Athens Journal of Psychology

Quarterly Academic Periodical, Volume 1, Issue 4
Published by the Athens Institute
URL: https://www.athensjournals.gr/ajpsy Email: journals@atiner.gr
e-ISSN: 3057-4412 DOI: 10.30958/ajpsy

December 2025

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Front Pages

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Published by the Athens Institute

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The *Athens Journal of Psychology* (AJPSY) is an Open Access quarterly double-blind peer reviewed journal and considers papers from all areas of psychology. Many of the papers in this journal have been presented at the various conferences sponsored by Psychology Unit of the Athens Institute. All papers are subject to Athens Institute's Publication Ethical Policy and Statement.

Athens Journal of Psychology
ISSN NUMBER: 3057-4412 - DOI: 10.30958/ajpsy
Volume 1, Issue 4, December 2025
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Editorial and Reviewers' Board

President's Message

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The current issue is the fourth of the first volume of the *Athens Journal of Psychology* (AJPSY), by the published by the **Psychology Unit** of the **Athens Institute**. All papers are subject to Athens Institute's Publication Ethical Policy and Statement.

Gregory T. Papanikos
President
Athens Institute

Athens Institute for Education and Research

A World Association of Academics and Researchers

20th Annual International Conference on Psychology
25-29 May 2025, Athens, Greece

The Psychology Unit of Athens Institute organizes its **19th Annual International Conference on Psychology, 25-29 May 2026, Athens, Greece** sponsored by the Athens Journal of Social Sciences. The aim of the conference is to bring together scholars and students of psychology and other related disciplines. You may participate as stream leader, presenter of one paper, chair a session or observer. Please submit a proposal using the form available (https:// www.atiner.gr/2026/FORM-PSY.doc).

Academic Members Responsible for the Conference

- **Dr. Thanos Patelis,** Head, Psychology Unit of Athens Institute & Research Scholar, Fordham University, USA.

Important Dates

- Abstract Submission: **3 February 2026**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **27 April 2026**

Social and Educational Program

The Social Program Emphasizes the Educational Aspect of the Academic Meetings of Athens Institute.

- Greek Night Entertainment (This is the official dinner of the conference)
- Athens Sightseeing: Old and New-An Educational Urban Walk
- Social Dinner
- Mycenae Visit
- Exploration of the Aegean Islands
- Delphi Visit

Conference Fees

Conference fees vary from 400€ to 2000€
Details can be found at: https://www.atiner.gr/fees

20th Annual International Conference on Sociology
4-8 May 2026, Athens, Greece

The Sociology Unit of Athens Institute is organizing its **20th Annual International Conference on Sociology, 4-8 May 2026, Athens, Greece** sponsored by the Athens Journal of Social Sciences. The aim of the conference is to bring together academics and researchers from all areas of Sociology, Social Work and other related fields. Theoretical and empirical research papers will be considered. You may participate as stream leader, presenter of one paper, chair a session or observer. Please submit a proposal using the form available (https://www.atiner.gr/2025/FORM-SOC.doc).

Important Dates

- Abstract Submission: **20 January 2026**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **6 April 2026**

Academic Member Responsible for the Conference

- **Dr. Domenico Maddaloni,** Head, Sociology Research Unit, Athens Institute & Associate Professor, University of Salerno, Italy.
- **Dr. Philip G. Cerny**, Director, Social Sciences Division, Athens Institute & Professor Emeritus, University of Manchester (UK) and Rutgers University (USA).
- **Dr. Nikolaos I. Liodakis,** Associate Professor, Wilfrid Laurier University, Canada.
- **Dr. Sharon Claire Bolton**, Head, Management Research Unit, Athens Institute & Professor, The Management School, University of Stirling, Scotland.
- **Dr. Maria Pallotta-Chiarolli,** Academic Member, Athens Institute & Fellow, Deakin University, Australia.

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- Ancient Corinth and Cape Sounion

More information can be found here: https://www.atiner.gr/social-program

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Athens Journal of Psychology - Volume 1, Issue 4, December 2025 – Pages 215-234

Exploring the Connection Between Academic Competence and Academic Self-Efficacy: Insights from African American College Students

By Camille Warner[*]*, Elle K. Butler*[±]* & Debra D. Roberts*[○]

This study examined the relationships between academic self-efficacy, academic competence, and perceived academic competence among African American college students. This study focused on math, a subject that students have been found to struggle with. Academic self-efficacy refers to students' beliefs in their ability to perform behaviors that lead to academic success. In contrast, academic competence and perceived academic competence refer to students' knowledge and skills, and their perceived ability to succeed academically, respectively. Although academic self-efficacy and perceived academic competence are often used interchangeably, they originate from different theoretical frameworks. Competence stems from self-determination theory, while self-efficacy is rooted in social cognitive theory. All the constructs of interest have been found to be related to other academic outcomes. In line with previous research, this study measured academic competence through current GPA and final grade of a chosen math class. Perceived academic competence was measured using the Competence for Learning scale from the Perceived Competence Scale by Williams and Deci (1998). This study used the Educational Self-Efficacy Scale (Imperial College London 2021) to measure academic self-efficacy. Correlational analysis, simple linear regression, and ordinal regression were used to examine the data. Data analysis revealed that academic self-efficacy and perceived academic competence are closely related but are not the same; however, more research needs to be done to distinguish between them. Analysis also revealed that academic self-efficacy, perceived academic competence, and the final grade in a chosen math class are related to one another but unrelated to GPA. This research has important implications for understanding how academic self-efficacy, academic competence, and perceived academic competence impact the educational outcomes for a population that struggles academically.

Keywords: *Academic Self-Efficacy, Perceived Academic Competence*

Introduction

Americans have been found to have low math skills (National Center for Education Statistics 2025). When compared to students from other nations, Americans score lower on international tests (National Center for Education Statistics 2025). However, the gap in achievement also occurs between American populations. There is a gap in the academic performance between African Americans and European Americans (St. Mary et al. 2018). This gap has been referred to as the "opportunity gap". The opportunity gap describes the negative implications of systemic and

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structural racism that have led to the educational achievement gap amongst Black students and European Americans (Vargas et al. 2023). An example of systemic and structural racism includes the Jim Crow Laws. In the United States, during the 1870s, many southern states adopted and enacted legislation that made it illegal for Black and White students to attend the same schools, use the same forms of public transportation, or use the same drinking fountains (Vargas et al. 2023). These laws prevented Black students from receiving access to quality education, which explains the existing achievement gap between Black and White students today. Segregation still currently exists and continues to have detrimental effects on Black populations (Torres and Massey 2012).

This gap has persisted for decades (Coleman 1986, Wong and Nicotera 2004). According to the Nation's report card, African Americans have scored below Proficient in both math and reading, but students do particularly poorly in math (The Nation's Report Card 2024). The importance of math to academic identity makes this especially concerning (Miller and Wang 2019). Academic identity refers to an individual's relationship to their academics (Butler-Barners et al. 2017). It relates to the view of oneself to the norms and beliefs within academic environments and impacts how students connect to educational spaces (Phillips et al. 2022).

Contextually, most places in the United States follow a Kindergarten through Grade 12 education system. During the Middle and High School years, key developmental conflicts arise, as explained by Erik Erikson in the Identity versus Role Confusion stage. In this stage, adolescents are tasked with understanding their innate desires, preferences, and aspirations whilst navigating the social pressures of their schools. Extant literature suggests that Black students face difficulties maneuvering through this stage due to the conflicting societal messages laced with racist undertones and the promotion of assimilation. Assimilation is the act of diluting one's expression of their cultural group to abide by White supremacist ideals, such as a child refusing to use their country's accent.

Moreover, Black students are double tasked with normative identity development and developing a racial identity or their beliefs regarding their racial group membership (Butler-Barners et al. 2017). They must also cope with limited representations of high-achieving Black professionals due to systemic racism. This perpetuates the academic and opportunity gaps that negatively impact the advancement of the Black community today. However, several attempts have been made to close the gap, including initiatives enacted under President George W. Bush and President Obama (Boykin and Noguera 2011, McGuinn 2016, U.S. Department of Education n.d.) The gap continues.

This gap in educational opportunity has detrimental effects on African American communities. It is related to reduced differences in socioeconomic status (including economic mobility), systemic oppression, and increased stereotypes (Rovai et al. 2005, Olneck 2006, Kellow and Jones 2008, Assari et al. 2021). However, economic inequity is both a cause and a consequence of the difference in academic achievement between African American students and other ethnic groups (Olneck 2006, St. Mary et al. 2018, Cabral-Gouveia et al. 2023).

Differences in achievement cannot only be attributed to external factors. There have been opposing results on the relationships among academic outcomes. For example, Chemers et al. (2001) found a link between academic performance and

academic persistence. However, Sharma (2020) did not find a relationship between academic self-efficacy and academic persistence. This study proposes that students' self-perception impacts academic performance in school. This study refers to academic performance as academic competence to reference the importance of skills in academic performance. Subsequently, perceived academic competence refers to students' belief that they have attained academic skill, whereas academic self-efficacy refers to students' beliefs in their ability to behave in ways necessary to achieve academic goals. Therefore, this study aims to explore the relationships among academic self-efficacy, academic competence, and perceived academic competence in hopes of better understanding factors that contribute to achievement gaps. Olneck (2006) suggested that even a marginal increase in academic achievement can lead to economic gains for African Americans; therefore, efforts to increase academic achievement for African Americans are of importance. The United States needs skilled populations that can assist in meeting current economic needs (Olszewski-Kubilius and Clarenbach 2014). Academic achievement plays a crucial role in preparing citizens for future employment opportunities and growth.

Literature Review

Self-Determination Theory and Perceived Academic Competence

Self-Determination Theory was developed to examine the interaction between inherent growth tendencies and innate psychological needs to understand the multifaceted construct of human motivation (Ryan and Desi 1985). Ryan and Desi (1985) concluded that there are three subcategories of SDT: the need for competence, relatedness, and autonomy. Ryan and Desi (1985) suggested that these subcategories are grounded in the Cognitive Evaluation Theory (CET), a sub theory within SDT, that aims to explain variability in intrinsic motivation to underscore the social and environmental factors that permit successful human motivation and advancement through the educational system.

Cognitive Evaluation Theory

CET suggests that perceived competence alone will not enhance intrinsic motivation unless it is accompanied by a sense of autonomy through self-efficacious assessments centered around perceived locus of causality (Ryan and Desi 1985). Simply, students not only need to have the belief that they can demonstrate skills (perceived competence), but they must also perform satisfactorily on objective skills assessments to obtain confidence in their ability to succeed (self-efficacy). Subsequently, educational psychologists commonly utilize SDT to conceptualize the motivational experiences of students. Thus, this paper will utilize SDT to highlight the implications of perceived academic competence and distinguish this concept from academic self-efficacy.

Perceived Academic Competence

While both constructs fall under the umbrella of human motivation, perceived academic competence and academic self-efficacy are not interchangeable terms. Perceived academic competence focuses on the students' subjective perception of their objective skills. Existing literature suggests that self-perceptions of academic competence play a pivotal role in promoting students' psychological functioning; self-perceptions of academic competence within educational settings may protect against negative mental health outcomes (Worley et al. 2023).

Empirical research examining the relationship between college students and perceived academic competence suggests that higher self-perceptions of academic competence predicted decreased depressive symptoms (Urhlass et al. 2009). Using the Self-Perception Profile for College Students (Neemann and Harter 1986), Urhlass et al. (2009) exemplified a measure of perceived academic competence in a collegiate setting. Results suggest depressive symptoms have been related to deficits in perceived self-competence and that self-perceived scholastic competence independently predicted residual changes in depressive symptoms (Urhlass et al. 2009). In conclusion, low reports of perceived academic competence have mental health implications, which presumably lead to decreased academic outcomes and motivation to complete assignments.

Academic Self-Efficacy

Academic self-efficacy concerns the belief system and intrinsic motivations of students (Repo and Salmivalli 2025). Existing literature investigated perceived academic self-efficacy through the lens of affective well-being, self-acceptance, and academic performance in undergraduate college students (Cobo-Rendon et al. 2020). Using the Academic Situations Specific Perceived Self-Efficacy Scale, the results suggested that psychosocial well-being predicts positive emotions, which then influences academic achievement and predicts academic performance. In terms of self-efficacy directly, there was no statistically significant relationship with academic performance (Cobo-Rendon et al. 2020). The lack of statistical significance prompts researchers to call for more research aimed at investigating the effects of perceived self-efficacy on academic performance directly, as opposed to the combined self-acceptance and well-being variables used. For example, recent literature operationalized academic self-efficacy as "an individual's judgement about their ability to successfully attain educational goals" (Repo and Salmivalli 2025). However, researchers consistently emphasize the critical role both academic self-efficacy and competence in academic achievement (Reno and Salmivalli 2025).

Gap in Literature

Current research investigating human motivation and academic performance examines academic self-efficacy and perceived academic competence independently, but studies them using similar methodology. Thus, suggesting the terms are used

interchangeably. Additionally, academic competence research is often accompanied by variables that examine the social influence on learning, such as social competence and social acceptance, and the influence of social interaction. For example, a study on the changes in children's well-being and mental health aimed to investigate not just academic competence but also social competence (Devine et al. 2025). Participants completed two measures of competence: the Competence and Coping Questionnaire which solely measures academic competence, rating performance as "Not as strong as most peers" to "Much stronger than most peers" (Devine et al. 2025). This demonstrates a scale that measures student competence and performance through peer comparison, as opposed to an introspective analysis of perceived academic competence alone.

In summary, the distinction between perceived academic competence and academic self-efficacy on academic performance needs further investigation. This study theorized that this is a result of the presumed overlap of the constructs. A goal of this study is to distinguish between the two constructs and advocate for the intentional promotion of both perceived academic competence and self-efficacy within the student population. The study also aimed to explore the relationships among academic self-efficacy, academic competence, and perceived academic competence to further indicate that self-perception impacts academic behaviors and abilities.

Based on existing research and identified gaps in literature, the hypotheses are as follows:

H1. Academic competence and perceived academic competence positively correlate with academic self-efficacy.

- H1a. Perceived academic competence positively correlates with academic self-efficacy.
- H1b. The final grade in a chosen math class positively correlates with academic self-efficacy.
- H1c. GPA positively correlates with academic self-efficacy.

H2. Academic competence and perceived academic competence positively correlate with one another.

- H2a. Perceived academic competence positively correlates with the final grade in a chosen math class.
- H2b. Perceived academic competence positively correlates with GPA.
- H2c. The final grade in a chosen math class positively correlates with GPA.

H3. Combining items from academic self-efficacy and perceived academic competence improves reliability.

H4. Academic self-efficacy predicts academic competence and perceived academic competence.

- H4a. Academic self-efficacy predicts perceived academic competence.
- H4b. Academic self-efficacy predicts the final grade in a chosen math class.
- H4c. Academic self-efficacy predicts GPA

H5. Perceived academic competence predicts academic competence.

- H5a. Perceived academic competence predicts the final grade in a chosen math class.
- H5b. Perceived academic competence predicts GPA.

H6. The final grade in a chosen math class predicts GPA.

Method

Participants

This study included 82 participants from a Historically Black College and University (HBCU) to collect data in a metropolitan city in the United States. Participants identified as being African American between the ages of 18 and 22, with an African American primary caregiver. Approximately 40.2% of participants identified as 18 years old, 30.5% identified as 19 years old, 22% identified as 20 years old, 3.7% identified as 21 years old, and 3.7% identified as 22 years old. Although all participants identified as either male (N=16) or female (N=66), the option for identifying as non-binary/ third gender or preferred not to say was available. The self-identified socioeconomic status of the participants ranged from low income to high income. Approximately 6.1% of participants identified as low income, 13.4% of participants identified as middle-low income, and 47.6% of participants identified as middle income, 29.3% of participants identified as middle-high income, and 3.7% of participants identified as high income.

Measures

Academic Competence

This study measured academic competence in two ways. The final grade in a math class of participants' choice was collected, along with the overall Grade-Point Average (GPA) of the participants. The grades were measured as follows: 90-100 (typically an A) was coded as 5, 80-89 (typically a B) was coded as 4, 70-79 (typically a C) was coded 3, 60-69 (typically a D) was coded as 2, and scores under 60 (typically an F) were coded as 1.

Perceived Academic Competence

This study also collected data using the Perceived Competence for Learning scale from the Perceived Competence Scale by Williams and Deci (1998). The participant responses for this scale were based on the same chosen math class as the final grade collected. This scale used a 7-point Likert scale ranging from 1 (not at all true) to 7 (very true). An example of an item is "I feel able to meet the challenge of performing well in this course." There were a total of four items in this scale. The Cronbach's alpha was found to be .88.

Academic Self-Efficacy

This study used an adapted version of The Educational Self-Efficacy Scale (Imperial College London 2021) to measure academic self-efficacy for the chosen math class. This scale used a 5-point Likert scale ranging from (not at all confident) to 5 (extremely confident). An example item included, "When complicated ideas were presented in your modules, how confident were you that you could understand them?" Finally, there were a total of five items in this scale. The Cronbach's alpha was found to be .91.

