motivated and provided with relevant learning opportunities…this approach expects every student to make excellent learning progress over the course of a school year.”
Growth Mindset

Developed as a concept by psychologist Carol Dweck, growth mindset is a conception of learning that values process over product. She argues, “when people are in a fixed mindset, they believe that their basic abilities – their intelligence and their talents – are fixed traits. They have a certain amount and that’s that. This mindset makes people afraid to take risks because they don’t want to look like they’re deficient in their abilities or their talents. In a growth mindset, people believe that their abilities can be developed through learning, perseverance and good mentoring...this is the mindset that promotes challenge seeking and resilience because it’s oriented toward learning not measuring the self.” (Educational Horizons, 2015). There aren’t any “pitfalls” to growth mindset, *per se*, although there are caveats. For instance, it is important to consider whether the perseverance is paying off, and to be selective about the areas in which time and effort are invested. Focus is key. In addition, strategies need to be reviewed and adapted based on results; it is a mistake to assume that one strategy will necessarily work. Growth mindset is not always a suitable option for every situation, so being aware that not everything is exclusively a learning experience is important for students to realize. (Educational Horizons, 2015).

Instruction

There no longer exists a harsh dichotomy between instruction and assessment; indeed, it is often interrelated, with assessment driving instruction and vice-versa. The Ontario Ministry document, Growing Success, which was released in 2010 is essentially a guide for assessment but it certainly impacts and directs the methods of instruction used by teachers. (Roberts, 2015) Similarly, fostering growth mindset in schools is something that can be achieved as an instructional practice and reinforced through assessment
In terms of instruction, growth mindset can be cultivated in one of two ways. The first method of fostering growth mindset is through direct teaching, “by teaching how the brain changes with learning”. (Educational Horizons, 2015) The new program, “Brainology” (Mindset works, 2009) is one such proponent of direct instruction around growth mindset. Through it, students glean valuable knowledge about how the brain works like a muscle, and begin to comprehend the reality that ability and intellect are not fixed traits. The second method of fostering growth mindset is though indirect teaching. This includes comprehensive contemplation of the teacher’s role. Particularly, the methods of assessment, the feedback and the instruction itself comes together to foster a certain aura within the classroom, and defines a space as supportive of growth mindset -- or not. Ideally, teachers are “mentors and resources for learning rather than [people] who [judge] the child’s intellectual ability.” (Educational Horizons, 2015).

Cascading Model

It is generally accepted that ‘quality’ education is dependent on teachers – the single most important school-based factor in students’ education success. As Lingard claims, “Of all school variables . . . it is teachers who have the greatest effect on student learning outcomes.” (Lingard, 2005). It seems that the teacher knowledge and practices prescribed and embedded in teacher professional standards are seen increasingly by policy makers and schooling systems as the most important way to ensure the ‘production’ of quality teachers, an assumption that many researchers and teacher educators treat with some caution. (Santoro, N., Reid, J., Mayer, D., & Singh, M., 2012) The problem with learning outcomes of some students may thus be the approach taken by their teachers, toward learning. When it is said that “it is universally recognized that the
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teacher is the key person in an education system,” (Aijaz, A. G., & Naoreen, B., 2009) I would posit that student efficacy is undermined. The key person ought to be the student, with the teacher merely a facilitator of learning opportunities. Researchers now understand that learners actively construct their own knowledge and skills and that learning is an interactive process (Barr; Tagg 1995). The concept of growth mindset is well-supported through the use of the cascading curriculum, an innovative re-conception of the “backwards design”, which gives students a context for their learning (Gini-Newman, 2015). Garfield Gini-Newman discusses student engagement and motivation, and brings up a telling example. He says, “A lot of kids, even the ones who don’t do well in school, will persist with video games because it’s ok to fail and you know if you keep trying you’ll get better.” He then proceeds to explain some key concepts of the cascading curriculum, including the decision to swap a “minds on” for a “launch the bird” – a concept that allows students to delve right into the learning by asking relevant and thoughtful questions. Launching the bird is a process that starts off with a teacher posing a difficult task or questions to students who are not equipped to answer the question or complete the task to an acceptable degree. Thus, because students cannot accomplish the learning task or answer the question, they must seek answers by asking relevant inquiry questions and problem solving. As a result of undertaking this active role in their learning, students are engaged in their learning. They are connected to the content because they are committed to answering the questions that they themselves have raised. The curriculum content becomes meaningful, thus motivating students toward deeper learning.

To build on this notion of launching the bird, Garfield Gini-Newman suggests a cascading curriculum idea which is kind of like backwards design. Generally with
backward design teachers have a summative task in mind for the end of the unit – an end point they expect successful students to reach, to prove that they have learned the required material. Under this model, the students sit through several lessons, do required course work, learn new information and then, toward the end of a unit, they hear about a final task they’re required to complete that surmises the most relevant material from the unit. This final task is to be evaluated to determine if students have successfully learned.

Garfield Gini-Newman proposes a miniscule modification: he says that if teachers put the summative task in the beginning of their units or lessons and share the learning goals with their students, they can involve students in coming up with questions, inquiries and ideas about what they need to learn in order to be successful. Thus, despite not changing the content of the lessons, teachers implicitly support student motivation and growth mindset – merely by moving things around. The cascading model echoes and builds upon Garfield Gini-Newman’s other ideas. Instead of knowing where the unit is headed, but keeping this a secret from the students, as is the traditional backwards design model, teachers who utilize the cascade share the vision of the final product with students from the outset. This way, students know what they’re expected to learn by the end of the unit because the teacher will have actually shared the learning goals with the students before they’ve begun the learning. Thus, on the first day of a new unit, teachers share their final assignment with the students, and allow them to tease out the course requirements through asking the questions and seeking out the learning necessary in order for successful completion of the assignment to occur. Garfield Gini-Newman posits that once teachers move the summative task to the beginning, while they are not changing the teaching they are changing what the students know – and because students now know what they’re responsible for, they’re more empowered. Students have a clearer
conception of the direction in which they’re going and why they’re learning the content required by the curriculum. Suddenly, students are coming up with the inquiry questions and they’re coming up with the information that they want to learn in order to successfully complete this task; they’re engaged in the learning process because it is about the journey, and they are active participants in the entire process rather than sedentary recipients of knowledge.

The resources referenced herein begin to address some of the related concepts around the research question of this study which is, “how can teachers facilitate growth mindset through cascading lessons and authentic assessments?”
Chapter 3: METHODOLOGY

Purpose

This study explores how teachers can facilitate growth mindset through cascading lessons and authentic assessments.

The purpose of this qualitative phenomenological study is to explore how students might learn better if they are to be taught through growth mindset inspired methods. I would like to see the effect of process and effort-based feedback on student learning and motivation. The purpose of this study is also to explore how modifying ineffective elements of modern education may enrich the learning experiences for students. Given that we cannot predict where students will be at the end of their education, and what the future will hold for them, this study is important to education because education is at a point where redesign is ensuing. The education community can benefit from the findings of this study because the study provides useful strategies and tools other teachers can implement so as to create a classroom that authentically incorporates growth mindset into daily instruction. The application of growth mindset in the classroom will resonate with students, and thereby prepare them with strategies of how to overcome failure when, inevitably, it occurs. Ultimately, education has the capacity to prime students for a life-long journey and it is the role of education to cultivate students’ individual curiosities and interests. This study aims to discover how these tenets of education can be best fulfilled through the inclusion of growth mindset in the classroom.

Procedure

In the course of this research I conducted a literature review of relevant existing research and used that discussion to direct my research focuses. I made use of the literature review as a spring-board to construct relevant semi-structured interview
questions that addressed some of the themes that emerged within the literature review. The face-to-face interviews conducted yielded interesting and telling findings. I was able to interview three teachers, all of whom are at varying points in their careers at the same school. I interviewed three teachers as this was the uppermost number of participants we were eligible to interview, based on the program-wide ethics review and requirements.

