



The Effectiveness of Growth Mindset Interventions with College Students

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Introduction

The Mindset Theory, a popular theory developed by Stanford professor Dr. Carol Dweck, can be defined as one's perception of their intelligence, ability to develop new skills and knowledge, and motivation to exert effort, address challenges, and use critiques as information for improvement. Dr. Dweck (2006) has identified two distinct mindsets, Growth and Fixed. A growth mindset is the belief in neuroplasticity where one's intelligence and abilities can grow over time with effortful and strategic practice (Fig. 1). In contrast, a fixed mindset is the belief (and actions) that intelligence and abilities are static, inherent, or otherwise fixed and cannot be developed over time (Limeri et al., 2020). Because growth and fixed mindsets can alter someone's perception of their own capacity for success and achievements in college, researchers have been interested in the use of various growth mindset interventions and the potential positive effect(s) on college students' academic achievement and sense of social belonging. Thus, our study identifies and reviews research publications regarding the use of growth mindset interventions with college students to summarize the impacts of various intervention techniques on academic success in educational settings.

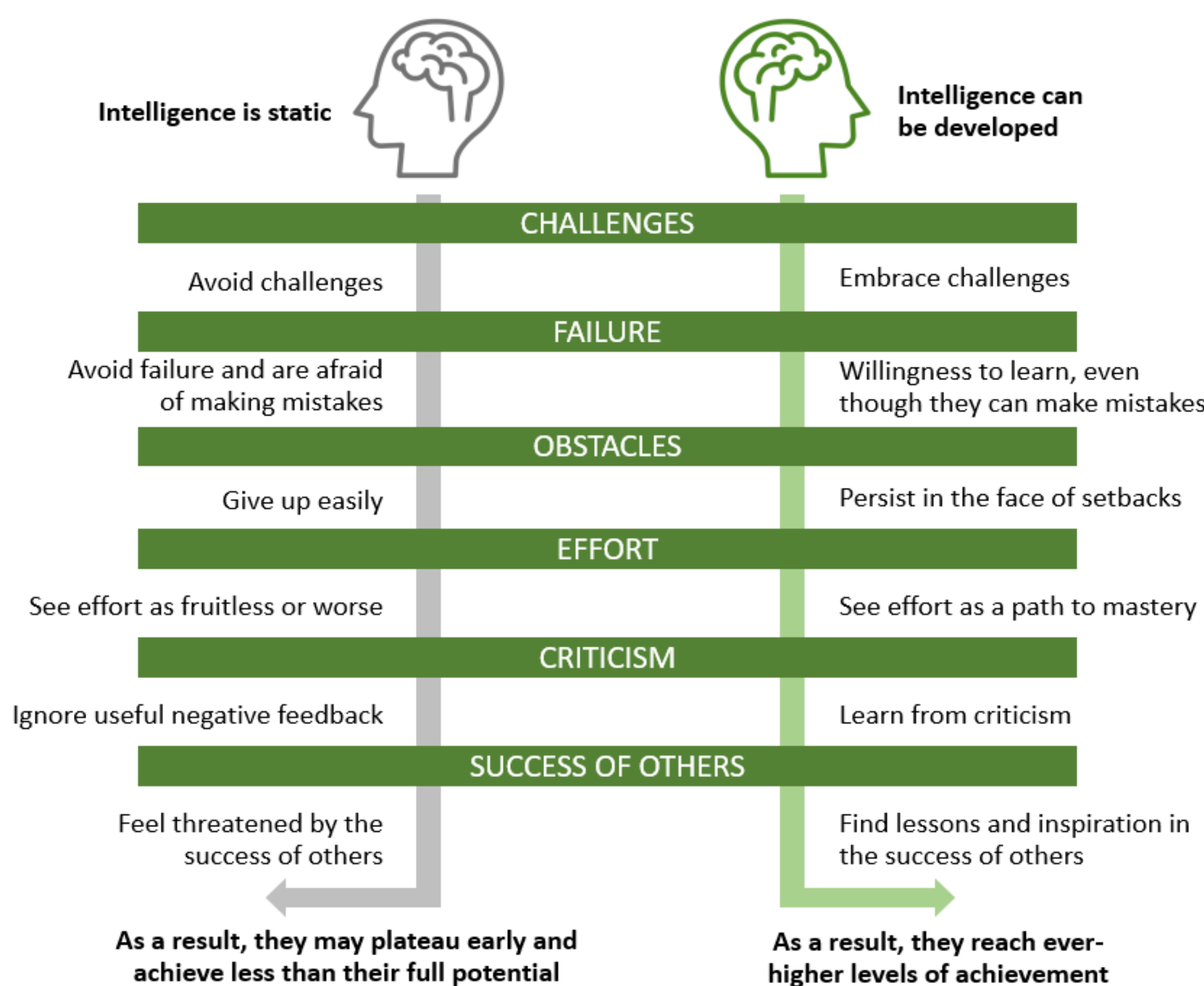


Figure 1. This figure displays Dweck's (2006) comparison of growth and fixed mindsets in 6 key areas.

