

# GROWTH MINDSET INTERVENTIONS TO ENHANCE PHONICS LEARNING IN EARLY YEARS EDUCATION: AN EXPLORATORY STUDY

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## Abstract

This study explores the efficacy of a growth mindset intervention in early years education, aiming to assess its impact on phonics learning. Using an interpretative ethnographic approach, the researcher worked with twelve learners to gain an understanding of their experiences participating in the intervention. This study gathered qualitative data through art-based approaches, focus groups, and participant observation to assess the effectiveness of the intervention and gain insights into learners' perceptions, attitudes, and experiences. Firstly, this study explored the impact that the growth mindset intervention had on achievement in phonics learning focusing on specific groups of learners including low-achieving, middle-achieving and high-achieving cohorts to determine if a growth mindset intervention benefits all groups or only some. It presented a significant finding in relation to the impact of achievement in phonics learning following a growth mindset intervention on the group of learners with Special Educational Needs (SEN). Secondly, the results of this study highlighted many other benefits to learning including the areas of "learning how to learn", increased effort, motivation, resilience in response to challenges and mistakes and learner autonomy. It also provided useful insights into the importance of establishing the correct learning environment in order to help learners adopt a growth mindset effectively. This study seeks to contribute valuable insights and evidence-based recommendations for educators, policymakers and stakeholders, in the hope that readers will view the implementation of growth mindset interventions as a fundamental approach in early years education, ultimately leading to more supportive and conducive early learning environments.

**Keywords:** *Growth mindset, intervention, cohorts, learning environment, autonomy.*

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## 1. Introduction

This research, based on Carol Dweck's (2006) theory that intelligence can be developed through effort and perseverance, investigates how fostering a growth mindset influences achievement in and attitudes towards phonics learning in young learners. The researcher's own interest in growth mindsets began during the completion of a capstone project at St. Mary's University College, Belfast. Dweck's ideas, supported by figures like Bill Gates, have gained global relevance across the education and business sectors, with the Organisation for Economic Cooperation and Development (OECD) highlighting the importance of mindsets in PISA reports.

Despite its popularity, misconceptions remain, especially in early childhood contexts, covering ages 0–5 years old. Studies by Gunderson et al. (2017) and Pomerantz & Saxon (2001) show young learners are especially receptive to mindset interventions, though research in this area remains limited. Phonics, a core element of early literacy, provides a clear framework to explore the impact of such interventions. Terminology within this study, such as referring to students as "learners" and using "low-achieving" instead of "low-ability," aligns with the growth mindset philosophy, emphasising potential and effort over fixed traits.

The study aims to address two primary research questions:

- To what extent does a growth mindset intervention enhance achievement in phonics learning within early years education?
- To what extent does a growth mindset intervention enhance attitudes towards phonics learning within early years education?

## 2. Literature review

This review examines the conceptual foundations of growth mindset theory, emphasising its relevance in early childhood education. Originating from Carol Dweck's work, the theory posits that abilities can be developed through effort and perseverance. Hong et al. (1999) suggested that fostering a growth mindset in young learners enhances engagement and well-being. While extensively studied in older learners, research on its application in early years is limited. Research suggests that mindset may also be shaped by past academic experiences, reinforcing the importance of early intervention (Limeri et al., 2020).

### 2.1. The benefits of growth mindset interventions

Growth mindset interventions are structured activities aimed at encouraging learners to believe their abilities can develop through effort (Limeri et al., 2020). While outcomes vary, well-designed interventions can foster positive learning dispositions. However, Sisk et al. (2018) cautions that educators need to ensure to tailor interventions to the developmental stage of learners.

Studies show a positive link between growth mindsets and academic performance (Reardon, 2011). Interventions help learners maximise opportunities by influencing beliefs about intelligence (Yeager & Dweck, 2012). Growth mindset interventions appear particularly beneficial for low-achieving learners (Paunesku et al., 2015), though even high-achievers have demonstrated gains, such as increased enrolment in advanced maths courses (Zhu et al., 2019).

Learners with growth mindsets show greater perseverance and motivation (Blackwell et al., 2007; Yeager & Walton, 2011). They view effort as a path to improvement, in contrast to fixed mindset learners who may interpret effort as a sign of inadequacy (Dweck, 2016).