I used a voice recorder on my mobile phone to record their answers to the various questions that I asked. Although I anticipated the same pre-set questions for each interview, I did modify the questions in response to individual interview circumstances. For instance, some participants implicitly answered multiple questions, while others raced off on a tangent that I was interested to explore further. So as not to compromise the authenticity of the interviews and the responses, I made judgement calls throughout the interviews and thus did not conduct the exact same interview any two times. Nevertheless, the interviews all took about half an hour and covered similar topics and themes.

**Instruments of Data Collection:**

I conducted three informal interviews, in which I asked my participants several questions, provided at the end of this paper. Please see Appendix B. I used a recorder on my mobile device to capture the answers to my questions, which I had with me on a piece of paper, clipped to a clip board. In some instances, I used a physical barrier to hide the recording device from view, as some participants were uneasy. This helped to coax out the most authentic answers to my questions.

**Participants**

I selected teachers in three categories: “seasoned” – close to retirement; “new” – within seven years of graduation; and “very new” – within two years of the completion of
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the NTIP. The details of each teacher are briefly outlined below. I use pseudonyms for all teachers’ names.

I interviewed three female teachers. Joanne is a Master’s educated teacher with over seven years’ experience teaching in various capacities. Cheryl has also been teaching a long time - over a decade - and exclusively at the same school. Hannah is fairly new to teaching (less than 2 years at the school, and recently graduated from teacher’s college). The unique thing about my participants is that they have each had similar influences insofar as exposure to growth mindset ideas. In fact, Joanne has worked closely with Hannah to incorporate growth mindset in Hannah’s classroom. Cheryl’s knowledge of growth mindset has also been influenced by the sessions run at the school by Joanne. Despite the fact that the teachers are largely influenced by one another, the way they opt to incorporate growth mindset in the classroom varies between the teachers. The unique implementation methods opted for by each teacher speaks to the versatility inherent to growth mindset.

While I was interested in comparing the teachers’ perceptions of growth mindset, the data collected through the interviews with these three teachers was very heavily “for” incorporating growth mindset into the classroom. These findings were in line with the research around growth mindset, which tended to be favourable during the literature review process.

Data Collection and Analysis

I began the data analysis by transcribing the interview data on a computer. I used windows media player and slowed down the recording until it was at typing speed and I literally spelled out everything that was said in the interviews. Where relevant/necessary, I included notes to myself such as “<pause>” or “<laughs>”. This helped to contextualize
the data later on. After I had transcribed all three interviews, I read through them to get a sense of common themes. I made notes, by hand, in the margins, to indicate how I might sort the data later on. I then revisited the themes and clumped “like” themes together. I chose to code using descriptive coding, which is a one word capitalized code to summarize the topic, because my research lent itself nicely to common themes. I contemplated using invivo coding, but worried it might be too broad. I could potentially have used two different themes to summarize essentially the same notion, thereby tainting the data collected and sorting two “like” pieces of data from two separate interviews into two separate categories, which might have skewed my results. Values coding did not seem appropriate to this topic, and descriptive coding was very quickly evident as being the most suitable for my purposes. After I had determined my final codes, I went back through my interviews to ensure that all the data I wanted to include was accounted for in the final codes. I then went through the documents again, and colour coded them so as to easily separate the data for the final chapter four submission.

**Ethical Review Procedures**

Throughout the research process I followed the ethical review approval procedures for the Master of Teaching program. I provided each of my participants with a copy of my Letter of Consent (see Appendix A) and obtained a signed copy of this letter from each participant before beginning the interviews. Participation in this study was voluntary, and participants were able to withdraw consent or refuse to answer any question at any time. All interviews were hosted at a time and place convenient for the participants. Participant confidentiality has been maintained and pseudonyms are used in this paper to protect their identities.

**Limitations**
The purpose of this Masters of Teaching research paper is to gain some insight into practical applications of growth mindset, based on teacher experiences at one school in York Region. As such, the information gathered is phenomenological and pertinent only to the subjects studied. Wide assumptions cannot – and should not be made based on these findings. Instead, this research should be considered together with pre-existing research as well as new research as one aspect of a very broad topic. The nature of this paper is to discuss three teachers’ perspectives on the topic and not to make any grand claims or conclusions. The value of this paper is therefore in the capacity to understand the choices these particular teachers have made. The time allotted for this research as well as the limited number of participants makes these research findings very indicative of these teachers’ attitudes and not all teachers’ attitudes. Additionally, the research would have been made more robust through the inclusion of student voices; however, the blanket ethics review and the time limitations for this project did not allow for such steps to be taken. This is certainly an avenue I would choose to explore, if I had additional time during which to conduct this project.
Chapter 4: FINDINGS

I have categorized the data collected through the interviews into four essential themes, which emerged during the course of my investigation. The first theme is that of the participant’s background: this includes each teacher’s philosophy, experiences in teaching, and personal anecdotes pertaining to the implementation of growth mindset in daily life. This information is important and relevant because it helps to explain and give context to some of the statements made, and experiences described. Moreover, it helps to situate the participant within the discussion of the findings herein. The second theme is that of growth mindset in practice: what it looks like in the classroom as well as the broader school community, what teachers are currently doing, what methods are being used to teach and reinforce growth mindset, and where each teacher intends to take growth mindset within their respective classrooms. This discussion helps to temper theory with reality and provides a window into what the implantation of growth mindset in the classroom has the potential to look like. The next theme is that of issues surrounding growth mindset. This theme encompasses issues with other stakeholders such as resistance from colleagues or parents, as well as the systemic barriers within the education system that pose a challenge to teachers who may be trying to implement growth mindset in the classroom. This section is relevant because education is a community endeavour, and the attitudes, perceptions and barriers that arise necessarily impact the ability of a teacher to carry out the intended plans. The discussion of various issues these teachers encounter while trying to implement growth mindset in the classroom is relevant because it provides a more holistic picture growth mindset, rather than a romanticized or idealistic version. As with anything worth doing, there are challenges, and this section outlines the ones identified by my participants as most
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prominent. The final theme is that of reconciliation. This theme tackles many of the issues around growth mindset identified in the previous theme, and discusses options proposed by the teachers which may begin to allow for growth mindset to coexist with the education system. Additionally, this section provides practical solutions and adaptations which are effective strategies for fellow teachers to adapt and implement. Within each theme, I have further organized the information based on case study participant; this means that in addition to sharing the conclusions I have drawn, I include relevant quotations from each teacher to highlight their thoughts in their own words. All names including those of participants and of the school are pseudonyms.

Participant Background

Teaching

I have interviewed three female teachers, all of whom are located at Brown Bear Public School. Joanne is a Master’s educated teacher with over seven years’ experience teaching in various capacities. She has been at Brown Bear Public School for several years. Cheryl has also been teaching a long time - over a decade - and exclusively at Brown Bear. Hannah is fairly new to teaching (less than 2 years at Brown Bear, and recently graduated from teacher’s college). The unique thing about my participants is that they have each had similar influences insofar as exposure to growth mindset ideas. In fact, Joanne has worked closely with Hannah to incorporate growth mindset in Hannah’s classroom. Cheryl’s knowledge of growth mindset has also been influenced by the sessions run at the school by Joanne. Despite the fact that the teachers are largely influenced by one another, the way they opt to incorporate growth mindset in the classroom varies among each teacher.

Joanne:
The interview with Joanne began with us talking about her experience coming into teaching.

