



07

Growth Goal Setting Improves High School Students' Educational Outcomes

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Research Brief

Study overview

- Research has shown that growth goal setting can improve students' learning.
- Growth goal setting is focused on self-improvement.
- Growth goal setting involves striving to meet personally set challenges, aiming to outperform one's previous best efforts or performance, and striving for self-improvement.
- This research investigated how teachers' instructional practices may support students' growth goal setting (see Figure 1).
- This research also looked at how growth goal setting can enhance students' academic engagement – including their academic aspirations, perseverance, and positive behaviour.
- A further question was whether growth goal setting could be particularly helpful for academically disadvantaged students, such as those from low socio-economic backgrounds or those with relatively low prior achievement.
- Goal setting is not a new idea in education, but in recent years there has been an increasing focus on self-growth approaches to goal setting.
- This project was conducted in collaboration with Centre for Education Statistics and Evaluation (CESE) at the New South Wales Department of Education.

What more needs to be known about growth goal setting?

To date, there has not been much research into how teachers' instructional practices may support students' growth goal setting and how this instructional support and growth goal setting in turn enhance students' academic engagement.

Furthermore, there has been very little research investigating whether growth goal setting may be helpful for some students more than others. A previous research study found that growth goal setting may have particular benefits for academically at-risk students. If this is so, growth goal setting may be one approach to help close engagement and learning gaps.

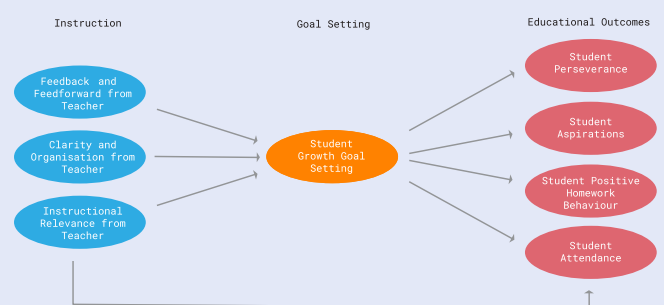


Figure 1. Model of growth goal setting investigated in the research

The plan

- The study involved 61,879 high school students from 290 government schools across New South Wales (NSW).
- It drew on the NSW Department of Education’s annual “Tell Them from Me” (a registered trademark belonging to The Learning Bar) student survey.
- In Term 1 of 2018 and again in Term 1 of 2019, 66% of high schools participated in the survey, with an average student response rate of 71% per school.
- Students were in years 7 (31%), 8 (26%), 9 (24%), and 10 (19%) in 2018 and years 8-11 in 2019.
- Half the sample was female (50%).
- The majority of schools were located in major urban centres of NSW (78% of schools in the sample), with the remainder in regional and remote areas of NSW.

The Central Measures

- Growth goal setting was assessed via survey questions about the extent to which students set personal academic challenges, aim for self-improvement, and strive to match or exceed previous bests.
- Instructional support was assessed via student ratings of instructional relevance, organisation and clarity, and feedback-feedforward (improvement-oriented feedback).
- Educational outcomes were assessed via perseverance, aspirations, attendance, and positive homework behaviour.

What we found

Instructional support

- Feedback-feedforward and instructional relevance were the instructional factors that were positively linked to students’ growth goal setting.

Growth goal setting

- Growth goal setting was associated with gains in students’ perseverance, aspirations, and positive homework behaviour.

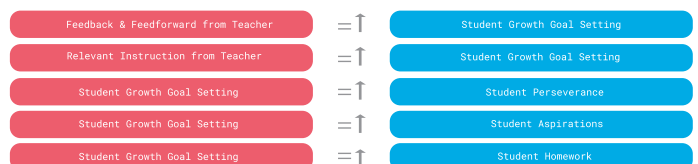


Figure 2. Main findings for growth goal setting

Academically At-risk Student Groups

- Students from low-SES backgrounds and students low in achievement seemed to especially benefit from growth goal setting.
- A growth goal setting strategy may be one part of a multifaceted approach to assisting academically disadvantaged students.
- Growth goal setting had an especially positive effect for lower achieving students and students from low-SES backgrounds.

