Growth Mindset Training for Teacher: Method of Changing the Teacher’s Mindset

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Abstract

**Background.** The academic success of students in schools is significantly shaped by their mental attitudes, especially when they face challenging situations that demand substantial effort and resilience. The influence of teachers’ attitudes, or mindsets, plays a crucial role within the educational environment, as these directly impact students’ own mindsets and subsequently their approach to learning. Specifically, the concept of a ‘growth mindset’ – which is the belief that one’s abilities and intelligence can be developed through dedication and perseverance – has been shown to transform how individuals perceive their capabilities and respond to failures.

**Objectives.** In light of this, a specific study was conducted to evaluate the effectiveness of ‘Growth Mindset Training’ targeted at teachers. This training aimed to cultivate a growth mindset among educators, hypothesizing that a shift in teacher attitudes would, in turn, positively affect their students.

**Materials and methods.** To assess the impact of the training, researchers utilized a growth mindset scale to measure the mindsets of 19 participating teachers, comprising 11 women and 8 men, both before and after they underwent the training program.

**Results.** The findings from this study were quantitatively robust, with a T-statistic of -3.529 and a significance level of less than .005, indicating a statistically significant improvement in the teachers' growth mindsets post-training. Additionally, the analysis of mean scores from the pretest and posttest further confirmed an upward trend, suggesting that the mindset of the teachers had indeed shifted towards a more growth-oriented perspective.

**Conclusions.** Thus, Growth Mindset Training emerged as a potent intervention tool, not merely altering teachers’ perceptions but potentially setting a foundation for enhancing the overall educational experience by fostering a culture of perseverance and continuous improvement in schools.

**Keywords:** educational psychology, teacher development, mindset transformation, student achievement.

Introduction

The shift to online education during the COVID-19 pandemic has notably altered the landscape of student engagement, where decreases in motivation and heightened stress levels have had a noticeable effect on their academic outcomes (Agustina et al., 2021; Astuti et al., 2021; Meeter et al., 2020; Zurriyati & Mudjiran, 2021). This transition has not only impacted students but also teachers, who have faced increased job-related stress, affecting their performance and well-being (Anita et al., 2021; Fauzan et al., 2022). The challenges posed by remote learning have necessitated a reevaluation of educational practices, prompting schools and educators to explore and implement a variety of innovative teaching tools and methods. Among these are interactive platforms like Kahoot (Sinaga et al., 2022), engaging classroom activities such as Index Card Match (Zahwa & Erwin, 2022), digital resources like Wordwall (Permana & Kasriman, 2022), and collaborative learning strategies like the Cooperative Type STAD (Anwar et al., 2022), which have all been deployed to enhance the effectiveness and adaptability of educational delivery during these unprecedented times.

In the current phase of the New Normal, the Indonesian government has authorized the recommencement of in-person classroom sessions, a decision facilitated by the declining number of COVID-19 cases and the high vaccination rates among the public. Nonetheless, the transition back to physical classrooms has not been without its difficulties, particularly in the realm of educational adaptation. Students have been facing challenges such as a lack of motivation...
and a diminished interest in learning activities, highlighting significant adaptation issues (Sari, 2022). Studies have also shown that there is a pronounced effect of academic stress on students as they adjust to the limited face-to-face learning environments typical of the New Normal era (Siregar, 2022). These challenges emphasize the critical need for innovative educational strategies that address and enhance the face-to-face learning experience, ensuring that it is effective and responsive to the needs of students during these transitional times (Widyanigrum et al., 2022).

The concept of a Growth Mindset is a powerful tool to elevate student engagement and motivation for learning. By internalizing a Growth Mindset, students actively participate in their educational experiences, which in turn increases their cognitive awareness and interaction within their academic environments (Zhao et al., 2021). Crucially, the effectiveness of instilling a Growth Mindset in students largely depends on educators' attitudes and approaches (Mesler et al., 2021; Yu et al., 2022). Teachers' mindsets play a vital role in shaping their teaching strategies and responses to pedagogical challenges (Rissanan et al., 2018). The resilience of teachers during difficult situations, guided by their Growth Mindsets, often sets a precedent for students, showing them that perseverance is key to overcoming obstacles (C. Dweck, 2014).

Students who adopt and maintain a Growth Mindset tend to enhance not only their own learning experiences but also contribute positively to the learning environment, encouraging both fellow students and teachers to persist through challenges (Schmidt et al., 2017; Herdian & Rahayu, 2022; Nastiti et al., 2022). This proactive approach can significantly influence their mental health and overall well-being within the school setting (Herdian, Wahidah, et al., 2021; Wahidah & Royanto, 2019a). Research specifically conducted by Herdian et al. (2021) during the COVID-19 pandemic highlighted that students generally exhibited a moderate level of Growth Mindset, suggesting there is substantial room for enhancement. To effectively foster a more robust Growth Mindset, structured training programs have proven to be beneficial. These programs, as documented in studies, lead to notable improvements in both students' and teachers' mindsets before and after participation (Wahidah et al., 2022), demonstrating the transformative power of well-designed Growth Mindset interventions.