“Ok…ummm…so this is my – I’ve been teaching for ten years I guess. I spent before I went to teachers college I spent a lot of time working like volunteering in schools and I worked for the Y for a few years I ran a before and after school program umm for like as a supervisor for the YMCA and I worked in a school and did that whole piece. Umm, then I did my teacher’s college in Australia. So I went and did that. So it was a master’s program so it was a year and a half and so we did our, our thing. And then we had our practicum. I did my big practicum back in Ontario. Because I knew I’d be doing that. We could choose…I chose to come back. And then we had to do a thesis and all that kind of stuff too. Okay, so I started teaching in kindergarten. I taught kindergarten for a long time and then I got into kind of more literacy with ELL umm and then special education so I’m ELL and SERT so yeah. I’m kind of all over the place now.”

When I asked about how she had heard about growth mindset, she explained that it was an initiative taken by the principal at Brown Bear Public School, at the time. “[The principal] introduced it in an article it was just one of the professional readings we did at a staff meeting at the end of the school year I guess…it was June 2013. She – we read the article. And we talked about it and it was really kind of powerful. I think the discussion that we had in, like with the staff like it really brought out a lot of feelings in people and people really engaged in it umm and it just kind of clicked with me and I was interested in it and so that summer I decided to get Carol Dweck’s book and then I did some research and found umm the Brainology program which I brought to [the principal] and suggested that we try it out and then just kind of went from there.” Joanne explained that the principal “kind of ignited [the passion] and then Joanne just “went with it.”
Cheryl

Cheryl’s background was a little different than Joanne’s. As a veteran of Brown Bear Public School, this year teaching grades 5 and 6 and providing teacher professional development and administrative support, Cheryl had a unique perspective to offer to the discussion.

“I only teach math and language for grade 5 [and] 6 [and] I run an integrated special program within that. I have four children that have support [based on their identifications…those are] their placement needs. I have that integrated into my classroom. Growth mindset fits in a lot with my philosophy and why it’s an integrated model.”

Like Joanne, Cheryl explains that the very first exposure to growth mindset came down from the administration. “The board first gave us an article [about growth mindset] a while back, and then I have had a lot of professional development through Joanne.” Cheryl mentions that growth mindset wasn’t “that far off from [her] philosophy, [and it] just helped put a label on things and define [her] philosophy [a little more clearly]. It wasn’t a big stretch.”

Hannah

A much newer teacher, Hannah shared her background as well.

“OK so umm, this is my third year teaching. So I went in to teaching a little bit later in life. I started out with teaching junior grades, and this year I’m focusing on special education which lends itself nicely to the implementation of growth mindset within [the structure of our day].”

Hannah explained her unique role as an educator, working closely with about 12 students requiring support in math and then also providing support to two other classes,
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between which she goes back and forth. Hannah notes, “It’s a different model than a lot of schools.” Despite her numerous roles, Hannah disclosed that they do growth mindset with the students. It’s harder with the classes she doesn’t teach directly because she “kind of [flies] in, [kind of like a] teacher assistant.” Nevertheless, she says the growth mindset comes through. “Support for growth mindset is given indirectly in terms of us planning lessons together, and modifications. We’re really focusing [on growth mindset] at the school, so a lot of the teachers put it into their programming.”

Just like Cheryl, Hannah says she learned about growth mindset from Joanne. She says, “when I came here last year [it was brought up as a consideration], and [then at the] June meeting [Joanne] brought it up [again]. She did a lot of research over the summer and she implemented it in my class last year, so I’ve really been learning from her. And then the whole school [took it on as the focal] learning for the year.”

**Participant Background**

**Growth Mindset**

Each teacher shared how growth mindset has become a way of thinking outside the classroom. All three teachers have children, and it became evident that they are so enamoured with the growth mindset that they try to realize it in their personal lives as well as their professional lives. Both Joanne and Hannah tell anecdotes; Joanne, about her young children, and Hannah about her own life, growing up. All three teachers stress that growth mindset has changed the way they parent their young children. Cheryl conveys a more broad statement that she is able to bring parents on board because she too is a parent and can relate to their hopes and aspirations for their children. All three teachers agree that it can be challenging to implement growth mindset, but ultimately worthwhile. The participants are all very open and candid as they share the struggles they encounter in
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upholding growth mindset at all times. Additionally, they both share experiences from their past that illustrate just how hard it can be to adapt a mindset such as this one, that so fundamentally differs from the way they used to think. Hannah shares that growth mindset is totally opposite to how she was brought up, and challenges the most basic notions she once held about academic ability. The two anecdotes sampled below convey a very important message: that part of growth mindset is recognizing that students don’t always have the prior knowledge upon which to build new knowledge. Joanne provides an example that children only see the final product, much of the time. They see the successful athlete or musician, and they fall into the assumption that “they must just be good at it” because they haven’t seen the work that goes into it. In a similar vein, Hannah discusses the irony that students are expected to achieve “good” and “excellent” learning skills. They are expected to be responsible and organized...and yet, they aren’t taught these skills or given the tools to be successful at them. She indicates that even adults struggle with some of these skills, and so both teachers acknowledge that there needs to be that foundation first. These musings are not just similar teaching philosophies; they are entirely informed by the growth mindset and the understanding that students have the capacity to be successful so long as they are given the tools and supports to succeed. The teachers bravely share the struggles they face, and they temper those struggles with the strategies they have sought and discovered for overcoming these struggles.

Joanne

Joanne disclosed some of the difficulties she has faced implementing growth mindset. “I’ve been doing it now for a year and a half and I still make mistakes with it. I say things…even with my [own] kids. My son wanted to help me with [Christmas lights]. It’s tricky. I said, ‘no Dill, it’s too hard’. He [replied], ‘but mum, if I do hard things I
grow my brain.’ And he’s 4, you know? And he’s telling me. And I’m like, ‘oh, yeah…sorry.’ I still slip up.”

Despite some of the struggles with implementing growth mindset effectively and consistently, Joanne is adamant that growth mindset is a really powerful tool. “I use it a lot with as a parent. I feel like it’s helped me a lot as a mother. A lot. Because my daughter, she’s a real kind of perfectionist and she didn’t take risks and she gave up really easily at things. [I know the] feedback I used to give her [wasn’t consistent with growth mindset.] She’d see someone doing something like on the monkey bars and say ‘oh he’s so good. Why can he do that?’ And I’d say ‘he’s just really good at it.’ I used to say things like that.” Joanne admits that now when they have similar conversations, she fills in some of the holes. She says, “you have to build in that background stuff that kids don’t always understand about why someone’s good at something. They just see them when they’re good they haven’t seen all that work, right? They see someone on tv, and they’re just good at singing…just good at hockey. Yeah, but why…you gotta, you have to back up and fill in those holes so they understand why people are good at things: because they work hard and they practice.” Now when Joanne is with her kids and they see someone who’s good, she says “they must have really practiced a lot.” Joanne says that’s the kind of praise she tries to give. She’s noticed that focusing on growth mindset has really helped her daughter a lot in terms of facing things. As a parent, Joanne is much more willing to “push [her children] though struggle.”

As an aside, Joanne mentions that she thinks that too many parents try to protect their children from failure. “We’re always trying to save them from everything and that’s not helpful because we need to support them but we need to help them go through the struggle because they’ll come out better for having gone through it. And then they’ll have
strategies for next time and won’t need you to be there as much as you were the first time. I think I really learned to do that: to just kind of be in a struggle with them and know that that’s ok. So that’s been real learning for me too.” Learning about growth mindset and implementing it in her personal life has really helped Joanne provide support to her children that will enable them to be resilient and successful in the future.