Procedure

Before collecting data, the researchers obtained approval from the university's Institutional Review Board and the Psychology department of the university to collect data from Introduction to Psychology students. Qualtrics was used to collect data. The Qualtrics link and QR code were distributed to the students of the Psychology department via email by the course professors. Students were eligible to receive course credit at the discretion of their professors. The Qualtrics link included a consent preamble and collected responses to demographic questions, the final grade in the chosen math class, GPA, the Perceived Competence for Learning scale, the Educational Self-Efficacy Scale, and scales that measured cultural socialization and warm demander pedagogy. The data for this study were collected as part of a doctoral dissertation, however, this study solely concerns the analysis of the relationships among academic self-efficacy, academic competence, and perceived academic competence. The total time to complete the entire survey was approximately 15 minutes. IBM SPSS Statistics Version 29.0 was used for all data analysis.

Results

Descriptive Statistics

This study explored the relationships among academic self-efficacy, academic competence, and perceived academic competence among 82 African American Students from an HBCU in an American metropolitan area. Descriptive statistics and demographic statistics are reflected in Tables 1.

Table 1. *Descriptive Statistics for Major Variables of Interest*

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Academic Self-Efficacy	82	5.00	25.00	15.84	4.57
Perceived Academic Competence	82	10.00	28.00	22.83	4.38
Final Grade in a Chosen Math Class	82	1.00	4.00	3.40	.81
GPA	82	2.00	4.00	3.54	.63

The average score for academic self-efficacy was 15.84 (SD=4.57). The 18-year-old participants had an average score of 15.93 (SD=4.60). This was slightly lower than the mean score for 19-year-old participants (M=16.72, SD=3.46). The 21 and 22-year-old participants had the same average score (M=15.3, SD=10.02). The 20-year-old participants had the lowest average score of (M=14.89, SD=4.89). However, a one-way ANOVA was conducted to assess whether there was a difference in academic self-efficacy across ages, and there was no statistically significant difference among ages, $F(4, 77) = 0.60$, $p > .05$.

Male participants had an average score of 18.50 (SD=4.55) for academic self-efficacy, which is higher than the average score for female participants (M=15.19, SD=4.37). An independent samples t-test was conducted to determine if there was a difference in academic self-efficacy between genders, and there was a statistically significant difference between genders, $t(80)=2.69$, $p<.05$.

Low-income participants had the lowest average for academic self-efficacy (M=13.2, SD=6.46). Participants with middle-low income had the highest average score (M=17.36, SD=3.59). Participants with middle income had slightly more variable scores (M=15.46, SD=3.80). Participants with high income (M=16.00, SD=6.00) had a similar average score to participants with middle-high income (M=16.29, SD=5.54). However, a one-way ANOVA was conducted to assess whether there was a difference in academic self-efficacy across SES, and there was no statistically significant difference among SES, $F(4, 77) = 0.84$, $p > .05$.

The average score for perceived academic competence was 22.83 (SD=4.38). This was slightly higher than the average school for the 18-year-old participants (M=22.60, SD=4.18). The 19-year-old participants had the highest average score (M=23.76, SD=3.70). The 20-year-old participants had the most variable scores and the lowest average score (M=21.83, SD=577). The 21-year-old participants and the 22-year-old participants had the same average score and were equally variable (M=23.33, SD=5.03). However, a one-way ANOVA was conducted to assess whether there was a difference in perceived academic competence across ages, and there was no statistically significant difference among ages, $F(4, 77) = 0.53$, $p > .05$.

Male participants had an average score of 23.13 for perceived academic competence (SD=5.54) for perceived academic competence. Females had a lower average score and less variable scores (M=22.76, SD=4.10). However, an independent samples t-test was conducted to determine if there was a difference in perceived academic competence between genders, and there was no statistically significant difference between genders, $t(80)=.30$, $p>.05$

Participants with high income had the lowest average score (M=22.00, SD= 5.29). This was consistent with the average score for participants with middle-low income (M=22.10, SD=5.10). Participants with middle income had a slightly higher average score, but the scores were less variable (M=22.67, SD=4.61). Participants with low income had the lowest score variability (M=22.80, SD=3.70). Participants with middle-high income had the highest average score M=23.54, SD=3.91). However, a one-way ANOVA was conducted to assess whether there was a difference in perceived academic competence across SES, and there was no statistically significant difference among ages, $F(4, 77) = 0.27$, $p > .05$.

Testing the Hypotheses

H1. Academic competence and perceived academic competence positively correlate with academic self-efficacy

To test this hypothesis, correlational analyses were used. For the correlational relationship between perceived academic competence and academic self-efficacy, Pearson's *r* was analyzed, while the correlational relationships among academic self-efficacy, perceived academic competence, final grade, and GPA were analyzed using

Spearman's ρ. Analysis supported H1a and H1b but did not support H1c. There was a moderate, positive, and statistically significant correlation between perceived academic competence and academic self-efficacy, $r(80)=.49$, $p<.05$. There was also a small, positive, and statistically significant relationship between academic self-efficacy and the final grade in a chosen math class, $\rho(80)=.25$, $p<.05$. The correlational relationship between academic self-efficacy and GPA was not significant, $\rho(80)=.09$, $p>.05$. See Table 2 for the correlational analysis.

H2. Academic competence and perceived academic competence positively correlate with one another

The correlational relationships among perceived academic competence, final grade, and GPA were analyzed using Spearman's ρ. Analysis supported H2a and H2c but did not support H2b. The correlational relationship between perceived academic competence and the final grade in a chosen math class was small, positive, and statistically significant, $\rho(80)=.28$, $p<.05$. However, the correlational relationship between perceived academic competence and GPA was not significant, $\rho(80)=.18$, $p>.05$, but it was close to significance. The correlational relationship between the final grade in a chosen math class and GPA was moderate, positive, and statistically significant, $r(80)=.49$, $p<.05$. See Table 2 for correlational analyses.

Table 2. *Correlations Among Major Variables of Interest*

Variables	1.	2.	3.	4.
1. Academic Self-Efficacy	1	-	-	-
2. Perceived Academic Competence	**.49**a*	1	-	-
3. Final Grade in a Chosen Math Class	**.25**b*	**.28**b*	1	-
4.GPA	.09b	.18b	**.49**b*	**1**

[a]Pearson's r reported
[b] Spearman's ρ reported
*$p < .05$(2-tailed)

H3. Combining items from academic self-efficacy and perceived academic competence improves reliability.

Analysis partially supported this. Combining items from academic self-efficacy and perceived academic competence improved reliability for academic self efficacy, but not for perceived academic competence. When combining the items from both academic self-efficacy and perceived academic competence, Cronbach's alpha is 0.89. However, the individual Cronbach's alpha for academic self-efficacy is 0.91, which is higher than the Cronbach's alpha for the combination of the scales. The individual Cronbach's alpha for perceived academic competence is 0.88, which is slightly lower than the Cronbach's alpha for the combination of the scales.

H4. Academic self-efficacy predicts academic competence and perceived academic competence

To test this hypothesis, different regression analyses were used. H4a and H4b were supported, but H4c was not supported. For the predictive relationship between

academic self-efficacy and perceived academic competence, simple linear regression was used. Academic self-efficacy significantly predicted perceived academic competence (β =.49, SE=.09, p<.05). The regression model was significant, $F(1,80)$= 24.99, $p<.05$).

To assess a predictive relationship between academic self-efficacy and the final grade in a chosen math class, an ordinal logistic regression was used. The Test of Parallel Lines was not significant for the predictive relationship between academic self-efficacy and the final grade in a chosen math class ($\chi^2(2) = 1.80$, p >.05), indicating that the ordinal logistic regression was appropriate. Academic self-efficacy predicted the final grade in a chosen math class (b = 0.12, SE=.05, p<.05, OR=1.13). The regression model was significant ($\chi^2(1) = 5.53$, p<.05, Nagelkerke R^2 =.08). For the predictive relationship between academic self-efficacy and GPA, the Test of Parallel lines was significant, ($\chi^2(1) = 3.85$, p =.05), indicating that an ordinal logistic regression may not be appropriate. Instead, a multinomial logistic regression was used. Academic self-efficacy did not predict GPA; the regression model was not significant ($\chi^2(2) = 4.46$, p<.05, Nagelkerke R^2 =.07).

H5. Perceived academic competence predicts academic competence

Ordinal logistic regression was used to determine whether perceived academic competence predicted either the final grade in a chosen math class or GPA. H5a was supported, but H5b was not supported. The Test of Parallel Lines was not significant for either the predictive relationship between perceived academic competence and the final grade in a chosen math class ($\chi^2(2) = .69$, p >.05) or the predictive relationship between perceived academic competence and GPA ($\chi^2(1) = .009$, p>.05), indicating that the ordinal logistic regression was appropriate. Perceived academic competence predicted the final grade in a chosen math class (b = 0.12, SE=.05, p<.05, OR=1.13). The regression model was significant ($\chi^2(1) = 5.60$, p>.05, Nagelkerke R^2 =.08). Perceived academic competence did not predict GPA; the regression model was not significant ($\chi^2(15) = 21.68$, p>.05, Nagelkerke R^2 =.05). Through the comparison of the Odds Ratio, academic self-efficacy and perceived academic competence predict the final grade in a chosen math class with equal strengths.

H6. The final grade in a chosen math class predicts GPA

Ordinal logistic regression was used to determine if the final grade in a chosen math class would predict GPA. H6 was supported. The Test of Parallel Lines was not significant for the predictive relationship between the final grade in a chosen math class and GPA ($\chi^2(3) = 5.69$, p >.05), indicating that the ordinal logistic regression was appropriate. The regression model was significant ($\chi^2(3)=25.57$, p<.05, Nagelkerke R^2 =.34). The following predictor levels showed significant differences in odds of being in a lower category of GPA compared to the reference category (90–100 [typically an A]): 80–89 (Typically a B), (b=-1.10, SE=.54, p<.05, OR=.33); 70-79 (Typically a C), (b = -3.11, SE=.88, p<.05, OR=.05); 60-69) Typically a D), (b = -4.97, SE=1.4, p<.05, OR=.01).

Post Hoc Analyses

Post-hoc analyses were conducted to determine if there were gender differences in the results for the different hypotheses.

H1. Academic competence and perceived academic competence positively correlate with academic self-efficacy.

For males, H1a was supported ($r(14)=.78$, $p<.05$). H1b and H1c were not supported ($\rho(14)=.34$, $p>.05$; $\rho(14)=.25$, $p>.05$). For females, H1a was supported ($r(64)=.41$, $p<.05$). H1b and H1c were not supported ($\rho(64)=.23$, $p>.05$; $\rho(64)=.02$, $p>.05$).

H2. Academic competence and perceived academic competence positively correlate with one another

For males, H2a, H2b, and H2c were not supported ($\rho(14)=.39$, $p>.05$; $\rho(14)=.43$, $p>.05$; $\rho(14)=.29$, $p>.05$). For females, H2a and H2c were supported ($\rho 64)=.27$, $p<.05$; $\rho(64)=.54$, $p<.05$). H2b was not supported ($\rho(64)=.15$, $p>.05$).

H4. Academic self-efficacy predicts academic competence and perceived academic competence

For males, H4a was supported ($\beta=.78$, SE=.20 $p<.05$); the regression model was significant, $F(1,14)=22.34$, $p<.05$). For H4b, the Test of Parallel lines was significant, ($\chi^2(1) = 4.6$, $p<.05$), indicating that an ordinal logistic regression may not be appropriate. Instead, a multinomial logistic regression was used. H4b was not supported; the regression model was not significant ($\chi^2(2) = 5.12$, $p>.05$, Nagelkerke $R^2=.10$). For H4c, the Test of Parallel lines was significant ($\chi^2(1) = 4.3$, $p<.05$), indicating that an ordinal logistic regression may not be appropriate. Instead, a multinomial logistic regression was used. H4c was not supported, but the regression model was significant ($\chi^2(2) = 8.88$, $p<.05$, Nagelkerke $R^2=.52$). This indicated that academic self-efficacy did not change the likelihood of receiving a 80-89(Typically a B) ($b=-.16$, SE=.14, $p>.05$) R=.85) or 70-79(Typically a C) ($b=-38.58$, SE=907, $p>.05$, OR1.43×10^{-17}) relative to receiving a 90-100 (Typically an A) for GPA.

For females, H4a was supported ($\beta=.41$, SE=.11, $p<.05$); the regression model was significant, $F(1,64)=13.07$, $p<.05$). The Test of Parallel Lines was not significant for H4b ($\chi^2(2) = 3.82$, $p>.05$), indicating that the ordinal logistic regression was appropriate. H4b was supported ($b = .11$, SE=.06, $p<.05$, OR=1.12). The regression model was significant ($\chi^2(1) = 3.9$, $p<.05$, Nagelkerke $R^2=.07$). The Test of Parallel Lines was not significant for H4c ($\chi^2(1) = 2.57$, $p>.05$), indicating that the ordinal logistic regression was appropriate. H4c was not supported; the regression model was not significant ($\chi^2(1) = .20$, $p>.05$, Nagelkerke $R^2=.004$)

H5. Perceived academic competence predicts academic competence.

For males, the Test of Parallel Lines was not significant for H5a ($\chi^2(1) = 1.75$, $p>.05$), indicating that the ordinal logistic regression was appropriate. H5a was not supported; the regression model was not significant ($\chi^2(1) = .43$, $p>.05$, Nagelkerke $R^2=.03$). The Test of Parallel Lines was not significant for H5b ($\chi^2(1) = 2.50$, $p>.05$),

indicating that the ordinal logistic regression was appropriate. H5b was not supported; the regression model was not significant ($\chi^2(1) = 2.35$, $p>.05$, Nagelkerke $R^2 = .17$).

For females, the Test of Parallel Lines was not significant for H5a ($\chi^2(2) = .08$, $p > .05$), indicating that the ordinal logistic regression was appropriate. H5a was supported ($b = .14$, SE=.06, $p<.05$, OR=1.15). The regression model was significant ($\chi^2(1) = 5.69$, $p<.05$, Nagelkerke $R^2 = .10$). The Test of Parallel Lines was not significant for H5b ($\chi^2(1) = 1.03$, $p>.05$), indicating that the ordinal logistic regression was appropriate. H5b was not supported; the regression model was not significant ($\chi^2(1) = 1.78$, $p>.05$, Nagelkerke $R^2 = .03$).

H6. The final grade in a chosen math class predicts GPA

For males, the Test of Parallel Lines was significant for H6 ($\chi^2(2) = 10.49$, $p < .05$), indicating that an ordinal logistic regression may not be appropriate. Instead, a multinomial logistic regression was used. H6 was not supported; the model was not significant ($\chi^2(4) = 7.90$, $p>.05$, Nagelkerke $R^2 = .47$). For females, the Test of Parallel Lines was not significant for H6 ($\chi^2(3) = 2.3$, $p > .05$), indicating that the ordinal logistic regression was appropriate. The regression model was significant ($\chi^2(3) = 25.19$, $p<.05$, Nagelkerke $R^2 = .39$). The following predictor levels showed significant differences in odds of being in a lower category of GPA compared to the reference category (90–100 [typically an A]): 80–89 (Typically a B), ($b = -1.48$, SE=.61, $p<.05$, OR=.23); 70-79 (Typically a C), ($b = -3.59$, SE=1.12, $p<.05$, OR=.03); 60-69)Typically a D), ($b = -5.23$, SE=1.48, $p<.05$, OR=.01).

Discussion

This study explored the relationships between academic self-efficacy, academic competence, and perceived academic competence. For this study, academic competence was measured as the final grade in a chosen math class and GPA. This study aimed to determine if perceived academic self-efficacy and academic competence measured the same construct and could be used interchangeably. This study also explored whether academic self-efficacy, academic competence, and perceived academic competence had correlational and predictive relationships.

Through correlational analysis, this study examined the relationships between academic self-efficacy, academic competence, and perceived academic competence. GPA was only correlated with the final grade in a chosen math class; however, academic self-efficacy, perceived academic competence, and the final grade in a chosen math class were significantly related. It can be concluded that the level of success in one course may not be related to the level of success in other courses. Also, students may understand the concepts from one course but not understand the concepts in other classes. Finally, the differences in skill that students acquire across classes may affect GPA.

Additionally, teachers may grade their classes differently, and different aspects of the course (homework, quizzes, attendance) may be weighed differently across courses. These, in turn, may affect how students perform in different courses. Furthermore, the lack of continuity across grading practices can affect GPA, such that

a teacher who makes it more difficult to pass their class would have the ability to negatively impact students' GPAs. Thus, GPA may not be significantly related to other ways of measuring academic competence. However, research has indicated that for undergraduate students in particular, GPA suggests a relationship with overall mental ability, motivation, and academic achievement (Imose and Barber 2015). Therefore, GPA is seen as a useful tool to measure academic competence. However, due to the differences in grading policies across courses and teachers, some researchers recommend that GPA be viewed cautiously as an indicator of competence (Wittman 2022).

This study focused on African American students. Previous research suggested that how African American students perceive discrimination in schools may have negative effects on performance (Assari and Caldwell 2018). As a result, this may affect their academic self-efficacy, such that African American students do not believe that they can do well in their courses. They may feel this way regardless of whether they have mastered the skills taught in their courses. Subsequently, the students' belief in their ability to succeed in a chosen math class may be independent of their overall academic performance. Thus, this would support that academic self-efficacy is correlated with the final grade in a chosen math class but not GPA.

