

EXPLORING THE PERCEPTIONS OF GROWTH: A GROUNDED THEORY CASE STUDY FROM TÜRKİYE

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Abstract. *This study examines students' perceptions of personal growth by applying growth mindset principles through a grounded theory approach. Using qualitative data collected from interviews, the research focuses on beliefs about effort, responses to failure, feedback, and the malleability of intelligence. A theoretical sampling strategy, integral to grounded theory methodology, was employed to select 32 students from the Faculty of Education, including 9 second-year, 19 third-year, and 4 fourth-year students. The findings reveal four key themes: Effort-Driven Development, emphasizing the primacy of effort over innate ability; Resilience and Learning from Failure, which highlights failure as an opportunity for growth; Openness to Feedback as a Development Tool, demonstrating the value placed on feedback for self-improvement; and A Dynamic View of Intelligence and Abilities, reflecting a belief in the evolving nature of intelligence. These insights enhance our understanding of how growth mindset principles manifest in educational contexts, offering practical implications for teaching practices and organizational strategies aimed at fostering personal development.*

Keywords: *growth mindset, undergrad students, teacher education, grounded theory*

1. INTRODUCTION

The concept of a growth mindset, introduced by Carol Dweck (2006), has garnered widespread attention in educational psychology, management, and developmental fields. A growth mindset refers to the belief that intelligence and abilities can be developed over time through effort, learning, and perseverance, as opposed to a fixed mindset, which assumes that these traits are inherent and unchangeable. This distinction has profound implications for personal and professional growth, influencing how individuals respond to challenges, failures, and feedback. As individuals adopt a growth mindset, they are more likely to embrace challenges, persist through difficulties, and view feedback as an opportunity for growth (Dweck, 2006).

Although the benefits of adopting a growth mindset are well-documented in educational settings, particularly with regard to student achievement and motivation (Blackwell et al., 2007), there is less empirical research on how undergrad students perceive and internalize growth mindset principles in real-world contexts. Understanding how

undergrad students conceptualize effort, failure, and feedback is crucial for developing interventions that foster resilience and a continuous learning mentality in both personal and professional settings. The current study seeks to address this gap by using grounded theory to explore individuals' beliefs regarding personal development and the factors that influence their growth.

Literature Review

Growth Mindset

Dweck (2006) and Zilka et al. (2022) define mindset, also known as implicit theory, as the self-perceptions individuals hold about their intelligence and personality. In general terms, mindset refers to a combination of beliefs, assumptions, and habitual cognitive processes that shape an individual's approach to goal-setting, task performance, learning strategies, and the resolution of professional dilemmas. As such, mindset significantly influences how individuals act and make decisions in various aspects of their personal and professional lives (Mintchik et al., 2021a). Two principal approaches define mindset: (1) the fixed mindset, where abilities, skills, and intelligence are seen as stable and innate traits, and (2) the growth mindset, which emphasizes that these qualities are malleable and can be cultivated through effort and learning (Dweck, 2006; Dweck, 2008).

Individuals with a fixed mindset often avoid challenges and fear appearing unintelligent, preferring tasks they can easily accomplish (Butler, 2007). In contrast, those with a growth mindset focus on learning rather than performance, believing that abilities can be developed through perseverance and effort (Dweck & Leggett, 1988; Frondozo et al., 2022). These individuals are more likely to exert additional effort when facing difficulties and are less affected by failures, as they view setbacks as opportunities for growth rather than limitations (Gero, 2013).

A substantial body of research suggests that a growth mindset positively affects motivation, resilience, and academic achievement. Conversely, a fixed mindset is linked to reduced motivation and diminished performance (Caniëls et al., 2018). Growth-minded individuals tend to view learning goals as opportunities to enhance competence and are more likely to develop adaptive learning patterns in the face of failure (Dweck & Leggett, 1988).

Teachers with a Growth Mindset

The role of teachers in fostering student learning is not limited to transmitting knowledge; it also involves shaping students' beliefs and perceptions. Lal (2016) emphasizes that the quality of student success is largely determined by teacher competence, sensitivity, and motivation. Teachers' pedagogical competence is influenced by their professional development, lifelong learning skills, and, most importantly, their mindset. Recent emphasis has been placed on incorporating the growth mindset into teacher education, as it has the potential to improve teaching practices and student outcomes.

Teachers tend to adopt a growth mindset more than other professionals (Fang, 2017). Those with a growth mindset believe in their ability to develop teaching skills and improve their professional competencies through effort and reflection (Fives & Buehl, 2008; Frondozo

et al., 2022). The mindset adopted by teachers directly affects classroom climate, student motivation, and learning outcomes. Teachers who hold a growth mindset are more likely to engage in professional development, seek out feedback, and implement reflective practices into their teaching (Gero, 2013; Stenzel, 2015).

Growth-minded teachers not only believe in the possibility of their own development but also instill this belief in their students. Such teachers view mistakes as opportunities for learning, emphasizing the importance of feedback and encouraging a strong work ethic among their students (Rissanen et al., 2021; Yeager et al., 2022). By fostering a growth-oriented environment, these teachers help students adopt a mindset that values effort and persistence, leading to increased engagement and academic success (Dominick & Ronald, 2019; Mesler et al., 2021).

Moreover, teachers with a growth mindset tend to exhibit greater enthusiasm for their work, viewing teaching as an opportunity for mastery and professional fulfillment. This enthusiasm has been linked to lower levels of stress and greater resilience in the face of professional challenges (Fronozo et al., 2022; Zeng et al., 2016). Research has also shown that a teacher's growth mindset can positively influence students' academic performance, particularly in fostering engagement and enhancing emotional well-being (Nalipay et al., 2021).

The Impact of Growth Mindset in Educational Settings

In educational settings, students with a growth mindset are more likely to embrace challenges, persist despite setbacks, and view effort as a necessary part of the learning process (Limeri et al., 2020). Research indicates that students who adopt a growth mindset tend to outperform their peers with a fixed mindset, as they engage more deeply in learning and are more motivated to tackle difficult tasks (Samuel & Warner, 2021; Sun et al., 2021). Furthermore, students with a growth mindset demonstrate reduced anxiety and stress, as they perceive challenges and failures as opportunities for personal growth rather than reflections of their innate abilities (Yeager & Dweck, 2020).

Developing a growth mindset in higher education is particularly important, as students face both academic and personal challenges during this period. A growth mindset provides the resilience needed to navigate these challenges effectively (Yeager & Dweck, 2012). Beyond academia, adopting a growth mindset prepares students for the demands of the professional world, where adaptability and continuous learning are critical for success (Brock & Hundley, 2016; Mesler et al., 2021). Employers value individuals who demonstrate a commitment to learning and personal development, and students with a growth mindset are better equipped to meet these expectations (Mintchik et al., 2021).

