Student Engagement Variations across Institutions and Disciplines: Findings from Azerbaijan

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Abstract

Although student engagement has been a widely researched area known to improve student learning and a topic of scholarly debate for many decades now, this has yet to be the case in Azerbaijan. Data from the National Survey of Student Engagement, conducted among 433 undergraduate students of the 18-23 age range (M = 21.37, SD = 1.43) at eight universities in Azerbaijan, allowed us to examine variations in the conditions meant to foster student engagement, as well as students' perspectives on improving their educational experiences. Specifically, we looked at differences related to academic challenges, learning with peers, teacher experiences, and campus environment. Student engagement varied across disciplines. Small universities in the capital city provided better collaborative learning conditions. However, students at regional universities were more satisfied with the quality of student-faculty interactions. Nonetheless, students saw a strong need for fundamental changes in higher education in Azerbaijan, focusing on improving the quality of teachers, teaching and the curriculum. The study provided an overview of student engagement variations across institutions and disciplines and how students conceptualise necessary improvements in student experiences. Institutional leaders must understand the variations for seeking essential changes in the HE system to effectively accommodate students' needs and expectations.

Keywords

Student engagement, differences across universities, policy-level decision-making, NSSE, higher education in Azerbaijan

Variaciones del Compromiso Estudiantil entre Instituciones y Disciplinas: Hallazgos desde Azerbaiyán

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Resumen

Aunque el compromiso estudiantil ha sido investigado ampliamente y se reconoce que mejora el aprendizaje de los estudiantes, en Azerbaiyán esto aún no se ha desarrollado completamente. Utilizando datos de la Encuesta Nacional de Compromiso Estudiantil, realizada entre 433 estudiantes universitarios de 18 a 23 años (M = 21.37, SD = 1.43) en ocho universidades azerbaiyanas, se examinaron las diferencias en desafíos académicos, aprendizaje con compañeros, experiencias docentes y ambiente en el campus. El compromiso varió entre disciplinas, siendo las universidades pequeñas de la capital mejores para el aprendizaje colaborativo, mientras que en las regionales se valoraban más las interacciones entre estudiantes y profesores. Los estudiantes expresaron la necesidad de cambios fundamentales en la educación superior, enfocándose en la mejora de la calidad de los profesores, la enseñanza y el plan de estudios. Este estudio proporcionó una visión general de las variaciones en el compromiso estudiantil y las percepciones de los estudiantes sobre mejoras necesarias. Es esencial que los líderes institucionales comprendan estas variaciones para realizar cambios efectivos en el sistema educativo superior y satisfacer las necesidades y expectativas de los estudiantes.

Palabras Clave

T he potential of higher education (HE) to impact the quality of students' education, thus shaping their future personal and professional lives, has been discussed in many studies (Arum & Roksa, 2011; Ashwin, 2020; Astin, 1977; Bowen, 1996; Kuh et al., 2010; Mayhew et al., 2016). The role of universities worldwide is to provide quality learning opportunities for students to become personally and professionally successful. Interestingly, what students learn and what HE systems expect them to learn are usually positively correlated, similar to the relationship between the state and HE, where the latter is regulated based on the state's expectations of it (Dalmon et al., 2019; Marginson, 2013). Moreover, how student learning is positioned within national and institutional policies will impact how student engagement in learning within institutions is shaped.

Many studies, for example, have been conducted in the US and elsewhere to examine the impact of university investments on student outcomes (Dahvlig et al., 2020; Mayhew et al., 2016; Pike et al., 2011; Ryan, 2005). In their study exploring linkages between educational expenditures, student engagement, and learning outcomes, Pike et al. (2011) concluded that money makes a difference in the learning and development of students. Furthermore, Dahlvig et al. (2020) in their study analyzing the impact of institutional expenditures on student graduation and retention using the hierarchical regression analysis, found that there was a strong association between expenditures on instruction and graduation rates as well as associations between expenditures on research and retention rates. Considering that all these studies were conducted in the United States, where HE provisions are streamlined, interactions between institutional factors and student outcomes have been studied largely from different perspectives, such studies in the post-Soviet area are rare. Studies or reports exploring the effectiveness of new reforms or investments made in those reforms are lacking.

The success of educational reform in Azerbaijan – as well as in many other former Soviet countries – is constrained by many factors (Oleksiyenko, 2023). The collapse of the Soviet Union caused major imbalances in the education system of all its constituent republics, such as a shortage of resources, a lack of control over their quality, and an unstable system with new university types, all without an adequate strategy at the national level in place. This turbulence persists, albeit with some degree of reconciliation due to the Bologna process (Gibbs et al., 2023). Yet, streamlining the quality of the HE system needs to receive the necessary policy-level attention to clearly understand the uncertainties and misconceptions prevalent in most of the top-down former Soviet republics.

Azerbaijan, as a former Soviet country, represents an interesting case where economic development is more prominent than any other sector, including education. The educational reforms have been in place since 1991, after Azerbaijan regained its independence, aligning its educational offerings with those of the European and Western worlds, yet being rather slow to secure those changes (Isaeva & Aliyev, 2023; Mammadova & Valiyev, 2020). Despite consecutive changes, the quality of teaching and learning has yet to improve in most higher education institutions (HEIs) in Azerbaijan. However, among the 51 currently existing HEIs, there are several providers of quality education due to their ownership, leadership, size, access to resources, and strong international collaboration. Conversely, this limited access to quality HEIs raises concerns about the quality of mass education, with more than 200,000 current students. Universities in Azerbaijan are facing many challenges, including a shortage of

modern, well-educated teaching and research staff to meet the needs and expectations of pragmatic, technologically savvy digital natives (Isaeva & Aliyev, 2023). With online education becoming increasingly available, prompting a reevaluation of HE offerings, Azerbaijani HE will inevitably be impacted by the changes brought about by globalization because, as noted by Locke (2014), competition among universities goes beyond the national level.

Arguably, the educational reform process in Azerbaijan needs to look into the definition of student engagement and its measurement (Isaeva, Ratinen and Uusiautti, 2023). Student engagement, when measured, is likely to provide information on how effective universities are regarding the conditions created for student learning (Pike et al., 2011). One recent study on student engagement in Azerbaijan, for example, found that student learning, success, and satisfaction are broadly impacted by the campus environment and student–faculty interactions (Isaeva et al., 2023). This study, by analysing the NSSE data through bivariate correlation and regression analysis, demonstrated that institutional conditions such as a supportive student environment, quality of interactions, and student-faculty interactions were significant constituents for students to learn, gain success, get satisfied and be engaged in academically purposeful activities (Isaeva et al., 2023).

Moreover, research has shown that student engagement is divergent across countries, universities, majors, and years of study within a single university due to its "dynamic and situational" nature (Leach, 2016; Zepke, 2014). Differences among universities due to finances, human resources, ownership, leadership, and student positioning in institutional missions significantly impact student learning and development. In this article, we report findings from our analysis of student engagement across Azerbaijani universities to provide a deeper understanding of the conditions created for student learning across universities and disciplines.