The positive and statistically significant relationships between academic self-efficacy, perceived academic competence, and the final grade in a chosen math class suggest that students who believe they can behave in ways to do well in a course may also believe they have the skills to do well in the course. Although different aspects may be weighted differently, many aspects of a course assess skill in the course. Many components of a course, including exams, quizzes, and homework, give students the opportunity to display their mastery of the skill. Students who believe they have mastered the skills in a course may believe they can behave in ways necessary to do well in a course because the mastery of a skill is an important factor in doing well in a course. Simply, receiving a good grade in a course is often dependent on being able to display mastery of a skill.

This study also found that academic self-efficacy and perceived academic competence predicted the final grade of a chosen math class with the same strength. This further supports the fact that they are similar constructs. Their similar relationship with demographic variables further proves their similarity. Neither construct had differences in SES or age. However, there were gender differences in academic self-efficacy, but there were no gender differences in perceived academic competence. This is unsurprising due to the similarity in the scale items. For example, an item for academic self-efficacy was: "How confident were you that you could learn all of the material presented in your modules?" An item for perceived academic competence was: "I feel confident in my ability to learn this material." This study found that combining the items from the two scales improved reliability for academic self-efficacy but not perceived academic competence, suggesting conceptual overlap. However, the items relate more closely with academic self-efficacy than competence, differentiating the two constructs.

This study also suggests that there is a relationship between students' beliefs they have mastered the skill in a course and their ability to display the skill needed to get good grades in the course. Harter (1983) found that competent students sought out less

rigorous accomplishments than was expected based on their ability. This suggests that students who have high perceived academic competence may not seek out courses that they find personally difficult. Thus, they receive good grades because they take courses that do not provide them with academic challenges, which they can pass more easily.

The current finding of academic self-efficacy and perceived academic competence correlation with and prediction of final grade in a chosen math class is consistent with previous research that found that grades relate to how students perceive themselves (Ghazvini2011). The current finding that GPA did not correlate with academic self-efficacy is inconsistent with previous research (Khan 2023, Travis and Bunde 2022). Khan (2023) found that academic self-efficacy was positively correlated with GPA. However, only 2% (N=1) identified as Black/African American. Additionally, Travis and Bunde (2022) found that academic self-efficacy positively predicted GPA in a study with college students, with 28% (N=1,680) of participants being African American.

Additionally, Awad (2007) suggested that students with positive beliefs about their educational abilities were more likely to have higher overall academic performance. The participants who believed they could behave in ways needed to succeed in courses may have performed the tasks needed to succeed in the course. Their belief could have encouraged them to do activities, such as studying or seeking tutoring, that would lead to good scores. On the other hand, students who did not believe they could behave in ways needed to succeed in a course did not perform the tasks needed to succeed in the course. Since they did not hold this belief, they may not have done the activities because they did not believe that these tasks could help improve their grades or that they would succeed at the tasks.

Post-hoc analyses revealed some gender differences in the relationships among academic self-efficacy, academic competence, and perceived academic competence. Data from male and female participants indicated similar trends for H1. For H2b, there was a gender difference, but H2a and H2c did not have gender differences. Subsequently, for H4b, there was a gender difference, but for H4a and H4c, there were no gender differences. H5a had gender differences, but H5b did not have gender difference. Finally, there were gender differences for H6. This indicated that there were gender differences for data involving the final grade in a chosen math class. Gender differences are consistent with previous research, such that previous research has found a gender gap in math that exists by ninth grade and then widens over time (Ellison and Swanson 2023).

The data supported that perceived academic competence predicted the final grade in a chosen math class. This corroborates previous research that found that perceived academic ability predicted actual ability (Axler 2008, Kinard 2001). This is inconsistent with the current finding that perceived competence does not correlate with GPA. The participants may have the belief of mastery of a skill for one course, but they may not have presented the mastery of skills for all their courses.

Limitations and Future Directions

Although this study provides insight into the relationships among academic self-efficacy, academic competence and perceived academic competence, some limitations can be improved upon in future research. An important limitation is that this study only used 82 participants. The lack of participants could explain why there were no correlational or predictive relationships between GPA and academic self-efficacy or academic competence. Future studies should collect data from more participants to avoid Type II errors.

This study focuses on the final grade in a chosen math class from the students' past. Since the participants selected their math classes, there were a variety of math classes that could have been chosen. Although this study gives a general overview of math experience, the lack of continuity across math classes limits the interpretability of the results due to the possible variety of difficulty of the math courses. The difficulty of the course may impact the relationship between academic competence and academic self-efficacy. Future research should collect data from participants who are in the same math class.

Positive memories may hold less of an impact than negative memories (Baumeister et al. 2001). Therefore, future participants may choose classes they had negative memories of, affecting their academic self-efficacy, perceived academic competence, and final grade in the chosen math class. However, for this study, participants chose classes that they did well, such that 57.3% received an A in the final grade of a chosen math class. Future studies should choose the class for the participant, which could help to eliminate possible recall bias.

Future studies should also consider asking students about a current class and tracking the responses multiple times. This provides valuable insight into how academic self-efficacy and academic competence may change over time. Studies may find that results change as difficulty in the course increases or decreases over time, or how results change as the relationship between the student and teacher changes over time. Thus, the relationship the student has with the teacher may be found to be a moderator of the relationship between academic self-efficacy and academic competence.

This study also focuses on African American students. Future studies should also consider other ethnic groups, particularly other Black ethnic groups. Different ethnic groups have different relationships with their educational systems. For other groups, academic self-efficacy and academic competence may be more dissimilar because their belief in their abilities is closely linked to their belief that they can do well in their courses. Other ethnic groups may not face the same type or level of discrimination, so they may not be discouraged from believing they can succeed in their courses due to reasons that are not related to their actual ability. Due to past societal inequities, African Americans often did not believe that their academic achievement would be rewarded (Olneck,2006). Hence, the academic self-efficacy of African American participants may have been decreased due to their identities as members of a marginalized population.

This study focused on math. Students struggle with math, particularly within marginalized populations (Walkington et al. 2023). The difficulty of math may affect

the likelihood that students believe they can behave in ways to do well in a course and the likelihood that they believe they have acquired the skill to do well in the course. Thus, the chosen subject matter may have also impacted the relationship between academic self-efficacy and academic competence. However, the lack of low grades in the final grade in the chosen math class may suggest that difficulty may not have had a profound effect on grades or may have led students to choose less difficult math classes. Future studies should investigate the relationship between academic self-efficacy, academic competence, and perceived academic competence for other subjects. Different subjects require different skills and cognitive abilities. Therefore, future explorations may help to determine the relationships among academic self-efficacy, academic competence, perceived academic competence, and cognitive abilities.

This study provided important insight into the academic experiences of African Americans. It demonstrated that African American students who believe they have knowledge and skills also believe they can behave in ways to display the knowledge and skills required to succeed. However, this study demonstrates a disconnect between overall academic experience and self-perception of this population. The dilemma of poor academic outcomes for African American students may not be due to a disconnect between belief in attained knowledge and belief in behavior. Therefore, this research supports the need for applied research that can bridge the gap between performance and self-perception for African American students.

There may be other factors that contribute to the lack of academic achievement. Research has shown that there is an incongruence between the culture at home and the culture at school for African American students, and the cultural incongruence leads students to perform poorly (Marryshow et al. 2005). Culturally relevant pedagogy, a teaching pedagogy that centers students' backgrounds and academic needs in the educational experience, has been linked to increased academic outcomes for African American students (Ladson-Billings, 1995). Research should continue to explore how this teaching style may impact the relationships between academic self-efficacy, perceived academic competence, and academic competence.

Conclusions

When researching academic outcomes, investigators encourage future studies to distinguish between perceived academic competence and self-efficacy. Research investigating perceived academic competence should not be accompanied by social competence or social acceptance, as this overshadows and dilutes the effects of perceived academic competence alone.

Finally, research investigating perceived academic competence typically investigates the implications for mental health symptomatology (Cole 1990). This is exemplified in the research on the impact of perceived academic competence on depressive symptomatology in college students (Urhlass et al. 2009). While the effects of perceived academic competence on mental health are of paramount importance, future research should examine how perceived academic competence moderates the relationship between mental health outcomes and academic competence (measured as

academic performance). High levels of perceived academic competence may serve as a buffer against the negative relationship between mental health outcomes and academic performance. If students believe they have acquired the necessary skills for a course, then poor mental health conditions may have a reduced effect on academic performance. However, if students do not believe that they have the necessary skills for a course, then poor mental health conditions may have an increased effect on academic performance.

This study investigated whether students' belief in their ability to succeed in a course is related to their belief in their mastery of a course and their presented skill. Academic self-efficacy was found to correlate with and predict academic competence and the final grade in a chosen class but was not found to have a correlational or predictive relationship with GPA. Although the data does not concretely support or disprove the notion that academic self-efficacy and perceived academic competence are separate constructs, it still provides valuable insight into the relationships among academic self-efficacy, academic competence, and perceived academic competence. Understanding the differences among academic self-efficacy, academic competence, and perceived academic competence may lead to a better grasp of the gap in achievement between American populations. This understanding gives scholars the opportunity to increase academic outcomes of African American students through initiatives that encourage increased confidence and performance in educational settings.

Acknowledgements

We thank Howard University and the Athens Institute for Education and Research for supporting our research endeavors.

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Athens Journal of Psychology - Volume 1, Issue 4, December 2025 – Pages 235-246

Educational Games for the Development of Reading and Writing in Students with Learning Difficulties: Proeduca Program[1]

*By Andréia Osti**

Brazil has many students who are behind in reading and writing. Officially, according to the Brazilian Institute of Geography and Statistics, the number of illiterate children increased from 1.4 million in 2019 to 2.4 million in 2021. In this scenario, learning to read and write is a concern. The research presented here highlights a proposal for intervention through educational games that aims to provide a playful, interactive form of teaching, based on specific content and produced at low cost. The proposal with educational games is based on national and international research that indicates that games can mobilize knowledge and consolidate learning, as well as improving overall performance in writing and reading. This work presents the results of an intervention project through educational games carried out in a classroom with 21 students enrolled in the 1st year of elementary school. The project involves the development, production and application of games in the classroom. The focus of the entire project was to improve reading and writing comprehension levels among elementary school students. The games are produced at the university, based on the curricular content that needs to be taught. The project is being developed with financial support from the São Paulo Research Foundation (FAPESP) under the program to improve public education – PROEDUCA. The results show that children are more involved in school activities, that the games provide better moments of interaction in the classroom and result in effective learning, since they are a different way of approaching teaching content. Better reading and writing scores were observed among children. It is worth noting that the educational games produced directly involve the teaching and learning processes of the curricular components – in this case reading and writing – and are considered teaching methodologies. Regarding the Sustainable Development Goals (SDGs) linked to this project, we have 4 – Quality education, and 10 – Reduction of inequalities. Research contributes to improving Public Education, promoting the articulation between theory and practice in the educational context with a view to consolidating the teaching, research and university extension tripod and promoting a humanized education.

Keywords: *Intervention. Learning. Playful. Teaching. Interaction.*

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[1]This article is part of research that received funding from FAPESP - Process 2023/11318-3 - Basic Education Research Program / SEDUC - PROEDUCA - Public Education, without which we would not be able to produce educational games.

Introduction

Literacy is an extremely important phase for students, their parents and schools, as it constitutes a fundamental learning process not only for the student's continued presence in school, but also for their integration into a society that is immersed in the literate culture. Thus, the difficulties that some students have in acquiring reading and writing skills during this period generate concern for teachers, parents and the children themselves. Brazil still faces the problem of students who reach the 3rd year of elementary school without mastering basic reading and writing skills, such as: independent reading of different text genres; inference in reading; the production of different texts for different purposes; the correct use of punctuation in text production; the use of conventional spelling in different text productions and the use of diverse vocabulary appropriate to the text genre.

By recognizing the difficulties faced by teachers who are faced with the task of teaching their students to read and write, we propose, in this text, to reflect on some concepts regarding the use of some resources, such as the use of educational games, which can help teachers organize the teaching process and make learning to read and write more enjoyable for students. The text discusses the relevance of including educational games in the context of literacy and also demonstrates how this resource can be useful to teachers in planning actions within the scope of literacy.

It is important to contextualize the importance of the funding received for this research from the São Paulo State Research Support Foundation – FAPESP, which is a public institution of the government of the state of São Paulo, Brazil, which aims to promote scientific and technological research in the state and to this end offers scholarships and grants to researchers in various areas of knowledge.

The article presented here competed, among other projects, and was one of the eight selected in the PROEDUCA FAPESP program, whose main objective is to support the development of public policies and pedagogical approaches that aim to improve learning, reduce educational inequalities and adopt innovative pedagogical approaches that aim to improve learning and reduce educational inequalities in public schools.

In Brazil, in 2019, there were 1.4 million illiterate children even though they were old enough to be. In 2021, with the COVID-19 pandemic, this number jumped to 2.4 million. Based on this data, the research here the presented approach attempts to reduce this deficit by adopting a pedagogical approach that involves the use of educational games in order to value pedagogy, playfulness and childhood. The intervention activities developed here are focused on what the child needs, which is to play, the ability to imagine, to be with others, to get involved and to laugh. Since games are a form of play (and not the completion of a task), the child's perception of the development of these delayed skills changes, which is why working with educational games is so important.

Educational Games in the School Context

We understand that games have significant potential for work in the school context, as they allow us to plan a more contextualized and meaningful learning process for students, in order to mobilize their interest and make their learning effective. Furthermore, they constitute fundamental activities in the context of cognitive, social, affective and moral development.

Regarding the cognitive aspect, research shows that games with rules can mobilize the subject's cognitive structures and assist in the learning process. According to Visca (2009), games enable the exercise of affective functions and cognitive operations such as classification, serialization, anticipation, conservation and compensation, among others, as well as developing school content. Another aspect that we would like to highlight concerns the importance of these cognitive skills not only at the time of playing, but their relevance for learning the school content referred to as formal and for participating in the various activities proposed in the classroom and by the school, in general.

The issue of anticipating thoughts and planning actions is a skill required at other times in school life, such as reflecting on the writing of words, when producing a text, for example, in which it is necessary to reflect, plan, raise hypotheses and verify them.

The proposal with educational games is based on research carried out and consolidated, both Brazilian (Almeida 2023, Araújo 2022, Morais and Almeida 2022, Lucca et al. 2022, Zacharias et al. 2022, Lucca and Osti 2021, Zacharias and Osti 2021, Carolino and Osti 2020, Fernandes and Osti 2019, Osti et al. 2019, Fernandes and Osti 2016, Kishimoto 2011) and international (Hue and Lee 2024, Lauricella and Edmunds 2022, Visca 2009) which bring results indicating that the game is capable of mobilizing knowledge because it leaves students instigated to experience everything related to games. Specifically, these studies indicate significant improvements in the spelling performance of children who participate in spelling games, improvements in overall performance in writing and reading, and improvements in the development of awareness of grapheme-phoneme relationships. They also state that children can learn in a playful and reflective way as long as they conduct didactic sequences supported by games, whose practice combines playfulness and reflection.

In this way, these works point out how educational games can interfere in the cognitive process and enable learning by mobilizing cognitive structures and developing attention, concentration and anticipation, important skills for learning. Other authors (Araujo 2022, Fernandes and Osti 2015, Cavalcante and Ortega 2008, Dell'agli and Brenelli 2006) understand that the game constitutes an element that motivates the child to be interested in the activity, as it is presented in a different way from a school task, which makes it possible to develop skills and attitudes that can contribute to the learning process in the school context, in the learning of specific school content, such as at the time of literacy, when, for example, working with a game in which words are recognized or the initial or final syllable is identified.

Other authors (Alhassan 2022, Ritzmann 2009, Cavalcante and Ortega 2008, Luna 2008), in addition to pointing out this possibility of the game, explore other possibilities that it offers, such as working with the emotional aspect (experiencing frustration and defeat) and interaction between peers; working with respect for others, since the classroom space also involves emotional, affective and interactive issues between students and between them and the teacher (Iberico et al. 2016, Federico et al. 2019). In addition, it is also necessary for the player to submit to the rules of the game, a fact that can limit their planned actions. Therefore, the subject also teaches self-control.

It is also understood that it is in this process of social interaction, mediated by games, that children have the opportunity to develop certain skills and attitudes that permeate social life and group coexistence. Furthermore, the authors (Fernandes and Osti 2015, Kishimoto 2011, Santos 2011, Visca 2009) emphasize the relevance of games for the learning process, emphasizing that such a resource contributes to the development of attention, logical reasoning, memory, development of argumentation, the ability to position oneself and understand the other's point of view, as well as enabling the work and development of specific content of the school curriculum.

Therefore, as we have seen, there are several dimensions worked on by games as verified by various authors, which justify their inclusion in the educational context as a resource that, in addition to mobilizing the student's interest, also allows for the work with the integral development of the human being, considering not only their intellectual aspect - which is often the dimension valued by the school and in the elaboration of school content. Thus, starting from the principle that games offer contributions to the learning processes in the school environment and their relevance in classrooms and in teachers' planning, we intend to present here the partial results of the research developed and the intervention carried out with one of the games produced.

Literacy Games

According to Leal et al. (2008), games are one of the ways to make literacy teaching more effective and stimulating, as they combine pleasure and fun with learning and make the learning process meaningful, since they integrate pleasure and learning, as well as interaction with others. In relation to the specific literacy process, games can be relevant resources for the systematic teaching of written language, especially those that focus on some aspects of the Alphabetic Writing System, as they help students to consolidate such learning, which is necessary for them to become fully literate.