Incorporating growth mindset interventions in educational programs has been shown to improve academic performance and enhance student motivation. For instance, Paunesku et al. (2015) found that interventions designed to cultivate a growth mindset resulted in significant improvements in student achievement. Similarly, Yeager et al. (2016) demonstrated that mindset training could have a transformative effect on student attitudes toward learning and performance, particularly in disadvantaged populations. Thus, fostering a growth mindset from an early age is essential for promoting lifelong learning and academic success.

Growth Mindset and Effort-Driven Development

Central to Dweck's growth mindset theory is the idea that success is primarily the result of effort, rather than innate talent. Individuals with a growth mindset believe that hard work, learning from mistakes, and persistence are the keys to achieving success, whereas those with a fixed mindset often view failure as an indication of inherent limitations (Dweck, 2006). Research has shown that a growth mindset promotes resilience in the face of challenges and leads to greater academic achievement. For instance, Blackwell et al. (2007) found that adolescents with a growth mindset showed greater academic improvement over time compared to their peers with a fixed mindset, even when controlling for initial levels of performance.

In the professional realm, adopting a growth mindset has been linked to more adaptive learning behaviors, greater innovation, and better problem-solving skills. Mueller and Dweck (1998) highlighted that individuals who attribute success to effort, rather than ability, are more likely to seek out challenges, persist in the face of obstacles, and ultimately achieve long-term growth. This research underscores the importance of effort-driven development as a key tenet of personal and professional growth.

Resilience and Learning from Failure

Resilience, or the ability to recover from setbacks, is another critical component of the growth mindset. Individuals with a growth mindset tend to view failure as an opportunity for growth and learning, rather than as a permanent reflection of their abilities (Dweck, 2006). This perspective is supported by Yeager and Dweck (2012), who found that students who believed personal characteristics could be developed were more likely to demonstrate resilience in the face of academic challenges.

The concept of learning from failure has also been explored in organizational psychology, where it has been linked to higher levels of job satisfaction and employee performance. Nussbaum and Dweck (2008) found that individuals who adopt a growth mindset in the workplace are more likely to take risks, seek out feedback, and view mistakes as learning opportunities. This adaptive response to failure not only enhances individual performance but also contributes to a more innovative and resilient organizational culture.

Openness to Feedback as a Development Tool

Feedback plays a central role in the development process, particularly for individuals with a growth mindset. Research by Nussbaum and Dweck (2008) showed that people with a growth mindset are more receptive to constructive criticism and are more likely to use it as a tool for self-improvement. In contrast, those with a fixed mindset may interpret feedback as a personal attack, leading them to avoid challenges or disengage from the learning process.

Openness to feedback is crucial for continuous learning, as it allows individuals to identify areas for improvement and adjust their strategies accordingly. Draganski et al. (2004) found that brain plasticity is enhanced when individuals actively engage in learning processes and adapt to feedback, suggesting that the ability to incorporate feedback effectively can lead to both cognitive and behavioral improvements. This highlights the

importance of fostering a culture of feedback in educational and organizational environments to promote growth-oriented behaviors.

The Dynamic Nature of Intelligence and Abilities

A core principle of the growth mindset is the belief in the malleability of intelligence. Dweck (2006) argues that individuals who view intelligence as dynamic, rather than fixed, are more likely to engage in lifelong learning and embrace challenges. This perspective is supported by neuroscientific evidence indicating that intelligence and abilities can be developed through experience and practice (Draganski et al., 2004). In educational settings, promoting the belief that intelligence is not static has been shown to improve student outcomes, particularly for those from disadvantaged backgrounds (Blackwell et al., 2007).

The dynamic view of intelligence also has important implications for undergrad learners and professionals. Encouraging a growth mindset in the workplace can lead to greater adaptability, innovation, and resilience, as employees are more likely to embrace new skills and learning opportunities. This study seeks to explore how individuals perceive the dynamic nature of intelligence and whether they believe their abilities can evolve over time.

The Importance of Growth Mindset Research in Türkiye

Despite global attention on growth mindset, research within Turkish higher education remains scarce. Understanding Turkish students' perspectives on growth mindset principles is crucial for insights into their learning behaviors and success. Yılmaz and Güven (2022) found significant differences in mindset sub-dimensions among 291 students, linked to exam performance and educational opportunities, highlighting the need for further exploration. Similarly, Mutluer and Altun (2023) explored the effects of growth mindset strategies on 57, 8th-grade students, focusing on self-efficacy, metacognitive skills, and academic success. The study found positive effects on academic achievement, persistence, and motivation, underscoring the value of growth mindset principles in Turkish education for promoting student success.

The scarcity of research in Türkiye presents an opportunity to examine how growth mindset influences student success in higher education. By focusing on Turkish undergraduates, this research contributes to a broader understanding of mindset dynamics and provides practical recommendations for enhancing growth-oriented educational practices in Türkiye. As lifelong learning becomes a national priority, promoting growth mindset principles will play a key role in shaping future educational policies and practices.

Aim of the Study

The aim of this study is to explore how individuals perceive the development of abilities, learning from failure, and the role of feedback, with a particular focus on growth mindset principles. Using grounded theory, this research seeks to develop a deeper understanding of how people conceptualize personal growth and the factors that contribute to their development. Specifically, this study aims to:

1. Investigate participants' beliefs about the role of effort in personal and professional growth.

2. Examine how participants respond to failure and whether they view it as an opportunity for learning.
3. Explore participants' openness to feedback and how they use it as a tool for improvement.
4. Understand participants' views on the malleability of intelligence and whether they believe their abilities can change over time.

By addressing these aims, the study will contribute to the growing body of literature on the growth mindset, providing insights into how these principles are applied in real-world contexts and offering recommendations for educational and organizational practices that foster personal growth.

2. METHODS

Research Design

This study employed a grounded theory approach to explore participants' beliefs and perspectives related to the growth mindset. Grounded theory was selected as it allows for the development of a theory grounded in the data, making it suitable for examining complex, nuanced perceptions about learning, effort, feedback, and resilience. The data were gathered from interviews with participants about their views on talent, effort, failure, and feedback in various contexts. The analysis was conducted through a systematic process of open, axial, and selective coding, allowing emergent themes to surface from the data.

Data Collection and Sampling

Theoretical sampling is a foundational element of grounded theory methodology, emphasizing an iterative approach to data collection that is guided by the developing theory (Glaser & Strauss, 1999). In contrast to conventional sampling methods, which are typically predetermined and may be random or stratified, theoretical sampling is both purposeful and flexible, evolving as the study progresses (Charmaz, 2006). The process begins with the selection of initial participants based on their relevance to the research question. As data is gathered and analyzed through open and axial coding, emerging categories and concepts inform subsequent decisions regarding further data collection (Strauss & Corbin, 1998). This dynamic approach allows the researcher to explore and refine developing theoretical constructs, ensuring that data collection is intricately linked to the ongoing development of the theory. The process continues iteratively until theoretical saturation is reached, defined as the point at which no new conceptual insights emerge from additional data (Charmaz, 2006). By maintaining a close alignment between data collection and theory development, theoretical sampling enhances the depth and richness of the emerging theory, ensuring that it is firmly grounded in robust, contextually rich data (Glaser & Strauss, 1999).