Student Engagement

Student engagement has been theorized as a "meta construct" (Fredricks et al., 2004) contributing to student learning and personal and professional development (Kuh et al., 2008; Wolf-Wendel et al., 2009). Student engagement is based on constructivism, and many researchers have defined it as the efforts that students and institutions invest in learning practices (Coates, 2005; Kuh, 2001). Kuh (2001) described it as student effort, energy, and time devoted to educationally purposeful activities. Student engagement has been recognized as a strong factor positively associated with student retention, the quality of the program, and institutional governance defining the success of any given HEI (Lizzio & Wilson, 2009). A body of research demonstrated student engagement's positive impact on student learning and personal development (Carini et al., 2006; Coates, 2005; Lizzio & Wilson, 2009; Trowler & Trowler, 2010).

The construct of student engagement is complex (Kahu, 2013; Lester et al., 2013; Zepke et al., 2012). For example, Zepke et al. (2012) conclude that even student engagement research results from a micro level, such as courses, can be used to improve the quality of teaching and student support systems. Recent research identifies student engagement as an investment made by students and institutions for student learning, outcome, and institutional reputation (Trowler et al., 2022). It depends on the context and situation (Zepke, 2014). In this study, we analysed

student engagement from two perspectives: institutional culture of engagement and investment in student engagement, two crucial factors impacting how student engagement is shaped at any HEI.

Culture of Engagement

There is an interesting interplay between institutional variables and student engagement, which is firmly based on the "authentic partnership between students and their universities" (Carey, 2018, p. 12). As Carey (2018) further argues, this implies that universities are responsible for staying open for student participation and facilitating student active membership. He argues that" universities shape its students' engagement" (Carey, 2018, p.16). Institutional variables, such as mission, structure, size, institutional governance and culture, leadership, selectivity, students living on campus, emphasis on graduate education, and the amount of investment made in institutional development, are associated with student engagement and student learning outcomes (Kezar & Kinzie, 2006; Kuh et al., 2008; McCormick et al., 2013; Mayhew et al., 2016; Pike et al., 2006; Pike et al., 2011). In more recent research, Gunuc et al. (2022), by analysing the data from 26 universities across Turkiye, concluded that campus climate significantly impacts student engagement. In this study, the campus climate was measured in terms of physical facilities of the campus, campus life, social facilities, entertainment facilities and student clubs or communities. Based on the ANOVA analysis, they found that variations across the universities are related to the conditions created at the universities (Gunuc et al., 2022).

The culture of engagement is grounded in the university's vision of entrusting and empowering students to improve their learning experiences (Carey, 2018), regardless of their social, economic, or cultural backgrounds. Although students come from diverse backgrounds, HEIs are responsible for creating an engagement culture for them to succeed in their learning (Carey, 2018; Cook-Sather, 2009). Students come from different backgrounds, and they make different contributions to the learning process; therefore, providing equal opportunities will help circumvent inequalities in student participation and contributions (Cook-Sather, 2009). Gunuc et al. (2022) have found that students from economically able families are more highly engaged than students from financially challenged families. On the contrary, Tinto (2023) concluded that student background matters less than student engagement with others at the institutional premises. He argues that a student's retention decision, for example, is impacted more by a friend's retention decision than the student background variable. Thus, institutional conditions created equally for all students, such as learning communities, student–faculty research, study abroad, and internships, are more likely to influence student engagement and learning (Cook-Sather, 2009).

Universities, by their virtue, are a place of learning and transformation and are thus seen as a source of new visions and ideas that bring change and development (Marginson, 2013) by providing an equal and equitable culture of engagement for everyone. Different engagement levels can be found due to institutional and policy context manifestations. The position of the students within the university's hierarchy of power and authority shapes forms of engagement (Carey, 2018). This is why student engagement practices and activities must be stipulated in

the institutional mission, as supported by Kezar and Kinzie (2006), who showed that institutions aligning their "*espoused*" and "*enacted*" missions are more effective in achieving consistency between their purpose and direction. Nonetheless, student engagement becomes more responsive and collaborative when there is a degree of flexibility (Carey, 2018), autonomy, and empowerment.

Investment in Student Engagement

The impact of institutional factors, in this case, investment on student engagement in learning has been undervalued (Baron & Corbin, 2012; Brint & Cantwell, 2014), even though student engagement's positive association with students' grades, satisfaction, perceived learning outcomes, critical thinking, and students' professional and personal lives after graduation have been largely discussed in the literature (Nelson Laird et al., 2014; Rocconi et al., 2020). Investment in the development of a student support system, recruitment, and professional development of staff is likely to positively affect student learning and educational quality, improving student satisfaction and institutional reputation in the longer term (Bowden et al., 2021; Pike et al., 2011). Pike et al. (2011) found that expenditures for undergraduate education impact student learning and that this relationship is mediated by student engagement. An earlier study by Pike et al. (2006) found a positive interplay between investment in instruction and student–faculty interactions, leading to outcomes such as hiring more academic staff, better access to academic staff, and smaller class sizes. A study conducted by Dahlvig et al. (2020) concluded that expenditure on instruction and academic support strongly correlates with student success indicators, such as retention and graduation rates. In the same vein, widely available scholarships for students, resources invested in instructional improvement, and low student-faculty ratios are positively impacting students' persistence and graduation rates (Gansemer-Topf & Schuh, 2006). However, considering the financial limitations HE faces worldwide, attracting funds from alternative sources, thorough planning and sometimes reallocation of resources could present a solution to improve the financial capacity of HE. Although the practice of attracting funds from alternative sources such as alumni donations is more widespread in the US than in other Western countries, it can be developed in any university by nurturing a culture of giving (Gallo, 2012; Pedro & Andraz, 2021).

Previous studies have also shown that student engagement impacts the long-term commitment of alumni to their alma mater (Liang et al., 2022). Arguably, alumni donations are interrelated with the campus experiences of students, positively impacting students' long-term commitment to their institutions (Drezner et al., 2020; Pedro et al., 2020; Rau & Erwin, 2015). Furthermore, the positive academic and social interactions students experience at the university are likely to impact their sense of belonging to the university (Ahn & Davis, 2020; Isaeva et al., 2020; Wilson et al., 2015). Liang et al., (2022) indicated that student engagement, especially in extracurricular activities, is likely to improve alumni giving. Cownie and Gallo (2021) found that student–faculty interactions encourage appreciation of the alma mater and establishing alumni relations. Ultimately, investing in student engagement by imporving campus culture, quality of interactions with other students and academic staff will return to institution in terms of alumni commitment, donations and strong reputation.

Finally, student engagement is "Neither wholly flawed, nor a panacea for the higher education system – it is something in between" (Eagle & Brennan, 2007, p. 56) until it is thoroughly contextualized, conceptualized, and implemented at national and institutional levels. In countries such as the US and the UK, student engagement is framed and measured at the national level, and the results are used by institutions to improve the learning process. It is the responsibility of educational institutions to create conditions that support student learning (Krause & Coates, 2008; Wolf-Wendel et al., 2009).

To sum up, the literature has widely discussed the value of student engagement and its impact on student and institutional outcomes. Many of these studies were conducted in developed countries, where student engagement at the policy level is streamlined and implemented at the institutional level. In Azerbaijan, the lack of access to data on institutional variables and investments in student engagement makes it impossible to examine the interplay between the two. In this context, this exploratory study, using quantitative and qualitative data, examines variations in the institutional conditions for student engagement and students' perspectives to understand better the overall situation in a country where institutions possess limited freedom to design undergraduate curricula.