Games allow students to work on expanding their vocabulary through the different words they work on. They also include contact with the semantic and morphological relationships of words, that is, their meaning in the context used and the structure of these words. Thus, it is assumed that the analysis of word structures is a relevant component for consolidating learning in relation to the properties of the alphabetic writing system. We believe that it is possible to include work with games in the literacy process, aiming at reflections on literacy and advances in the process of

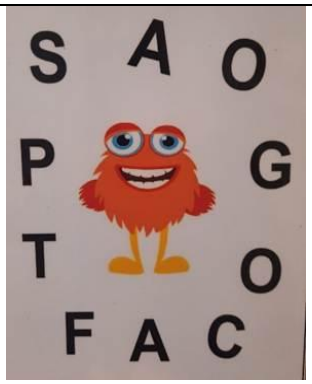
learning to read and write, considering the appropriate choice of games and the proposal of organizing the class into different groups.

Here we will present two of the games produced. The first is more focused on writing, as it is necessary to form a word. The second is focused on reading, as students need to create a sequence of descriptive sentences to discover what the mysterious object/word is. The first game is called "FORMAR" and has the following characteristics:

Aim: Form words in the shortest time possible. The words formed cannot have errors in their formation.
Material: consists of 21 cards with letters separated into three groups: easy, medium and difficult, which are related to the formation of words with simple syllables and more complex syllables.
Players: 2 or more players. The age range of players is 7-8 years old, that is, students in the 2nd and 3rd grades of elementary school. The game can also be used in other grades.
Rules: divided into groups, the teacher chooses a card according to the level of difficulty and gives it to each group, determining the number of words they need to form. Players need to write down the words they form and whoever finishes forming the stipulated number of words first shouts I FORMED IT. The teacher checks to see if the writing is correct. If it is correct, the group wins. The teacher can also set a round limit so that students can play more times, changing the group's chance of winning. At the end of each round, the points are counted. The team with the highest score wins.
Observation: When the teacher realizes that the writing is not correct, the round continues until a group forms the words correctly.
Contents: The game develops reading and writing skills as it involves word formation, spelling and allows the identification of the syllable as a unit of the word; comparing words in terms of sound similarities, developing phonological awareness through the exploration of the sounds of words.
The second game is called SPIKO and has the following features:
Aim: work with reading and interpreting information. To do this, players must, based on reading comprehension, discover the word to which the clues refer.
Material: We have five semantic fields: school supplies, place, animal, food and objects. There are 70 cards and a picture card. The seventy cards contain five clues that help in the description of the word to be identified.
Players: four players or four teams of players.
Rules: It is decided which group starts. Each team can choose which theme they want to play with. Clues are read, numbered from 1 to 5. The player must listen to the first clue. If they do not know what word it refers to, they ask the reader to say the second clue, and so on, until they reach the fifth clue. If the player cannot guess the word, even after reading the five clues, they can consult the picture board. This can only be consulted after reading the five clues and if the player does not know the word.

Contents: The game works on the player's fluent reading and the receiver's ability to interpret information. With the game, it is possible to list other content, using semantic fields, such as a project on healthy eating (FOOD), or a discussion, within the context of geography, of public and private spaces within the city (PLACES). Through the game, the teacher can perceive whether the student has difficulties in reading and interpreting information in other contexts.

Figure 1. *Shows an Image of the Two Games described here*

Game 1 – Form Words	Yoga 2 - Spike
	

Research Context

The funded project began in 2024 and will end in 2026. Here we present the results for the year 2025 in the monitoring of a classroom in the first half of this year. It is worth noting that the research has approval from the Ethics Committee for Research with Human Beings, registered under number 7.332.332.

Participants

21 students enrolled in the 1st year of elementary school participated and were accompanied by their teacher who applied the games and recorded their progress.

Results and Discussion

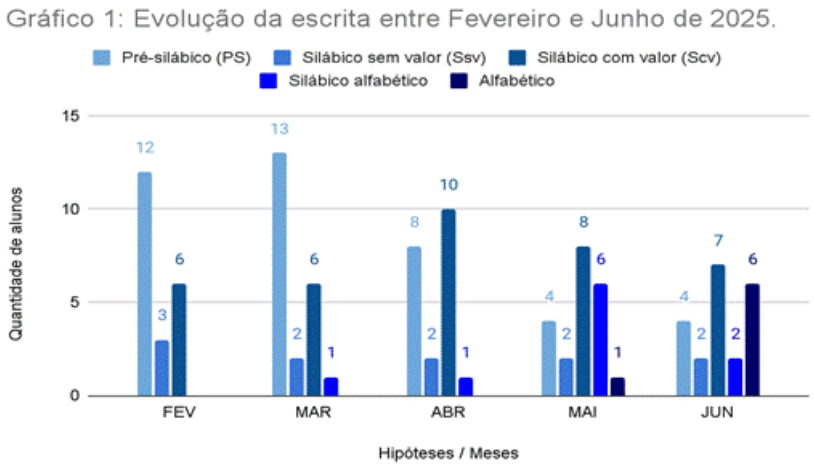
The interventions began in February and ended in June 2025. Monthly assessments and weekly interventions were carried out with the games developed. The students were assessed on their writing and reading skills.

The students were organized according to the principle of heterogeneity of knowledge, that is, they were grouped based on their varied knowledge about

reading and writing, which could be beginners or advanced (in this case, students who have already consolidated some learning about the writing system help their peers by expressing their ideas and reflections, helping others to also advance their hypotheses about writing). As mentioned, the groups were composed of a mixed group, that is, the members had different ways of understanding the construction of writing. It can be seen that the students, in general, made progress in terms of constructing hypotheses about writing. Here we present the records described by the literacy teacher.

Graphs 1 and 2 show the results of this first semester of monitoring and development of games in relation to the assessment of reading and writing.

Graph 1. *Evolution of Writing between February and June 2025*



Prepared by the author. Source: Researcher's data.

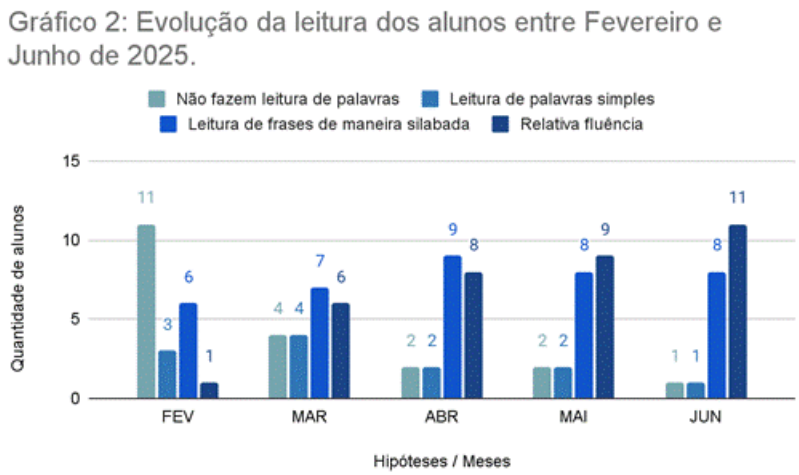
The writing results show that in the first assessment, we had 12 students who still could not differentiate letters from other symbols, 03 who wrote using only vowels and 06 who wrote with the sound correspondence, using vowels and consonants. Throughout the intervention process, it was observed that there was a change in learning. In the last assessment, we had 04 students who still maintained the writing hypothesis of the first assessment, that is, they still could not differentiate between letters, numbers and other symbols. The greatest improvement occurred in 06 students who are literate compared to the three assessments carried out in February, March and April, in which there were no students in this phase and in the other phases, as there was improvement in all of them.

In the work on phonological awareness, the study of rhymes began, at this first stage, with the aim of identifying words that rhyme, especially in oral language. Work with full names is another aspect that has shown progress, with some children now able to write without the support of their name tags. Although the class has already demonstrated the consolidation of the identification and recording of letters outside of alphabetical order, this continues to be a subject that is worked on in the assessments.

The student teams were formed into groups with children at different levels of literacy. The justification is that organizing the teams in a heterogeneous manner helped the activity to occur cooperatively among the group participants. The game made it possible to work on writing; think about letters and words, as well as the sound aspect; team collaboration; discussion of ideas; and dealing with competitiveness. The students were able to understand that words are formed by sound segments and that these segments can appear in different words; in the game, students have the opportunity to establish this relationship in the initial, medial, and final syllables of words that contain the same sound segment. This understanding is important for the student to learn how the alphabetic writing system works when writing. Since the grouping was heterogeneous, the children who are still at more elementary levels of constructing the writing hypothesis are assisted by their peers. We also recognize the importance of the intervention of the teacher who mediates the entire activity.

It is considered that the collective game moment can be very productive, since students can interact and debate in relation to the correct separation of words into syllables, as well as the correct pronunciation of some words, since some have more letters, and students may have difficulty saying them.

Graph 2. *The Evolution of Students' Reading between February and June 2025*



Prepared by the author. Source: Researcher's data.

In the first assessment, we noticed that 11 students did not read words, 03 read simple words, 06 read syllables and only 01 was relatively fluent in reading. During the intervention period, it was possible to observe that there was a change and that the students evolved from one phase to another. In the last assessment, we have 11 students with relative fluency in reading, 08 who still read syllables and only 01 who still do not read and 01 who only read simple words, which demonstrates the group's evolution.

Regarding the reading process, constant progress is noted, and during this period it is observed that there are more students seeking to read by decoding syllables/graphemes, although the use of strategies such as basing themselves on

stable words remains. There is also progress in reading sentences or longer periods. Regarding the work with phonological awareness, in addition to the previously mentioned skills, the proposal for identifying rhymes in speech and writing was initiated, although at this first moment we sought to perceive the ability to recognize rhymes in the context of speech. According to the specificity of the class, a professor worked on it a game that articulates syllable-image, to help students who present difficulties in the learning process.

By analyzing the results of the assessments carried out during the months in which the activities involving games took place, it can be stated that there was a significant change in the development of students' learning in terms of writing and reading. It was found that the games contributed to the students' learning process, because, throughout the semester, all students progressed in their writing skills, especially during the period of activities involving games. It is also important to highlight that it is understood that games alone are not capable of guaranteeing success in learning to read and write, since such learning requires the involvement of other skills and resources. However, what is presented in this text is the contribution of games to the learning of important content that is necessary for the acquisition of reading and writing in a systematic and planned way and that contributes to making the literacy process playful.

It is worth noting that according to Leal et al. (2008), games are one of the ways to make literacy teaching more effective and stimulating, as they combine pleasure and fun with learning and make the learning process meaningful, since it integrates pleasure and learning, as well as interaction with others. In relation to the specific literacy process, games can be relevant resources for the systematic teaching of written language, especially those that focus on some aspects of the Alphabetic Writing System, as they help students to consolidate such learning, which is necessary for them to become fully literate.

Final Considerations

The main objective of this text was to discuss and demonstrate how games can be an important resource that contributes to the learning process, especially during the literacy period. Specifically, we sought to include playfulness as a component of the learning process, to use educational games to construct the acquisition of the alphabetic writing system and to develop activities that improve student learning. Therefore, it can be inferred that in this context, games, more than just entertainment, emerge as a teaching tool, a differentiated strategy used with students in the classroom.

We believe that games are a human, cultural and social construction, and are present in children's daily lives. For this reason, we understand that games are important resources in the learning process due to the relationship they establish with the learner. That is, in the game the subject becomes active in the face of the learning content. As in the case of learning to read and write, in a game, the student will have a relationship with language in a dynamic, active, questioning way, and with the possibility of error being an opportunity for learning, unlike other teaching strategies,

in which the subjects are passive and relate to language as something distant and, often, for students who have difficulties, as something incomprehensible.

The results of the research carried out show that the group of students advanced in their writing hypotheses, comparing the beginning of the year (February) and the end of the activities with games (June), as well as the progress observed in the period of activities with games (between May and June). As already highlighted, games alone do not guarantee learning, however, one cannot fail to infer that this significant progress of the class, in this period, also represents the contribution of games to the reflection of writing and advances in learning.

In this sense, it can also be stated that specific literacy games allow students to work with the sound properties of words, highlighting the relationship between sound and spelling, which is necessary when reflecting on the writing of words. Furthermore, we can highlight the contribution of these games to the development of phonological awareness, helping students to understand that words are formed by different sounds or groups of sounds and that these can be segmented into smaller units. In this case, games that work with rhymes and alliteration stand out, in which these properties of phonological awareness contribute to the manipulation of these specificities in a dynamic way.

Based on the results, we reiterate the relevance of games in the school context and especially for the literacy process, since this resource allows for a certain degree of flexibility for the teacher, organizing the class in different ways, while still considering the students' learning needs. In addition, we believe that these groups can also contribute to the exchange of knowledge among peers, helping students to evolve in the development of their hypotheses about writing.

Thus, it is hoped that the discussions held here will help teachers both in understanding the contributions of games in various aspects worked on in the school context, specifically in the literacy process, as well as having practical examples of possible ways of inserting it in the classroom, aiming at the full development of students.

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Athens Journal of Psychology - Volume 1, Issue 4, December 2025 – Pages 247-272

Designing for Well-Being: The Evolution and Future of Socio-Psychological Architecture in University Campus Planning

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This research explores the evolution and theoretical foundations of socio-psychological architecture in university campus planning. It highlights how historical and contemporary design models shape student well-being, inclusivity, and cultural integration. Through a structured literature review and historical analysis, the study identifies key themes (well-being, cultural sensitivity, inclusivity, and smart infrastructure) as critical components for creating responsive academic environments. Despite growing recognition of these principles, existing research lacks empirical evidence linking specific architectural features (e.g., spatial configurations, sensory design, and biophilic elements) to psychological outcomes. Moreover, current frameworks often overlook the cultural diversity of student populations, limiting the applicability of design strategies across global contexts. To address these gaps, the paper proposes a conceptual framework that synthesizes environmental psychology, human-centered design, and sustainability principles. The framework offers a multidimensional planning tool for architects, planners, and policymakers aiming to design campuses that foster mental health, inclusivity, and adaptability. By bridging theoretical discourse and practical design strategies, this research contributes to the growing movement toward sustainable, human-centered campus planning. It serves as a foundation for future empirical studies and supports the development of culturally adaptive, psychologically enriching academic environments.

Keywords: *socio-psychological architecture, university campus planning, student well-being, cultural inclusivity, human-centered design*

Introduction

University campuses serve as more than academic spaces; they are ecosystems where the design of physical environments profoundly influences students' mental well-being, social cohesion, and cultural integration. The concept of socio-psychological architecture has emerged at the intersection of psychology, sociology, and architectural design, focusing on spaces that foster inclusivity, community engagement, and holistic development (Waqas et al. 2021, Leptiukhova 2019). Recent evidence reinforces the psychological value of environmental design in campus settings, particularly through natural elements and biophilic strategies that reduce stress and enhance learning (Ribeiro et al. 2024, Gulwadi et al. 2019). This paradigm reflects a broader shift in architectural planning toward user-centered environments that prioritize lived experience alongside functionality.

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In an era of rapid globalization and urbanization, universities face increasing challenges to accommodate diverse student populations while promoting academic success and psychological well-being. Although numerous studies underscore the importance of designing socially and psychologically responsive spaces (De Franco et al. 2023, Juárez-Nájera et al. 2010), recent systematic reviews suggest that research linking architectural features to psychological outcomes remains fragmented and methodologically inconsistent(van den Bogerd et al. 2020, Azeez et al. 2023). Specifically, there is a lack of empirical and theoretical consensus linking architectural features such as spatial configurations, natural elements, and sensory experiences to measurable psychological outcomes (Ivan 2020, Berrío-Quispe et al. 2024). Furthermore, cultural and contextual variability is often overlooked, limiting the transferability of findings across global educational contexts.

This paper investigates the evolution and theoretical foundations of socio-psychological architecture in university campus planning. It asks: How has socio-psychological architecture historically developed in the context of campus design, and what theoretical frameworks can inform more inclusive, culturally adaptive, and well-being-centered environments? To answer this, the study (1) traces the historical trajectory of university campus planning; (2) synthesizes key theories from environmental psychology, sociology, and human-centered design; and (3) proposes a conceptual framework for future campus planning that incorporates inclusivity, well-being, and adaptability as core principles. Emerging integrative theories such as architectural genotype and biomimicry also offer promising frameworks for creating psychologically acceptable and ecologically attuned spaces (Zaleckis et al. 2025).

Methodologically, this research employs a historical and thematic literature review, integrating cross-disciplinary perspectives to identify enduring design principles and underexplored areas in existing campus planning discourse. By doing so, it contributes to the growing body of knowledge advocating for sustainable, human-centered academic environments.

The structure of the paper is as follows: Section 2 reviews the historical evolution of campus planning and key theoretical frameworks informing socio-psychological architecture. Section 3 outlines the methodological approach. Section 4 presents a proposed conceptual framework for culturally adaptive and inclusive campus design. Section 5 discusses the broader implications and future research directions. Finally, Section 6 offers concluding reflections and key recommendations for architects, planners, and policymakers.