**Hannah**

Hannah discusses how, growing up, she believed people could just be good at things. She reflects on how this line of thinking was a hindrance for her, in terms of doing things and taking risks by trying new things. She says, “I could fall back on [the fact that I wasn’t innately good at something], so it was easier to just give up.” She suggests that this is not a frame of mind unique to herself. She says we don’t necessarily teach many of the skills we expect students to master, and so the students believe that they’re just disorganized or deficient in certain learning skills categories, when in fact, they haven’t been taught. Recognizing that even learning skills need to be taught has been hugely impactful in terms of Hannah’s expectations of students, as well as her approach to fostering growth mindset in the classroom. She says, “a lot of it is very simple stuff we take granted…even learning skills: we value those learning skills but we don’t necessarily teach them.” She says teaching skills explicitly is imperative. “It kind of opened our eyes that we can’t just expect [students to know these skills]. A lot of kids are not going to have the inherent functions where they can be responsible for their stuff, pack their bags…some kids need to be taught strategies. And then over time [they’ll use] those strategies independently.” Learning about how to give successful feedback and foster growth mindset implicitly has been hugely impactful both for Hannah and her students.
Growth Mindset in Practice

Related Ideas

Joanne and Cheryl share their knowledge of ideas related to growth mindset, particularly the “Brainology” program.

Joanne

Joanne answers my question about whether there are other ideas related to growth mindset by commenting on the Brainology program. I had done some reading about it, but was interested to hear her perspective. Joanne said, “Brainology is the big program that we found. Brainology [teaches firm links between science and growing the brain]. It’s specifically geared to junior-intermediate kids…it’s not really appropriate for primary children in terms of the content.” Joanne says the content isn’t necessarily too complex for primary students, but is presented in a way that is more advanced and accessible to older students.

Cheryl

My conversation with Cheryl also winds around to the Brainology program, which she did with her class the previous year. Aside from that she says, nothing really stands out. “I’ve done a lot of reading on things but I can’t say specifically [what else exists to support growth mindset in the classroom].”

Growth Mindset in Practice

In the School

Joanne shares some frustrations with staff members who do not choose to implement growth mindset in their own practice. Cheryl shares her opinion that some staff are not ready to embody growth mindset - yet. Additionally, they provide
comprehensive explanations of what they think others teachers can do to begin to bring growth mindset into their own classrooms.

**Joanne**

A huge proponent of growth mindset, Joanne continues to model it in staff meetings and shares resources. As the junior lead teacher, she ensures that growth mindset remains a hot topic in division meetings. When asked about whether her behaviour is typical and something she sees reflected in what the staff do. She laughs, “Uhhh I think the staff who are on board, yeah…” It surfaces that there is some resistance to the idea of growth mindset. This is interesting because it is not something I encounter first-hand through discussions with my participants. Despite some resistance, Joanne says there are a lot of proponents as well. “I have staff that come to me and ask for resources or I see it in other rooms…some of the work they’re doing and in the language they’re using…it’s permeating places in the school for sure.”

Joanne says teachers that want to start bringing growth mindset into the classroom can start small. “I think it’s just about the shift in their language.” She admits this is pretty challenging. She says it’s the awareness piece, too – recognizing when language is inconsistent with growth mindset, and then addressing it. “There are small little things they can start with just trying to change a little bit. Like make one blanket statement. It’s just kind of baby steps and then once you get used to that then you can think of something else to say,” she suggests.

**Cheryl**

Cheryl says the way she brings growth mindset into the school is through conversations with students and colleagues. “Having those conversations with is necessary to shift,” she says. “I think the way I bring [growth mindset] in is really just
thinking about two kinds of mind-sets.” Cheryl says teachers need to acknowledge themselves and where they’re at. It’s possible to have a growth mindset about some things, and a fixed mindset about others. “I think that is a lot of the problem, as teachers we struggle to move. [Some teachers] think they’re being growth mindset – they genuinely think they are.” She says teachers need to genuinely hold a mirror up to themselves and think about the language they are using and what kind of message they’re sending a child. “I think that is a working solution, in the classroom you can sometimes forget; you don’t even know what you’ve said because you’re talking but you’re not processing how the language is coming out. You [need to ask yourself, what did I just say? What do I] think the child heard? I don’t think anyone goes out to destroy a child’s confidence.” Being reflective allows teachers to ensure that they are successfully implementing growth mindset in the classroom, and address situations that may be undermining the overall goals of growth mindset.

**Hannah**

Hannah says she finds it helpful to really become familiar with the principles of growth mindset. “If I can understand the principles of it and what I feel it means, I can tailor my lessons around that. You don’t want to jump in head first and do actual growth mindset lessons if you don’t know the principles.” She says it’s helpful to talk about it at the beginning of the year, and then “you can kind of just embed [growth mindset] in to all your lessons.” She says that “just by using the vocabulary, and positive feedback you can use it as an underlay to your planning.” As a reflective practitioner, she says that if she were to have a home room class again, she would take the time to do a “mini mindset” a couple times a week. She says, “it can be just a reading and a reflection…nothing too onerous, but something that is going to be constant throughout the year.” She says this
way the students constantly see growth mindset, reflect about it and can therefore pick it out in their own lives. It becomes a part of something bigger; a philosophy of learning as opposed to a throw away concept.

**Growth Mindset in Practice**

*In the Classroom*

The teachers recount what they do in the classroom so as to reinforce growth mindset to their students.

*Joanne*

*Overview*

When asked about whether she reinforces growth mindset in her own classroom, Joanne responds excitedly. “Yep. Yep. I do. I do it. I do all kind of brains stuff. We always talk about it, it’s a big part of our day. And I go to other classes and teach [about growth mindset].”

*Lessons*

Joanne says she hasn’t encountered any difficulties in fostering growth mindset when trying to plan lessons. “I think it’s pretty…it just makes sense. People say ‘oh it’s just common sense and it is but it takes practice.’ And that’s what we really need to focus on – focus on their process and their work habits and whatever the report card says, they know what their truth is – that they worked their hardest and that’s ok. That’s good enough.”

Joanne says that some ways she encourages her students to persevere is through the feedback she gives them. “I say ‘you’re not gonna give up’, or ‘you’re gonna keep going’ and this is uh, when you present a task you say ‘this is gonna be very hard, you should be excited’ or ‘that was too easy for you let’s try to think of something harder to
do next time so you can grow your brain’, you know little things like that.” It’s evident that the feedback is a crucial component of a successful growth mindset programme.

Joanne doesn’t go so far as to revamp her lesson structure, as Garfield Gini-Newman might suggest. Rather than implement a launch the bird in place of a minds on, or a cascading unit plan, she focuses on giving feedback that is consistent with growth mindset. “It’s not really that I’m using a different way of planning lessons. The way you present something to them and the way that you talk to them about it [is more important]. You don’t have to change your lesson necessarily.” With that said, Joanne acknowledges that she’ll make intentional choices, particularly when picking read alouds. She’ll choose books with a mindsets message. But in terms of the content and format of her lessons, she says that hasn’t really changed.

On the other hand, her assessment has changed a little bit. She shares that when she wrote report cards she was trying to give more growth mindset feedback in the learning skills and talking about putting effort toward certain things. She says that while a part of our society will always be less successful, she hopes that students in her class will begin to move toward realizing that their effort can pay off. She says that way, difficulties will kind of roll off students’ backs a bit more. In that sense, assessment will matter but in a different way.

**Feedback and Assessment**

Joanne shares that what we, as teachers, choose to assess is a crucial indicator of what students believe to be important. This comment is in line with the research discussed in the literature review portion of this paper. When asked if it is possible to change what we assess in order to better foster growth mindset, Joanne responds by saying, “I think it’s the way we assess them…it’s about the formative piece: those regular
conversations with kids and those honest conversations and having that self-reflection piece and self-evaluation piece is really important too, to get them involved in recognizing what they can’t do.” Joanne makes a good point – that effort will not always pay off immediately, and that students need to be realistic with their goals. Dweck says something similar, as I quote in my literature review in the section that describes her caveats to growth mindset. Joanne says, “I set up goals with my kids and I wanted them to pick you what is really the hardest thing [for them. They need to know what their] deficiencies are, to recognize [what they] need to work on and to be brave enough [to admit that and] put the effort toward it.” She says it’s a lot of conversation.