Method

This mixed method exploratory study will shed light on how student engagement in learning can be improved in a country with a strong Soviet legacy by responding to the following questions:

1. To what extent do universities and disciplines in Azerbaijan present differences in the student engagement indicators identified in the NSSE?
2. How do students perceive the changes required to improve their experiences?

This exploratory study aims to elucidate how the diverse conditions present at different universities can shed light on variations in student engagement across Azerbaijani universities. It also seeks to provide policymakers and institutional leaders with insights into how to improve student engagement in learning.

In light of the limited access to institutional data and the lack of institutional classifications at the national level, like the Carnegie classification, we categorized universities by size and location (Table 1). Universities are considered large if the student number is above 6,600, mid-size in the case of 4,100–6,600 enrolled students, and small for 2,500 to 4,000 students.

Table 1
University Profiles

University	Size	Location
U1	Small	Capital
U2	Mid-size	Capital
U3	Large	Capital

University	Size	Location
U4	Small	Capital
U5	Large	Capital
U6	Large	Region
U7	Mid-size	Region
U8	Mid-size	Region

The concurrent mixed method approach was considered suitable to respond to the research questions and allowed us to gather and analyze rich and multi-layered views from students as the main stakeholders of the education process (Creswell, 2015). Mixed-method research is a strong method because mixing data collection or analyzing methods has complementary strengths that help providing a profound understanding about the phenomenon under investigation (Plano Clark & Creswell, 2008). However, the debate on the rigour of the mixed method is continuous, although it is not new in social sciences (Shan, 2022; Tashakkori et al., 2021). The mixed-method research is valuable for this research exploring students' lived experiences, dynamics, variations, and differences in a new context (Greene, 2008). Such a method provides deep understanding as quantitative data produces systemic tendencies, and qualitative data reflects the learning experiences of individual student (Creswell, 2015). Only mixed-method research could provide "generality" and "particularity" considering the context of this study (Greene, 2008, p. 7). Given that the study covers different educational contexts, mixed-method research is considered strong enough to provide rich data and a thorough understanding of such a meta-construct as student engagement (Greene, 2007).

Quantitative and qualitative data were gathered using the National Survey of Student Engagement (NSSE) instrument licensed from Indiana University. The data were gathered in 2018 from 433 students from eight universities in Azerbaijan. In addition to multiple-choice questions, one question asked for ideas for improving student experiences: What single change would most improve the educational experience at this institution?

The NSSE, initially designed in 2000, was meant to measure to what extent universities provide conditions for their students to engage in educationally purposeful experiences (Kuh, 2001). It was developed and used first in the US, and its extension was adapted and reproduced in other developed English-speaking countries, such as the UK, Australia, New Zealand, and later in Korea and China. The results of the NSSE, which display differences in student engagement across the nation, are widely used in the US to make decisions at the institutional level (Fosnacht et al., 2020; McCormick et al., 2013; Pascarella et al., 2010).

In 2013, the instrument was updated, and it now includes 10 engagement indicators (EIs) united under four themes: academic challenge, learning with peers, experiences with faculty, and campus environment. These 10 EIs are higher-order learning, reflective and integrative learning, learning strategies, quantitative reasoning, collaborative learning, discussions with diverse others, student–faculty interactions, effective teaching practices, quality of interactions, and supportive environment. Given its extensive usage and the lack of a survey to measure the complexity of student engagement at the national level, the NSSE was chosen to gather data from Azerbaijani students.

Essentially, the instrument was found to be an accurate measurement tool for the effectiveness of educational practice (McCormick et al., 2013). Although there is constant debate over the validity and reliability of the NSSE, many studies have demonstrated its validity and reliability (Pike, 2013). The clearly formulated NSSE questions concerned regular and familiar activities in which students were involved at the university. The survey was conducted anonymously to prevent the respondents' privacy from being threatened or violated (Kuh, 2001).

In a concurrent mixed method design, where the data is obtained simultaneously, but the analysis appears as "mixed analysis", as Onwuegbuzie and Teddlie (2003, p. 352) call it, we analyzed the quantitative and qualitative data provided by the NSSE and reported the results in the following order: quantitative, qualitative, and integrated. Combining quantitative and qualitative data is one of the strong and distinguishing characteristics enhancing the worth of the mixed method (Bryman, 2006; Creswell & Plano Clark, 2011). Within the mixed method framework, the qualitative data can be used to evaluate the validity of the quantitative data, which is a case in this study.

Although the quantitative and qualitative data were analysed separately, qualitative data was used to support, clarify and understand the findings from the quantitative data. The complementarity of the data added value to make strong inferences (Tashakkori et al., 2021).

Table 2 presents the demographic data of the students participating in the study. The survey collected information on education year, gender, age, major, and student status. The average age of the students was 21 years. The gender distribution was 42% male and almost 58% female. A total of 13% were junior and 87% were senior students. In terms of academic performance (out of 100), 57 students (13%) had a GPA below 70, 65 (15%) students reported having a GPA above 90, and the remaining majority, 311 students (72%), had a GPA between 71 and 90.

Table 2
Summary of the Participants' Sociodemographic Profile

Sociodemographic information	Frequency	Percentage	Mean	SD
Age			21.37	1.426
18–20 years	97	22.4		
21–22 years	272	62.8		
23 and above	64	14.8		
Gender			1.58	.495
Male	183	42.3		
Female	250	57.7		
Academic major			2.54	1.122
Economics	92	21.2		
Education	141	32.6		
Sciences	74	17.1		
Social Sciences	126	29.1		
Academic year				
			3.59	1.059

Sociodemographic information	Frequency	Percentage	Mean	SD
Two	120	27.7		
Three	6	1.4		
Four	237	54.7		
Five	70	16.2		
University			4.36	2.406
U1	62	14.3		
U2	85	19.6		
U3	31	7.2		
U4	39	9.0		
U5	49	11.3		
U6	56	12.9		
U7	60	13.9		
U8	51	11.8		
GPA				
<70	13			
>90	15			
71–90	72			

To explore the differences between universities in terms of the 10 EIs of the NSSE, we chose a one-way ANOVA with the university as the only factor. One-way ANOVA was a good choice to look if the variations across the universities and disciplines were statistically significantly different (Cohen et al., 2011).

Next, we conducted post hoc tests to determine which groups in the ANOVA differed from each other. The same procedure was repeated to respond to the second research question, concerning whether disciplines impact student engagement. We chose Games Howell adjustment due to the differences in the response rates across the universities and disciplines (Field, 2009).

For the qualitative analysis, which was based on content analysis, we chose the student feedback gathered through the NSSE. The students were asked to share their thoughts on one aspect that should be changed to improve student experiences at their respective universities. Content analysis uncovered what students perceived as impediments to engaging in their learning.

We used explicit coding rules by compressing groups of words into fewer content categories (Mayring, 2014) using NVivo 8. In the first step of coding, we attempted to conceptualize the data by highlighting relevant passages (Creswell, 2014) and labeling them. Then, we grouped the labels to reduce the number of concepts, which eventually resulted in 11 inductive categories. These were later combined under the four themes of the NSSE. We denoted Universities with U and Students with S to identify the participants.