The researchers employed a theoretical sampling strategy, which is central to the grounded theory methodology. The process began with the recruitment of a broad and diverse group of participants from Faculty of Education who possessed relevant experience to address the research question, "What does learning and growth mean for you?" Initial

data was collected through 10-minute-semi-structured interviews and participant observations, providing rich, qualitative insights into the participants' personal experiences and perspectives on learning.

After the initial data collection, the researchers engaged in open coding to identify key concepts, categories, and initial patterns within the data. This allowed the researchers to begin forming emergent themes. As these themes began to take shape, the researchers used theoretical sampling to guide further participant selection. Specifically, the researcher chose additional participants or cases based on their ability to provide deeper insights into the developing theory, thus refining and elaborating on the emerging categories and concepts.

Theoretical sampling is an iterative process, meaning that participant selection evolved alongside the development of the theory. As new themes emerged from the data, the researchers strategically sought participants whose experiences could provide critical information to further explore and refine these themes. This process continued until data saturation was reached, which was defined as the point at which no new themes or patterns emerged from the ongoing data collection.

This adaptive and evolving sampling approach ensured that the research remained responsive to the data, allowing for a rich and nuanced understanding of the phenomenon under investigation. The emphasis on depth rather than breadth allowed for the development of a grounded theory that reflects the participants' lived experiences and perspectives, ultimately providing a comprehensive theory of learning.

The data were collected through a 10-minute-semi-structured interviews. Participants were asked to reflect on their experiences related to learning, growth, challenges, and success. Specifically, they were prompted to discuss their views on the role of effort versus talent, their reactions to failure, their openness to receiving feedback, and whether they believed intelligence and abilities could change over time. The interview transcripts were then analyzed using grounded theory methods to derive the emergent categories and themes.

Participants

The study involved 32 participants, all of whom were students enrolled in the Faculty of Education. These participants, comprising 9 second-year students, 19 third-year students, and 4 fourth-year students, provided insights into personal development, learning from failure, and the role of feedback. The participants were diverse in their educational backgrounds and life experiences, contributing to a rich data set that offered varied perspectives on key growth mindset principles. These included beliefs in effort-driven development, resilience in the face of failure, openness to feedback, and the dynamic nature of intelligence. Focusing on teacher candidates was particularly important for this research, as their views on thought structures are considered valuable for informing the planning and development of teacher training programs. The insights gathered from these future teachers are critical for shaping effective educational practices.

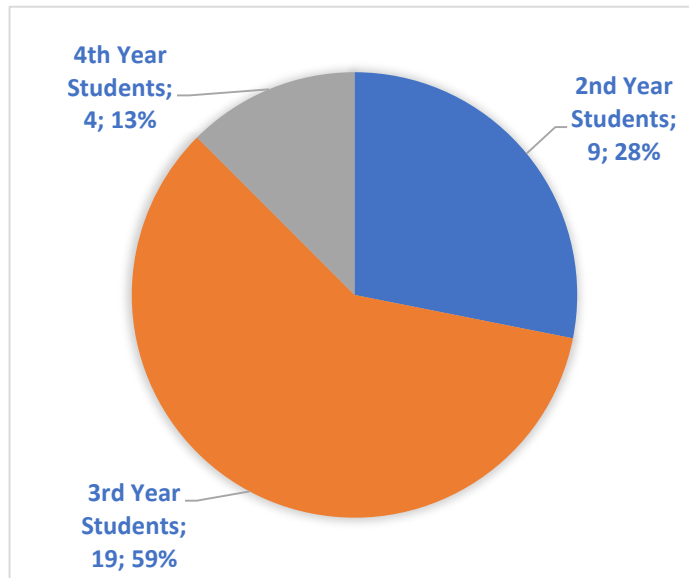


Figure 1. Distribution of students by class year

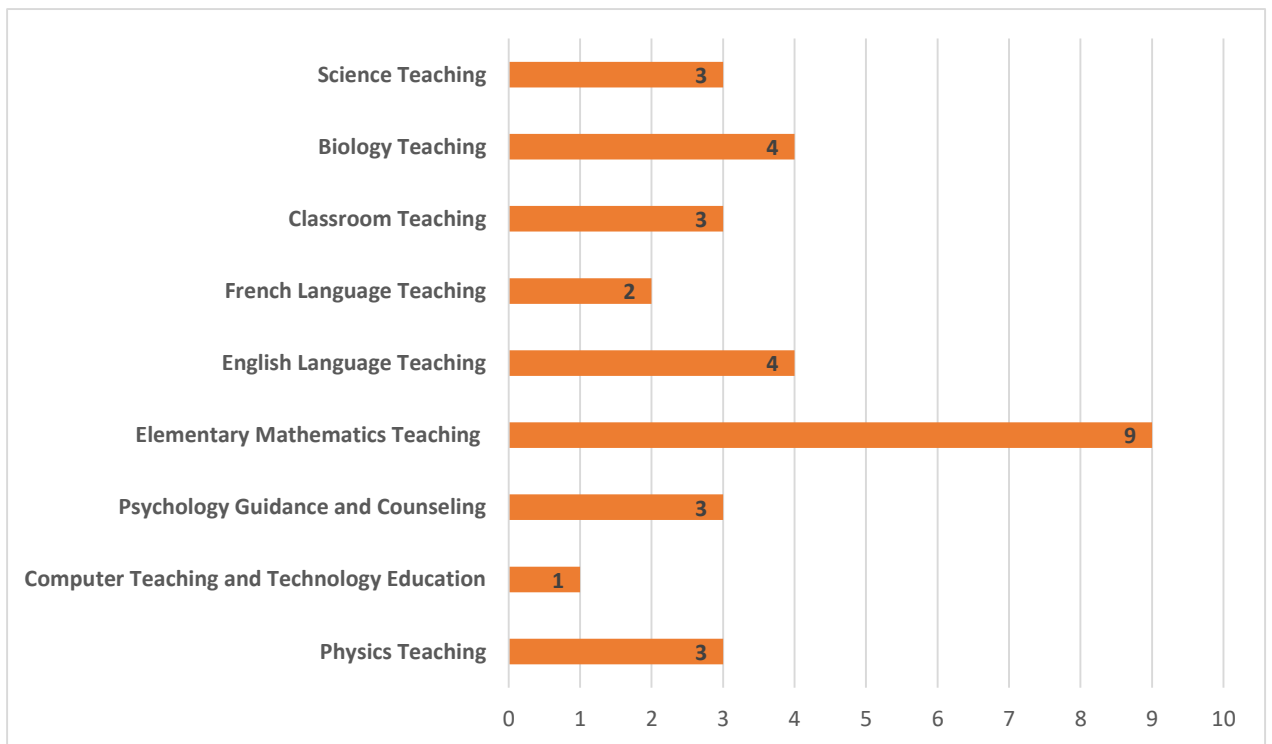


Figure 2. Distribution of students by department

Data Analysis

The following stages summarized below were followed, and manual coding was performed. This graph illustrates the grounded theory analysis process and emergent themes:

