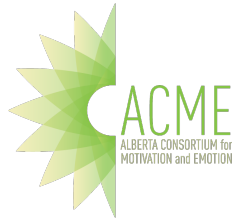


## RESEARCH BRIEF



# STUDENTS' UNDERSTANDING OF MINDSETS: ITS IMPLICATIONS FOR EMOTIONS AND WELL-BEING

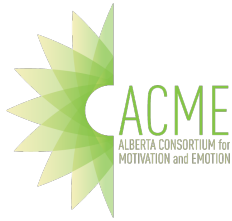
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Data collection Research Assistants: Devon Chazan, Bryce Dueck, Gabrielle Pelletier & Sierra Tulloch

## RESEARCH BRIEF



# STUDENTS' UNDERSTANDING OF MINDSETS: ITS IMPLICATIONS FOR EMOTIONS AND WELL-BEING

Students in grades 1 to 5 at Westbrook have been volunteering in our research over the last few months. For this project, we were interested in how students make sense of the mindset language used at Westbrooks. A big THANK YOU to the students, teachers, and parents who made this research possible! Also thank you to the Kule Institute for Advanced Study (KIAS), The Alberta Teachers' Association, and ), and the Faculty of Education at the University of Alberta for funding this project with a KAIS-ATA research grant. Here are some preliminary results:

One hundred and two students across 8 classrooms participated in focus groups to tell us about mindsets. From our conversations with the students, we extracted 5 main themes (1) effort and practice, (2) how mindsets help, (3) learning, (4) positive attitude and (5) negative emotions. We provide some key quotes from students below. Interestingly some of their examples were from outside of school perhaps showing that they think about a growth mindset in lots of settings.

### (1) Effort and Practice

When I'm doing two wheels...Well the first time was pretty scary and I keep **trying** and **trying**.



Because if you keep **practicing** you will get better at something.

When I **practice** it does make me feel good.

### (2) Mindsets Help

- [Growth mindset] **helps** you in school when you are having a hard time and with something you can't figure out or its hard for you...and it will make it a lot better and easier for you.
- I was in swimming lessons and there was this new thing that we had to do that was really hard and I had a growth mindset and it really **helped** me to do it.
- When I did math it was so hard... Because I couldn't do it and I didn't know... I raised up my hand and **asked for help**.



### (3) Mindsets and Learning

[Growth mindset] makes us **be bigger** thinking and get more things done faster and in faster ways.

I like how the growth mindset lets us **do more**.



I get a question wrong on the test I get mad and I think “I can **learn** from this” and next time I can get it right.

Growth mindsets make us **learn**.



#### (4) Positive Attitude

- If you believe in yourself you can do it.
- [Growth mindset] It has positive words in it.
- Um so I used to not like math but then I became more positive and kept trying and now I really like math.
- [Growth mindset] made me feel like I could answer the questions, it was possible.
- When I’m doing gymnastics, when I’m doing a really hard trick I like to think that I can do it and then I do it and then I’m happy.

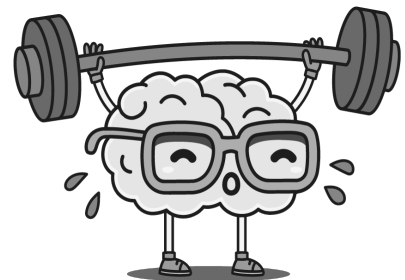
#### (5) Negative Feelings



- Like Someone pushes me too hard to do it and tells you need to keep doing it, you need to keep doing it, over and over again, I start to get frustrated cus that's not really helping me.
- When I do piano, it kinda makes me frustrated sometimes because my teacher pushes me alot and sometimes it makes me kinda mad.
- I tell my little brother that you are not good at this game and then he feels so bad.
- I saw the board and uhm I did the opposite of what, I did the opposite of it... I felt like I did something wrong.