**Student and Parent Perspectives**

The students love growth mindset, Joanne gushes. “They’re like super engaged. Especially the kids who generally struggle, and kind of feel just like, left behind…it really kind of perks them up. Like we really, we saw it last year in Hannah’s class. A lot of our kids who really struggled really ate it up because finally there’s hope.” Joanne goes on to explain that many of these students have a history of low achievement. She says they achieved level two in grade one and level two in grade two and level two in grade three and level two in grade four and it becomes a part of their identity. As she puts it, they “get stuck there for a lot of reasons but the biggest one is that that’s what they think they are. And sometimes that’s what their teachers think they are.” Joanne says that’s one of the reasons why growth mindset is so powerful. Students really buy into it, and there’s a marked shift. The students believe they can be better, and the teachers expect students to do better, and the science shows that it’s possible…and then they see it happen. “It’s really…amazing.”
In Joanne’s class they have a mindful Monday, every Monday where students receive direct instruction about growth mindset. Often, they’ll so a read aloud or watch a video or have some kind of activity that’s mindset specific, but that’s also embedded in everything else, including the language in the classroom. Joanne claims, “I don’t even need to say it that much because the kids say it to themselves or to each other. ‘You’re gonna grow your brain’; ‘you better do this’, you know it becomes just part of the way that they talk.”

Cheryl

Overview

Cheryl seems to be in agreement with Joanne when she comments, “I think it’s the language we use, and how we give feedback to the kids both written and orally.” She says she tries to give praise, and focuses on the language she uses when conferencing with students. “The expectation is almost like a little bit of chant; you know, saying things over and over again. So that it gets in to their head.” Comments that celebrate effort rather than product might include phrases like “you put a lot of effort in to that.” Cheryl reiterates that it’s important to focus on process rather than product.

Lessons

Cheryl’s lessons about growth mindset start at the beginning of the year, and focus on direct instruction around how growth mindset looks as compared to fixed mindset. She says, “it’s more of a growth mindset throw.” Some of the early lessons include specific books and things that invite students to think about the brain and how it works. “My goal is that it is part of the classroom on a daily basis and everything we do,” she explains.
As far as planning lessons to reinforce growth mindset, it seems that Cheryl is in agreement with Joanne yet again. “I can’t really think of any examples [of having to change my lessons at all in order to make them align with growth mindset]. Maybe the only thing is before sending them off, having [a discussion about what we’re] going to concentrate on today. But change my whole overall lesson? No.” When I explain some of Garfield Gini-Newman’s ideas, including the cascading model, Cheryl nods in agreement. “Absolutely that’s something I actually do do [give students an idea of the end-goal]. I think that is something I would do, I think more if I was doing content areas.” Cheryl explains that in writing they do something similar where they critique a “mentor text” – an example of good writing – and use it as an exemplar of what students are expected to achieve.

**Feedback and Assessment**

Cheryl gives lots of written feedback and provides a lot of one on one conferencing with the kids. She asks them to consider if they’re on the right track toward reaching their goals, and she helps them develop positive steps to get there, rather than focusing on a mark. In fact, she says she tends not to dole out marks at all. Instead, there’s a lot of focus on feedback but the assessment has no marks at all. Another strategy she’s using is a two column rubric. “I have a rubric. Within the rubric there are places where they can think about what they’ve done well but I’m trying to not have anything but a level 3 or 4 on my rubric. If they’re not [at a level 3 or 4] yet then it’s just feedback.”

I didn’t realize that’s allowed, but Cheryl reassures me. “I think [that’s allowed]. Again, I teach language and math so maybe I’m coming from a different place but we’re never there yet. Nobody is quite there. So we’re not finished writing, we’re not finished,
nothing is ever going to be the report card mark because there’s a bunch of things to get. Cheryl explains that she knows which students are working at a level 2 but all the things in her assessment binder indicate that she’s working on getting them towards a level 3. But with formative assessment, she assures me, “it’s never a grade. It’s just feedback. There will be another writing assignment, and that’s never finished with language in primary school.”

**Student and Parent Perspectives**

Cheryl explains that the science behind growth mindset lends merit to it, and appeals to the students. “I think the science behind growth mindset, and looking at how the brain works, and the fact that the brain can grow I think that legitimizes it for [the students] and that they feel like ok it’s not that my teacher is giving me cheerleading on the side. There is some real evidence and real science behind it.” Cheryl sees this acceptance of growth mindset reflected in different things including in how students talk – it really gets them. She says the initial science behind growth mindset is important for students to learn about. “We’re fighting against stereotypes we’ve heard not in school but in their family, so I think the science behind it really helps them say ok, maybe all the things my parents said like “girls are not good in math” is not true, and maybe if I work hard I can be good at math too.”

Insofar as push back from the parents, Cheryl hasn’t experienced any at all. “So far.” It becomes a part of how I talk to kids and how I talk to parents and that sort of becomes who I am. She believes the authenticity she brings to teaching growth mindset, and the fact that it does jive with her teaching philosophy, resonates with parents and students alike. It helps that growth mindset isn’t particularly controversial. “I think the parents can’t hook on to anything. I’m not really saying anything that is against grain of
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good parents. I’m saying that kids can be successful if they work hard. There is nothing that sends up red flags.” Cheryl doesn’t try to set the example that mistakes are welcome. “I think that message can be misinterpreted, so I don’t believe that, not that I don’t believe that mistakes are welcome. I’m not sitting there promoting ‘oh you got 6 wrong that’s great’. It’s about making mistakes for the purpose of improving. I haven’t encountered any parent that doesn’t believe that as well.”

_Hannah_

_Overview_

As with all the participants I interviewed, Hannah is an advocate of growth mindset. “I love it. Like I said, it was new to me last year but we saw a huge benefit too.” Hannah comments on the benefit of growth mindset to “above average” students. The above average students are a category of students that were considered in the literature, but not mentioned explicitly by either Joanne or Cheryl. Hannah shares that gifted students didn’t try too hard before, because the label gave them an easy out. “We kind of blew their mind when we showed them the science behind it, and showed them the visuals that went with the changing of the brain over the time. We talked about it, it kind of opened their eyes that ‘oh, I can do more – for both sides of the spectrum.” Hannah shares her own misconception of growth mindset. “I originally thought the value of it was with pushing those kids who just don’t think they have it to try harder. And finding what they’re really good at, or they struggle a lot and embracing it head on and that if I keep practising I can do it.” She quickly realized that there’s a lot of value for those students who are gifted. “They think, ‘I’m gifted so I wrote one sentence so it’s perfect’, or ‘I’m a gifted so everything should come easy to me, so I’m going to get really frustrated when I make a mistake’. So it’s that whole label of mistakes being bad.” Hannah explains that
the realization that success is about overcoming difficulties was a big thing for gifted and high achieving students as well. She explains how growth mindset has helped to alleviate some of the anxiety faced by some students who would get really nervous because they didn’t want to make mistakes because they thought mistakes were a bad thing. Growth mindset has really made a difference for many students – regardless of their respective labels, coming in.