Literature Review

Overview

The evolution of socio-psychological architecture represents a growing interdisciplinary effort to create built environments that respond to users' mental, emotional, and cultural needs. While earlier studies have referenced the psychological or social dimensions of design separately, this paper defines 'socio-psychological architecture' as an integrative model combining emotional, cognitive, and cultural

responses to spatial form. In the context of university campus planning, this perspective plays a critical role in shaping spaces that foster well-being, community integration, and cultural inclusivity. This section synthesizes the key theoretical frameworks, empirical evidence, current research trends, and critical gaps in the literature that collectively inform a new paradigm for designing inclusive, human-centered academic environments.

Theoretical Frameworks

Socio-psychological architecture draws heavily on theories from environmental psychology, sociology, and human-centered design. Lawrence's (1982) psychological-spatial approach laid foundational insights by highlighting how built environments influence behavioral and emotional responses. His framework emphasized that spatial form is not neutral, but rather shapes how individuals perceive, use, and emotionally engage with spaces (Lawrence 1982).

Juárez-Nájera et al. (2010) proposed a socio-psychological model linking sustainability and user behavior, showing that architectural environments can support ecological and social well-being. Similarly, Ivan (2020) examined the socio-psychological determinants of housing policy, identifying how spatial organization and sensory design shape feelings of identity and belonging. Manca et al. (2022) extended these principles to campus transportation systems, emphasizing that design features (such as accessibility and clarity of movement) impact not only function but social interaction and satisfaction (Ivan 2020, Juárez-Nájera et al. 2010, Manca et al. 2022).

Together, these frameworks position campus planning as a powerful tool for psychological empowerment, supporting the notion that design can and should enhance emotional resilience, inclusivity, and cognitive engagement.

Empirical Findings

Recent empirical studies provide growing evidence of the impact that spatial features exert on psychological and social outcomes in university environments. These studies, though varied in their contexts and methodologies, collectively affirm the premise that architecture plays a pivotal role in shaping students' lived experiences, ranging from stress levels and cognitive engagement to social belonging and identity formation.

Waqas et al. (2021) conducted a study at the University of Peshawar, revealing that campus environments incorporating green spaces, flexible layouts, and natural ventilation contribute to stress reduction and improved academic focus. Their findings affirm the relevance of biophilic design and spatial fluidity in fostering emotional well-being and adaptive behaviors. Similarly, Atak Akbulut (2014) examined creative studio environments in design education and found that spatial diversity manifested through adaptable furniture, varied textures, and lighting schemes stimulated creative engagement and supported students' psychological flow. These studies underscore the importance of integrating spatial flexibility and sensory richness into academic environments (Waqas et al. 2021, Atak Akbulut 2014).

Leptiukhova (2019) investigated pedestrian preferences in urban design and identified a strong correlation between human-scaled environments and psychological ease of movement. Her findings extend directly to campus planning, where walkability, spatial orientation, and intuitive navigation play crucial roles in reducing cognitive load and enhancing feelings of safety and autonomy. These considerations are particularly pertinent in large, decentralized campuses where spatial legibility can impact students' sense of control and confidence in navigating their environment (Leptiukhova 2019).

In a broader socio-cultural context, Abdelgawad et al. (2020) emphasized the influence of architectural form on bridging socio-cultural values and spatial inclusivity. Their work identified how design elements such as culturally symbolic spaces, shared gathering zones, and multi-faith prayer rooms contributed to increased social cohesion and reduced alienation among students. These findings are significant in multicultural university settings, where spatial design can either reinforce or challenge social boundaries (Abdelgawwad et al. 2020).

Chen et al. (2023), through an extensive study of Chinese universities, empirically demonstrated that access to green public areas, shared amenities, and equitable spatial distribution significantly improved students' emotional well-being and satisfaction. Importantly, their findings also support the integration of smart infrastructure, such as automated lighting and responsive environmental controls, as part of a broader strategy to enhance spatial equity and psychological comfort (Chen et al. 2023).

Notably, Manca et al. (2022) highlighted that transportation and circulation systems within academic environments directly affect social interaction and satisfaction. Their focus group research in Sardinia emphasized that user-centered transit design encompassing accessibility, clarity of movement, and integration with public space had a measurable impact on student engagement and perception of inclusion. These findings suggest that mobility systems should not be treated as secondary technical issues but as integral to the social and psychological dynamics of campus life (Manca et al. 2022).

While these studies collectively affirm the theoretical premise of socio-psychological architecture, they also reveal key methodological patterns. Most notably, the strongest findings emerge when empirical studies combine environmental variables (such as light, materiality, and spatial organization) with user-reported psychological outcomes (such as stress, satisfaction, or sense of belonging). However, there remains a paucity of large-scale, comparative data that systematically correlates these architectural elements with mental health indicators across different cultural and institutional contexts.

Moreover, although sensory design and biophilic elements are frequently cited, empirical assessments of their long-term psychological impact remain limited. For instance, Bekker (2011) called attention to the absence of practical frameworks for translating socio-psychological insights into spatial programming. His study on migrant orientation centers proposed a conceptual basis for inclusive space-making but lacked post-occupancy data to substantiate its claims. This signals the need for more rigorous validation methods such as behavioral mapping, physiological stress measurement, and longitudinal tracking of spatial use (Bekker 2011).

Taken together, the empirical body of work demonstrates that while architectural interventions can indeed foster well-being, inclusivity, and engagement, these outcomes are highly contingent upon cultural context, user diversity, and the granularity of spatial design. For socio-psychological architecture to move from conceptual advocacy to practical implementation, future research must focus on developing robust metrics, context-sensitive models, and interdisciplinary methodologies that validate the psychological efficacy of built form.

Research Gaps

Despite the theoretical depth and growing empirical interest, several important gaps persist in current literature. First, while many studies suggest correlations between spatial features and well-being, few offer quantifiable data on how specific design elements (e.g., natural light, acoustic quality, materiality) influence mental health or academic engagement (Bekker 2011).

Second, existing frameworks are often culturally narrow, assuming universal design responses while overlooking the unique spatial preferences of diverse international student populations (Atak Akbulut 2014, Manca et al. 2022). This limits the generalizability of findings and calls for more context-sensitive, regionally adaptive research.

Third, although smart technologies are frequently referenced in architectural discourse, their actual integration into campus planning remains underexplored. De Franco et al. (2023) argue that smart infrastructure (such as responsive lighting, adaptive furniture, and data-driven spatial analytics) holds promise for fostering more inclusive and efficient academic environments, yet actionable strategies for implementation are still lacking (De Franco et al. 2023).

Emerging Trends

Recent scholarships suggest that interdisciplinary integration is essential for advancing socio-psychological architecture. Researchers such as Juárez-Nájera et al. (2010) and Ivan (2020) call for the combination of environmental psychology, architecture, and urban planning to address the complex needs of student populations (Ivan 2020, Juárez-Nájera et al. 2010).

There is also a growing emphasis on cultural sensitivity and participatory design, particularly in multi-cultural and international campus settings (Abdelgawwad et al. 2020). Designing with users rather than for users is gaining momentum as a method to ensure alignment between architectural intentions and lived experience.

Simultaneously, smart campus technologies are emerging as tools for adaptability and resilience. Chen et al. (2023) and De Franco et al. (2023) show how real-time data collection and flexible infrastructure can support continuous feedback loops, allowing spaces to evolve based on user behavior and changing needs (Chen et al. 2023, De Franco et al. 2023).

Historical Evolution of Campus Planning

The evolution of university campus planning reflects broader shifts in academic paradigms, social structures, and architectural priorities. Historically, early campuses

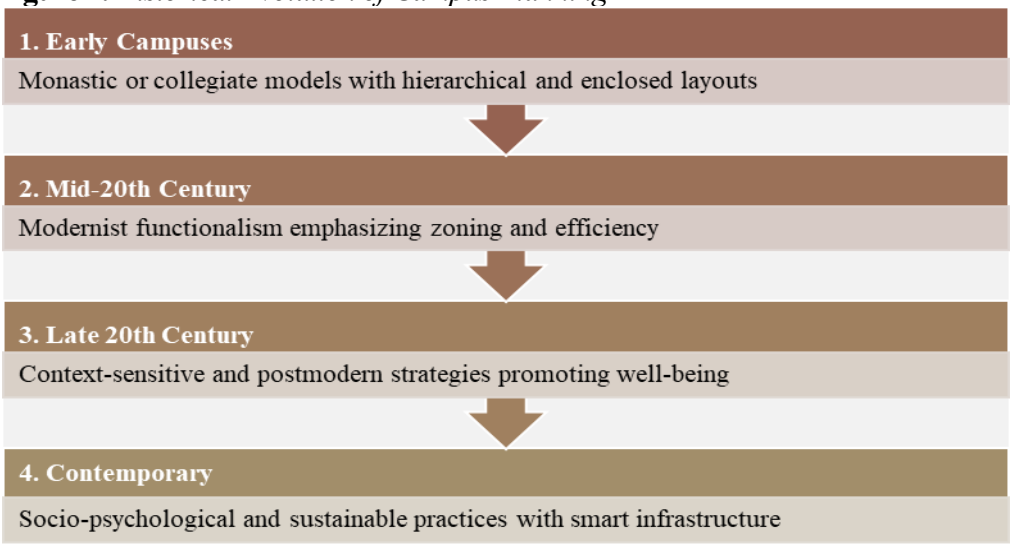
such as those in Oxford and Cambridge were shaped by monastic and collegiate models, with enclosed quadrangles symbolizing hierarchy, order, and academic prestige (Lawrence 1982, Turner 1987). These spaces reinforced institutional authority through axial symmetry, cloistered courtyards, and rigid spatial divisions.

By the mid-20th century, campus planning responded to rapid urbanization and post-war expansion with modernist functionalism, influenced by Bauhaus aesthetics and the Garden City movement (Chapman 2006). Zoning principles segmented campuses into distinct academic, residential, and administrative areas. While efficient, these plans often prioritized form and function over user experience and community engagement.

In the late 20th century, critiques of spatial rigidity led to an embrace of context-sensitive and postmodern strategies, integrating natural elements, mixed-use buildings, and human-scaled layouts to foster connection and well-being (O'Hara 2001). Planners began to recognize that campus environments should not only support academic work but also contribute to students' psychological and social development.

The 21st century ushered in a new era of campus planning guided by socio-psychological and sustainability concerns. Contemporary campuses are increasingly designed to support mental well-being, cultural inclusivity, and technological adaptability, in alignment with Sustainable Development Goals and global urban trends (De Franco et al. 2023, Ivan 2020). Design now integrates smart infrastructure, biophilic elements, and participatory planning processes, positioning the campus as a dynamic, inclusive ecosystem for learning and growth. This evolution is illustrated in Figure 1, which maps key historical planning approaches across eras.

Figure 1. *Historical Evolution of Campus Planning*



Source: Author's illustration based on Turner (1984), Lawrence (1982), Chapman (2006), and De Franco et al. (2023).

Comparing Campus Design Approaches

A comparative analysis of campus design philosophies reveals a progression from formalist, authority-driven structures to inclusive, experience-centered environments. In pre-modern and imperial models, campuses were often laid out as self-contained

enclaves, reinforcing status and hierarchy through monumental buildings and rigid axial geometries (Lawrence 1982, Turner 1987). The built environment communicated exclusivity, privileging prestige and control over accessibility or adaptability.

Mid-20th century campuses favored functional zoning and spatial compartmentalization, reflecting the industrial and administrative logic of the time (Chapman 2006). While promoting operational efficiency, these models often lacked integration across academic and social realms, isolating users within discipline-specific zones and neglecting interactivity (Atak Akbulut 2014).

Contemporary planning strategies, in contrast, prioritize fluidity, cultural responsiveness, and well-being. Newer designs emphasize walkability, social hubs, sensory diversity, and environmentally responsive systems. Scholars like Kenney et al. (2005) and Boys (2014) stress the importance of aligning spatial design with institutional mission, learning goals, and student identity. Design becomes an academic tool, shaping not just where students learn, but how they experience community, inclusion, and engagement (Kenney et al. 2005, Boys 2014).

Moreover, research by Abdelgawad and Ettouney (2020) and Waqas et al. (2021) highlights the socio-cultural dimensions of space, arguing that culturally reflective architecture strengthens student belonging. This aligns with calls for participatory design that actively includes users in shaping their environments (Abdelgawwad et al. 2020, Waqas et al. 2021).

Finally, Strange and Banning (2001) argue that the most effective campus environments are educational ecosystems designed not just for utility, but to cultivate intellectual, emotional, and interpersonal growth. These comparisons highlight a profound shift: from treating the campus as a neutral backdrop for education, to understanding it as an active agent in shaping student development (Strange and Banning 2001). See Table 1 which compares these planning strategies across eras, emphasizing the shift from formality to adaptability.

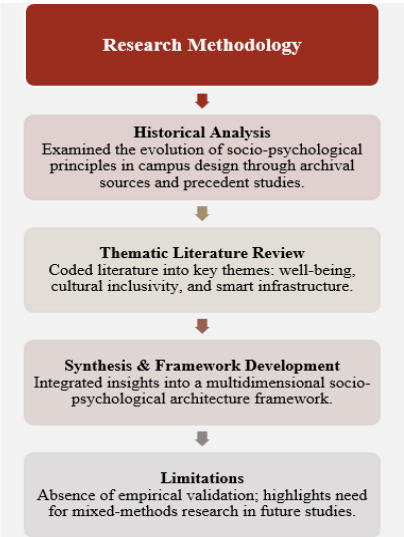
Table 1. *Comparing Campus Design Approaches Across Eras*

Aspect	Pre-Modern / Imperial	Mid-20th Century	Contemporary (21st Century)
Design Logic	Hierarchical and formal	Functional zoning and modernist planning	Human-centered, inclusive, and flexible
Layout / Spatial Form	Enclosed courtyards, axial symmetry	Segregated zones (academic, residential, etc.)	Open, mixed-use spaces; integrated green infrastructure
User Experience Focus	Institutional identity and control	Efficiency, discipline-specific separation	Student well-being, collaboration, cultural adaptability
Key Features	Monumental facades, ceremonial spaces	Simple forms, grid-based master plans	Biophilic design, sensory diversity, tech-enhanced spaces
Academic Philosophy	Didactic, elite-focused	Industrial, process-oriented	Collaborative, experiential, socially responsive

Source: Adapted by the author based on Lawrence (1982), Turner (1984), Chapman (2006), Atak Akbulut (2014), Boys (2014), Abdelgawad & Ettouney (2020), Waqas et al. (2021), and Strange & Banning (2001).

Methodology

Figure 2. *Research Methodology Flowchart*



Source: Author's illustration based on the study design.

This study adopts a qualitative, theory-building research design that synthesizes historical developments and interdisciplinary literature to construct a conceptual framework for socio-psychological architecture in university campus planning (see Figure 2). Rather than testing a hypothesis through empirical data, this approach emphasizes the interpretive integration of concepts, precedents, and scholarly discourse to inform future design strategies and research. This type of exploratory research aligns with grounded theory approaches increasingly used in architecture and planning to generate conceptual models from pattern recognition and cross-disciplinary synthesis (Bollo and Collins 2017). The methodology aligns with the broader objectives of the author's PhD dissertation, particularly in establishing foundational knowledge for subsequent comparative case studies.

Historical Analysis

The first phase involved a methodical tracing of the historical evolution of university campus planning. Rather than restating historical findings, this phase focused on identifying patterns and transitional design principles through the examination of planning documents, design guidelines, and key academic literature (Chapman 2006, Lawrence 1982, Turner 1987). This approach follows accepted qualitative methods of historical and document-based analysis in planning research, which emphasize the tracing of value systems and design logics across architectural eras (Schoemaker 2020, Dalton et al. 2018). These sources were critically analyzed to extract recurring values (e.g., hierarchy, functionality, inclusivity) embedded in different campus eras. This analysis served as the chronological foundation for comparing traditional and contemporary planning paradigms and for contextualizing the emergence of socio-psychological architecture.

Thematic Literature Review

The second phase involved a structured, cross-disciplinary thematic review of academic literature. To ensure methodological rigor, this review followed systematic literature review protocols as outlined in evidence-based planning methods (Paré and Kitsiou 2017) and used a step-by-step thematic coding process adapted from other researches which are established in built environment research (Naeem et al. 2023, Rafiei et al. 2020). Using targeted keyword searches across databases including JSTOR, SpringerLink, ScienceDirect, and ResearchGate, peer-reviewed sources were selected based on their contribution to three core dimensions:

- Well-being in Campus Design: Literature addressing biophilic design, mental health, sensory engagement, and flexible spatial configurations (Atak Akbulut 2014, Waqas et al. 2021).
- Cultural Inclusivity: Studies focusing on culturally adaptive environments and the impact of built form on student identity and belonging (Abdelgawwad et al. 2020, Ivan 2020).
- Smart Infrastructure: Work examining technological responsiveness in spatial design, including modularity, environmental control, and data-driven adaptation (Chen et al. 2023, De Franco et al. 2023).

Each source was systematically analyzed and coded using a thematic matrix to facilitate cross-comparison of design features, spatial strategies, and reported outcomes across disciplines and cultural contexts. This structured synthesis process enabled the identification of recurring patterns and thematic intersections related to well-being, inclusivity, and technological adaptability. The matrix (see Table 2) served as a foundational tool for organizing insights that informed the development of the paper's multidimensional conceptual framework.