Based on insights from prominent researchers, Angela Duckworth (2016) characterizes the Growth Mindset as the perception an individual holds about their cognitive capacities, viewing these abilities as either static or expandable. Carol Dweck and her colleagues (2011) further elaborate on this concept, explaining that Growth Mindset involves an individual's commitment to the belief in their continuous ability to learn and excel, thereby anticipating advancements in their capabilities beyond their present scope. According to Bungsu and Rosadi (2021), a developing mindset is essentially a collection of beliefs that significantly affect a person's actions and attitudes, ultimately influencing their success in life. Suriyanti (2020) portrays Growth Mindset as inherently positive, suggesting that such an outlook leads to ongoing personal development. She argues that this positive mindset can be cultivated through specific therapeutic techniques that can be taught through structured training and environmental interactions. Farok and Mahmud (2020) describe Growth Mindset as reflecting individuals who firmly believe that their limitations or failures are not merely due to innate deficiencies but are aspects that can be continuously developed, refined, and improved with persistent effort and holistic educational experiences.

The concept of Growth Mindset is crucial not just for fostering academic and personal growth but also as a dynamic tool within the educational process, beneficial for both students and educators (Uluduz & Gunbay, 2020). This perspective is supported by Iskandar (2008), who asserts that educational environments play a crucial role in shaping an individual's learning journey. The regulations, as well as the behavior and attitudes of educators within schools, are instrumental in nurturing and enhancing already established mindsets, enriching the educational experience and encouraging a culture of continuous personal and intellectual growth.

To bolster the development of growth mindsets among educators, it is crucial to employ specialized training programs aimed at fostering these perspectives. Currently, there is a scarcity of empirical studies that utilize experimental approaches to evaluate the impacts of growth mindset training programs tailored for teachers. This research specifically targets the efficacy of such training programs in enhancing the growth mindset attributes of educators. Although there have been similar studies in the past, like those highlighted by Wahidah et al. (2022), there is a notable deficiency in research that focuses on teachers who identify with the Islamic faith. The primary objective of this study is to rigorously assess how Growth Mindset Training for Teachers can effectively improve the growth mindset of these educators, with an emphasis on understanding how these outcomes can vary across different cultural and religious teacher communities. This expanded focus will help in tailoring growth mindset interventions that are culturally sensitive and more universally applicable.

Materials and Methods

This research employs a quantitative experimental methodology, specifically using a quasi-experimental design due to its non-randomized nature. Such a design is chosen to facilitate direct comparisons that help deduce the effect of specific interventions (Hastjarjo, 2019). This study's structure is centered around a single group of participants without a control group, focusing on investigating the causal impacts of Growth Mindset Training for Teachers. The evaluation involves comparing the growth mindset scores from before and after the training, assessing how this professional development influences the teachers' attitudes and approaches.

Participant

The participants of this study include 19 teachers from an Islamic junior high school, comprising 11 women and 8 men. The age range of these participants spans from 24 to 56 years (Mean=35.79, SD= 12.45) showcasing a broad spectrum of life experiences. These teachers have varied lengths of service in education, ranging from as little as one year to as much as 33 years, reflecting a diverse group in terms of both age and professional experience. The specifics of the participant
demographics are summarized in the table below, which illustrates the wide array of backgrounds and the depth of teaching experience among the study’s participants.

### Table 1. Participant profile

<table>
<thead>
<tr>
<th>Subject</th>
<th>Age</th>
<th>Sex</th>
<th>Length of work (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>27</td>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Participant 2</td>
<td>26</td>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Participant 3</td>
<td>27</td>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Participant 4</td>
<td>58</td>
<td>Male</td>
<td>5</td>
</tr>
<tr>
<td>Participant 5</td>
<td>56</td>
<td>Male</td>
<td>27</td>
</tr>
<tr>
<td>Participant 6</td>
<td>26</td>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td>Participant 7</td>
<td>52</td>
<td>Male</td>
<td>18</td>
</tr>
<tr>
<td>Participant 8</td>
<td>38</td>
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<td>1</td>
</tr>
<tr>
<td>Participant 9</td>
<td>34</td>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Participant 10</td>
<td>32</td>
<td>Female</td>
<td>10</td>
</tr>
<tr>
<td>Participant 11</td>
<td>33</td>
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<tr>
<td>Participant 12</td>
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<tr>
<td>Participant 13</td>
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<td>Female</td>
<td>33</td>
</tr>
<tr>
<td>Participant 14</td>
<td>24</td>
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<td>1</td>
</tr>
<tr>
<td>Participant 15</td>
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</tr>
<tr>
<td>Participant 18</td>
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<td>Female</td>
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</tr>
<tr>
<td>Participant 19</td>
<td>25</td>
<td>Male</td>
<td>1</td>
</tr>
</tbody>
</table>