**Lessons**

When I asked Hannah about whether her lessons around growth mindset were more implicit or explicit, she said it’s definitely a bit of both. As far as implicit lessons, she says, “we definitely talk [and do a lot of] community circle, and a lot of open discussion. [We try] to have them make that connection [to growth mindset] through group discussion and asking questions and having them realize on their own.” At the same time, she values explicit instruction as well. “We do some direct teaching by showing visuals on how the brain works, and watching videos. Understanding the science behind growth mindset helps them to buy in to it.” Some of Hannah’s comments are not unlike those uttered by Cheryl and Joanne. Hannah also discusses some famous people who have shown growth mindset in their lives and succeeded because of it. She mentions Terry Fox and Bobby Fisher as examples discussed in class.

Hannah implements growth mindset into her lessons, but, as with Cheryl and Joanne, she does not change the format too much. “I still have, for example, my math or my literacy. I still teach that lesson, but if I’m just using those principles as an underlay, it would be just using the vocabulary and reinforcing the questioning and what the goals are and highlighting the mistakes too, so I think it’s just being aware of what the
principles are and what you want them to get out of it, and kind of implicitly using that in your lesson.”

When I mention Garfield Gini-Newman’s ideas of a cascading lesson plan, Hannah responds favourably, just as Cheryl did. “It makes sense too, because as a teacher when I plan my lessons I’m going with the end in mind, so when you think about it why shouldn’t I give the students the same luxury of knowing what they need in order to pick out what skills you need to get there?” The one caveat Hannah points out is specific to students with anxiety. “I think you have to modify depending on what you’re doing. [Sometimes], I’ll tell them too much ahead of time. Certain students with anxiety start to panic. It’s good to have both theories in mind. For some students, give them that angle so they can pick out what they need and for some students, have them focus on one small piece at a time so they don’t get overwhelmed.” Hannah then admits that she’s coming from a more special education point of view. “For most students that can critically pull out what is important, that model would help them and would definitely be really beneficial.” Her comment about different learning styles and needs in the classroom is relevant to consider; however, as many classes are heterogeneous, and teachers opting to implement a cascading model ought to consider the diverse needs of their students.

**Feedback and Assessment**

Joanne and Cheryl both highlighted their feedback and assessment as the key component of their growth mindset programme. Hannah admits, “I think that I still need to work on tinkering my assessment to be in line with growth mindset. But it’s something I’m thinking about changing. I was speaking to Joanne about rubrics…I find a rubric that has all the qualifiers can be overwhelming for the parents and the students. It’s a lot to process.” This comment is reminiscent of Cheryl’s comment, and her decision to forego
the typical rubric and prepare a modified one for her students. Hannah admits that teacher sometimes use too much “teacher language.” The concern being that, “when it goes home not everyone knows what that means or what the expectation is.” Not only is it too much to read through, but it also sends an incomplete message. Students see mostly level two’s and think they’re doing badly, or see level 4’s and think they don’t need to try any harder. Hannah suggests the feedback should be more of a bridge; it should tell students “this is what you did and you only need to do 1, 2, 3 to bump up the level.” She thinks it should be positive and provide steps toward improvement – regardless of each student’s achievement.

**Student and Parent Perspectives**

Since implementing growth mindset, Hannah has seen a lot of growth with the students. She didn’t feel comfortable to comment on parents’ perspectives because Joanne was the parents’ go-to.

**Issues Around Growth Mindset**

**Obstacles**

The teachers share their frustrations with regard to implementing growth mindset in an environment that does not perfectly lend itself to said implementation. Joanne specifically discusses the difficulties of fostering growth mindset when certain staff members are resistant to it. Cheryl echoes similar sentiments, but also talks about report cards contravening the intentions of growth mindset. All three teachers look introspectively, and mention that their own actions sometimes inadvertently contradict the growth mindset message they are trying to bring home.

**Joanne**

**Staff**
Joanne expresses her own views on growth mindset. “I like it,” she states. She doesn’t have any issues of concerns, or aspects that doesn’t exactly resonate. Nevertheless, she provides some outside perspective, based on her experiences with some sceptical staff. “There’s been a lot of…push – not a lot, I wouldn’t say – but there’s some push back with staff. People think it’s just one more thing to do so there’s some negative… feedback from staff members and we talk about it a lot …in staff meetings and we’re always bring it up and people are kind of over [growth mindset].” Joanne explains how this combative attitude is detrimental to fostering growth mindset within the school. “I know that there are still a lot of people that aren’t using it in the classroom so that’s the frustrating piece because for it to really be powerful I think it needs to kind of permeate everything…it needs to be everywhere, like it’s really about the way we speak to kids. I know there’s the research behind it and there’s some specific teaching to the kids but I think really it comes down to our interactions and our language and what we focus on with the kids that really is the most powerful in terms of shifting them. So if it’s only happening here and there it’s not as effective so that’s what’s frustrating.”

She explains that sceptical teachers undermine the entirety of growth mindset and undermine the efforts of other teachers who are trying to do it properly. Joanne discloses that there’s a lot against growth mindset already, because of the way [the education] system is set up it’s kind of adversarial to growth mindset, in terms of the way we grade and score and report cards and all of that… the gifted screening all of that …EQAO …you know it’s kind of really kind of against what we’re doing.” So when teachers themselves undermine the growth mindset initiatives, it really impacts the clarity of the message being sent, that growth mindset is worthwhile.
When I ask Joanne if there are any characteristics of cynical teachers, she says “I’m finding it’s some of the intermediate and junior teachers that are a little bit more resistant to change. The primary seem to be in on it a little more.” When asked what can be done to reason with these teachers, or introduce growth mindset to their students, Joanne has taken some initiative. “I’ve just kind of come in and said I have a lesson can I come in? So then I kind of get in at least to lay some foundation piece there in terms of the kids understanding...I give them a kind of background and the science and then...that’s some direct instruction, so the students know that growth mindset is a way of thinking that exists. It just gives them another perspective.” I was curious as to why it might be that the primary teachers are more receptive than the junior and intermediate teachers. When I posed this query to Joanne, she posited that it might just be the kind of person who chooses to teach each division.

Parents

Hannah had mentioned that Joanne would be the person to speak with regarding parental perspectives on growth mindset, so I was eager to hear her take on it. “Well we’ve had some – I’ve presented to [pause] we talked about it...we’re trying to get the parents in because that’s a big component because a lot of parents still just really care about [their kids getting] straight A’s. They don’t really care how they do it...they just gotta do it. So we talk about it...I talked to our parent council last year, we did it at our curriculum night – I did a big presentation. I just did a parent workshop the other week where we had some parents in and talking about it. We put it in our newsletters and we just talk a lot about it with our kids and hope that it goes home.” It was evident through hearing her speak that the parental perspective is rather important because it frames the students’ reality. It’s good for students to receive consistent messages and for school
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initiatives to have community support. Joanne admits, “It’s a process and it takes time. It’s a big shift, culturally too for a lot of people in our school. Culturally [learning is] about route memorization and about getting that A. [Parents want their kids to be] striving for perfection, even though that’s not a real thing.”

Cheryl

Overview

When I asked Cheryl about issues and shortcomings with the growth mindset philosophy, she claimed not to have encountered any. At the same time she conceded that “it can be misinterpreted.” Earlier, I discussed Cheryl’s concern that growth mindset can be watered down into a “mistakes are welcome” kind of philosophy; there can be a misconception that teachers are going around wanting people to make mistakes. She says that such a misinterpretation of what growth mindset is just indicates that proper research hasn’t been done. She says with true growth mindset, “[there aren’t] really any shortcomings.”

The only struggle Cheryl identifies is dealing with her own fixed mindset that can sometimes influence her teaching. To combat it, she says she tries to develop her own growth mindset, and tries to stay away from slipping into old habits, like saying ‘you did a great job’ or ‘you’re awesome.’ In that sense, she says she’s her own worst enemy.