1. Open Coding: Initial concepts were identified, leading to themes like Belief in Effort-Driven Development, Resilience and Learning from Failure, Openness to Feedback, and Dynamic Intelligence.
2. Axial Coding: Related codes were grouped into these broader categories to explore connections between them.
3. Selective Coding: These categories were unified under the core theme of Personal Growth through Effort, representing participants' shared views on growth mindset principles.
4. Sentiment Analysis: Each theme was evaluated for emotional tone, adding depth to understanding participants' responses.

This sequential flow shows the systematic approach leading to the final framework on personal growth and learning beliefs.

Table 1. Coding Steps

Coding Step	Activities	Outcomes
Open Coding	Reviewed transcripts line by line	Identification of initial codes
	Assigned codes such as "effort-driven development" and "learning from failure"	Captured significant concepts and ideas
Axial Coding	Grouped related codes into broader categories	Formation of categories like "Belief in Effort-Driven Development"
	Examined relationships between codes	Connection of codes to form categories
Sentiment Coding	A sentiment coding was performed on the participants' responses to assess the emotional tone related to key categories.	Each sentence was evaluated for its emotional content, categorized as positive, neutral, or negative.
Selective Coding	Identified a core theme	Core theme: "Personal growth and development through effort"
	Refined categories and interconnections	Development of a cohesive theoretical

Step 1: Open Coding

The first stage of analysis involved open coding, where the researchers reviewed the transcripts line by line to identify key concepts and recurring patterns in the participants' responses. During this process, initial codes were assigned to segments of text that indicated relevant ideas, such as "belief in effort," "learning from failure," "resilience," and

"openness to feedback." At this stage, multiple codes were applied to each segment, ensuring that all potentially significant concepts were captured.

- The sentence "Success comes with effort; talent can be developed" was coded as both "effort-driven development" and "malleable abilities."
- Similarly, the phrase "Failure always teaches me something" was coded as "learning from failure" and "resilience."

Step 2: Axial Coding

Next, the researchers conducted axial coding to group related codes into broader categories and establish relationships between them. This stage involved reviewing the initial codes and examining how they related to one another. Categories such as Belief in Effort-Driven Development, Resilience and Learning from Failure, Openness to Feedback as a Development Tool, and Dynamic View of Intelligence and Abilities emerged from this process.

- The category "Belief in Effort-Driven Development" was formed by grouping codes such as "success through effort," "talent is developed," and "hard work leads to growth."
- The category "Resilience and Learning from Failure" was formed by combining codes like "learning from mistakes," "failure as a lesson," and "recovering from challenges."

Step 3: Selective Coding

In the final stage of analysis, selective coding, the researchers identified a core theme that unified the major categories. This core theme was "Personal growth and development are achievable through effort, learning from challenges, and openness to feedback." This theme encapsulated the participants' collective belief that success is not determined by innate talent alone but by continuous effort, resilience, and adaptability in the face of feedback and challenges.

The selective coding phase also involved refining the categories and their interconnections to build a cohesive theoretical framework. This framework linked the participants' beliefs about effort, failure, feedback, and growth to broader theories of growth mindset.

Sentiment Analysis

This study adopts a context-dependent sentiment analysis framework, focusing on participants' emotional responses related to themes such as resilience and feedback. By categorizing sentiments into predefined groups—positive, neutral, and negative—this approach facilitates a nuanced understanding of how students emotionally respond to challenges, enriching the interpretation of themes associated with growth mindset principles, including openness to learning and belief in effort.

The categorization of emotional tones highlights participants' complex experiences. Positive sentiments, such as *"After failing the test, I felt motivated to study harder,"* demonstrate constructive responses where setbacks are perceived as opportunities for growth. Neutral sentiments, exemplified by statements like *"I experienced failure during my project,"* reflect emotionally detached observations that nonetheless capture critical experiences. Conversely, negative sentiments such as *"Each failure makes me doubt my abilities,"* and *"I find criticism demoralizing and it makes me anxious,"* reveal challenges related to resilience and discomfort with feedback.

Table 2. Sentiment Analysis

Resilience		Analysis
Positive	"After failing the test, I felt motivated to study harder."	This reflects a positive emotional response, showing that the individual views failure as an opportunity for growth.
Neutral	"I experienced failure during my project."	This statement is factual and lacks emotional weight, categorizing it as neutral.
Negative	"Each failure makes me doubt my abilities."	This suggests a struggle with resilience and indicates a negative emotional tone towards setbacks.
Feedback		
Positive	"Constructive feedback from my peers has been incredibly helpful in improving my skills."	This expresses a positive view of feedback, indicating that the individual values and learns from it.
Neutral	"I received feedback from my instructor about my presentation."	This is a straightforward account of receiving feedback without emotional implications, placing it in the neutral category.
Negative	"I find criticism demoralizing and it makes me anxious."	This reflects a negative sentiment towards feedback, indicating discomfort and resistance.
Openness to Learning		
Positive	"I am always eager to learn new techniques and adapt my methods."	This conveys enthusiasm and a proactive attitude toward learning, categorizing it as positive.
Neutral	"I sometimes attend workshops to learn additional skills."	This indicates a routine behavior without emotional engagement, hence neutral.
Negative	"I feel overwhelmed by the constant changes in curriculum."	This expresses a negative emotional response, suggesting difficulty in adapting to new learning requirements.
Belief in Effort		
Positive	"I truly believe that hard work pays off in the end."	A strong positive sentiment indicating a belief in effort and its consequences.
Neutral	"Effort is required to succeed."	A factual observation with no emotional tone, classified as neutral.
Negative	"Sometimes, no matter how hard I work, success feels unattainable."	This indicates frustration and a negative sentiment that challenges the belief in the value of effort.

This structured sentiment analysis not only deepens thematic understanding but also serves as a robust tool for interpreting the emotional dimensions of students' experiences within educational contexts. By aligning participants' emotional responses with key concepts like effort and adaptability, researchers can further explore the intersection of emotions and educational growth, contributing to a richer understanding of learner development.

This analytical approach highlights the value of integrating sentiment analysis into grounded theory studies to enhance the understanding of complex human experiences in education.