Table 2. *Thematic Matrix: Literature Review Synthesis*

Source	Theme	Design Feature(s)	Spatial Outcome(s)
Waqas et al. (2021)	Well-Being	Green spaces, flexible seating arrangements	Reduced student stress, improved concentration and academic performance
Atak Akbulut (2014)	Well-Being	Creative studio layouts, sensory diversity	Enhanced cognitive stimulation, better engagement
Chen et al. (2023)	Well-Being / Smart Tech	Access to green amenities, equitable distribution, smart services	Improved satisfaction, well-being, and spatial equity
Abdelgawwad, Ettouney, and Abdel-Kader (2020)	Cultural Inclusivity	Prayer rooms, shared cultural and multipurpose spaces	Greater social inclusion, cultural expression, student participation
Ivan (2020)	Cultural Inclusivity	Identity-linked design elements, social flexibility zones	Reduced alienation, culturally relevant spatial narratives

Manca et al. (2022)	Cultural Inclusivity	User-centered pedestrian and transport design	Improved accessibility and cultural responsiveness in navigation
De Franco et al. (2023)	Smart Infrastructure	Modular classrooms, data-responsive systems	Increased adaptability, efficiency, and spatial personalization
Bekker (2011)	Gaps/Smart Integration	Lack of practical implementation frameworks	Calls for design-tool development and empirical testing

Source: Compiled and adapted by the author based on findings from Waqas et al. (2021), Atak Akbulut (2014), Chen et al. (2023), Abdelgawad & Ettouney (2020), Ivan (2020), Manca et al. (2022), De Franco et al. (2023), and Bekker (2011).

Synthesis and Framework Development

The third phase integrated insights from both historical analysis and thematic review to develop a conceptual framework for culturally adaptive, well-being-centered campus design. The synthesis involved:

- Cross-referencing recurring values and spatial patterns from different eras of campus planning.
- Mapping thematic intersections across environmental psychology, human-centered design, and spatial theory (Lawrence 1982, Strange and Banning 2001).
- Identifying underexplored or emerging spatial variables such as wayfinding systems, sensory layering, inclusivity markers, and adaptive space flexibility.

This triangulated synthesis process resembles grounded theory-building methodology, wherein multiple qualitative inputs are cross-compared to derive new conceptual typologies for spatial planning (Bollo and Collins 2017). The resulting framework proposes design principles that move beyond aesthetics or zoning into a holistic understanding of the psychological, cultural, and technological dimensions of space. It is intended not as a prescriptive model, but as a heuristic device to inform planning strategies, academic goals, and interdisciplinary research in architecture and higher education.

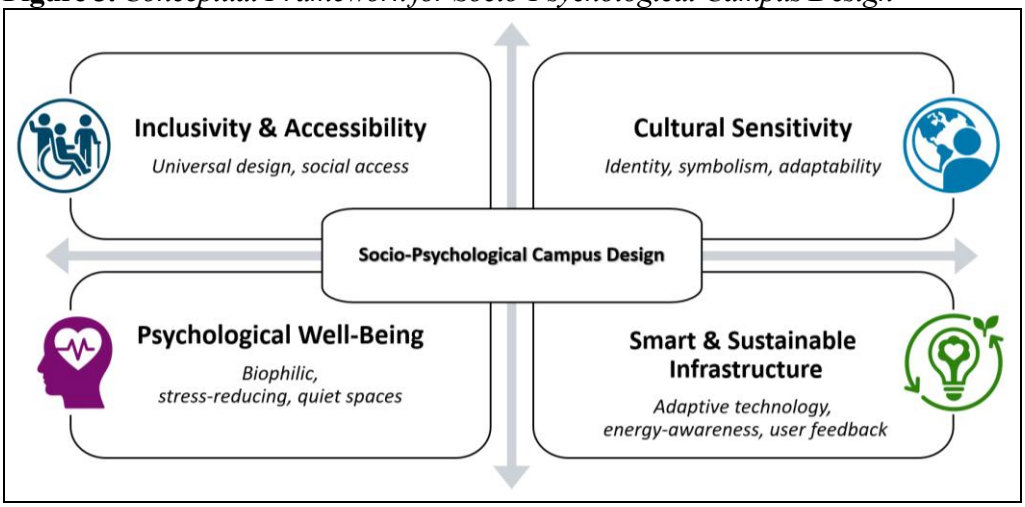
Limitations

As a theory-driven inquiry, this study is inherently limited by its non-empirical scope. While qualitative synthesis provides rich conceptual insights, it cannot offer statistically validated correlations between design features and outcomes. To address this, future phases of this research will adopt mixed-method designs such as explanatory sequential frameworks combining quantitative surveys with qualitative interviews, following best practices in built environment studies (Creswell and Creswell 2022, Akotia et al. 2023). Future research should employ mixed-method approaches, including surveys, behavioral observation, spatial cognition studies, and post-occupancy evaluations, to test and refine the framework's propositions.

These methods are planned as part of the author's ongoing PhD research, particularly through case study analysis in Japanese university contexts, offering empirical depth to the socio-psychological foundations established in this paper.

Conceptual Framework

Figure 3. *Conceptual Framework for Socio-Psychological Campus Design*



Source: Developed by the author based on the synthesis of historical and thematic findings.

This section presents the conceptual framework developed through the integration of historical analysis and thematic literature review (see Figure 3). The framework proposes four core dimensions that collectively define a socio-psychological approach to university campus design. These components (Inclusivity & Accessibility, Cultural Sensitivity, Psychological Well-Being, and Smart & Sustainable Infrastructure) form the basis for developing academic environments that are responsive, equitable, and nurturing.

Inclusivity and Accessibility

The first pillar of the framework emphasizes equitable spatial access for all users, including those with diverse physical, cognitive, or socio-economic backgrounds. Drawing on principles from Universal Design and inclusive planning theory, this dimension advocates for the removal of environmental barriers, both visible (e.g., steps, narrow doors) and invisible (e.g., poor wayfinding, exclusive social zones). Design implications include:

- Barrier-free circulation paths and adaptable furniture
- Multi-sensory wayfinding systems to assist navigation
- Accessible entry points to all learning, social, and recreational areas

This component ensures that the campus is physically and socially inclusive, fostering a sense of belonging among all users (Atak Akbulut 2014, Waqas et al. 2021).

Cultural Sensitivity in Spatial Design

The second dimension addresses the socio-cultural diversity of modern university populations. Architectural and spatial decisions should reflect users' cultural norms, spiritual practices, and interaction patterns. As campuses increasingly host international and minority communities, flexibility in spatial function becomes essential. This includes:

- Spaces adaptable to religious and cultural practices (e.g., prayer rooms, gender-sensitive facilities)
- Design elements that reflect local and global identities
- Participatory design processes involving diverse student voices

As highlighted by Abdelgawad & Ettouney (2020) and Ivan (2020), culturally sensitive campuses enhance inclusion and reduce alienation among marginalized groups.

Psychological Well-Being and Spatial Perception

This component builds on environmental psychology to position the built environment as an active contributor to mental and emotional well-being. Campus spaces should support calm, focus, and restoration, particularly given rising student stress and anxiety levels. Key strategies include:

- Biophilic design elements (natural light, greenery, water features)
- Quiet zones and decompression spaces
- Flexible layouts that support movement and autonomy

Findings from Lawrence (1982), Waqas et al. (2021), and Chen et al. (2023) support the notion that spaces designed with psychological sensitivity enhance academic performance and personal development.

Smart and Sustainable Campus Infrastructure

The fourth and final component considers technological adaptability and environmental sustainability. As universities respond to climate change and digital transformation, smart infrastructure provides real-time adaptability and long-term resilience. Design strategies include:

- Energy-efficient systems (HVAC, lighting, solar integration)
- Smart classrooms and modifiable learning environments
- Data-driven spatial planning based on user behavior

Research by De Franco et al. (2023) and Chen et al. (2023) emphasizes that these systems not only reduce environmental impact but also create responsive, efficient learning spaces that evolve with student needs.

Framework Contribution and Application

The proposed conceptual framework makes a significant contribution to contemporary discourse in campus planning by translating abstract principles of socio-psychological architecture into a structured, multidimensional planning tool. Rooted in the intersection of environmental psychology, cultural theory, and sustainable design, the framework serves both diagnostic and generative functions. It enables evaluative critique of existing campus environments while also guiding the formulation of future-oriented, inclusive, and adaptive spatial strategies.

As a diagnostic tool, the framework allows institutional stakeholders to assess how well current campus designs accommodate inclusivity, cultural diversity, psychological well-being, and technological responsiveness. For example, universities undergoing renovation or expansion can use the framework to conduct spatial audits that identify gaps in accessibility, symbolic inclusivity, or restorative design. Specific indicators derived from the framework such as wayfinding clarity, biophilic density, or the presence of culturally relevant spaces can be translated into performance metrics that align with institutional goals for diversity, equity, and mental health support.

As a generative tool, the framework also facilitates the development of new spatial models by offering design principles that extend beyond functional programming. It encourages design teams to consider not only spatial zoning but also how users perceive, experience, and emotionally relate to space. For instance, when planning a new learning commons or student union, the framework prompts architects and planners to integrate decompression zones, multi-faith quiet rooms, intuitive navigation routes, and smart environmental controls that adapt to real-time use. These features respond to both individual needs and collective identities, contributing to spatial democratization and emotional well-being.

Furthermore, the framework supports interdisciplinary collaboration among architects, planners, psychologists, and policymakers by providing a shared vocabulary that links spatial features to human outcomes. This is especially valuable in institutional contexts where planning responsibilities are often fragmented among separate departments such as administration, design, and academics, each working with limited coordination. By foregrounding dimensions such as "psychological resilience" or "cultural resonance" within planning discussions, the framework promotes alignment between academic values and physical infrastructure.

The conceptual clarity and adaptability of the framework make it suitable for application across varying geographic, cultural, and institutional contexts. In regions with high cultural diversity or international student populations, the framework's emphasis on participatory design and symbolic inclusivity offers a method for reconciling global standards with local identities. In technologically progressive campuses, the smart infrastructure component serves as a scaffold for integrating data analytics and user feedback into continuous spatial improvement cycles. In both cases, the framework is not a rigid set of instructions but a flexible guide that can be adapted to different institutional contexts.

Importantly, the framework's modular structure aligns with emerging trends in adaptive campus planning, particularly in the aftermath of the COVID-19 pandemic, where flexibility, wellness, and digital integration have become critical planning

imperatives (Chen et al. 2023, De Franco et al. 2023). As such, it offers a timely contribution to both post-pandemic recovery strategies and longer-term transformations in higher education infrastructure.

In future empirical work, this framework will serve as the foundation for developing case study rubrics and post-occupancy evaluation tools. It will also inform collaborative workshops and participatory planning sessions with students and university staff. Ultimately, the framework bridges the gap between theoretical models and actionable design practice positioning socio-psychological architecture as both a research field and a planning imperative.

Discussion

Interpreting the Framework

The conceptual framework proposed in this study illustrates how socio-psychological architecture functions as a multidimensional tool to improve the academic, emotional, and social experiences of students. By integrating principles of inclusivity, cultural sensitivity, psychological well-being, and smart infrastructure, the framework responds to contemporary campus challenges while offering a holistic lens for planning.

Well-being as a Core Design Driver

The emphasis on psychological well-being as a foundational planning criterion reflects a paradigm shift in campus architecture. Increasing levels of student anxiety, burnout, and isolation necessitates that academic environments support restoration and cognitive engagement rather than merely functional activity. Empirical findings by Waqas et al. (2021) and Chen et al. (2023) demonstrate how design elements such as natural lighting, green space, and flexible seating arrangements reduce stress and enhance learning outcomes. These outcomes validate biophilic and human-centered design approaches that move beyond aesthetics to impact emotional resilience. The framework positions well-being not as an optional add-on but as a critical performance measure in campus design, influencing everything from classroom layout to public gathering spaces.

Cultural Sensitivity as Spatial Responsibility

In parallel, the dimension of cultural sensitivity extends the framework's reach into socio-symbolic space. Campuses today host increasingly diverse populations with different spatial expectations, communication patterns, and socio-religious practices. The inclusion of culturally responsive spatial features (such as prayer spaces, multi-use communal zones, and identity-reflective design) enhances student integration and mitigates feelings of cultural marginalization. Abdelgawad, Ettouney, and Abdel-Kader (2020) and Ivan (2020) highlight that when architecture acknowledges cultural narratives, it becomes a platform for dialogue rather than exclusion. In this way, the framework treats cultural adaptability not as a decorative gesture but as an ethical imperative in inclusive planning.

Inclusivity Beyond Access

While accessibility is a longstanding concern in educational environments, the framework expands this dimension into a broader interpretation of social and psychological inclusion. It advocates for spaces that are not only physically accessible but also intuitively navigable, emotionally welcoming, and socially equitable. For example, multi-sensory wayfinding systems or decompression zones serve as interventions that benefit not only students with disabilities but all users navigating stress, unfamiliarity, or social anxiety. Atak Akbulut (2014) and Manca et al. (2022) support this approach, showing that inclusive planning enhances community engagement and learning equity. The framework thus redefines inclusivity as a dynamic spatial condition emerging from both material infrastructure and symbolic design choices.

Smart Infrastructure as an Adaptive Ecosystem

Technological adaptability rounds out the framework, reinforcing its relevance in post-pandemic learning environments. As De Franco et al. (2023) and Chen et al. (2023) emphasize, campuses equipped with smart infrastructure (modular furniture, responsive lighting, climate control, and real-time data systems) can flexibly respond to changing pedagogical needs and user behaviors. The framework integrates these tools as components of a living system rather than static utilities. In doing so, it aligns with sustainability goals and digital innovation trends while ensuring that technology enhances, rather than replaces, human-centered spatial logic.

Collectively, these four dimensions form a design philosophy that positions the campus as a site of emotional care, cultural reflection, and adaptive learning fundamentally aligned with the goals of contemporary higher education.

Bridging the Gaps

The development of the conceptual framework not only synthesizes diverse theoretical traditions but also illuminates key gaps in both academic literature and institutional practice. Three primary challenges empirical insufficiency, cultural generalizability, and technological application remain under-addressed in current discourse. See Table 3 which summarizes the identified gaps and how the proposed framework addresses them.

Lack of Empirical Data

Despite the growing body of research affirming the relationship between spatial design and psychological outcomes, few studies provide robust quantitative validation. As Bekker (2011) and Waqas et al. (2021) note, many existing works rely on post-hoc user impressions or narrowly defined behavioral proxies, limiting their generalizability. The framework responds by offering a structured set of spatial variables (such as biophilic exposure, sensory zoning, and cultural markers) that can be operationalized in future empirical studies. These elements can serve as input variables for surveys, behavioral tracking, or physiological measurements (e.g., heart rate variability or galvanic skin response) to explore how students actually experience and respond to space.

Limited Cultural Generalizability

A second limitation in current research is the overrepresentation of Western spatial models and normative assumptions about user behavior. Many studies extrapolate universal design standards from culturally homogenous contexts, which may not align with global or regionally diverse student bodies. Atak Akbulut (2014) and Manca et al. (2022) have shown that spatial cognition, comfort thresholds, and cultural expression vary widely across geographic and institutional settings. The framework addresses this by advocating for participatory design methodologies that integrate local narratives, user feedback, and co-creation processes. By treating culture as a dynamic and embedded spatial variable, the framework encourages planners to move away from one-size-fits-all solutions toward context-sensitive, inclusive design.

Weak Technological Integration

The third gap concerns the disconnect between technological innovation and spatial design logic. While "smart campus" concepts are increasingly promoted, their implementation is often superficial limited to digital signage or energy-efficient lighting without a deeper integration into the psychological and cultural dimensions of campus life. De Franco et al. (2023) argue that the most effective smart infrastructure supports behavioral responsiveness and system learning. The framework incorporates this insight by embedding smart tools within a larger narrative of spatial adaptability and well-being. It invites planners to think of technology not as an afterthought, but as an integrated scaffold for continuous feedback and environmental evolution.

Table 3. *Bridging the Gap*

Gap Identified	Framework Response
Lack of empirical data	Provides structured variables for future quantitative testing (e.g., stress, engagement)
Limited cultural generalizability	Encourages contextual adaptation through participatory design
Weak tech implementation models	Offers a scaffold for integrating smart tech with human-centered planning

Source: Developed by the author based on the conceptual framework presented in this study and supported by insights from Bekker (2011), Manca et al. (2022), De Franco et al. (2023), and Abdelgawad & Ettouney (2020).

By responding directly to these gaps, the framework strengthens its relevance as both a scholarly contribution and a practical design tool, paving the way for more rigorous, inclusive, and forward-thinking planning approaches.

Implications for Practice

Translating the framework into practice requires a fundamental rethinking of how universities approach campus development, programming, and post-occupancy evaluation. The recommendations below outline practical strategies for institutional actors including architects, planners, administrators, and faculty to implement the framework's insights at various stages of the planning process.

Prioritize Well-being as a Core Design Metric

Academic institutions should treat psychological comfort as an essential performance indicator. This includes implementing biophilic design, quiet zones, and decompression spaces in both new projects and renovations, particularly in areas of high cognitive load such as libraries, laboratories, or advising centers.

Adopt Culturally Adaptive Planning Standards

Instead of importing standardized design templates, universities should develop guidelines that reflect the identities, rituals, and practices of their diverse student populations. This can include spaces for prayer, reflection, intercultural exchange, and student storytelling through murals or architectural symbolism.