Growth mindset interventions promote metacognition, helping learners understand and regulate their own learning processes (Hattie, 2009). Highlighting the brain's malleability encourages learners to view intelligence as adaptable (Yeager et al., 2016). This approach supports the development of resilience (Duckworth et al., 2007) as learners with such mindsets are more likely to persist through setbacks, interpret failure constructively, and adopt adaptive strategies (Haimovitz & Dweck, 2017). Conversely, fixed mindset learners often avoid challenge to preserve the appearance of intelligence (Mueller & Dweck, 1998).

The classroom environment and educators' own mindsets significantly influence the success of interventions (Rattan et al., 2012). While most teachers recognise the value of growth mindsets, many feel ill-equipped to foster them (Education Week Research Centre, 2016). Dweck (2016) warns against superficial application, so-called "false growth mindsets", which has been suggested to mislead learners. Praising effort over innate ability is crucial (Mueller & Dweck, 1998), and subtle shifts in language, such as using "not yet," can reinforce growth-oriented beliefs (Dweck, 2014). Educators' understanding of cognitive science also plays a vital role (Ricci, 2013).

Despite the literature suggesting these many benefits of a growth mindset intervention, successful implementation demands time, training, and curriculum alignment (OECD, 2019).

### 2.2. Phonics

Phonics instruction is a cornerstone of early literacy, enabling children to decode words by recognising sound-letter relationships. Systematic approaches, introduce learners to phonemic patterns through structured progression.

The literature indicates that integrating growth mindset interventions in early education can positively influence learners' attitudes including resilience, motivation and love of learning, and, to some extent, their academic performance. This study aims to explore how such interventions affect achievement in and attitudes towards phonics learning among early years learners. By examining both performance metrics and learner dispositions, the research seeks to provide a comprehensive understanding of the interplay between mindset and early phonics development.

## 3. Methodology

### 3.1. Research paradigm

An ethnographic approach was chosen to gain an in-depth understanding of how growth mindset interventions affect phonics learning. Ethnography captures everyday practices and beliefs, providing a holistic view of participants' experiences. This method is flexible and allows for rich, contextual insights, despite challenges such as researcher bias.

### 3.2. Methods chosen

The study will use art-based approaches, focus groups, and participant observation to collect qualitative data. Triangulation ensures robust data by cross-verifying findings. Art-based methods, such as

drawing, will allow young participants to express their thoughts on growth mindset, fostering engagement and emotional intelligence. These methods have some limitations, such as subjectivity in interpretation and time constraints. Focus groups will help interpret art-based data, allowing participants to discuss their thoughts in depth. While useful for gathering diverse insights, focus groups can be affected by personality dynamics and social desirability bias. Participant observation offers a nuanced understanding of how growth mindset interventions are integrated into daily routines. This method allows for direct observation of interactions but requires balancing insider and outsider perspectives to avoid bias.

### **3.3. Research context and participants**

This study employs opportunistic sampling to select a research site based on participant availability and accessibility, facilitating efficient data collection in a small-scale setting. While this approach offers practical advantages, it may introduce bias and limit generalisability due to the non-random selection of participants.

The participant group comprises twelve early years learners, balanced by gender and achievement levels in phonics. Purposive sampling ensures representation across low, middle, and high achievers, based on recent formative assessments. Participants were assessed on their ability to blend and segment ten words, aligning with previously studied sounds. Efforts were made to include all learners, with additional lessons provided to those absent, ensuring equitable participation and reliable data collection.

### **3.4. Data collection procedures**

In terms of the growth mindset intervention, a series of five lessons, inspired by Muncaster & Clarke (2016) and Dweck (2006), will introduce concepts including brain plasticity and the value of effort. The intervention comprises examples of famous failures to illustrate growth through persistence. Participants will engage in two art-based activities to express their feelings about learning and growth mindsets through drawings. Initial activities will familiarise them with art-based methods before focusing on mindset-related themes. Following the art activities, structured focus groups will facilitate discussions, guided by prepared schedules to ensure balanced participation. The researcher will act as a facilitator, using familiar language and allowing adequate time for responses. The researcher will observe and document classroom interactions, noting observations, conversations, and reflections. These notes will be reviewed to interpret and inform the study's findings.