Trustworthiness and Rigor

To ensure the trustworthiness and rigor of the study, several strategies were employed:

1. **Triangulation:** The data were analyzed by multiple researchers to ensure that the coding and theme development were consistent and reliable.
2. **Member Checking:** Participants were invited to review the interpretations of their responses to verify the accuracy of the researchers' coding and theme development.
3. **Thick Description:** Detailed quotes from participants were included in the analysis to provide context and allow readers to assess the depth and richness of the data.
4. **Audit Trail:** A detailed record of the coding process was maintained, documenting how decisions were made at each stage of analysis.

This grounded theory analysis allowed for the development of a theory that explains how participants perceive growth and learning. Through the stages of coding, the emergent themes provided insight into the belief in effort-driven development, resilience in the face of failure, openness to feedback, and the dynamic nature of intelligence. These findings contribute to a deeper understanding of how individuals internalize and apply growth mindset principles in their personal and professional lives.

3. RESULTS

Using grounded theory methodology, this study analyzed participants' responses to uncover themes related to growth mindset, focusing on their perceptions of learning, ability, feedback, and resilience. The analysis proceeded in three stages: open coding, axial coding, and selective coding. The findings are presented below according to the emergent categories that reflect the growth mindset principles as articulated by the participants.

1. Belief in Effort-Driven Development

A dominant theme across participant responses was the belief that abilities and talents are not fixed but can be cultivated through effort, practice, and learning. Many participants explicitly stated that while certain abilities might be innate, true success and

mastery require continued effort and dedication. This aligns with Dweck's (2006) conception of the growth mindset, which emphasizes that talent alone is insufficient for long-term achievement.

Participants frequently emphasized the importance of effort over innate ability, highlighting a strong belief in the growth mindset principle that intelligence and talent can be developed through persistence and hard work. One participant commented, "*Talent is innate but can be developed,*" reflecting the view that natural ability alone is insufficient without continuous effort. This perspective was echoed by another participant who stated, "*Success comes with effort. Talent alone is not enough,*" underscoring the idea that personal development is driven by sustained effort rather than inherent traits. Similarly, the sentiment that "*Continuous development and effort are essential for success*" reinforces the belief that success is a dynamic process requiring dedication and improvement over time. Another participant explained, "*Talent is important, but if you don't work, talent is useless,*" illustrating the conviction that hard work plays a more significant role than talent in achieving meaningful goals. Furthermore, the statement "*When I achieve something through my own effort, I achieve real growth*" reflects the personal pride and fulfillment that participants associate with the results of their hard work. Collectively, these examples suggest a shared understanding among participants that effort, rather than static ability, is the key determinant of success and personal growth, in line with the growth mindset framework (Dweck, 2006).

Themes in These Examples:

- **Effort as Key to Success:** In all examples, the participants emphasize that effort is more important than innate ability in achieving success. This reflects a core growth mindset belief that intelligence and talent can be developed through hard work.
- **Development Through Persistence:** Several statements underscore the belief that continuous effort and persistence are necessary for improvement and success, showing that participants see abilities as malleable rather than fixed.
- **Effort Over Talent:** There is a clear distinction made between talent and effort, with effort being viewed as the more critical factor for personal and professional growth.

These examples highlight the participants' strong belief in effort-driven development, where success and growth are achieved through continuous hard work, reflecting the growth mindset philosophy that abilities can be cultivated through dedication and effort.

2. Resilience and Learning from Failure

Another recurrent theme was participants' positive attitudes toward failure, which they viewed as an integral part of the learning process. Many described failure not as a reflection of their limitations but as an opportunity for growth, consistent with the growth mindset's emphasis on learning from setbacks (Dweck, 2006).

Participants consistently demonstrated a resilient approach to failure, framing it as a learning opportunity rather than a personal flaw. One participant expressed, *“When I fail, it remains as a valuable experience,”* highlighting their belief that failure contributes to growth and provides important lessons. This perspective was widely shared, with another participant remarking, *“Failure doesn’t bring me down; instead, I put in more effort to try again,”* which reflects their ability to use failure as motivation for improvement. Although participants acknowledged the emotional toll of failure, such as one who stated, *“If I fail, I feel sad, but I use this experience to do better in the future,”* they emphasized the importance of learning from setbacks. Another participant demonstrated adaptability by noting, *“I try to deal with challenges, but sometimes I need help,”* illustrating that seeking support is an essential part of overcoming difficulties. This realistic and proactive mindset is further reflected in the statement, *“My potential to cope with challenges isn’t very low; when faced with challenges, I can develop new ideas,”* showcasing their capacity for problem-solving under pressure. Participants also recognized that resilience involves persistence, as noted by one who said, *“When I fail, my motivation drops, but after a while, I pull myself together to try again,”* reflecting their ability to recover and continue striving. Another participant emphasized the value of effort over outcomes, remarking, *“Success doesn’t always come, but if I’ve done my best, it gives me valuable experience,”* which underscores the idea that failure provides meaningful learning regardless of results. Ultimately, participants embraced failure as an integral part of the learning process, with one stating, *“Facing failure can be hard, but it always teaches me something,”* reinforcing the idea that setbacks are opportunities for growth rather than definitive endpoints. These examples illustrate a shared resilience and growth-oriented mindset, where failure is viewed as a necessary step toward future success.

3. Openness to Feedback as a Development Tool

Feedback was also recognized as a critical component of personal development. Participants expressed openness to constructive criticism, seeing it as essential for growth and self-improvement. This reflects the growth mindset’s view of feedback as a learning tool rather than a threat to one’s self-esteem or ability (Dweck, 2006).

Participants generally demonstrated a positive attitude toward feedback, viewing it as a crucial tool for personal and professional development. One participant noted, *“Paying attention to criticism is the quickest way to improve,”* emphasizing that feedback is essential for identifying areas of improvement and refining skills. This sentiment was echoed by others, with one participant stating, *“Criticism doesn’t motivate me with ambition, but it makes me happy to see my mistakes,”* indicating their openness to receiving feedback for self-awareness and growth. Another participant elaborated, *“Criticism is a step toward growth; I filter feedback through my own perspective and focus on positive improvement,”* highlighting their active and thoughtful engagement with feedback, treating it as a tool for discerning what is most beneficial for their development. Additionally, *“Even negative feedback teaches me something because it helps me improve in every situation”* underscores the belief that all forms of criticism, whether positive or negative, offer valuable opportunities for growth. This constructive approach to feedback aligns with the growth

mindset's emphasis on continuous learning. One participant further reinforced this by stating, "*Feedback helps me see more clearly what I need to do,*" demonstrating their reliance on external input to guide future actions and personal development. These examples collectively indicate that participants perceive feedback as an integral part of their growth process, reflecting a growth-oriented mindset that values external critique as a mechanism for continuous improvement.