Why it matters?

Why Does Growth Goal Setting Work?

For several reasons, when students set and strive for growth goals, they activate numerous motivational processes that are helpful for their engagement and learning.

- Growth targets are known to students, whereas other targets can be difficult to know. This makes it very clear what to work towards and how to work towards it.

For example, if a student's goal is to do better than their previous test result, the student knows what mark they received in the last test and therefore what mark they need to beat in the next test.

In contrast, if a student's goal is to beat another student in the next test, they do not know what mark that student is going to receive and therefore do not know what target mark to strive towards.

- Specific growth goals help students maintain their focus on goal-relevant tasks and this keeps them on-track.
- By setting clear growth goals they pay more attention to activities related to the goals and less attention to activities that are not related to the goals.
- Because growth goals are set by oneself and in relation to one's own personal improvement, they tend to be more internally motivating than goals set by others or benchmarked against others.
- Growth goals create a gap between where the student is now and where the student wants to be—and students tend to be motivated to close these gaps.

Practical Implications: Educators can ...

- teach students how to set and strive for growth goals.
- provide effective feedback-feedforward information to students.
- strive for instructional relevance in content and tasks.
- consider growth goal setting as part of a multifaceted approach to support academically at-risk or otherwise disadvantaged student groups.

The bottom line

Students' growth goal setting is associated with significant gains in their academic engagement. The findings of our study provide helpful information about the instructional support that educators can provide to optimise students' growth goal setting and engagement at school.

About the Researchers



Andrew Martin

Andrew J. Martin, PhD, is Scientia Professor, Professor of Educational Psychology, and Chair of the Educational Psychology Research Group in the School of Education at the University of New South Wales, Australia. He specialises in motivation, engagement, achievement, and quantitative research methods.

Further details of his work can be found at <https://www.researchgate.net/profile/Andrew-Martin-22>



Rebecca Collie

Rebecca J. Collie, PhD, is a Scientia Associate Professor of Educational Psychology in the School of Education at the University of New South Wales, Australia. Rebecca conducts research in the broad areas of wellbeing, motivation, and social-emotional development using quantitative research methods. Previously, Rebecca worked as a primary school teacher in Melbourne.

For further details, see: <https://www.researchgate.net/profile/Rebecca-Collie>



Keiko Bostwick

Keiko C. P. Bostwick, PhD, is a postdoctoral research fellow in the School of Education at UNSW. Her work focuses on the impact of students' and teachers' growth-focused motivation on students' academic learning and wellbeing.

More of her research can be found at: <https://www.researchgate.net/profile/Keiko-Bostwick>

Additional researchers include Ian McCarthy and Anaid Flesken from the Centre for Education Statistics and Evaluation (CESE) at the New South Wales Department of Education.



Emma Burns

Emma C. Burns, PhD, is a lecturer of educational psychology in the School of Education at Macquarie University. Her work focuses on the socio-motivational processes that enhance students' academic outcomes, especially in STEM. Her research utilises quantitative research methods and analysis.

More information about her work can be found at: <https://www.researchgate.net/profile/Emma-Burns-4>



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Educational Psychology Research Group

Educational psychology focuses on research into cognitive, motivational, social, and emotional processes relevant to learning, achievement, teaching techniques and instructional design. This research stream is complemented by a dedicated community of academics, the Educational Psychology Research Group, led by UNSW Professor Andrew Martin. Cognitive load theory is an instructional concept derived from our knowledge of the evolutionary bases of human cognitive architecture. It has generated a large range of instructional effects that can be used by teachers, instructors, and researchers. Research into motivational, social, and emotional processes in education focuses on theories and factors relevant to students, teachers, and the academic context that impact learning and achievement.