By integrating the findings from the quantitative and qualitative analyses, we obtained a description of how engagement levels vary and how the students' perceptions explain and provide a deeper understanding of their experiences and ways to improve them.

Findings

Student Engagement in Azerbaijani Universities

Separate one-way ANOVA with each NSSE indicator generated results with significant differences in student engagement among 9 out of 10 NSSE indicators (Table 3). The homogeneity of variance test we conducted was significant for 6 out of 10 EIs: higher-order learning, reflective and integrative learning, learning strategies, collaborative learning, effective teaching practices, and quality of interactions.

Table 3
One-way ANOVA of Student Engagement Across Eight Universities in Azerbaijan

Engagement indicators	df	F	Sig	η^2
Higher-order learning	7, 425	3.852	<.001	.060
Reflective and integrative learning	7, 425	1.076	.378	.017
Learning strategies	7, 425	5.033	<.001	.077
Quantitative reasoning	7, 425	5.293	<.001	.080
Collaborative learning	7, 425	8.178	<.001	.119
Discussions with diverse others	7, 425	3.959	<.001	.061
Student–faculty interactions	7, 425	4.198	<.001	.065
Effective teaching practices	7, 425	3.251	.002	.051
Quality of interactions	7, 425	4.417	<.001	.068
Supportive environment	7, 425	6.051	<.001	.091

The results are presented according to the 10 EIs assembled under the four themes of the NSSE: academic challenge, learning with peers, experience with faculty, and campus environment.

Academic Challenge

The post hoc test showed differences in the high-order learning indicator among some universities. For example, a small urban university (U1) was better evaluated in terms of the tasks students were given to analyze, evaluate, and apply information in practice than U2, a mid-size urban university (mean difference = .38, p = .05). At the same time, U2 is relatively weaker in organizing conditions for higher-order learning than the large urban university U5 (mean difference = −39, p < 0.05), the large regional university U6 (mean difference = −37, p < 0.05), and the mid-size regional university U8 (mean difference = −36, p < 0.05). When it

comes to learning strategies, significant differences were found between U2 and U6 and between U2 and U8. According to the results, a mid-size urban university (U2) performed worse than a large regional university (U6: mean difference = -44, $p < 0.05$) and a mid-size regional university (U8: mean difference = -52, $p < 0.01$) in creating conditions facilitating the use of learning strategies. A post hoc test conducted for the reflective and integrative learning indicator demonstrated no differences across universities. However, the way students engage with the curricular requirements to deal with information to draw conclusions and judgments – otherwise called quantitative reasoning – showed a significant difference across the universities: $F(7, 425) = 5.29$, $p < .001$, $\eta^2 = .080$, with a medium effect size.

Learning with Peers

The post hoc test conducted for collaborative learning generated one of the largest numbers of differences across universities. In a mid-size (U2) and small-size (U1) urban university, students were better at helping others by explaining materials, preparing for exams, and seeking help to understand the material than in universities U3, U5, U6, and U7. Hence, in a small urban university (U1), collaborative learning outperforms that in large urban universities, such as U3 (mean difference = .53, $p < 0.05$) and U5 (mean difference = .52, $p < 0.05$), in a large regional university (U6: mean difference =.35, $p < .001$) and a mid-size regional university (U7: mean difference = .50, $p < .001$).

However, two mid-size regional universities also show differences from each other: U8 is better able to organize collaborative learning than U7 (mean difference = .25, $p < 0.05$). Discussions with diverse others demonstrated a significant difference across the universities: $F(7, 425) = 3.96$, $p < .001$, $\eta^2 = .061$.

Experiences with Faculty

Related to effective teaching practices, the post hoc test generated only one difference: in U7, a mid-size regional university teaching practices are more effective and meaningful than in U2, a mid-size urban university (mean difference = .33, $p < 0.05$). This means that academic staff are more open to discussing students' future career plans and progress outside of class at mid-size regional university U7.

Campus Environment

It appeared that students are satisfied with the quality of interactions at U8, a mid-size regional university, in comparison to U2, a mid-size urban university (mean difference = .37, $p < 0.05$). The quality of interactions was also evaluated highly by students at U5, a large urban university, in comparison to U4, a small-size urban university (mean difference = .66, $p < 0.05$). At a large regional university (U6), the quality of interactions was evaluated as higher than at U4, a small urban university (mean difference = .60, $p < 0.05$), Likewise, at U8, a mid-size regional university, students evaluated the quality of interactions as better than at U4, a small urban university (mean difference = .57, $p < 0.05$).

Regarding how supportive the university environment is, a significant difference was found across universities F (7, 425) = 6.05, p < .001, η^2 = .091, with a medium effect size (Cohen, 1988, pp. 283–287), indicating that 9% of the variance comes from institutional differences.

Student Engagement Levels between Majors

We conducted a separate one-way ANOVA with each NSSE indicator to determine differences across disciplines. The results revealed significant differences among 8 out of 10 indicators (Table 4). The homogeneity of variance test was significant for 5 of the indicators: higher-order learning, learning strategies, collaborative learning, effective teaching practices, quality of interactions.

Table 4

One-way ANOVA of Student Engagement Across Disciplines

Engagement indicators	df	F	Sig	η^2
Higher-order learning	3, 429	4.911	.002	.033
Reflective and integrative learning	3, 429	7.122	<.001	.047
Learning strategies	3, 429	6.851	<.001	.046
Quantitative reasoning	3, 429	3.152	.025	.022
Collaborative learning	3, 429	6.125	<.001	.041
Discussions with diverse others	3, 429	2.272	.080	.016
Student–faculty interactions	3, 429	1.748	.156	.012
Effective teaching practices	3, 429	5.965	<.001	.040
Quality of interactions	3, 429	6.395	<.001	.043
Supportive environment	3, 429	3.397	<.001	.057

Academic Challenge

In the case of higher-order learning, students in the education field were more satisfied with their coursework challenge than science students (mean difference = .31, p = .006), and students in the sciences were relatively less satisfied with their practical problems and coursework involving the evaluation and analysis of data than students in the social sciences (mean difference = −.30, p = .013). Significant differences across disciplines were also observed in reflective and integrative learning F(3, 429) = 7.12, p < .001, η^2 = .047, with a medium effect size. Regarding learning strategies, the assumption of equal variance does not

hold: students in the education field review, read, and summarize notes after classes more often than their counterparts in the sciences (mean difference = .43, p < .001). Quantitative reasoning also showed significant differences across majors $F(3, 429) = 3.15$, p < .025, $\eta^2 = .022$, with a low effect size.

Learning with Peers

In collaborative learning, equal variance is not assumed: students in the fields of economics, education, and sciences are more satisfied with the conditions created for them to learn from peers than their counterparts from social sciences. Economics students more often engage in asking for help, explaining the learned material to peers, working together on projects, and getting ready for exams than students in the social sciences (mean difference = .27, p = .011). Students in education reported learning with peers more often than students in the social sciences (mean difference = .19, p = .027), and students in the sciences were engaged in learning with peers – helping others and being involved in group projects – more often than students in the social sciences (mean difference = .34, p = .003).

Discussions with diverse others generated no significant differences across majors $F(3, 429)$ = 2.27, p = .080, $\eta^2 = .016$.