### In Summary...

Even students in Grade 1 had a lot of great things to say about mindsets. They were able to relate growth mindsets to the importance of practicing and effort. They also saw how having a growth mindset could help them in different situations inside and outside school. Students generally had a positive attitude when it came to mindsets, but sometimes, they felt negative emotions. We explored these themes more in the survey.



In the Spring of 2021, we had students from grades 4 and 5 complete online surveys to tell us more about their mindsets. In total, 36 students shared perspectives through open-ended questions and and rating scales. On the next two pages, you will see what they had to say.

### Defining Fixed and Growth Mindsets

Students defined fixed and growth mindsets differently. For fixed mindsets they said things like: “when you don't want to learn any more its like your fixed in one spot,” or “when your mind is closed to feedback, and does not try to improve,” and “a fixed mindset can change if it is encouraged.” In contrast, growth mindsets came with many positive words:

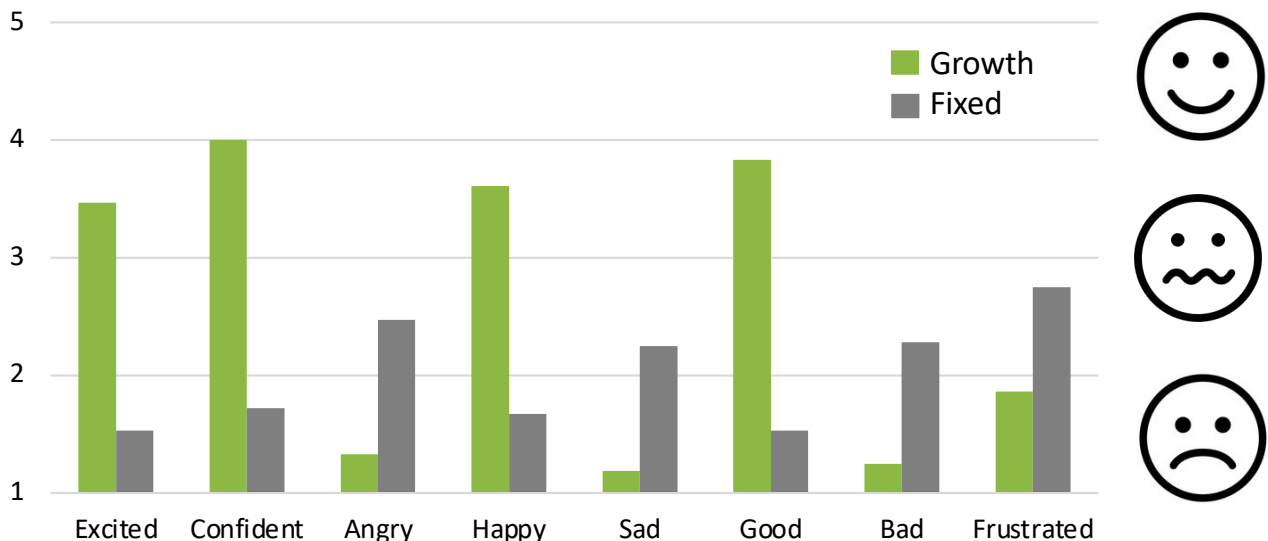
We asked students: “What is a GROWTH mindset?”

The most common words are here...



Students mentioned emotions in the focus groups, so we asked them to rate different emotions when it came to mindsets on. Students rated positive emotions higher when thinking about growth mindsets, and rated negative emotions higher when thinking about a fixed mindset.

When I think about growth/fixed mindsets I feel...



### How people help you with your mindset?

During the focus groups, students mentioned several individuals who helped them with their mindsets so we followed up on this in the survey. Students said parents, caregivers, grandparents, aunts, uncles, siblings, friends, coaches and teachers all helped them with their mindsets. We also asked students to write about how these people helped with their mindsets.

Helping to think positively about how I'm doing and what I'm doing.