The coded data supports this conclusion, with 16 out of 32 participants welcoming and using criticism for growth, suggesting that the majority viewed feedback as a positive tool. Meanwhile, 8 participants accepted criticism without actively seeking it, and 8 reacted negatively to it. This distribution underscores that a significant number of participants perceive feedback as essential for development, further aligning with the core tenets of the growth mindset (Dweck, 2006).

Themes in These Examples:

- Value of Criticism for Growth: All examples highlight how participants value feedback, particularly criticism, as a tool for improvement and self-awareness.
- Positive Reactions to Feedback: Even in the case of negative feedback, participants maintain a positive outlook, emphasizing that criticism is a learning opportunity.
- Active Use of Feedback: Participants not only accept feedback but actively engage with it, using it to guide their actions and decisions in improving themselves.

These examples clearly demonstrate that participants embrace feedback as an essential mechanism for development, consistent with the growth mindset's focus on learning from external inputs and criticism.

4. Dynamic View of Intelligence and Abilities

The participants generally viewed intelligence and abilities as dynamic and subject to change. This theme emerged in discussions about the potential for growth through learning and exposure to new experiences. Participants described how their thinking and abilities evolved with time and effort, reinforcing the growth mindset's core belief that intelligence and abilities are not fixed but are malleable (Dweck, 2006).

Participants expressed a dynamic view of personal development, recognizing that growth is shaped by experiences and continuous effort. One participant noted, "*Mindsets change, people change and grow constantly*", reflecting a belief in the ongoing potential for personal transformation. This perspective aligns with the growth mindset principle that growth is not static but rather an evolving process shaped by one's willingness to learn and adapt. Another participant emphasized the role of feedback in this process, stating, "*Paying attention to criticism is the fastest way to improve,*" illustrating how constructive criticism serves as a key driver of growth and self-improvement. This view is consistent with the growth mindset's emphasis on using external input to refine skills and knowledge.

Furthermore, one participant remarked, *“Criticism doesn’t motivate me with ambition, but it makes me happy to see my mistakes,”* demonstrating openness to receiving feedback as a tool for self-awareness. Rather than viewing criticism negatively, the participant used it as an opportunity for reflection and growth. Another participant added, *“Criticism is a step toward growth; I filter feedback through my own perspective and focus on positive improvement,”* indicating that feedback is actively analyzed and applied to support personal development. This shows a proactive and thoughtful engagement with external critique, where participants leverage feedback to determine the best course of action for improvement.

Even negative feedback was valued, as expressed by one participant who noted, *“Even negative feedback teaches me something because it helps me improve in every situation.”* This constructive approach to criticism reflects the belief that all feedback, whether positive or negative, contributes to growth. Another participant highlighted the importance of feedback in guiding future actions, stating, *“Feedback helps me see more clearly what I need to do.”* This demonstrates the participant’s reliance on external input to clarify their next steps, showing a deep openness to external guidance in their personal development.

These examples collectively illustrate a growth-oriented mindset in which participants view feedback as an essential tool for continuous improvement. The dynamic view of personal development and the constructive use of criticism suggest that participants are committed to refining their abilities through experience, reflection, and external input. This aligns with the growth mindset framework, which emphasizes that learning and growth are ongoing processes fueled by effort and feedback (Dweck, 2006).

Themes in These Examples:

- **Value of Criticism for Growth:** All examples highlight how participants value feedback, particularly criticism, as a tool for improvement and self-awareness.
- **Positive Reactions to Feedback:** Even in the case of negative feedback, participants maintain a positive outlook, emphasizing that criticism is a learning opportunity.
- **Active Use of Feedback:** Participants not only accept feedback but actively engage with it, using it to guide their actions and decisions in improving themselves.

These examples clearly demonstrate that participants embrace feedback as an essential mechanism for development, consistent with the growth mindset’s focus on learning from external inputs and criticism.

Negative Perceptions Based on Learning and Growth

The sentiment analysis reveals that a notable portion of participants expressed negative emotional responses, particularly regarding resilience, feedback, openness to learning, and the belief in effort. These negative sentiments offer valuable insights into the emotional and psychological challenges that individuals encounter in the face of adversity

in educational and personal development contexts. Understanding these reactions can help identify underlying barriers to growth and inform strategies for improving educational practices and support systems.

Resilience and Self-Doubt: "Each failure makes me doubt my abilities." This sentiment indicates a struggle with resilience, where failure is perceived not as an opportunity for learning but as a threat to self-esteem. Such negative reactions challenge the belief that effort alone is a sufficient path to success, suggesting that, for some individuals, external factors or lack of support may impede their ability to bounce back from setbacks. The frustration and sense of helplessness expressed here may result in decreased motivation and disengagement from the learning process. This highlights the need for further exploration into the interplay between personal beliefs, environmental support, and external barriers in shaping resilience.

Feedback and Emotional Struggles: "I find criticism demoralizing and it makes me anxious." The negative sentiment toward feedback reflects discomfort and anxiety in response to criticism, which may be influenced by several factors, including how feedback is delivered, the tone used, or the individual's ability to regulate their emotions. Additionally, a lack of psychological safety in the learning environment may exacerbate negative reactions to feedback. This response suggests that the individual's self-concept may be fragile or that they are not yet equipped to process feedback constructively. Understanding these emotional struggles can help educators refine their approach to delivering feedback and create an environment where feedback is seen as a tool for growth, rather than as a threat.

Openness to Learning and Overwhelm: "I feel overwhelmed by the constant changes in curriculum." This sentiment reflects the pressure of adapting to frequent changes, which may cause feelings of overwhelm and stress. The negative emotional response indicates that the individual is struggling to keep up with new demands, possibly due to a lack of stability or insufficient support systems. In such cases, constant changes in the curriculum may not be adequately accompanied by the necessary resources or guidance to help individuals adjust. This highlights the importance of providing learners with the tools and support they need to manage change effectively and maintain engagement in the learning process.

Belief in Effort and Frustration: "Sometimes, no matter how hard I work, success feels unattainable." This sentiment reveals frustration and a sense of helplessness, challenging the belief that effort alone guarantees success. For some participants, despite their efforts, the outcomes may not align with their expectations, potentially due to systemic barriers or lack of external support. Such feelings of futility can undermine motivation and contribute to disengagement from the learning process. It is essential to recognize that while effort plays a crucial role in growth, external factors such as access to resources, systemic inequalities, or organizational constraints can impact the ability to translate effort into success.

Core Theme: Growth as a Continuous Process

The grounded theory analysis revealed a core theme across the participants' responses: "Personal growth and the development of abilities are achievable through effort, learning from challenges, and openness to feedback." This overarching theme encapsulates

the participants' collective belief in their potential to grow and improve over time. Their views align closely with the tenets of the growth mindset, demonstrating a shared understanding that challenges, failure, and feedback are essential components of the learning process.