Experiences with Faculty

No significant differences were observed regarding student–faculty interactions across majors $F(3, 429) = 1.75$, p < .156, $\eta^2 = .012$. Regarding the effectiveness of teaching practices, economics students were more satisfied with the level of teachers' ability to explain and organize the material, use illustrative materials and examples, and provide feedback than students in the sciences (mean difference = .26, p = .046). Likewise, students in the social sciences found the employed teaching practices to be effective more often than students in the sciences (mean difference = −.27, p = .014). Similarly, students in education were more satisfied with the effectiveness of the teaching practices employed than students in the sciences (mean difference = .30, p = .006).

Campus Environment

Finally, the post hoc test for the quality of interactions demonstrated that economics students rated their learning environment as relatively weaker than their colleagues from the education field (mean difference = −.38, p < .001). Similarly, students in the sciences were less satisfied with their learning environment (mean difference = −.38, p = .004). A one-way ANOVA of how supportive the environment yielded $F(3, 429) = 3.40$, p < .001, and $\eta = .057$, with a medium effect size, indicating that only about 6% of the variance comes from the discipline.

Student Perceptions of Factors Improving Their Engagement

Academic Challenge

The academic challenge was students' major concern, with the largest number of remarks (N = 95) related to the curriculum, assessments, internships, and practical classes, all of which should challenge and equip students with higher-order, reflective, and integrative learning and quantitative reasoning skills, as well as enable them to utilize different learning strategies.

According to the students, *the curriculum* needs a deep revision to address the quality and quantity of major-related subjects. Specifically, they mentioned the problem of being required to memorize information in different classes. Students were conscious of the design of the curriculum, requiring it to become more academically challenging. Notably, one student (U1, S208) voiced the importance of an "[i]ntegration of critical thinking into teaching and learning," while another student (U5, S398) emphasized the need to "review the curriculum to add more major subjects." Students also proposed adding more hours for major-related subjects and assignments and were concerned that the number of hours for major subjects was not enough for one to excel in the field.

Assessment received the greatest number of remarks from the students. The students' major concerns were objectivity, rules and regulations, and plagiarism issues. They believe there is a huge need to revisit the assessment procedures at each university and offered ways to improve them. For example, they proposed eliminating multiple-choice exams and requirements for attendance; instead, emphasis should be placed on individual assignments and interactivity during class.

Students mentioned *internships* as one of the weakest points of Azerbaijani HEIs, stating that universities should take them more seriously. To achieve this, building strong relationships with companies is crucial in increasing internship opportunities for students: "I would build excellent relationships with the industry to take students there for practice" (U7, S130). Another option they offered was organizing tours in companies.

Regarding *practical classes*, students believe they should be based on real-life cases. They mentioned that, for example, engineers need to learn in a more practical way. They also underlined that classes are rather theoretical and that there should be more balance between theory and practice: "Having more practical classes" (U3, S67).

Learning with Peers

Learning with peers entails having opportunities for collaborative learning with other students and discussions with diverse others. Our analysis of the students' remarks revealed their strong awareness of the situation and offered insights into their expectations as learners.

First and foremost, students understand that *their peers also need to change.* They clearly formulated the idea and showed that other students' attitudes toward learning should change. Many mentioned that they need to become more hardworking, do more reading, and take class activities seriously, as articulated by one student: "I would change classmates hindering the learning process during the class" (U2, S12).

Concerning *their interests and expectations,* the students raised concerns about not being given the autonomy to choose the subjects they studied. They also mentioned that they must be listened to and taken seriously when complaining about teachers. Another concern regards their social lives, requesting the existence of more clubs.

As students aptly mentioned, instilling *motivation among students* should happen at the beginning of their educational journey, being one of the responsibilities of the university to clarify all information about GPA and its components right at the beginning of their studies, ensuring clarity regarding requirements and expectations: "To inform students about GPA during the induction" (U4, S27)**.** Students also proposed that the system should offer rewards for commendable performance and that classes should be more interactive to meet students' needs.

Experience with Faculty

Students also left a large number of remarks (N =70) about teaching quality, which is divided into two parts: effectiveness of teaching and communication with students. Students indicated that teaching was very old-fashioned, requiring retelling the assigned reading. It was not based on research, as perceptively indicated by one student: "Teaching should be research-based and research-driven" (U1, S425). Students also complained about the capabilities of teachers: "Do not allow someone who barely speaks English to teach it" (U1, S428). They proposed changing the entire teaching staff by substituting old and unprofessional teachers with young and professional ones who would be able to refer to research, communicate with students, be tolerant toward a variety of opinions, and carry on other responsibilities with honour and dignity: "To change teachers with Soviet-style, old mindset" (U2, S284).

The students also identified many problems they had in *communicating* with the universities, largely stemming from their interactions with the teachers; they reported that instances of discrimination and subjectivity among teachers were prevalent. The students expressed a desire for more open and sincere communication and for building closer relationships with teachers. They also mentioned the need for friendlier teachers who would treat students with dignity and respect and help them nurture the ability to freely express their opinions, refusals, and demands. As two students phrased it, this involves "Communicating with students like individuals and personalities" (U8, S189) and "building more closer relationships with students" (U5, S388).

Campus Environment

The concerns students raised related to the campus environment were mainly about *academic facilities:* the lack of laboratories and of a sufficient number of books in the libraries – especially books in English. In addition, they mentioned a lack of quality learning materials and tutoring. Students were also eager to study online and use advanced technology in learning and teaching for quality improvement: "Advanced technology must be used in teaching and learning" (U7, S159) and "Laboratories and libraries to be improved" (U6, S335)**.**
The students reported being very willing to participate in out-of-class activities, such as visiting museums and planting trees in the university yard. At the same time, they proposed having

more development programs for students where they would meet famous people and people from different industries. More precisely, one student urged to "Engage students actively in research" (U7, S144), while another expressed the need to "Organize seminars to increase student motivation" (U1, S418). Finally, students also reported a need for developing their emotional intelligence.

Discussion

The findings showed that there is a difference between urban and regional universities in terms of student engagement related to learning strategies. Surprisingly, urban university U2 received worse scores in higher-order learning and learning strategies than U6 and U8, which are regional universities. In QR, U2 also performed worse than U5 and U6. Among the regional universities, U6 performed better in many ways than the other two regional universities. Qualitative data again support the quantitative findings that the curriculum has a low capacity to help students develop the skills they need to succeed in the job market. Students also repeatedly proposed a number of reforms needed for the HE curriculum to equip them with essential skills.

The analysis revealed many differences among universities. Although a number of differences exist among city and regional universities, there are some evident differences among the universities located in the capital city. For example, universities U1, U2, and U3, and U5 received very different scores for collaborative learning; U1 and U2 received high scores, showing that they are doing very well in creating conditions for collaborative learning compared to U5. The qualitative data showed that some students became alienated during the learning process due to reasons that remain unknown. One way to explain this disconnection is a lack of challenge in the academic curriculum that alienates students, thus impeding the learning of other intrinsically motivated students.

We also found that teaching is more effective in regional universities than in one university in the capital. Qualitative data provided us with massive insights into the discouraging interactions between faculty and students, where differing viewpoints are not tolerated, and teachers are not perceived as pedagogically, technologically, and subject-wise prepared for teaching. It seems institutions do not conduct systematic feedback processes to learn more about the quality of teaching and learning within different classes; otherwise, the internal quality assurance process is not streamlined.