Report Cards

“The report card, the current report card doesn’t help support what we’re doing in school, I don’t think,” Cheryl begins. “There is a lot of content within the comments, the way we have to write our comments is ‘learned’>‘strength’>‘next step’. This is what your child learned this term, this is something they’re very good at, and this is something they need to improve. So that gives the parent something written. We write in very
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friendly language now, it’s changed. It’s a positive step in the right direction.” With that said, she suggests that report cards, particularly in elementary school, need to be more anecdotal. As she puts it, “Who wants to give a child in grade two an R?” Cheryl’s gripe with the report card is simple: “it doesn’t make sense to me [as a tool] to foster learning.” She believes that students and parents should be looking at the report card knowing exactly what they can do and what they need to keep working on. The other issue with report cards is that learning is a continuance, and a report card grade is very arbitrary. She points out that just because a student is 8 years old doesn’t mean they belong in grade three. She cites other education systems internationally that don’t do that; systems where school is not age based but knowledge based instead. “I think working towards that kind of ideal would be good,” Cheryl concludes.

**Staff**

When Cheryl is asked to consider why some staff are combative toward the idea of growth mindset, she has some insight to share. “I think it’s just built into the education we’ve had in the past and what good education is. How you give feedback and what feedback looks like is so ingrained in our own school experience and to change it has to be a slow process. Sometimes it’s a really slow process because [teachers] think everything they’re doing is fine.” Cheryl continues, “you can give them all the articles, if teachers think they’re doing a good job they kind of don’t pay attention to them. There are teachers that are learners and some that are not learners. Some people are willing to put in the work and think about it, and be reflective…and you have teachers that are a bit more rigid. So it’s maybe convincing them but I really think it’s the children themselves. Because everyone wants to do what is the best for kids, else you don’t get in to education.” Cheryl’s comments lend credence and perspective to the view points and
hesitations of some teachers who are not passionate about facilitating growth mindset in their own classrooms.

_Hannah_

**Overview**

Hannah found it difficult to comment on whether there are any issues or shortcomings with growth mindset, because she didn’t feel she had been involved in it enough to really see the positive or negative. “I mean it seems like such a simple concept that some people kind of throw it away, like ok we told the student [about growth mindset] and they know it. But I think that it’s important to keep at it all the time. Because I really do think a lot of these students fall into these labels and that is one thing I try to stay away from.” Hannah says that the labels kids face are dangerous, because the kids really buy in. That’s one of the hallmarks of the growth mindset: that it promotes effort. She says, “We really need to talk about praising the process and not the product.” Just as Joanne, Hannah says the impact of growth mindset has permeated her personal life. “I’ve changed even with my children the way I talk to them. I used to say ‘you did great’, ‘you’re very smart’…now it’s hard but I’m really trying to be conscious of the fact that ‘you worked hard’ [sends the more positive message]. It’s important for them to see that it’s hard work that is going to get you there. It’s really changed a lot of my views.”

When probed more deeply, Hannah conceded. “I mean I don’t think you can have something that couldn’t have some kind of a negative. [But] I’ve been really positive with it. I really do like it, at this point I haven’t really seen [issues] in terms of implementation though it’s a challenge of practice [that you’re bound to] run into problems with structuring it in time.” Hannah shared that the previous year they ran into
challenges because a lot of instructional time was devoted to fostering growth mindset. But she says, the challenge with everything is finding the balance.

This year, Hannah says she’s encountered struggles trying to incorporate growth mindset while also meeting expectations a little bit. Because of the nature of her role – because she’s “kind of attached to two other teachers, [and] kind of at their mercy in what’s being covered”, she’s noticed that growth mindset isn’t getting the priority treatment she believes it deserves. “We were trying to implement growth mindset once a week but actually it was just difficult with their planning for me to fly in once a week, so that lead to a little bit of a struggle…and it’s because I don’t run the main classroom.”

Reconciling Growth Mindset

Issues and techniques

The teachers share how they are able to foster growth mindset in classrooms that must adhere to rigid educational systems and procedures such as report cards. They offer suggestions of things that can be done to offset some of the issues alluded to in the previous section. The issues discussed in this section are largely to do with the confines of the current education system and model, as well as the difficulty of fostering growth mindset in an oppositional environment. They share their own actions and experiences to ground their suggestions in practice.

Joanne

Opposing Views

Joanne shares a conversation she had with a parent that did not immediately support growth mindset. “I had a big conversation with a parent at my workshop. She said ‘in my culture we just want A’s and perfect and my one guy he doesn’t try and his brother tells him he’s dumb and it gets him down’. We were talking about the more
somebody has a growth mindset – like the more you develop that – those things don’t affect them. So like the marks will become more of a motivator instead of a discourager.”

**Education System**

Joanne didn’t seem concerned about reconciling growth mindset and the education system. “We just have to [deal with the confines of the education system]. We talk about it. I think a big part of developing a growth mindset is about honesty and having real conversations and not being afraid of things being wrong. And being able to face them; knowing there are challenges.” Joanne suggests using the discrepancy between growth mindset and the education system as a teaching point to illustrate that things “don’t always have to be perfect because they’re not and we gotta stop always trying to pretend they are and we should be able to just talk about things.” She says she talks to students and tells them outright, “we know that it doesn’t really make sense that we have to give you these marks. I know you gave me your ‘A’. I have to write this. You’re getting a ‘B’ on your report card but I know you gave me your ‘A’.”

Joanne talks about a professional reading she did, in which the teacher told students, ‘I’m giving you this feedback because I believe in you.’ She says the research data they collected on the kids who got that feedback showed that they did much better the next time. “So I put that in all my learning skills comments. Like even the ones that were not doing great…[I wrote], ‘I’m giving you this feedback because I believe in you and I know you can do better’. Again, it’s really about language. It’s really a lot about language and the way that we give feedback to kids.” These statements are not unique; they echo much of the literature discussed in my previous chapters.

Upon further reflection, Joanne proposes a way to reconcile growth mindset with the education system, after all. “I think there’s a way to kind of bridge it. Like our system
can work with a growth mindset, I think. You won’t be beaten down so much by things if you know that it’s just part of your journey. Like I said, like a motivator. Or just a really good way or clear picture for our self-reflection. I think we need to be…I think marks are in a way important…we need to know where we are. Knowing you stink at reading [is important]. Like that’s…that’s real. I think that kids need to know that. But it’s about them developing a way to handle feedback and know what to do with it. That’s the part where we can connect the two things. They kind of are at odds with each other but I’m hopeful that…I don’t know. We can find a way to work with it.”

\textit{Hannah}

\textit{Opposing Views}

Hannah shares an anecdote which illustrates varying perspectives on student learning and success. She says, “I was in a conversation with another teacher here and she was concerned. She gave a test and no one did that well, and she was concerned about letting them redo it because would that make them think ‘it doesn’t matter if I don’t get it the first time, I can always redo it’. I said to her that’s true, but we have to remember they’re still young, so we need to teach them what to expect. We can say to them this is what happened, this is what you got, now were going to review it and I’m going to give you the opportunity to take it back and fix it.” Hannah’s suggestion is in-line with Growing Success and it reinforces growth mindset in that the focus of the task is not the grade but the learning. Giving students an opportunity to fix their mistakes reinforces the notion that the learning and not the grade is the important piece. The teacher’s concern that they won’t study for tests in the future indicates a focus on grades and product as opposed to learning and process. Hannah makes a good point when she says that in real life we’re allowed to redo things all the time. “I could plan a lesson
tomorrow and it could bomb and I’ll see what went wrong, and I’m going to review it and change my next lesson. We have these opportunities in life we need to extend that to school, it can’t be so cut and dry.” Hannah insists that teachers need to give feedback and let students know what the expectations are and how they can be successful. The opportunity to improve on existing work empowers students, and shows them that the learning process is the main take-away after all. In a way, it’s implicit teaching of the growth mindset.
Chapter 5: DISCUSSION

Chapter 5: Discussion –

Implications/Recommendations:

Coming into the research, I had a difficult time reconciling the philosophies upheld by growth mindset, which I personally wholeheartedly cherished, and the role I felt teachers were forced to play as judges and assessors of student learning. I was curious to see how teachers reconciled these issues in their own practice: how did they achieve cohesion between growth mindset and everything else? I felt there was a disconnect between the ideals fostered through growth mindset and the message that is sent to parents and students alike when a report card goes home. It was interesting to hear how the three teachers I interviewed reconciled these very issues in their own practices.