This detailed participant information not only enriches the research data but also underscores the complexity and variability of the educational environment in which these teachers operate. By understanding this diversity, the study aims to provide richer insights into how growth mindset training can be tailored and implemented across varied educational settings, ultimately enhancing teacher efficacy and student outcomes.

### Measurement

The Growth Mindset Scale is used to measure the level of growth mindset as a tool for both pretest and posttest assessments. This scale was developed by Wahidah and Royanto (2019) and is based on various aspects of the Growth Mindset as defined by Dweck (2006), which include: the belief in the development of intelligence, talents, and character; the belief that challenges, difficulties, and failures can foster personal growth; the belief in the value of effort and hard work; and the belief that criticism and feedback from others are essential for success. An example of an item on this scale is “I can develop myself to be more positive.” The responses are scored using a Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree) for favorable statements, and inversely for unfavorable statements, from 4 (Strongly Disagree) to 1 (Strongly Agree), comprising a total of 20 items. A cumulative score is calculated by summing the responses to these five items, with higher scores indicating a stronger growth mindset. The Growth Mindset Scale has been validated and found reliable (Herdian & Rahayu, 2022). Data analysis for this research employs a Paired Sample t-test using the JA-MOVI software program.

### Procedure

Teachers volunteered to participate in the training program and completed a consent form to confirm their willingness to participate, with an assurance that all data collected would be confidential and used solely for research purposes. The training began with the administration of a pretest using the growth mindset scale. Subsequently, the participants underwent a comprehensive growth mindset training tailored for educators, structured into several segments.

The first part of the training focused on “brain plasticity,” designed to help teachers understand how the brain’s adaptability plays a crucial role in learning and development. The second segment delved into different types of mindsets and their impact on student motivation when facing challenges. The third part concentrated on the role of teachers in fostering a growth mindset among students, emphasizing the influence of teacher attitudes and behaviors on student development.

In the fourth part, specific cases involving the growth mindset of teachers and their interactions with students were presented and discussed. This segment aimed to provide practical examples and foster a deeper understanding of how a growth mindset can be communicated and implemented in educational settings. Each session included time for discussion and questions, allowing participants to engage deeply with the material and relate it to their own teaching experiences.

At the end of the training, all participants were required to complete a posttest, which measured any changes in their growth mindset as a result of the training activities. This comprehensive approach ensured that the training was not only informative but also interactive, providing teachers with both theoretical knowledge and practical skills to enhance their effectiveness in promoting growth mindsets in their students.

### Results

The primary goal of this research is to evaluate the impact of Growth Mindset training on the growth mindset of teachers. The growth mindset of the teachers was assessed using a 20-item Growth Mindset scale. Both pretest and posttest scores from this scale were collected for the research data. Before conducting the Paired Sample t-test to analyze these scores, it was necessary to perform an assumption check to validate the use of the t-test method. This involved conducting a normality test to ensure that the data distribution met the assumptions required for this statistical method. The results of this normality test are documented in Table 2, which details whether the dataset followed a normal distribution, thus influencing the appropriateness of the subsequent t-test analysis.

Prior to conducting the analysis, Shapiro-Wilk statistics was computed to examine the assumption of normality for paired samples t-test. The result of Shapiro-Wilk test showed that the assumption of normality was not violated, W=0.94,
Teachers with a growth mindset also exemplify the importance of self-reflection and understanding one's strengths and weaknesses. They dedicate time to helping students identify and develop their unique talents and abilities, and to recognize and appreciate the skills of others. Consequently, students learn how to become better communicators, collaborators, and problem-solvers. Moreover, a teacher's growth mindset fosters a sense of belonging in the classroom. They strive to create an environment where everyone feels accepted and respected, providing a safe and supportive space for students to share ideas and be their authentic selves.

One of the significant strengths of this study lies in its focus on the transformative impact of a growth mindset on both educators and students. The research not only underscores the importance of teachers' attitudes in shaping educational outcomes but also highlights how these mindsets can be cultivated through specific training programs. The study's design, which incorporates both pretest and posttest measures, allows for a clear evaluation of changes over time, directly attributable to the intervention. Additionally, the emphasis on practical applications, such as feedback reception and resilience in facing challenges, provides valuable insights that are immediately applicable in educational settings. This research also broadens the understanding of how growth mindsets can influence broader educational practices and student success.