### **3.5. Data analysis procedures**

Data analysis will follow an ethnographic approach, beginning with immersion in collected materials (notes, recordings, drawings). The researcher will apply coding to identify recurring themes, conduct thematic analysis to interpret these patterns, and use constant comparison to refine categories. Triangulation will compare data from various methods to enhance credibility. Findings will be synthesised into a comprehensive narrative, incorporating direct quotes and contextual details to provide a rich understanding of the phenomena.

### **3.6. Ethical considerations**

Ethical clearance will be obtained, adhering to BERA (2004) and institutional guidelines. Informed consent will be sought from participants and guardians, emphasising voluntary participation and the right to withdraw. Confidentiality will be maintained through fictitious names and de-identification. Continuous reflexivity will be practiced to acknowledge and mitigate researcher bias, ensuring ethical integrity throughout the study.

## **4. Results**

This ethnographic study investigated the impact of a growth mindset intervention on achievement in and attitudes towards phonics learning among early years learners. The findings are organised into main themes, addressing two research questions. While these themes are presented separately, they are interconnected, as achievement and attitudes often influence each other.

The intervention led to notable improvements in phonics achievement across different learner groups. Low-achieving learners showed significant progress, with three out of four learners increasing their scores. Middle-achieving learners demonstrated moderate gains, while high-achieving learners also experienced improvements, although to a lesser extent. For instance, a low-achieving learner, improved from 1/10 to 5/10, and a middle-achieving learner, increased from 3/10 to 6/10. The study also highlighted the role of Special Educational Needs (SEN) in influencing outcomes. Learners with SEN, including concentration issues and English as an Additional Language (EAL) challenges, often showed limited improvement. For example, a high-achieving learner with concentration difficulties, did not demonstrate

significant progress. Similarly, an EAL learner, faced barriers in phonics achievement despite a positive shift in attitude.

Attitudinal shifts were observed post-intervention. Learners began to view learning as a process of growth, expressing “I think I could not read words but now I can try really hard and my brain grows very big.” These changes were accompanied by increased effort and motivation in phonics tasks. For instance, a low-achieving learner, transitioned from a fixed mindset to a growth mindset, demonstrating increased willingness to tackle phonics tasks. Similarly, some high-achieving learners, who initially lacked confidence, showed improved resilience and engagement with challenging tasks.

The intervention also positively influenced learners' perceptions of mistakes. Learners shifted from viewing mistakes negatively to seeing them as integral to the learning process. This change in attitude was supported by educators providing constructive feedback, emphasising effort over innate intelligence. Such feedback reinforced the growth mindset, fostering a supportive learning environment.

Furthermore, the intervention promoted learner autonomy. As learners internalised growth mindset principles, they became more self-directed, taking ownership of their learning and demonstrating increased independence. This shift was evident in learners, who, with growing confidence, began to approach tasks proactively.

In conclusion, the growth mindset intervention positively impacted both phonics achievement and learner attitudes, with variations influenced by individual learner profiles and SEN considerations. It effectively cultivated resilience, autonomy, and positive attitudes towards learning. These outcomes underscore the importance of fostering a growth mindset to enhance learners' academic and personal development.

## 5. Discussions and conclusions

This study examined the effects of a growth mindset intervention on phonics learning among early years learners. Results indicated that low-achieving learners made notable progress, while high-achieving learners exhibited increased confidence and resilience. However, learners with Special Educational Needs (SEN) showed limited improvement, suggesting the necessity for additional support tailored to their individual needs.

The intervention also fostered greater effort, motivation, and enthusiasm, promoting learner autonomy and resilience in the face of challenges. These findings align with existing literature, which highlights the benefits of growth mindset approaches in enhancing learners' attitudes and engagement.

Despite positive outcomes, the study faced limitations, including a small sample size and potential confounding factors. Future research should explore the scalability and long-term effects of such interventions, particularly for SEN learners. Overall, the study underscores the value of integrating growth mindset principles into early years education to support diverse learners' development.

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