Surprisingly, the quality of interactions does not differ only between urban and regional universities; in fact, a larger number of differences exist among urban universities. Students reported a less supportive environment at U1 in comparison to U2, whereas science students had more quality interactions with the staff than their counterparts from disciplines such as education and social sciences; meanwhile, students studying economics seemed to experience comparatively more support than others. Students also expressed dissatisfaction with the campus environment, wishing for better library services and rooms equipped with technology; as a result, students' expectations were not met in most of the institutions. In addition, students expect to receive guidance and be better informed at the beginning of their educational journey.

This is an important aspect of achieving success during one's undergraduate studies (Krause and Coates 2008).

As a result of this study, institutional effects on student engagement reflect economic, cultural, and practical factors. Economically, HEIs have various avenues for accessing financial resources in Azerbaijan. This gives rise to a range of institutional types and exclusivity levels (Isakhanli & Pashayeva, 2018), while at the same time creating imbalances. Culturally, HE remains entrenched in teacher-centered instructional methods and centralized decision-making. These characteristics are reflected in the quality of the teaching and learning process, instructional leadership, and freedom of action (i.e., the freedom given to students to choose subjects and teachers). Practically, the notion of student engagement remains underexplored and lacks conceptualization at a number of levels: individual, departmental, institutional, and national (Isaeva, Ratinen and Uusiautti, 2023; Hasanov et al., 2021). Knowledge of how student learning differs across universities in Azerbaijan can lead to timely interventions to improve quality. Entrusting and empowering HEIs instead of imposing a single curriculum will contribute to academic freedom and free and critical thinking. Indeed, a one-size-fits-all solution for the education of the entire nation risks damaging its competitive power both nationally and internationally in the context of globalization.

Limitations

Because the present study exclusively relies on student survey data collected from eight universities within a single country, it is possible that the results are not generalizable to all Azerbaijani universities or other countries within the former Soviet sphere. Another limitation of the study is that the survey conducted once cannot portray a full picture of change and development of student engagement at each particular university as it is a continuous and complex process and requires a longitudinal study to observe such a change. Although we used qualitative and quantitative data from one single survey, which is considered sufficient for the mixed analysis, combining different data collection methods, such as surveys and interviews, would probably provide more information about the student experience.

Furthermore, we lacked access to the opinions of students who did not volunteer to participate in this study. In addition, relating students' open-ended answers to their forced-choice responses would provide us with more consistency in understanding their experiences. Another limitation of this study is that although many universities are centrally provisioned, the leadership, resource allocation, and number of full-time academic and non-academic staff were not considered in this study.

Conclusion

The results of this study confirmed an earlier study conducted by Sainz Sujet (2022) and Gunuc et al., (2022), which showed that institutional differences and environments make a difference in student engagement. We identified a number of differences between urban and regional universities and between universities functioning in similar areas, such as cities or regions. The

first set of differences indicates that although urban universities have economic, social, and geographical advantages, allowing them to recruit better-qualified academic and support staff, thus delivering quality classes and services, teaching at urban universities was not weaker than in capital universities. Even though the curriculum is centrally managed, academic challenge indicators were found to vary across universities and disciplines. The findings of this study challenge institutional leaders first and policymakers second to recognize that students are proactive and pragmatic, eager to learn, and ready for change. Understanding the degree of student engagement in a particular university or discipline is crucial in directing HE leaders and policymakers toward the necessary changes in the HE system to effectively accommodate students' needs and expectations.

Despite its limitations, this study contributes to theory and practice in many ways. First, it shows that although student engagement varies across the eight Azerbaijani universities – seemingly owing to the diversity of management approaches – there are also many issues common to all institutions, such as teacher quality, teaching approaches, teacher–student relationships, and the support environment. Thus, a more holistic approach to the reform process, in which issues are addressed in a more coherent and consolidated way, is needed for the process to be accepted and implemented more effectively.

Second, the study shows evident differences between student expectations and teachers' capacities. For example, in 2018, students were already asking for technological advancements, benchmarking internationally and the urgency of changes to improve teaching and learning in Azerbaijan, indicating they are more proactive than institutions and teachers. This result is similar to Carey (2018) suggestions about students being proactive in bringing in change. Student involvement in advising and consulting regarding universities' effectiveness in fostering student engagement in learning would inform and improve decision-making (Isaeva et al., 2020).

Third, conducting a study on the transparency of investments, costs, expenditures, and student outcomes in HE in Azerbaijan by examining the interplay between input and outcome would greatly contribute to understanding the key factors impacting student learning and student outcomes. The NSSE, which measures the effectiveness of universities in creating conditions for student engagement, is a valuable tool for measuring the effectiveness of policy and practices at the institutional level (Pike, 2013). Quantifying and making this data publicly available would inform and assist stakeholders in making educational decisions. In this way, the instrument may play the role of an external quality control tool that measures effectiveness and informs policymakers, institutional leaders, and the public about the quality of learning within HE. Theoretically, using the NSSE adds value by showing that measuring student engagement at the national level for development purposes in culturally, economically, and socially different countries would benefit all the stakeholders.

HEIs are in a greater need to monitor how students perceive education quality (Duževic et al., 2018), which, in turn, fosters a sense of accomplishment and satisfaction among students and contributes to the institutional reputation. What quality is comprised in Higher Education is often dictated by the international ranking system (Pusser & Marginson 2013), whereas its general provisions go around the challenging curriculum that requires students to utilize their high-order learning skills, synthesizing and creating new ideas; and also providing supportive

ecosystem with collaborative and supportive environment for student learning, mediated by strong student-faculty relationships.

Disclosure statement

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References

Ahn, M. Y., & Davis, H. D. (2020). Four domains of students' sense of belonging to university. *Studies in Higher Education, 45*(3), 622–634. https://doi.org/10.1080/03075079.2018.1564902

Arum, R., & Roksa, J. (2011a). Are undergraduates actually learning anything. *Chronicle of Higher Education, 57*(21), A30–31.

Ashwin, P. (2020). *Transforming university education: A manifesto* (1st ed.). Bloomsbury Academic.

Astin, A. W. (1977). Four critical years. Effects of college on beliefs, attitudes, and knowledge.

Baron, P., & Corbin, L. (2012). Student engagement: Rhetoric and reality. *Higher Education Research & Development*, *31*(6), 759–772. https://doi.org/10.1080/07294360.2012.655711

Bowden, J. L.-H., Tickle, L., & Naumann, K. (2021). The four pillars of tertiary student engagement and success: A holistic measurement approach. *Studies in Higher Education*, *46*(6), 1207–1224. https://doi.org/10.1080/03075079.2019.1672647

Bowen, H. R. (1996). *Investment in learning: the individual and social value of American higher education*. Transaction Publishers.