The implications of this study are numerous. As a researcher, I have discovered that the sampling of teachers I spoke with represents a certain subset of the teaching population. From my discussions with these teachers, it is clear that they all hold similar views regarding growth mindset; however, they also indicated that there are other teachers who hold conflicting views. Thus, it seems clear to me that my findings are not indicative of all teachers’ attitudes. As a teacher, this becomes relevant because I need to recognize that I will undoubtedly cross paths with other teachers who are likeminded. The ability to articulate my own perspectives while respecting the perspectives of others is an important professional consideration. Moreover, the issue raised by Joanne regarding fostering growth mindset in an oppressive environment is relevant for me to consider as a future teacher: how will I, at once, honour the viewpoints of other teachers while endeavouring to facilitate growth mindset among my students? How will I
reconcile two conflicting professional obligations in an appropriate manner? These are relevant and important musings, which have come about as the result of my research.

My practice will undoubtedly be influenced by these findings because I have uncovered very useful and practical strategies for fostering growth mindset in the classroom. For instance, I hope to incorporate the use of descriptive feedback instead of grades as formative assessment in my future practice. I will give students opportunities to improve their submissions, until they have achieved “acceptable” quality work. I will have open and honest conversations with students and parents alike to explain how and why it is that report card grades may be inconsistent with growth mindset and the student’s individual improvement and progress. These are all practical and appealing options which support my own philosophy of education, but I may not have discovered these specific options were it not for my interviews. The option to introduce growth mindset to students in colleagues’ classes where growth mindset is not taught is another research discovery that I may not have otherwise considered, but that helps to reinforce growth mindset within the broader school community.

The opportunity to speak with these three teachers has provided me with insight as to how I might go about reconciling theory on paper with practice within the classroom. These teachers have different experiences, albeit, all at the same school, and these experiences which they have bravely shared can begin to influence my own conception of what teaching through a growth mindset lens might look like. It is important to recognize that there is bound to be some adversity to change; hearing about the issues these teachers have encountered - from systematic and procedural expectations, to colleague opposition – helps to inform my own practice, and prepares me for the
difficulties that may arise as I begin to incorporate growth mindset into my own practice. Being aware of parental perspectives also helps to inform my actions as a future teacher.

As a beginning teacher, I think it is important to be responsive to the environment in which I will find myself. While I think implicit instruction around growth mindset will likely be a tenet of my teaching, this is an extension of my teaching philosophy. Joanne mentioned that for growth mindset to be effective, it needs to permeate the entire school. These interviews have opened my eyes to the reality that teaching is a very cooperative endeavour. I can implement facets of growth mindset in my practice, but to come in with the intention to change everything overnight is a recipe for failure.

I think, though, that these teachers have proven how imperative it is to strive to cultivate growth mindset in the classroom. I will definitely remain a proponent of growth mindset; will continue to expand my knowledge around it; will encourage my colleagues to consider it; will share my knowledge. Growth mindset is a definite asset, and one that should be considered at the Board level, when writing documents such as Growing Success that dictate teacher-student interactions. I think growth mindset is already supported by documents such as Growing Success, but could have even wider applications if mandated or at least supported more explicitly by the Board.

**Further study**

If I had additional time, I would be interested to learn more about the ways in which new teachers can begin to bring growth mindset into the classroom. I’d also like to learn about long-term effects of growth mindset: in the literature review section, Carol Dweck was quoted as saying that it is important to realize that not every opportunity is a learning opportunity – sometimes, growth mindset will not be a valid course of action. I would be interested to know how growth mindset impacts students’ long term success
and learning. Some of the comments made during my interviews about other teacher’s attitudes were also interesting to me. I would be interested to learn what contributes to the resistance some teachers have toward growth mindset.
REFERENCES


Garfield Gini-Newman and Rolans Case, Creating Thinking Classrooms, manuscript in development, 2015.


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Appendix A: Letter of Consent for Interview

Date: ___________________

Dear ___________________,

I am a graduate student at OISE, University of Toronto, and am currently enrolled as a Master of Teaching candidate. I am studying _________________ for the purposes of investigating an educational topic as a major assignment for our program. I think that your knowledge and experience will provide insights into this topic.

I am writing a report on this study as a requirement of the Master of Teaching Program. My course instructor who is providing support for the process this year is Dr._________________. My research supervisor is _____________________. The purpose of this requirement is to allow us to become familiar with a variety of ways to do research. My data collection consists of a 40 minute interview that will be tape-recorded. I would be grateful if you would allow me to interview you at a place and time convenient to you. I can conduct the interview at your office or workplace, in a public place, or anywhere else that you might prefer.
The contents of this interview will be used for my assignment, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a conference or publication. I will not use your name or anything else that might identify you in my written work, oral presentations, or publications. This information remains confidential. The only people who will have access to my assignment work will be my research supervisor and my course instructor. You are free to change your mind at any time, and to withdraw even after you have consented to participate. You may decline to answer any specific questions. I will destroy the tape recording after the paper has been presented and/or published which may take up to five years after the data has been collected. There are no known risks or benefits to you for assisting in the project, and I will share with you a copy of my notes to ensure accuracy.

Please sign the attached form, if you agree to be interviewed. The second copy is for your records. Thank you very much for your help.

Yours sincerely,

Researcher name: _________________________________

Phone number, email: ______________________________

Instructor’s Name: ____________________________________________

Phone number: _________________ Email: _______________________


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Research Supervisor’s Name: ______________________________________

Phone #: ______________________ Email: _______________________

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

I have read the letter provided to me by ______________________(name of researcher) and agree to participate in an interview for the purposes described.

Signature: _____________________________________________________

Name (printed): ________________________________________________
Appendix B: Interview Questions

Research Question: How can teachers facilitate growth mindset through cascading lessons and authentic assessments?

Sub Questions:
Are there evident benefits to fostering growth mindset in the classroom?
Do traditional lesson and assessment models facilitate growth mindset?
Could modification of lessons and assessment better support growth mindset?

Interview Questions:
Tell me about yourself...background in education/philosophy/etc.
What do you know about growth mindset?
When did you first hear about it?
What do you think about it?
What are issues/shortcomings with regard to growth mindset?
What other related ideas/etc inform your teaching around growth mindset?
(Brainology...habits of mind...tribes)
How do you foster it in your own class?
What difficulties have you encountered in fostering it?
What student attitudes in response to growth mindset have you noticed?
What parental attitudes toward growth mindset have you noticed?
How often do your lessons take growth mindset into account?
Could you explain how your lessons encapsulate growth mindset?
How often do your assessments support a growth mindset?
How do your assessments take growth mindset into account?
In the time since learning about growth mindset, can you tell me about a time a lesson or an assessment did not foster growth mindset? Why didn't it?
What can you tell me about your opinion, with regard to the notion of growth mindset and typical assessment strategies/the reporting methods used in Ontario schools?
What can teachers do to support growth mindset in their classrooms?
How do you suggest teachers foster growth mindset through lesson planning?
How do you suggest teachers foster growth mindset through assessment?
Is there anything you would like to add?