Expand the Definition of Inclusion

Accessibility audits must go beyond physical codes to include wayfinding intuitiveness, sensory accessibility, and informal social dynamics. For instance, signage systems should accommodate non-native speakers, and communal zones should offer varied seating arrangements to support different group sizes and comfort levels.

Embed Smart Systems Strategically

Smart infrastructure should be tied to user experience metrics, not just operational efficiency. Institutions should adopt responsive lighting, modular environments, and app-based spatial feedback systems to continuously align space performance with user needs.

Facilitate Interdisciplinary Planning Teams

Finally, the most effective implementation occurs when planning teams integrate professionals across architecture, behavioral science, technology, and pedagogy. This ensures that spatial decisions are rooted in both evidence and empathy, and that the campus evolves in tandem with educational innovation.

These implications reaffirm that socio-psychological architecture is not a theoretical abstraction but a practical necessity. By reshaping planning norms and breaking down professional silos, the framework lays the groundwork for resilient, inclusive, and future-ready learning environments.

Future Research Directions

The conceptual framework outlined in this paper serves as a foundational step toward a more empirically grounded and context-sensitive approach to socio-psychological campus design. To advance this field from theoretical synthesis to practical implementation, future research must focus on three interlinked directions: empirical validation, comparative case application, and operationalization in design processes.

Empirical Validation of Spatial-Psychological Correlations

While the framework draws upon robust theoretical and thematic literature, its efficacy must be tested through empirical methods that establish causal or correlative

links between spatial features and user outcomes. Mixed-method studies combining surveys, environmental behavior tracking, spatial cognition mapping, and post-occupancy evaluations can help determine which elements (e.g., biophilic access, sensory zoning, cultural markers) most significantly influence well-being, engagement, or social cohesion.

Tools such as spatial experience questionnaires, wearable biometric trackers, and GIS-based behavioral flow analysis offer promising methods to measure the psychological impact of space in real-time and over extended periods. These tools should be piloted across diverse campus typologies, particularly those reflecting different climatic, cultural, and institutional contexts. Such validation efforts respond to critiques by Bekker (2011) and Chen et al. (2023), who call for more structured metrics and longitudinal assessments to support inclusive and sustainable design models.

Comparative Application Across Institutional and Cultural Contexts

Given the framework's emphasis on cultural adaptability, cross-institutional case studies represent a vital next phase. Research should examine how socio-psychological planning principles are interpreted, modified, or resisted across campuses in varying geographic and policy environments. For example, comparative studies between Japanese imperial universities and North African or Middle Eastern campuses could reveal how socio-spatial needs vary across student demographics, governance models, and urban forms.

This aligns with the work of Manca et al. (2022) and Ivan (2020), who emphasize the importance of user-centric navigation and identity in shaping design strategies. Documenting these differences will not only refine the framework's applicability but also contribute to the formation of typologies for culturally reflective campus models. Such studies would directly support ongoing doctoral research trajectories and provide transferable insights for global design policy.

Operationalizing the Framework in Design Practice

In addition to theory and testing, the framework must be translated into tools that can guide real-world planning and participatory processes. Future research should focus on developing adaptable planning rubrics, design checklists, and evaluation matrices that embed the four core dimensions (well-being, inclusivity, cultural sensitivity, and smart adaptability) into project workflows.

Collaborative workshops involving students, architects, facility managers, and academic staff can be used to co-develop these tools, ensuring that they reflect both user needs and institutional constraints. Participatory design charrettes and stakeholder mapping exercises can also be applied to explore how space influences group dynamics and institutional identity.

The inclusion of such operational tools not only facilitates the practical uptake of the framework but also serves as a means of transforming traditional planning hierarchies. By giving voice to often-excluded users such as international students, students with disabilities, or staff from non-academic departments, these tools can support more equitable and responsive campus design processes.

Conclusion & Recommendations

Conclusion

This study has examined the evolution, theoretical grounding, and planning implications of socio-psychological architecture within the context of university campus design. Drawing from interdisciplinary literature, historical analysis, and emerging trends in inclusive and sustainable development, the research introduced a conceptual framework that synthesizes four core dimensions: inclusivity, cultural sensitivity, psychological well-being, and smart infrastructure. These elements are treated not as isolated components but as interrelated domains that collectively define a more human-centered approach to spatial planning.

The findings affirm that university campuses are no longer neutral backdrops for academic activity. They are spatial agents that actively shape students' intellectual growth, emotional resilience, and social engagement. Architectural planning, therefore, must move beyond functionalist paradigms to embrace the socio-psychological dimensions of space, particularly in light of increasing global student mobility, rising mental health concerns, and the growing demand for digital and environmental adaptability.

By offering both theoretical synthesis and design application, the proposed framework contributes to a more nuanced understanding of campus space as a dynamic and culturally embedded environment. It responds to long-standing research gaps concerning empirical evidence, cultural transferability, and technological integration, while providing an actionable tool for architects, planners, and university administrators.

Ultimately, this research positions socio-psychological architecture as a timely and necessary paradigm, one capable of supporting equitable, responsive, and future-ready academic environments aligned with the values of inclusion, sustainability, and student well-being.

Key Contributions

The study makes several distinct contributions to the discourse on campus planning and environmental behavior:

<u>Theoretical Integration</u>

It synthesizes diverse strands of architectural theory, environmental psychology, and socio-cultural studies to construct a multidimensional framework for socio-psychological campus planning.

<u>Historical Positioning</u>

It situates socio-psychological design as a logical progression in the historical trajectory of campus planning, moving from hierarchical, formalist structures to adaptive, inclusive ecosystems.

Bridging Research Gaps

By identifying and addressing gaps in empirical validation, cultural generalizability, and smart infrastructure integration, the framework offers a structured response to known limitations in the literature (Bekker 2011; Atak Akbulut 2014; De Franco et al. 2023).

Design Application

It translates abstract theory into a practical tool that can be applied across stages of planning (from spatial audits and participatory design to post-occupancy evaluation) thus aligning academic insight with architectural decision-making.

Support for Educational Values

The framework connects spatial design with institutional goals for inclusivity, resilience, and learning outcomes, thereby reinforcing the role of architecture in shaping student experience and institutional identity.

These contributions offer a foundational resource for both researchers and practitioners, with the potential to guide further academic inquiry, design experimentation, and institutional policy.

Recommendations for Policy and Practice

To effectively translate the framework into campus development strategies, the following recommendations are proposed for stakeholders in design, planning, and policy, see Table 4.

Adopt Inclusive Master Planning Frameworks

Planning authorities should integrate universal design principles from the outset of campus projects, not as compliance measures but as foundational design logic. Inclusive planning must encompass physical accessibility, neurodiverse accommodation, and emotionally supportive spatial experiences.

Engage Culturally Diverse Stakeholders

Participatory planning processes should include student groups, cultural associations, faculty, and non-academic staff. Engagement should go beyond consultation to co-design practices, ensuring that spaces reflect lived experiences and cultural narratives of those who inhabit them.

Integrate Well-being Metrics into Design Briefs

Institutions should set measurable well-being outcomes (such as stress reduction or perceived belonging) as part of spatial evaluation criteria. Design briefs should mandate inclusion of biophilic elements, quiet zones, and sensory-responsive features aligned with empirical studies.

Leverage Smart Infrastructure for Behavioral Insight

Smart systems should be embedded to support adaptability and user feedback loops, rather than simply improving operational efficiency. This includes modular learning spaces, real-time environmental monitoring, and spatial analytics dashboards.

Develop Assessment Tools Based on the Framework

Institutions should create rubrics, scorecards, and post-occupancy evaluation tools grounded in the four dimensions of the framework. These tools can aid in both benchmarking and continuous improvement.

Foster Interdisciplinary Planning Cultures

Successful implementation requires collaboration among architects, behavioral scientists, educators, and IT specialists. Institutions should establish cross-functional teams for spatial planning, ensuring that psychological, cultural, and technological expertise informs all phases of development.

Table 4. *Checklist for Inclusive and Adaptive Campus Design*

Recommendation	Actionable Strategy
Adopt Inclusive Master Planning	Use universal design from early planning stages
Engage Diverse Stakeholders	Include multicultural voices in participatory planning
Integrate Well-Being Metrics	Incorporate biophilic and sensory design in briefs
Leverage Smart Infrastructure	Using adaptive tech aligned with equity and sustainability
Develop Assessment Tools	Create design evaluation rubrics based on this framework
Foster Interdisciplinary Planning	Establish collaborative planning protocols

Source: Compiled by the author based on the conceptual framework and design implications discussed in Sections 4 and 5, with reference to Waqas et al. (2021), Abdelgawad & Ettouney (2020), Chen et al. (2023), and De Franco et al. (2023).

Directions for PhD Integration and Future Research

As the conceptual basis of the author's doctoral research, this study lays the groundwork for a multi-year investigation into the spatial dynamics of university campuses in Japan and beyond. Future research will proceed in the following directions:

Case Study Analysis

Fieldwork will be conducted across multiple campuses to evaluate how the framework aligns with lived student experiences, architectural legacies, and institutional policies. These studies will explore cross-campus differences in spatial inclusivity, cultural sensitivity, and psychological impact.

Empirical Testing Through Mixed Methods

The framework will be operationalized using surveys, spatial perception mapping, and post-occupancy evaluation tools. Data will be collected to test correlations between spatial variables and psychological indicators (e.g., perceived well-being, social engagement, and academic belonging). These findings will contribute to theory refinement and expand the empirical base of socio-psychological design.

Design Tool Development and Participatory Piloting

In collaboration with planning departments and student organizations, participatory design workshops will be piloted to co-develop planning rubrics and scenario simulations. These sessions will serve to test the framework's adaptability, strengthen stakeholder inclusion, and identify context-specific adaptations.

Through these steps, the PhD research will refine, validate, and publicise the proposed framework while contributing original insights to the fields of architecture, planning, and educational infrastructure. The project also aims to inform broader academic and institutional practices by offering scalable tools that support resilient, culturally adaptive, and human-centered university environments.

Acknowledgments

The author would like to express sincere gratitude to Professor Mori Suguru, whose insightful guidance, continuous support, and constructive feedback have been instrumental in shaping this research. This research was made possible through the generous support of the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), whose scholarship has enabled the pursuit of doctoral studies and field-based inquiry into inclusive and sustainable campus planning. Also, special thanks are due to the participants and institutions whose work and case studies informed this study, and to the reviewers of the ATINER conference and journal.

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Athens Journal of Psychology - Volume 1, Issue 4, December 2025 – Pages 273-284

Trauma, Healing and Philosophy – Three Schools of Thought in Regards to Resilience-Building

By Claudia Simone Dorchain[*]

This contribution explores how three philosophical schools - Stoicism, Epicureanism, and Nihilism - offer meta-ethical frameworks for understanding and responding to psychological trauma. Long before modern psychology defined trauma in clinical terms, philosophy engaged with pain, loss, fear, and existential rupture not as pathology, but as fundamental conditions of human life. The Stoics propose resilience through rational reframing; the Epicureans through emotional autonomy and the reclamation of bodily agency; and Nihilism through a radical critique of societal norms as sources of harm. Drawing on historical figures such as Epictetus, Epicurus, Meister Eckhart, Ninon de Lenclos, and Friedrich Nietzsche, this contribution demonstrates how each school articulates a distinct response to trauma - ranging from cognitive detachment to the dismantling of toxic social roles. These perspectives are mapped onto five modern trauma categories, highlighting their continued relevance. This paper explores how philosophical traditions both conceptualize trauma and offer frameworks for resilience-building and thus serve as a meta-psychological framework for making suffering intelligible, fostering reorientation, and strengthening selfhood in a fragmented world.

Keywords: *Trauma, therapy, psychology, philosophy, stoicism, epicureanism, nihilism*

Philosophy as Pre-therapeutic Life Guidance

Centuries before the clinical concept of 'trauma' was formalized within psychological science, philosophy had already offered profound reflections on pain, loss, fear, and emotional injury – not as anomalies, but as essential features of the human condition. From antiquity onward, suffering was not only acknowledged, but explored as a structural element of existence, prompting thinkers such as Seneca to write with compassion: *'There is nothing as fragile as a human being.'*[2] In this light, philosophical thought functioned as an early form of existential orientation – a way of living with vulnerability rather than pathologizing it.

As Pierre Hadot reminds us, *'Ancient philosophy was a way of life, not a theory. It was a method of spiritual exercise to transform one's vision of the world'*[3] and this was especially true when dealing with borderline experiences that shook supposed certainties.

The term "trauma" – from the Greek for 'wound" (τραῦμα) – means not only individual suffering, but often also a disturbance in one's relationship to the world, to oneself, to meaning. Trauma shakes the trust that forms the basis of human

[*]Postdoctoral Researcher, ILS Institute for Learning Systems, Germany.
[2]Seneca, *On Providence*, p. 19.
[3]Hadot, *Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault*, 1995, p. 265.

relationships and therefore also limits the individual's ability to interact with the community, making it a deeply communal problem, as Bessel van de Kolk explains: *'Trauma is not just an event that took place sometime in the past; it is also the imprint left by that experience on the mind, brain, and body.'*[4]

While contemporary psychotraumatology correctly, but provisionally, describes trauma encoded in the body as an acute, chronic or systemic event, philosophical schools from antiquity and early modern times already point to deeper structures of suffering and ways of processing it, which are now once again seen as inspiration for innovative research.[5] This article presents three important philosophical traditions that each offer their own perspectives on psychological injury – Stoicism, Epicureanism and Nihilism – and which can still be understood today as philosophical models of resilience. They have a long tradition and, thanks to their intellectual influence, may have an even more significant role to play in the present and future.

What is Trauma? Five Forms, Five Challenges

Modern psychology distinguishes between five different types of trauma: acute trauma – a single massive shock (e.g. an accident), chronic trauma – repeated, prolonged suffering (e.g. neglect), relational trauma or attachment trauma – injury caused by caregivers (e.g. attachment disruption), complex trauma – multiple early childhood trauma, and secondary trauma – witnessing someone else's trauma and transference in helping professions (e.g. therapists).[6]

In practice, there are often overlaps and combinations of trauma types in individuals, but collectives can also be traumatised (e.g. war), which in turn highlights the strong national, historical and age-related significance of trauma as a communal event. Psychologist Bryce Davis points out that *'culture plays a significant role in susceptibility to, experience of, and recovery from psychological distress, including interpersonal trauma.'*[7] It can also happen that certain types of trauma occur more frequently in certain eras and less in others, which may be associated with changing trends in child rearing, schooling, intra-family relationships and societal tolerance thresholds for violence. Without going into these aspects, which are undoubtedly interesting for further research, it should just be mentioned that philosophical schools respond to the collective consciousness of their respective eras and cultures and therefore seem more suitable for addressing certain forms of trauma.

The three philosophical schools presented here – Stoicism, Epicureanism and Nihilism – can each shed light on specific aspects of these consequences of trauma and serve not as a substitute for therapy, but as metaethical interpretations of suffering

[4]van der Kolk, *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*, 2014, p. 21.
[5]See Brown & Potter, *Integrating the Philosophy and Psychology of Well-Being: An Opinionated Overview*. Journal of Happiness Studies 2024, open source.
[6]American Psychological Association, *Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder (PTSD) in adults*, 2023. The classification used here follows APA and DSM-5 typologies.
[7]Bryant-Davis, *The Cultural Context of Trauma Recovery: Considering the Posttraumatic Stress Disorder Practice Guideline and Intersectionality*, 2005, p. 343.

and self-determination. This comes close to Hadot's definition of philosophising as a healing change of perspective: *'The philosophical act consists in placing oneself in a different perspective on the world, breaking with familiar habits of thought.'*[8] In comparison, it will become apparent that each of the schools of thought mentioned has its own merits in dealing with trauma and can provide valuable insights that can be further developed in an interdisciplinary manner today.

Stoicism: Reframing as a Virtue

Stoic philosophy is one of the most influential schools of thought in antiquity and has repeatedly experienced powerful revivals up to the present day, as its views of the world and humanity are considered by experts and informed laypeople alike to offer valuable advice.

Stoicism is a complex ethical doctrine with a strong cosmological and metaphysical backbone: the world is a creation of the gods, humans own nothing, not even their bodies, which they must return upon death, and ultimately they can only rely on themselves. *'Free will and voluntary self-determination'* [9] are the moral principles according to which a just person must live and which set them free. Marcus Aurelius describes Stoic self-sufficiency as control over one's thoughts: *'You have power over your mind – not outside events. Realise this, and you will find strength.'*[10] Wisdom, justice, moderation and courage are therefore the ethical virtues that Stoics should strive for throughout their lives and, in the event of success, build resilience, for example by weighing up possible courses of action, by renouncing anger and revenge, by balancing one's own activities and by being determined when it comes to shaping one's own life circumstances. However, the goal of Stoicism is not happiness in the sense of external factors such as fame and wealth, but rather the strongly intrinsically defined concept of ataraxia (ἀταραξία), peace of mind or inner imperturbability, derived from the constant practice of reason, moderation and self-discipline, which should lead to apatheia (ἀπάθεια), equanimity. According to the Stoics, the world cannot be controlled – but our reaction to it can, which for Epictetus means, 'It's not what happens to you, but how you react to it that matters.'[11] Guiding principles such as 'memento mori' (remember that you are mortal), 'initiis obsta' (resist the beginnings) or 'nil mirari' (do not be surprised by anything) also mean that happiness lies in the careful acceptance of what is given and the development of one's own strengths.