Methods

The purpose of our research was to identify the best intervention methods to use on college-aged students so that we could analyze the long-term effects on academic success after interventions. The review of the literature was limited to the most current practices in published peer-reviewed journals from 2002 to 2022. The key terms used for searches included a combination of the following words: first-generation college students, predominantly white institutions, growth mindset, interventions, academic, performance, and belonging. Initial searches using more general terms provided a list of over 86,000 journals and articles. Because of this, we began to limit our search to journals focusing primarily on first-year underrepresented college students. We also eliminated any sources that were not peer-reviewed or conducted with students from 4-year universities. The majority of our journals included three types of interventions: article-based interventions with reflective questions, a pen pal condition, and video-based interventions.

Results

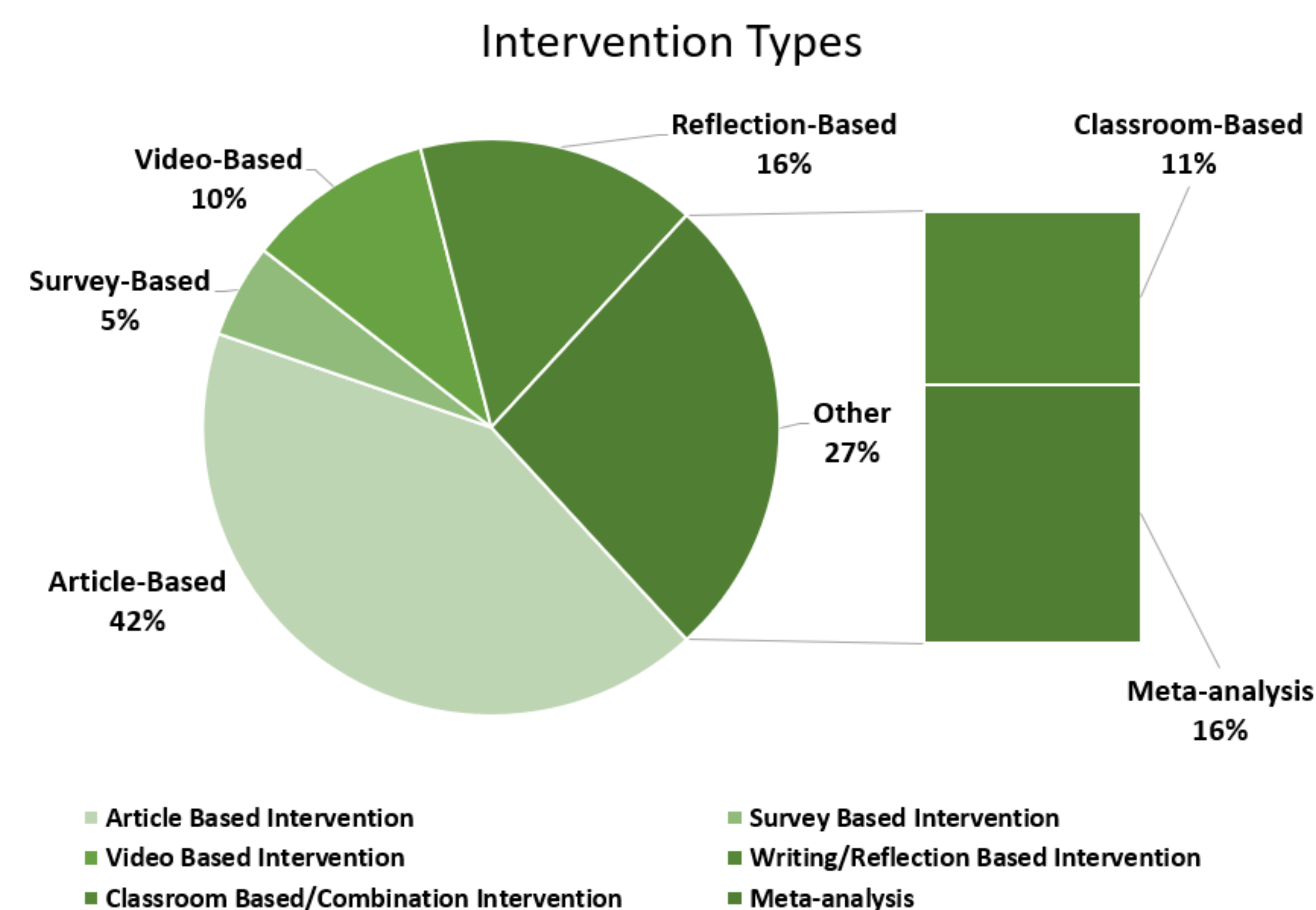


Figure 2. This figure shows the array of intervention types found amongst the literature used in this analysis in percentages.