Brint, S., & Cantwell, A. M. (2014). Conceptualizing, measuring, and analyzing the characteristics of academically disengaged students: results from UCUES 2010. *Journal of College Student Development*, *55*(8), 808–823. https://doi.org/10.1353/csd.2014.0080

Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, *6*(1), 97–113. https://doi.org/10.1177/1468794106058877

Carey, P. (2018). The impact of institutional culture, policy and process on student engagement in university decision-making. *Perspectives: Policy and Practice in Higher Education, 22*(1), 11–18. https://doi.org/10.1080/13603108.2016.1168754

Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student engagement and student learning: testing the linkages*. *Research in Higher Education*, *47*(1), 1–32. https://doi.org/10.1007/s11162-005-8150-9

Coates, H. (2005). The value of student engagement for higher education quality assurance. *Quality in Higher Education, 11*(1), 25–36. https://doi.org/10.1080/13538320500074915

Cohen, J. (1988). *Edition 2. Statistical power analysis for the behavioral sciences*. Erlbaum.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed). Routledge.

Cook-Sather, A. (2009). From traditional accountability to shared responsibility: the benefits and challenges of student consultants gathering midcourse feedback in college classrooms. *Assessment & Evaluation in Higher Education, 34*(2), 231–241. https://doi.org/10.1080/02602930801956042

Cownie, F., & Gallo, M. (2021). Alumni gratitude and academics: implications for engagement. *Journal of Further and Higher Education, 45*(6), 788–802. https://doi.org/10.1080/0309877X.2020.1820457

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. Sage.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Sage.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed). Sage.

Dahlvig, C. A., Dahlvig, J. E., & Chatriand, C. M. (2020). Institutional expenditures and student graduation and retention. *Christian Higher Education, 19*(5), 352–364. https://doi.org/10.1080/15363759.2020.1712561

Dalmon, D. L., Fonseca, I., Pondé Avena, C., Carnoy, M., & Khavenson, T. (2019). Do students make greater achievement gains in some higher education institutions' programs than others? Insights from Brazil. *Higher Education, 78*(5), 887–910. https://doi.org/10.1007/s10734-019-00376-6

Drezner, N. D., Pizmony-Levy, O., & Anderson-Long, M. (2020). In "Alma Mater" we trust? Exploring attitudes toward institutions and alumni giving. *Teachers College Record: The Voice of Scholarship in Education, 122*(9), 1–44. https://doi.org/10.1177/016146812012200907

Duževič, I., Mikulič, J., & Bakovič, T. (2018). An extended framework for analysing higher education performance. *Total Quality Management & Business Excellence, 29*(5–6), 599–617. https://doi.org/10.1080/14783363.2016.1224083

Eagle, L., & Brennan, R. (2007). Are students customers? TQM and marketing perspectives. *Quality Assurance in Education, 15*(1), 44–60. https://doi.org/10.1108/09684880710723025

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving Integration in Mixed Methods Designs—Principles and Practices. *Health Services Research*, *48*(6pt2), 2134–2156. https://doi.org/10.1111/1475-6773.12117

Field, A. (2009). *Discovering statistics using SPSS*. Sage.

Fosnacht, K, Gonyea, R. M., & Graham, P. A. (2020). The relationship of first-year residence hall roommate assignment policy with interactional diversity and perceptions of the campus environment. *The Journal of Higher Education, 91*(5), 781–804. https://doi.org/10.1080/00221546.2019.1689483

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109. https://doi.org/10.3102/00346543074001059

Gallo, M. (2012). Beyond Philanthropy: Recognising the value of alumni to benefit higher education institutions. *Tertiary Education and Management*, *18*(1), 41–55. https://doi.org/10.1080/13583883.2011.611892

Gansemer-Topf, A. M., & Schuh, J. H. (2006). Institutional selectivity and institutional expenditures: examining organizational factors that contribute to retention and graduation. *Research in Higher Education, 47*(6), 613–42. https://doi.org/10.1007/s11162-006-9009-4

Gibbs, P., Grdzelidze, I., & Tavadze, G. (2023). Quality assurance of higher education in the South Caucasus. *Quality in Higher Education, 29*(1), 1–5. https://doi.org/10.1080/13538322.2022.2100598

Greene, J. C. (2007). *Mixed methods in social inquiry* (1. ed). Jossey-Bass.

Greene, J. C. (2008). Is mixed methods social inquiry a distinctive methodology? *Journal of Mixed Methods Research*, *2*(1), 7–22. https://doi.org/10.1177/1558689807309969

Gunuc, S., Artun, H., Yigit, E., & Keser, H. (2022). Examining the relationship between student engagement and campus climate: a case in Turkey. *Journal of College Student*

Retention: Research, Theory & Practice, *23*(4), 1099–1119. https://doi.org/10.1177/1521025119894579

Hasanov, Z., Antoniou, P., Suleymanov, E., & Garayev, V. (2021). The impact of behavioural, cognitive and emotional dimensions of student engagement on student learning: The case of Azerbaijani higher education institutions. *International Journal of Knowledge and Learning*, *14*(1), 10. https://doi.org/10.1504/IJKL.2021.115027

Isaeva, R., & Aliyev, R. (2023). Excellence in teaching at Azerbaijani universities: a conceptualisation. *Quality in Higher Education* *29*(1), 60–76. https://doi.org/10.1080/13538322.2022.2100613

Isaeva, R., Eisenschmidt, E., Vanari, K., & Kumpas-Lenk, K. (2020). Students' views on dialogue: improving student engagement in the quality assurance process. *Quality in Higher Education, 26*(1), 80–97. https://doi.org/10.1080/13538322.2020.1729307

Isaeva, R., Ratinen, I., & Uusiautti, S. (2023). Understanding student success in higher education in Azerbaijan: the role of student engagement. *Studies in Higher Education*, https://doi.org/10.1080/03075079.2023.2217208

Isakhanli, H., & Pashayeva, A. (2018). Higher education transformation, institutional diversity and typology of higher education institutions in Azerbaijan. In J. Huisman, A. Smolentseva, & I. Froumin (Eds.), *25 years of transformations of higher education systems in post-Soviet countries* (pp. 97–121). Springer International. https://doi.org/10.1007/978-3-319-52980-6_4

Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education, 38*(5), 758–773. https://doi.org/10.1080/03075079.2011.598505

Kezar, A. J., & Kinzie, J. L. (2006). Examining the ways institutions create student engagement: the role of mission. *Journal of College Student Development, 47*(2), 149–172. https://doi.org/10.1353/csd.2006.0018

Krause, K.-L., & Coates, H. (2008). Students' engagement in first-year university. *Assessment & Evaluation in Higher Education, 33*(5), 493–505. https://doi.org/10.1080/02602930701698892

Kuh, G. D. (2001). The national survey of student engagement: conceptual framework and overview of psychometric properties.

Kuh, G. D., & Documenting Effective Educational Practice (Project) (Eds.) (2010). *Student success in college: creating conditions that matter.* Jossey-Bass.