The participants' responses reflect a strong alignment with growth mindset principles. They exhibit a belief in the malleability of abilities, the value of resilience in the face of failure, and the importance of constructive feedback. These findings support Dweck's (2006) assertion that individuals with a growth mindset view challenges as opportunities for growth, emphasize the importance of effort over innate ability, and demonstrate a positive attitude toward learning from both failure and feedback. This suggests that cultivating a growth mindset within educational and professional environments may enhance individuals' ability to adapt, improve, and ultimately succeed in their personal and professional endeavors.

4. DISCUSSION

The findings of this study provide important insights into how individuals perceive their capacity for growth, learning from failure, and openness to feedback, in alignment with the principles of the growth mindset. Using grounded theory, we identified four major themes: Belief in Effort-Driven Development, Resilience and Learning from Failure, Openness to Feedback as a Development Tool, and the Dynamic View of Intelligence and Abilities. These themes support the foundational concepts of Dweck's (2006) growth mindset theory, highlighting participants' belief that success is shaped by effort, persistence, and a willingness to engage with feedback.

Belief in Effort-Driven Development

Participants widely expressed the notion that abilities and talents are not fixed but can be cultivated through hard work and perseverance. This supports the growth mindset framework, which posits that intelligence and talent are malleable rather than innate traits (Dweck, 2006). Many participants emphasized that while some abilities may be inborn, their development depends heavily on sustained effort and practice. For example, one participant noted, "Success comes with effort. Talent alone is not enough." underscoring the belief that effort plays a critical role in achieving success.

This finding aligns with previous research that highlights the impact of effort on performance and personal growth. Blackwell et al. (2007) demonstrated that individuals who adopt a growth mindset are more likely to embrace challenges, persevere in the face of setbacks, and ultimately achieve greater academic and professional success. This study adds to the literature by confirming that a strong belief in effort-driven development is not only a theoretical construct but is deeply ingrained in individuals' personal philosophies of success.

The frustration expressed in "Sometimes, no matter how hard I work, success feels unattainable" challenges the often-meritocratic emphasis on effort in growth theories. While effort is undoubtedly vital, scholars argue that success is also shaped by systemic factors, including access to resources, institutional structures, and social capital (Bourdieu, 1986; Archer et al., 2012). For individuals facing structural inequities, the narrative of "effort equals success" may feel unattainable, leading to disillusionment and disengagement. This calls

for a broader, more equitable approach to supporting growth that acknowledges and addresses systemic barriers while reinforcing the value of effort within a supportive framework.

Resilience and Learning from Failure

Another key theme that emerged from the data was participants' ability to learn from failure and view it as an opportunity for growth. Many participants reflected on how setbacks and failures were pivotal in shaping their resilience and determination to succeed. For instance, one participant remarked, "When I fail, it remains as a valuable experience." illustrating how failure is seen as an essential part of the learning process.

This perspective aligns with Dweck's (2006) assertion that individuals with a growth mindset are more likely to view failure as a natural and necessary part of growth rather than as a reflection of their limitations. Furthermore, this finding is supported by Yeager and Dweck (2012), who found that resilience in the face of failure is a key indicator of long-term success in both academic and professional settings. The current study expands on this by demonstrating that participants' resilience is not only a reactive trait but also a proactive strategy for continuous learning and self-improvement.

Negative reactions to failure, such as the statement "Each failure makes me doubt my abilities," highlight challenges in fostering resilience. Research suggests that resilience is not an innate trait but a dynamic capacity influenced by individual and contextual factors (Masten, 2014). The participants' self-doubt reflects how failure can threaten self-esteem, particularly in environments lacking sufficient emotional or structural support. Dweck's (2006) growth mindset theory emphasizes the role of framing setbacks as opportunities for growth; however, this perspective may falter when systemic barriers, such as socio-economic challenges or inequitable access to resources, impede individuals' capacity to recover and adapt. To address this, educators and institutions must focus on building a supportive infrastructure that buffers against the demotivating effects of failure while promoting resilience.

Openness to Feedback as a Development Tool

The participants' responses reflected a high degree of openness to feedback, with many viewing constructive criticism as vital for their personal and professional growth. The sentiment that "*Criticism is necessary for my growth.*" was echoed across multiple interviews, reinforcing the importance of feedback in the development process. This aligns with research suggesting that individuals with a growth mindset actively seek out and utilize feedback to enhance their performance (Dweck, 2006).

The findings of this study are consistent with the work of Nussbaum and Dweck (2008), who found that individuals with a growth mindset are more likely to embrace feedback as a tool for improvement rather than as a personal attack. This openness to feedback can lead to more effective learning strategies, better problem-solving skills, and a greater willingness to tackle difficult tasks. By highlighting this theme, the present study emphasizes the role of feedback not only in shaping behavior but also in reinforcing an individual's belief in their capacity to grow and learn.

The negative sentiment toward feedback, exemplified by the statement "I find criticism demoralizing and it makes me anxious," points to the intricate relationship between feedback delivery and emotional regulation. Hattie and Timperley (2007) assert that effective feedback must be clear, actionable, and supportive to foster improvement rather than anxiety. However, cultural factors and individual differences in self-concept also play pivotal roles in how feedback is perceived (Ryan & Deci, 2000). The presence of psychological safety, as described by Edmondson (1999), is essential to creating environments where feedback is interpreted constructively rather than as a personal threat. This underscores the importance of tailoring feedback delivery to align with learners' emotional and cultural contexts while fostering a growth-oriented mindset.

Dynamic View of Intelligence and Abilities

A final theme that emerged from the data was the participants' dynamic view of intelligence and abilities, where they expressed the belief that these traits can change over time through learning and effort. One participant encapsulated this view by stating, "Mindsets change, people change and grow constantly." This belief that intelligence is not fixed but can evolve with experience is central to the growth mindset theory (Dweck, 2006).

The dynamic view of intelligence is supported by the growing body of literature on neuroplasticity, which suggests that the brain can change and adapt through learning and experience (Draganski et al., 2004). Participants' belief in the adaptability of intelligence highlights the real-world application of this theory, as they described how their own experiences and learning environments influenced their cognitive growth and ability to tackle new challenges. This finding reinforces the argument made by Mueller and Dweck (1998) that individuals who believe in the malleability of intelligence are more likely to embrace learning opportunities and overcome obstacles.

Feelings of overwhelm in response to constant changes, as expressed in "I feel overwhelmed by the constant changes in curriculum," reflect the challenges of adapting to dynamic educational environments. Literature on change management highlights that frequent curricular adjustments can lead to cognitive overload and emotional stress if not accompanied by adequate preparation and support (Bridges, 2009). The need for stability and clarity in learning contexts is critical, as a lack of these elements can undermine learners' ability to engage and thrive. Providing targeted resources, scaffolding, and consistent communication can mitigate the stress of change and help learners navigate evolving demands more effectively.