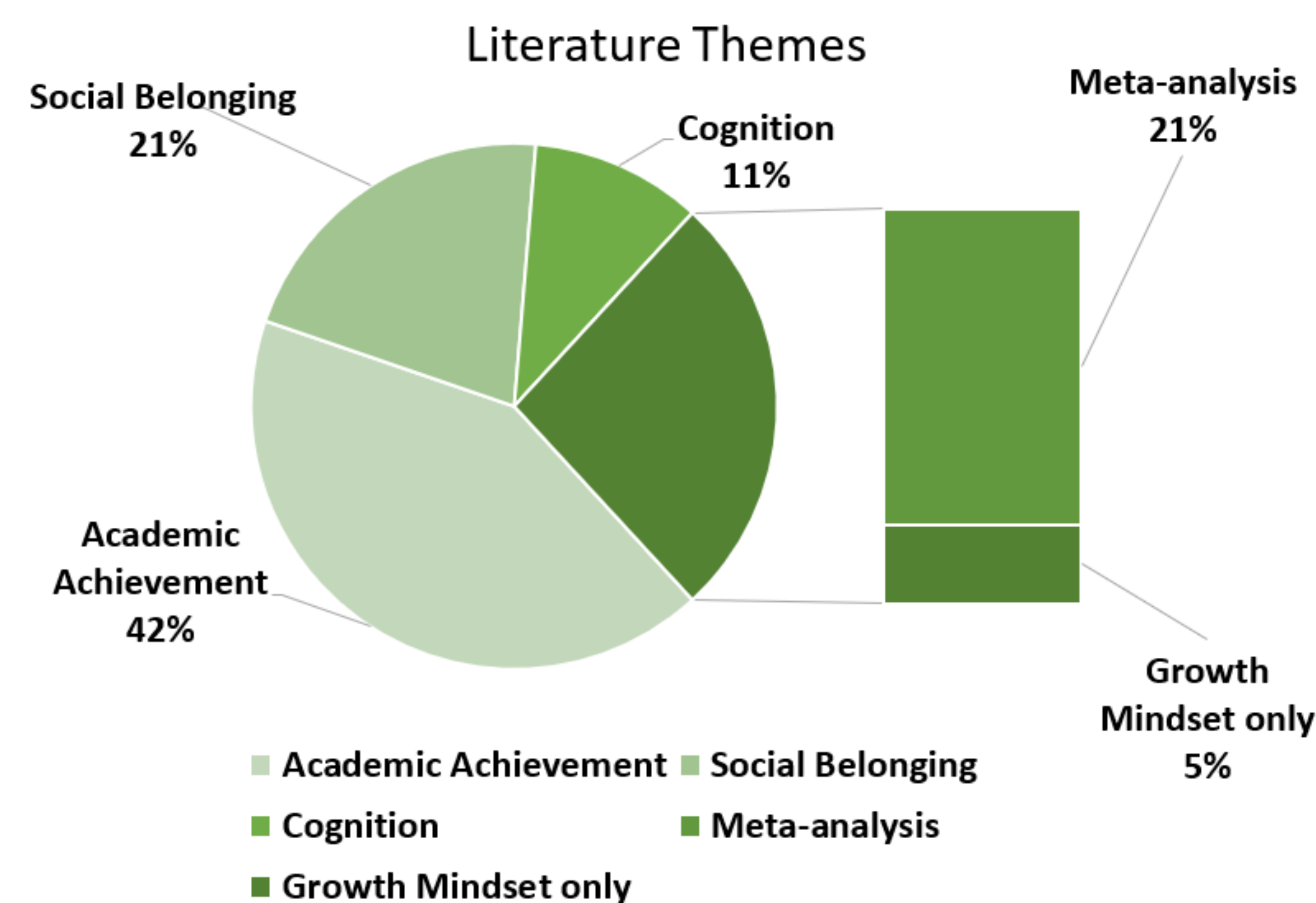


Figure 3. This figure shows the distribution of themes throughout the literature regarding the topics covered in percentages.

Discussion

The purpose of this literature review was to analyze how different methods of mindset interventions with college students affected their overall academic success. Numerous studies identified positive results in their findings and outcomes. Broda et al. (2018) found an article-based condition to be effective with Latino students in the growth mindset condition (higher first-semester GPA) compared to White and African American students in the control group. Aronson et al., used a writing intervention method to yield positive results with minority college students. Aronson et al., using a malleable pen-pal condition, found that African American students in the growth mindset condition valued their academics more and received higher grades overall. The students reported being convinced by the idea that the brain can change and develop new knowledge and skills. Although achievement is frequently used as an intervention outcome measure, a growth mindset has been associated with measures of change in one's cognition about intelligence as well. Perception plays a big role in how we approach challenging tasks and our motivation to attempt or accomplish them. By using a classroom-based intervention, Samuel and Warner (2019) found that students who received the multi-level intervention reported lower math anxiety. Likewise, the post-intervention results identified an overall higher math self-efficacy among their students and better grades within the course. Overall, these studies have shown that there are multiple methods to support students' growth mindset development and success (Fig. 2 and Fig. 3).

Conclusions

We found throughout this literature review that the use of intervention methods (such as article-based, video-based, reflection-based) with college students was associated with positive development of growth mindsets. As the knowledge about successful growth mindset interventions becomes more pervasive, we hope that higher education educators and leaders implement mindset interventions universally to help their increasingly diverse students succeed in college.

References