They help me set a small goal for me to achieve each day.

By telling me its ok and just try again it wont be perfect the first time.

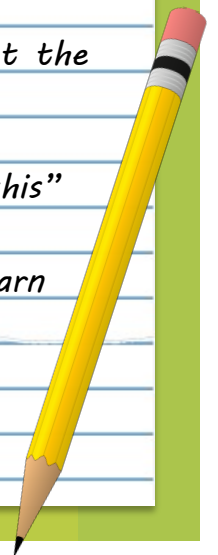
They gave good advice.

They all helped me by showing me what a mindset can do for you.

**89%** of students said they know someone with a growth mindset.

#### HOW do you know they have a GROWTH mindset?

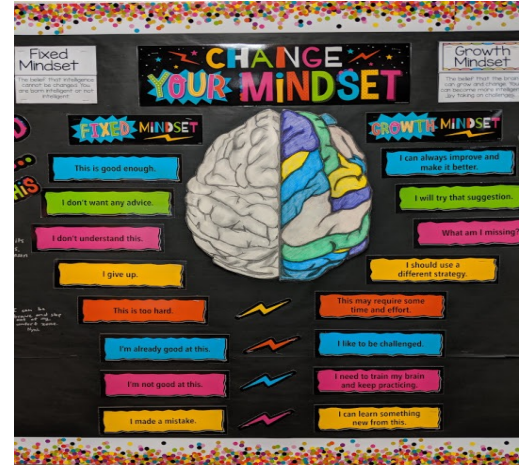
- *I can tell because they are always trying to make their work better and they don't just give up.*
- *My best friend has a growth mindset for math because she is not the best but always keeps going*
- *They say things like " I can't do this YET"*
- *Because they are never upset and they say stuff like "I can do this"*
- *They don't get mad when they can't figure something out*
- *I know they have a growth mindset because they are eager to learn*
- *Any time I see them they keep trying*
- *Because they are willing to change*
- *They're very positive and happy*
- *They like to learn new things*



Only **52%** of students said they knew someone with a fixed mindset, explaining that they know its a fixed mindset because: "They say 'Oh this looks terrible' or 'I will never be able to do this!,'" "because they say they cannot do it," "they are always beating themselves up," "because they are not willing to change" and "they are sometimes very negative and snotty."

## Project Origin

Sarah Holmgren introduced Growth Mindsets to Westbrook school. Her colourful bulletin board outside the main office was a focal spot for students to “see” the power of different types of thinking. Her passion for mindsets was picked up by many in the school including the new principal Darren Sweeney. When Dr. Daniels saw the KIAS-ATA funding opportunity she couldn’t resist approaching Sarah, Darren, and Morgan to study the impact of this authentic growth mindset intervention and its impact on students’ wellbeing and emotions.



## Brief Discussion of Results

In general the results of this study show that most students had an awareness of what a growth mindset is and its advantages over a fixed mindset based on the messaging they received at school. Moreover, students came up with examples of growth mindsets beyond school, suggesting that they can see the relevance of growth mindsets for other achievement activities in their lives. Finally, students associated growth mindsets with positive emotions and fixed mindsets with negative emotions. The associations between mindsets and emotions has not explored very much in the empirical literature and so this result is a novel and important contribution.

## Reflections from the Research Assistants

*“Most students were really excited to share what they knew about mindsets and were curious to learn more. Lots were also proud to be part of “research” at the university. I learned a lot about interviewing young students, especially if they needed help to understand the question.”- Sierra*

*“It was such a neat experience getting to chat with the Westbrook kids about mindsets. I was surprised at the enlightened opinions and ideas many of these young elementary students had to discuss. It was incredible to see how everyone came together to navigate virtual interviews!” - Devon*

*“This was such a fun research project! With the COVID-19 pandemic, we were worried but the commitment from teachers, parents, and students were fantastic. I loved hearing students’ talk about mindsets.” - Lauren*