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education, 79*(5), 540–563. https://doi.org/10.1080/00221546.2008.11772116

Leach, L. (2016). Enhancing student engagement in one institution. *Journal of Further and Higher Education*, *40*(1), 23–47. https://doi.org/10.1080/0309877X.2013.869565

Lester, J., Brown Leonard, J., & Mathias, D. (2013). Transfer student engagement: blurring of social and academic engagement. *Community College Review, 41*(3), 202–222. https://doi.org/10.1177/0091552113496141

Liang, X., Su, Y., & Shang, W. (2022). Prior campus experience and alumni donation: a cross-cultural study of China and the USA. *Higher Education*, https://doi.org/10.1007/s10734-022-00948-z

Lizzio, A., & Wilson, K. (2009). Student participation in university governance: The role conceptions and sense of efficacy of student representatives on departmental committees. *Studies in Higher Education*, *34*(1), 69–84. https://doi.org/10.1080/03075070802602000

Locke, W. (2014). The intensification of rankings logic in an increasingly marketised higher education environment. *European Journal of Education, 49*(1), 77–90. https://doi.org/10.1111/ejed.12060

Mammadova, L., & Valiyev, A. (2020). Azerbaijan and European Higher Education Area: students' involvement in bologna reforms. *Research in Educational Administration and Leadership*, *5*(4). https://doi.org/10.30828/real/2020.4.4

Marginson, S. (2013). The impossibility of capitalist markets in higher education. *Journal of Education Policy, 28*(3), 353–370. https://doi.org/10.1080/02680939.2012.747109

Mayhew, M. J., Rockenbach, A. N., Bowman, N. A., Seifert, T. A. D., & Wolniak, G. C. (2016). *How college affects students: 21st century evidence that higher education works. Vol. 1*. John Wiley & Sons.

Mayring, P. (2014). *Qualitative content analysis: theoretical foundation, basic procedures and software solution*. Klagenfurt. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-395173

McCormick, A. C., Kinzie, J., & Gonyea, R. M. (2013). Student engagement: bridging research and practice to improve the quality of undergraduate education. In M. B. Paulsen (Ed.), *Higher education: handbook of theory and research* (pp. 47–92). Springer. https://doi.org/10.1007/978-94-007-5836-0_2

Nelson Laird, T. F., Seifert, T. A., Pascarella, E. T., Mayhew, M. J., & Blaich, C. F. (2014). Deeply Affecting First-Year Students' Thinking: Deep Approaches to Learning and Three Dimensions of Cognitive Development. *The Journal of Higher Education*, *85*(3), 402–432. https://doi.org/10.1080/00221546.2014.11777333

Oleksiyenko, A. V. (2023). De-Sovietisation of Georgian higher education: deconstructing unfreedom. *Quality in Higher Education, 29*(1), 6–22. https://doi.org/10.1080/13538322.2022.2100599

Onwuegbuzie, A. J., & Teddlie, C. (2003). A framework for analyzing data in mixed methods research. *Handbook of Mixed Methods in Social and Behavioral Research*, *2*(1), 397–430.

Pascarella, E. T., Seifert, T. A., & Blaich, C. (2010). How effective are the NSSE benchmarks in predicting important educational outcomes? *Change: The Magazine of Higher Learning, 42*(1), 16–22. https://doi.org/10.1080/00091380903449060

Pedro, I. H., & Andraz, J. M. (2021). Alumni Commitment in Higher Education Institutions: Determinants and Empirical Evidence. *Journal of Nonprofit & Public Sector Marketing*, *33*(1), 29–64. https://doi.org/10.1080/10495142.2019.1656138

Pedro, I. M., Da Costa Mendes, J., & Nobre Pereira, L. (2020). Identifying patterns of alumni commitment in key strategic relationship programmes. *International Review on Public and Nonprofit Marketing, 17*(4), 445–468. https://doi.org/10.1007/s12208-020-00256-1

Pike, G. R. (2013). NSSE benchmarks and institutional outcomes: a note on the importance of considering the intended uses of a measure in validity studies. *Research in Higher Education, 54*(2), 149–170. https://doi.org/10.1007/s11162-012-9279-y

Pike, G. R., Kuh, G. D., & McCormick, A. C. (2011). An investigation of the contingent relationships between learning community participation and student engagement. *Research in Higher Education, 52*(3), 300–322. https://doi.org/10.1007/s11162-010-9192-1

Pike, G. R., Kuh, G. D., McCormick, A. C., Ethington, C. A., & Smart, J. C. (2011). If and when money matters: the relationships among educational expenditures, student engagement and students' learning outcomes. *Research in Higher Education*, *52*(1), 81–106. https://doi.org/10.1007/s11162-010-9183-2

Pike, G. R., Smart, J. C., Kuh, G. D., & Hayek, J. C. (2006). Educational expenditures and student engagement: when does money matter? *Research in Higher Education, 47*(7), 847–872. https://doi.org/10.1007/s11162-006-9018-3

Plano Clark, V. L., & Creswell, J. W. (Eds.). (2008). *The mixed methods reader*. Sage.

Pusser, B., & Marginson, S. (2013). University rankings in critical perspective. *The Journal of Higher Education, 84*(4), 544–568. https://doi.org/10.1080/00221546.2013.11777301

Rau, N. E., & Erwin, T. D. (2015). Using student engagement to predict alumni donors. *Journal of Nonprofit Education & Leadership, 5*(2).

Rocconi, L. M., Liu, X., & Pike, G. R. (2020). The impact of person-environment fit on grades, perceived gains, and satisfaction: An application of Holland's theory. *Higher Education*, *80*(5), 857–874. https://doi.org/10.1007/s10734-020-00519-0

Ryan, J. F. (2005). Institutional expenditures and student engagement: A role for financial resources in enhancing student learning and development? *Research in Higher Education*, *46*, 235–249. https://doi.org/DOI: 10.1007/s 11162-004-1601-x

Sainz Sujet, P.. (2022). Do institutions matter in student engagement? A comparison in engagement between two universities in different contexts. *Journal of Hispanic Higher Education, 21*(3), 333–351. https://doi.org/10.1177/15381927211052712

Shan, Y. (2022). Philosophical foundations of mixed methods research. *Philosophy Compass*, *17*(1), e12804. https://doi.org/10.1111/phc3.12804

Tashakkori, A., Johnson, B., & Teddlie, C. (2021). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences* (Second Edition). Sage.

Tinto, V. (2023). Reflections: Rethinking Engagement and Student Persistence. *Student Success*, *14*(2), 1–7. https://doi.org/10.5204/ssj.3016

Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms*. ASCD.

Trowler, P., & Trowler, V. (2010). Student engagement evidence summary. *The Higher Education Academy, 11*(1), 1-15.

Trowler, V., Allan, R. L., Bryk, J., & Din, R. R. (2022). Pathways to student engagement: beyond triggers and mechanisms at the engagement interface. *Higher Education, 84*(4), 761–777. https://doi.org/10.1007/s10734-021-00798-1

Wilson, D., Jones, D., Bocell, F., Crawford, J., Kim, M. J., Veilleux, N., Floyd-Smith, T., Bates, R., & Plett, M. (2015). Belonging and academic engagement among undergraduate STEM students: a multi-institutional study. *Research in Higher Education, 56*(7), 750–776. https://doi.org/10.1007/s11162-015-9367-x

Wolf-Wendel, L., Ward, K., & Kinzie, J. (2009). A tangled web of terms: the overlap and unique contribution of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development, 50*(4), 407–428. https://doi.org/10.1353/csd.0.0077

Zepke, N. (2014). Student engagement research in higher education: questioning an academic orthodoxy. *Teaching in Higher Education, 19*(6), 697–708. https://doi.org/10.1080/13562517.2014.901956

Zepke, N., Butler, P., & Leach, L. (2012). Institutional research and improving the quality of student engagement. *Quality in Higher Education*, *18*(3), 329–347. https://doi.org/10.1080/13538322.2012.730338