The Stoics' relationship to trauma is radical and existential in this respect: they do not see human suffering as failure, but as an inevitable fact of life, which is changeable per se and in many respects beyond individual control.[12] This gives rise to a piece of life advice that sees trauma not only as something unavoidable, but also as an

[8]Hadot, 1995, p. 103.
[9]Dorchain, *Das Leben hält niemanden – Seneca und der Freitod mit einem Rekurs auf die Aktualität der Stoa in der Postmoderne*, 2021, p. 161.
[10]Marcus Aurelius, *Meditations*, Book 6.8.
[11]Epictetus, *Encheiridion*, §5.
[12]Dorchain, *Meister Eckhart (1260–1328) on Anxiety and Fear of Loss,* 2016, open source.

opportunity for ethical consolidation – the motto 'crisis as a moment of growth' is stoic in its thinking, even if it may seem postmodern. Contemporary psychological research even sees a significant connection between pragmatic Stoicism and behavioural therapy, as Donald Robertson notes: *'The philosophy of cognitive behavioural therapy is deeply rooted in Stoic philosophy.'*[13]

The level-headed and disciplined attitude of the Stoics, who also sought to live with maximum personal responsibility, found particular resonance in the Middle Ages, as the philosophers of that era, most of whom were also theologians, constantly sought to harmoniously combine Christian and 'pagan' ethics. The philosophy of the Stoa, whose representatives such as Seneca (4 BC – 65 AD), Epictetus (55 AD – 135 AD) and Marcus Aurelius (121 AD – 180 AD) were often referred to appreciatively as 'pagan masters' in medieval treatises,[14] was a kind of pre-Christian riverbed through which biblically based advice on how to live could flow – for, like Christianity, Stoicism was ascetic and fundamentally spiritual, not worldly. We find a strong echo of these ideas in Meister Eckhart's (1260-1328) 'Little Book of Consolation,' which is intended to comfort the grieving Queen Agnes of Hungary after the political assassination of her husband and her retreat to a convent. Eckhart suggests reinterpreting these shocking events and viewing them not from the perspective of loss but of preservation: *'Do not think of what you have lost, but of what you were given before.'*[15] He even goes so far as to interpret losing something as a privilege and to make a social downward comparison. Ultimately, Eckhart's stoic advice culminates in the idea that all good things in life are only borrowed, since humans do not existentially belong to themselves – a reframing of the trauma experienced that changes the proportionality of every loss in relation to death: *'Death is not the end, but the transition to a higher state of being.'*[16] Stoic resilience lies in realigning one's inner world order, which has historically proven particularly helpful in acute or chronic trauma. Stoicism, with its emphasis on self-control rather than external control and its deep acceptance of suffering as something inevitable, was compatible with a medieval worldview that understood life as a test.

In psychosocial contexts – such as palliative care or grief counselling – Stoic thinking can help to overcome emotional crises through cognitive reframing techniques. A therapist can, for example, reflect with the client on which aspects of a traumatic event were beyond their control – thereby reducing feelings of guilt. The Stoic maxim 'It is not what happens, but how we react to it' can be used in modern cognitive behavioural therapy as an intervention strategy for self-regulation. In coaching situations, such as post-traumatic career stagnation, the idea of self-determination as an inner attitude can also contribute to reorientation. In group settings – e.g. with nurses or first responders – Stoic ethics can help to deal with secondary traumatisation.

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[13]Robertson, *The Philosophy of Cognitive-Behavioural Therapy: Stoic Philosophy as Rational and Cognitive Psychotherapy*, 2010, p. 3.
[14]Dorchain, *Grund und Erkennen in deutschen Predigten Meister Eckharts*, 2005, p.177.
[15]Eckhart, *Liber benedictum*, part 2.
[16]Ibid.

Epicureanism: Disidentification from Roles

Epicureanism is another highly influential school of thought in antiquity, which at times stood in bitter conflict with the Stoics and historically and systematically generated many enemies, but also many friends and even more misunderstandings. The reason for this is that Epicureanism is a hedonistic philosophy for which the principle of life as the motive for human action was already a given assumption more than 2200 years before the invention of psychoanalysis, as the eponym of this school of thought, Epicurus, says: *'Pleasure is the beginning and the goal of a blessed life.'*[17] However, pleasure in the Epicurean canon has often been misunderstood in the history of its reception as blind lust, whereas in truth it is to be understood as a wise search for pleasure through the avoidance of pain and fear. Epicurus of Samos (341 BC – 270 BC) was a hedonist, but in an enlightened and radical sense: the goal of his philosophy of joy is self-sufficiency (αὐτάρκεια), inner independence from superstition, social pressure and moral manipulation. The decisive factor here is his atheistic-materialistic worldview, from which it follows that in his teaching there is no God, no judgement, no afterlife, and from this a fearlessness of death, guilt, hell and ideology is derived. *'Death is nothing to us, since when we exist, death is not present, and when death is present, we do not exist.'*[18]

Epicureanism becomes particularly interesting when read from a therapeutic and trauma psychology perspective: the reappropriation of the body, pleasure and friendship are repair mechanisms for relational trauma, especially in the context of guilt, shame or narcissistic manipulation. With regard to the school of Samos, Martha Nussbaum appreciatively notes the potential calming and stress-reducing effect: *"The Epicureans saw philosophy as a medicine for the soul, aiming to cure fear, anxiety, and irrational desire."*[19]

Epicurus' worldly and pleasure-oriented philosophy, which was always subtly subversive, was never a friend of Christian institutions and thinkers, unlike the ascetic Stoics, who turned their backs on the world. Rather, it was a negative projection screen, and so it is not surprising that even Dante Alighieri (1265-1321) banished the Epicureans to the circle of hell, where even the graves burn: *'The Epicureans, who make the soul die with the body, are among these.'*[20] However, in the Baroque era, the trend began to reverse and Epicurean ideas first reached the independently minded nobility, then the wealthy bourgeoisie. The reason was that the Reformation had called the dogmas of the Church into question, the age of invention was dawning, and people longed for new norms, also because they realised that the old value system caused unnecessary suffering. An impressive example is Ninon de Lenclos (1620–1705), the famous salonnière and Epicurean of the 17th century. Her posthumous fame is based not only on her witty letters and philosophical dialogues, but also on a symbolic gesture: she left the young Voltaire (1694–1778) money to buy books. Her writings and her lived philosophy of emotional autonomy in the masquerade of court life

[17]Epicurus, *Letter to Menoeceus,* p.29.
[18]Epicurus, *Principal Doctrines*, §2.
[19]Nussbaum, *The Therapy of Desire: Theory and Practice in Hellenistic Ethics*, 1994, p. 35.
[20]Dante, *Inferno*, Canto X, v. 14–1.

shaped an entire generation of the early Enlightenment. Her often-quoted dictum, *'If a man needs a religion to conduct himself properly in this world, it is a sign that he has either a limited mind or a corrupt heart,'*[21] sharply summarises her attitude towards dogma and moral hypocrisy. Although she did not leave behind a complete philosophical system, in her numerous letters – a typical means of expression for intellectuals of her time – she provided practical guidance for people of the world who were navigating social expectations, relationship problems and attachment trauma. In her remarkable instructions to the young Marquis de Sévigné, she advises radical role distance: *'Play your role – but never believe that you are the role.'*[22] Furthermore, this progressive 17th-century thinker deconstructed gender roles as outdated acts of training, sexuality as a vital freedom, and social rules as conditioning through shame and fear that should be seen through and circumvented. This attitude allows what we now call disidentification with dysfunctional social expectations – a central element of modern trauma healing. Epicureanism is a helpful framework for distancing oneself from the emotional and social entanglements in which many people, especially those traumatised by attachment, find themselves.

Epicurean thinking offers a valuable resource in psychotherapeutic work with people who have experienced relational or shame-based trauma. The conscious recovery of physical sensations and joy – for example through mindfulness, movement or creative activity – can highlight the relevance of pleasure as a means of reorientation. Epicurean concepts such as friendship as a fear-free connection or the renunciation of dogmas can be used in the context of group therapy and trauma-informed pedagogy. In the supervision of helping professions, the maxim 'don't believe in the role you play' can help to resolve role conflicts and over-identification with painful situations. Especially in contexts with highly standardised expectations – such as nursing, social work or school – Epicureanism can teach the ability to distance oneself.

Nihilism: Rethinking Normopathy

Nihilism – from the Latin 'nihil' (nothing) is an ideological development of the philosophy of the Enlightenment as a 'way out of self-imposed immaturity',[23] as Immanuel Kant (1724-1804) put it, with its radical demand to question all supposed truths, to use one's own reason and not to accept any institution – be it the church, the state or the media – unquestioningly. As a radical exaggeration of classical scepticism, which doubted everything, nihilism, which goes even further than mere doubt by rejecting values, can take many different forms. It can be epistemological – rejecting the ability to know – ethical – disputing the purposefulness of values – or metaphysical – denying any meaning – or even a combination of all forms. The moralist Albert Camus (1913-1960) sums up the extreme exaggeration of the denial of all values as a horizon of freedom: *'If we believe in nothing, if nothing has any meaning and if we can affirm no values whatsoever, then everything is possible and nothing has any importance.'*[24]

[21]de Lenclos, *Letters*, paraphrased.
[22]Ibid.
[23]Kant, *Beantwortung der Frage: Was ist Aufklärung?* 1784, p. 481
[24]Camus, *The Rebel: An Essay on Man in Revolt*, 1951, p.5.

However, a contradiction inherent in nihilism is the fact that an apodictic assertion such as the denial of all values claims to be an absolute truth – which is not supposed to be true.

Nihilistic schools of thought are interesting in trauma therapy because they are the first to shift the focus away from individual suffering (the Stoic perspective) and social conditioning (Epicureanism) and ask some the most uncomfortable questions of all: What if our lives are meaningless? What if all values are empty? What if trauma is not only inevitable, not only navigable, but even deliberately cultivated? It was the perspective of nihilism that first revealed that, above and beyond individual case histories and questionable collective role expectations, there is also a social fabrication of trauma, even trauma as an industry.

The most radical perspective on trauma is that developed by Friedrich Nietzsche (1844–1900): it is not the individual who is sick – society is normopathic. Marriage, family, school, religion – these are not neutral institutions, but often vehicles of structural violence disguised as morality. In *'*Human, All Too Human*'*, Nietzsche deconstructs romantic love marriage as well as mere utilitarian unions and recognises that many marriages end in trauma – and that children witness and carry this trauma with them. *The family is the germ cell of all misfortune in morality.*[25] The nihilistic thinker is thus the first – long before Sigmund Freud – to recognise the child as a symptom of a pathological culture: *'In truth, it is not the child but the marriage that has gone wrong.'*[26] This way of thinking is particularly helpful for complex and secondary trauma, as it shifts the shame from the individual to the norm. All normative thinking is relegated to the realm of speculation, because, *'There are no moral phenomena at all, only a moral interpretation of phenomena.'*[27] Nihilism here is not cynicism, but a form of existential clarity that can help the traumatised to empower themselves where others sought to disempower them. In this sense, Epicureanism and nihilism are similar: instead of accepting unfortunate circumstances (like the Stoics), they propagate a spirit of contradiction that is oriented towards pleasure and the world. However, the Epicurean school still sees hope in a society that is dysfunctional, but one that can be navigated happily if one distances oneself from its role expectations, while nihilism has long since abandoned the theatre of dysfunctional society and sees the trauma of the individual only as a possible symptom of a larger illness of the system.

When dealing with complex or secondary trauma, nihilistic criticism of normative structures can have a relieving effect – for example, when those affected learn to question internalised feelings of guilt and shame or introjects of 'not being enough/ not being worthy'. Particularly in contexts of transgenerational trauma, structural discrimination or institutional violence, Nietzsche's radical critique of the system can help to understand individual symptoms as an expression of social normopathy. In counselling or therapy, this can lead to a change of perspective: 'It's not me who's wrong – the system was sick.' This creates space for empowerment and authenticity beyond traditional values. In political-ethical spaces for reflection, e.g. in critical

[25]Nietzsche, *The Dawn*, §179, paraphrased.
[26]Ibid., §120.
[27]Nietzsche, *Beyond Good and Evil*, §108.

social work or activism, the nihilistic position can also be used as a provocation against dehumanising structures – not destructively, but clarifyingly.

Three Philosophical Paths, Three Forms of Resilience

With its reframing of traumatic events and placing them in an existential philosophical perspective, Stoic philosophy has historically provided much help in cases of acute or chronic trauma such as loss, illness or the death of a loved one, as Eckhart's 'Book of Consolation' and other works prove. Stoic life coaching has systematically focused on human 'self-determination,'[28] as Volker Gerhard emphasises, defining it not as arbitrariness but as the result of strong discipline and willpower training – two factors of resilience in their own right.[29] Epicureanism, with its disidentification from social expectations in general and roles in particular, has often helped to alleviate relational and chronic trauma, as this school of thought seeks to alleviate the suffering that arises in relationships by resolving emotional entanglements, feelings of alienation and false belief patterns. Nussbaum therefore states that the reclaiming of the senses can contribute to post-traumatic growth, '*Desire must be educated – not repressed. And philosophy is the art of re-education.*'[30] Nihilism, with its far-reaching critique of norms, was also able to address complex or secondary trauma, as it was the first to grasp the overall social conditions, not only in a role-specific and atheistic-critical way, but also as deeply normopathic, so that trauma no longer appeared as an exception to a rule, no longer as confirmation of a rule, but as the desired result of a society whose values and norms are not designed for the happiness of the individual. This disillusionment is sobering, not immediate, as Gordon Marino correctly states: *'Existential philosophy doesn't promise happiness – it offers survival. Not comfort, but clarity.'*[31] The focus of the three schools of philosophy on trauma is crucial: Stoicism focused on individual suffering, which it related to metaphysical concepts such as the transience of life; Epicureanism focused on collectively generated suffering, which manifests itself individually in relationship trauma and can be alleviated by distancing oneself from roles; nihilism focused on corrupt values, which permeate individuality, roles and norms and should therefore be interpreted as fundamentally supra-individual and political.

The three models of Stoicism, Epicureanism and nihilism, with their focus on reframing, disidentification and questioning of normopathic society, do not contradict each other – they can be integrated: Stoicism strengthens through inner order, Epicureanism through self-care and de-ideologisation, and nihilism through the exposure of sick systems. Current psychological and therapeutic research aims to synthesise many of these ideas, which originally stem from philosophy, with a view to *'a more comprehensive understanding of human flourishing by combining normative*

[28]Gerhard, *Selbstbestimmung*, 2010, p. 1.
[29]Dorchain, 2021, p. 161.
[30]Nussbaum, 1994, p. 154.
[31]Marino, *The Existentialist's Survival Guide: How to Live Authentically in an Inauthentic Age*, 2004, p. 9.

and empirical perspectives.'[32] The idealistic escalation movement of Stoicism, Epicureanism and nihilism can also be read as inspiration for increasingly far-reaching individual sciences: individual therapy, social science, political science.
Taken together, the three philosophical schools offer complementary forms of resilience: Stoicism *builds resilience through rational reframing and ethical clarity;* Epicureanism *through emotional autonomy, sensual presence, and distancing from oppressive roles;* Nihilism *through radical insight, norm critique, and the rejection of harmful social expectations. Each school addresses suffering in a different register – metaphysical, interpersonal, and political – and thereby expands the possible terrains of healing and self-empowerment.*

Philosophy as a Metapsychological Framework

Although ascetic Stoicism with its self-discipline based on virtues, hedonistic Epicureanism with its role-specific flexibility, and experimental nihilism with its radical deconstruction of values that cause suffering have each made significant contributions to dealing with trauma, none of the three philosophical schools is 'therapy' in the narrow sense. However, each of these philosophical methodologies offers a special way of thinking as a metapsychological framework that provides orientation, makes suffering understandable and strengthens self-efficacy – in other words, it can build resilience. Reframing, disidentifying with social roles and rethinking normopathy are powerful mental techniques that draw on fundamental science to grasp and process human and all-too-human experiences such as loss, disruption and betrayal. It is interesting to note that in today's therapy scene, all three techniques, which could be inspired by Stoicism, Epicureanism and nihilism, coexist and sometimes overlap.[33] However, it is important to note that philosophy as a means of coping was not only used by classical and modern thinkers in the acute crisis of a traumatic event, but continuously, as Hadot correctly remarks, *'Philosophy (...) was a way of life, a spiritual exercise practised at every moment.'*[34] Learning from classical and modern schools of philosophy can therefore open up a wealth of unexplored possibilities for effectively supporting our clients' creativity in dealing with existential experiences and allowing a serene wisdom to emerge where a search for absolute truths may be futile. Resilience, then, is not merely the return to function – it is the restoration of perspective. Philosophical thought enables us to place suffering in a broader frame, to resist reduction, and to recover agency through meaning. In this sense, thinking becomes an ethical act: a refusal to be overwhelmed, and an insistence on coherence amidst fragmentation.

When trauma research and philosophical discussion come together, a synthesis is achieved that helps to meet contemporary needs: in times of social uncertainty, normative crisis and collective vulnerability that repeatedly lead to trauma, we need not only diagnoses – but the art of thinking.

[32]Brown & Potter, 2024, open source.
[33]See Zlomke & Jeter, *Cognitive Restructuring And Its Role in Resilience: A Review*, 2020, p.123-135.
[34]Hadot, 1995, p. 265.

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