However, the study is not without its limitations. The absence of a control group limits the ability to definitively attribute observed changes to the training alone, as other external factors could also influence the outcomes. The study's focus on a specific demographic group – teachers at an Islamic junior high school – while insightful, may not necessarily generalize to other educational contexts or cultural settings. This specificity can restrict the broader applicability of the findings. Moreover, the reliance on self-reported measures for assessing growth mindset introduces a potential bias, as participants may respond in ways they perceive as socially desirable rather than entirely accurate. Finally, the study's duration and the timing of the posttest assessments may not adequately capture long-term effects and changes in mindset, potentially overlooking the sustained impact or the gradual evolution of attitudes post-training.

To build on the findings of this study, future research could incorporate a longitudinal design with multiple follow-up assessments to track the long-term sustainability of growth mindset changes. Including a control group or using a randomized controlled trial design would strengthen causal inferences. Expanding the participant pool to include teachers from various educational levels and different cultural backgrounds could enhance the generalizability of the results. Additionally, integrating objective measures of teacher performance and student achievement could provide a more comprehensive view of the impact of growth mindset training.

Conclusions

This study makes a compelling case for the implementation of growth mindset training programs for teachers, highlighting its potential to enhance educational practices and student outcomes. The research vividly illustrates that...
teachers who develop a growth mindset can profoundly affect their students by fostering an environment that champions resilience, embraces challenges, and celebrates feedback and continuous learning. The evidence suggests that such training not only boosts teachers’ confidence and adaptability but also equips them to instill similar qualities in their students, thereby cultivating a classroom atmosphere conducive to greater engagement and achievement. Despite its limitations, the study offers significant insights into the dynamics of growth mindset development within an educational setting and underscores the critical role of teacher attitudes in shaping student success. The research findings advocate for the broader application of growth mindset principles across educational systems to empower both educators and students. It also calls for continued exploration into this area, with adjustments for more robust experimental controls and broader participant demographics to better understand and harness the full potential of growth mindset training. In conclusion, the study conclusively reaffirms the transformative potential of growth mindset training within educational contexts, demonstrating its profound capability to effectuate substantial alterations in the attitudes and behaviors of both educators and students. This, in turn, facilitates the enhancement of educational outcomes and fosters the development of a more adaptable and resilient forthcoming generation.

References


Herdian, H., & Rahayu, E. (2022). “I Don’t want to Commit Academic Dishonesty”: The Role of Grit and Growth
Тренінг мислення зростання для вчителя: метод зміни мислення вчителя

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Авторський вклад: А – дизайн дослідження; В – збір даних; С – статаналіз; Д – підготовка рукопису; Е – збір коштів

Реферат. Статья: 5 с., 4 табл., 36 джерел.

Исторія питания. Академічна успішність учнів у школах значною мірою формується їхніми психічними установками, особливо коли вони стикаються зі складними ситуаціями, які вимагають значних зусиль і стійкості. Вплив установ, або мислення вчителів, відіграє важливу роль в освітньому середовищі, оскільки вони безпосередньо впливають на якість навчання та успіх учнів.

Мета дослідження. У зв'язку з цим було проведено спеціальне дослідження для оцінки ефективності «Тренінгу мислення зростання», орієнтованого на вчителів. Цей тренінг має на меті виховати мислення зростання серед педагогів, припускаючи, що зміна ставлення вчителів, у свою чергу, позитивно вплине на їхніх учнів.

Матеріали та методи. Щоб оцінити вплив тренінгу, дослідники використовували шкалу мислення зростання, включаючи 11 жінок і 8 чоловіків, як до, так і після проходження навчальної програми.

Результати. Результати цього дослідження були кількісно надійними, з Т-статистикою -3,529 і рівнем значущості менше 0,005, що вказує на статистично значуще покращення мислення вчителів після навчання. Крім того, аналіз середніх балів з претесту та посттесту ще більше підтвердив тенденцію до зростання, що свідчить про те, що мислення вчителів справді змістилося в бік більш орієнтованої на зростання перспективи.
Висновки. Таким чином, тренінг мислення зростання став потужним інструментом втручання, який не просто змінює сприйняття вчителів, але й потенційно закладає основу для покращення загального освітнього досвіду шляхом виховання культури наполегливості та постійного вдосконалення в школах.

Ключові слова: педагогічна психологія, розвиток вчителя, трансформація мислення, досягнення учнів.

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