

# 'Journeys': A Metacognitive Intervention of Encouraging a Growth Mindset and Awareness to Performance, for Youth At-Risk

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## Aim

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To examine differences in growth mindset, awareness, and performance of youth-at-risk, following their participation in a metacognitive intervention program



## Background

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A growth mindset is a belief that abilities can be improved (Dweck, 2009). Youth at-risk may experience social adaptation difficulties. The Israeli Ministry of Education encourages the development of programs to improve their skills sense of competence and growth mindset. Since the feedback students receive from teachers can improve growth mindset and performance (Dweck & Yeager, 2021).

## What's more to it?

the research team (teachers and occupational therapists) developed a yearly intervention program, named "Journeys", that included self-directed, collaborative, and reflective learning, that was designed to facilitate such improvement.

## Procedure:

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## Methods:

Ethics approval was received from Haifa University (No. 369/19) and the Ministry of Education) No. (10964. The study included 4 test points: A1 and A2 - a month and a week before the intervention. B was the intervention named 'Journeys - learning beyond the Classroom Walls'. A3 and 4 - a week and a month after the intervention.

At A1 and A4, all three outcome measures were administered. At A2 and A3, the Mindset questionnaire was administered. A qualitative analysis of the students' and teachers' responses was also performed

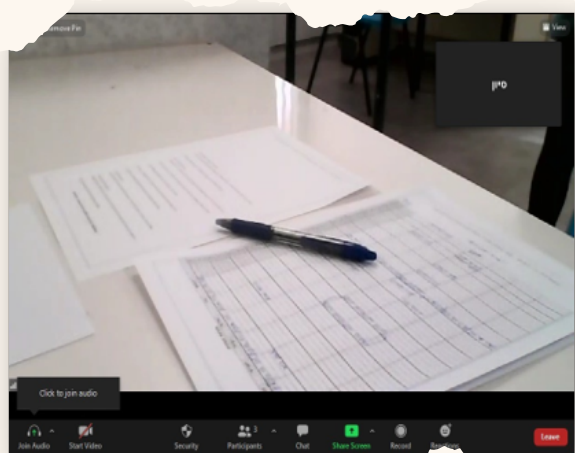
**Participants:** Forty- six boys and girls at risk, aged 16-18 years, in the 10th (n=16) or 11th grade (n= 30). Anyone with mental health difficulties was not included.

**Instruments:** 1). Weekly Calendar Planning Activity - (middle/high school short version) (WCPA; Toglia, 2015): To measure strategy use and awareness. 2). Behavior Rating Inventory of Executive Function (BRIEF; Gioia et al., 2000) - teacher's report. 3). Kind of Person Scale (Dweck, 1999) - an assessment of Mindset.

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## main results

A significant change was evident in the number of accurate appointments  $t(26)=-2.3, p>.05]$ , and the efficiency score of the WCPA improved.  $[ [t(9) = 3.26, p = .01]$  Analysis of error patterns showed a high frequency of location errors (73.9 %) which was reduced after the intervention (45%). Although most students were unable to describe the strategies that helped them prior to the intervention, they could do so afterward. Pre-intervention, 61% of the students overestimated their accuracy, however, afterward, the overestimation increased to 78%.



Screenshot of remote data collection via Zoom, due to Covid-19 restrictions.

## Discussion and Conclusions

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Participating in a metacognitive intervention can encourage a change in performance and self-perception. Although a single experience was not sufficient to change the growth mindset, the change in strategy use indicated that the students approached the task differently and were more aware of what helped them. Also, analysis of errors can add insight into a student's specific difficulties that may guide an intervention. This emphasizes the important mediating role of the educational staff (Zlotnik & Toglia 2018). Since some students tended to overestimate their performance, a unified protocol of mediation is recommended. Future studies should examine the extent to which feedback influences growth mindset.

Before the intervention, 22.2% of the BRIEF scores were normative, but normative scores decreased to 17.1% after. No significant difference was found in the Mindset scores ( $p>0.05$ ).

## REFERENCES

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