Implications for Practice and Policy

The findings of this study have important implications for educational and organizational settings. Encouraging a growth mindset among students and employees can foster resilience, openness to feedback, and a belief in effort-driven development, all of which contribute to long-term success. Schools and workplaces can implement practices that emphasize the value of effort, normalize failure as part of the learning process, and provide constructive feedback that promotes continuous growth.

The negative reactions observed in the study suggest that a singular focus on effort as the key determinant of success may overlook critical contextual factors that affect

individual outcomes. These sentiments highlight the importance of addressing external barriers, improving feedback delivery, and creating a supportive environment where individuals can build resilience and emotional regulation. Future research should explore how environmental factors and systemic constraints interact with personal effort and belief systems to provide a more comprehensive understanding of the dynamics of personal growth and learning. By examining these negative emotional responses, educators and researchers can identify areas where interventions may be necessary to support learners who may not experience success despite their best efforts. Strategies that enhance emotional resilience, improve feedback mechanisms, and reduce external pressures are crucial for fostering a growth-oriented mindset in diverse educational contexts.

Limitations and Future Research

While this study provides valuable insights, it has certain limitations. The sample size was relatively small, and the study relied on self-reported data, which may be subject to bias. Future research could expand on these findings by examining how growth mindset principles are applied in different cultural and professional contexts, as well as by investigating the long-term effects of adopting a growth mindset on personal and professional outcomes.

Future research should focus on several key areas to provide a more comprehensive understanding of personal growth and learning. First, investigating the dynamics of feedback is essential, particularly exploring how feedback is framed, delivered, and perceived across different cultural and individual contexts. This would help identify potential barriers to constructive feedback and improve its effectiveness in fostering growth. Second, examining systemic barriers, such as socio-economic background and institutional support, is crucial to understand how external factors mediate the relationship between effort and success. Recognizing these factors can help create more equitable opportunities for growth. Lastly, developing interventions focused on emotional resilience and regulation is vital to support individuals in coping with failure and criticism. By addressing these areas, future research and practice can promote a more holistic understanding of growth, accounting for both positive and negative emotional responses, and ultimately fostering a more supportive and effective learning environment.

5. CONCLUSIONS

This study contributes to the existing body of literature on the growth mindset by offering a grounded theory analysis of individuals' beliefs about effort, failure, feedback, and intelligence. The findings underscore a strong alignment between participants' perceptions and the principles of the growth mindset, particularly the belief in effort-driven development, resilience in the face of failure, openness to feedback, and the dynamic nature of intelligence. These insights emphasize the critical role of fostering a growth mindset in educational and professional contexts, where a focus on effort, learning from setbacks, and receptivity to constructive feedback can facilitate both personal and professional growth. The analysis of negative emotional responses highlights areas that require further exploration, particularly in the domains of resilience, feedback, openness to learning, and the belief in effort. These responses reveal the inherent complexities of the growth process,

suggesting that personal development must be contextualized within broader psychological, social, and systemic frameworks. For example, participants who expressed feelings of frustration and helplessness in the face of repeated failure often indicated a lack of adequate support systems. This underscores the need for well-structured teacher training programs that equip educators with the skills to foster resilience in their students. Training should include strategies for building emotional regulation, providing constructive feedback, and cultivating a classroom culture that frames failure as an opportunity for growth rather than a fixed limitation.

Teacher training can further benefit from the integration of culturally responsive practices that acknowledge and address the diverse experiences of learners. The grounded theory data suggests that participants' negative reactions to feedback often stemmed from the tone and delivery methods used. Educators must be trained to provide feedback that is constructive, empathetic, and tailored to the needs of individual learners. This approach not only enhances the effectiveness of feedback but also ensures psychological safety, enabling learners to view critique as a developmental tool rather than a source of anxiety or demoralization.

In terms of educational planning, the findings point to the necessity of creating systemic structures that support a growth mindset. For instance, participants who expressed overwhelm due to frequent curriculum changes highlighted the need for stability and clear guidance. Educational planners must consider the pace and scope of reforms, ensuring that any changes are accompanied by sufficient professional development opportunities for teachers and adequate resources for students. Aligning curriculum design with the principles of a growth mindset involves embedding opportunities for students to engage in reflective practices, collaborative learning, and iterative problem-solving tasks.

Furthermore, systemic equity must be prioritized in educational planning to address external barriers that hinder the translation of effort into success. The grounded theory analysis reveals that participants who questioned the efficacy of effort often cited socio-economic challenges and institutional limitations as contributing factors. Educational planners should advocate for policies that provide equitable access to resources, mentorship programs, and community support networks. By addressing these systemic disparities, educational institutions can create an environment where all learners, regardless of their background, have the opportunity to realize their potential.

In summary, the findings underscore the multifaceted nature of growth and learning, highlighting the interplay between individual attitudes, feedback mechanisms, and systemic factors. Addressing these challenges requires a comprehensive approach that integrates emotional support, culturally sensitive practices, and systemic equity. For teacher training, this means equipping educators with tools to promote resilience, deliver effective feedback, and build inclusive learning environments. In educational planning, it calls for systemic reforms that prioritize stability, equity, and the alignment of curricula with growth mindset principles. Together, these strategies can ensure that growth opportunities are accessible and meaningful for all learners.

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ДОСЛІДЖЕННЯ СПРИЙНЯТТЯ ЗРОСТАННЯ: ОБҐРУНТОВАНА ТЕОРІЯ НА ПРИКЛАДІ КЕЙСУ З ТУРЕЧЧИНИ

Це дослідження аналізує сприйняття студентами особистісного зростання шляхом застосування принципів мислення зростання через підхід обґрунтованої теорії. Використовуючи якісні дані, зібрані за допомогою інтерв'ю, дослідження фокусується на переконаннях щодо зусиль, реакції на невдачі, зворотного зв'язку та змінності інтелекту. Для формування вибірки з 32 студентів факультету педагогіки, серед яких 9 студентів другого курсу, 19 третього курсу та 4 четвертого курсу, використовувалась стратегія теоретичної вибірки, яка є невід'ємною частиною методології обґрунтованої теорії. Результати виявили чотири ключові теми: розвиток, орієнтований на зусилля, що підкреслює перевагу зусиль над вродженими здібностями; стійкість і навчання на помилках, що визначає невдачу як можливість для зростання; відкритість до зворотного зв'язку як інструменту розвитку, що демонструє цінність зворотного зв'язку для самовдосконалення; і динамічне сприйняття інтелекту та здібностей, що відображає віру в змінну природу інтелекту. Ці результати поглиблюють розуміння того, як принципи мислення зростання проявляються в освітньому контексті, пропонуючи практичні висновки для підходів викладання та організації навчального процесу, спрямованих на сприяння особистісному розвитку.

Ключові слова: мислення зростання, студенти бакалаврату, педагогічна освіта, обґрунтована теорія.