
ACADEMIC RESILIENCE AND STUDENTS' ENGAGEMENT: A COMPARATIVE STUDY BETWEEN PUBLIC AND PRIVATE HIGHER EDUCATION INSTITUTIONS

Maleeha Hammad

Ph.D. Scholar,
Department of Education, Fatima Jinnah Women University, Rawalpindi,
Punjab, Pakistan.
Email: malihahammad@outlook.com

Samina Naseem

Assistant Professor,
Department of Education, Fatima Jinnah Women University, Rawalpindi,
Punjab, Pakistan.
Email: samina.naseem05@gmail.com

ABSTRACT

The current study, which was confined to Rawalpindi and Islamabad in Pakistan, focused on and compared students' levels of academic resilience (AR) and student engagement (SE) as well as the difference between those levels in Public and Private HEIs. Survey data was gathered using the Academic Resilience Scale (ARS- 30) and the Students' Engagement Scale. The sample was chosen using stratified random sampling, which divided the population into Public and Private HEIs. A sample of undergraduates from the Department of social sciences (DSS) was chosen. Descriptive and inferential analyses were used for data analyses. The study's findings showed that undergraduate students at HEIs, both public and private, had significant levels of AR and SE. Additionally, there was no statistically significant difference between undergraduate AR levels at public and private HEIs. The levels of SE in public and private HEIs were found to be significantly different.

KEYWORDS

Academic Resilience (AR), Students' Engagement (SE), Higher Education Institutions (HEIs)

INTRODUCTION

The concept of resilience is not new to behavioral sciences and education (Cassidy, 2016; Ye, Strietholt, & Blomeke, 2021). According to Cassidy (2016), resilience is one of the distinguishing characteristics of academically successful students from

those who are not. Depending on the field of study, the term resilience has been defined differently (see Ye, Streitholt, & Blomeke, 2021 for details). Resilience is generally defined as the process through which an individual successfully goes through, adapting to “challenging circumstances” (Cassidy, 2016, p. 1). The field of academic resilience emerged as research explicitly focusing on educational achievement in an educational setting. In this paper, AR is “a capacity to overcome acute and chronic adversity that is seen as a major threat to a student’s educational development” (Martin, 2013, as cited in Cassidy 2016, pp.1-2). Research-based evidence indicates many students cannot be successful in completing their education without possessing academic resilience (Cassidy, 2016).

Similarly, student engagement (SE) in class interest and involvement in academic activities is a significant connection between school-related outcomes that measure learning conditions that cultivate students’ participation and enhance students’ responsible behavior toward their learning goals (Richter & Tjosvold, 1980). At the same time, an absence of support can prompt ineffective academic results, including a lack of emotional balance and a weak connection with the educational setting (Finn, 1989). According to Wang (2009), resilience is essential in adapting and adjusting skills in a university environment. Research has shown that resilience has significantly changed stress, enhancing students’ performance through coping skills in stressful academic situations. On the other hand, due to a lack of practice of resilience, students face negative energies that affect their mental health, increased psychological distress and lead to more significant adjustment problems in the university environment (Beeber, 1999; Bovier, Charmot, & Perneger, 2004; Edwards, Herschberger, Russel, & Markert, 2001; Hanson & Austin 2003).

Public and private HEIS in Pakistan

After graduating from higher secondary school (twelfth grade), students join universities now offering 4-year undergraduate programs since 2009. The teaching, learning, and assessment system change from being annual to a semester system when students enroll in HEIs. This is a massive shift for students, and many times, students struggle to cope with fast-paced teaching and learning in the semester system. Out of 144, sixteen are private universities in Pakistan. Both sectors cater to students from different socioeconomic statuses. It is a common perception that most private universities perform better than public universities. It is believed that private HEIs create and provide improved opportunities for students to adapt to an emerging learning environment and to be successful academically.

However, recent research (e.g., Halai, 2011; Khan, Aijaz, Ali, 2018) suggests that both sectors have similar issues from management to teaching and learning. Still, many private HEIs governed by philanthropic organizations outnumbered public

HEIs in academic achievement (Halai, 2011). Based on this assumption, it is not wrong to argue that undergraduate students in private HEIs may have higher academic resilience and engagement than in public HEIs. In this study, undergraduate social science students at public and private HEIs in Rawalpindi and Islamabad had their AR and SE levels compared.

LITERATURE REVIEW

For the past many decades, academic resilience and student engagement have been explored extensively with variables such as academic behavior, students burnout, child maltreatment, gender differences in AR and educational attainment, factors promoting AR (such as family & teaching activities), relationship with self-regulated learning, and learning environment (Garcia-Crespo, Fernandez-Alonso, & Muniz, 2021; Hashim, Kuldass, & Ismail, 2016; Ismael- Lennon, 2010; Mallick & Kaur, 2016; Mirza & Arif, 2018; Mohan & Verma, 2020; Mwangi & Ileri, 2017; Sandoval- Hernandez & Bialowolsk, 2016). A recent doctoral study (McCain III, 2021) emphasized the relationship between demographics, AR, SE, and academic achievement among Black students in a predominantly White higher institution. He found SE to be a stronger predictor of academic achievement than AR.

Other studies, such as Romano, Angelini, Consiglio, and Fiorilli (2021), studied AR and SE using “teachers’ emotional support” for their students as a mediating factor. They maintained that emotional support provided by teachers plays a significant role in AR and SE among high school students. Another recent study compared AR and academic stress among public and private XI and XII grade students (Pinki & Duhan, 2020). They found students in private schools to be more academically stressed and resilient than public sector students. Most of these studies concluded that the higher AR in students, the higher the test scores.

In the Pakistani context, SE is studied with variables such as “university administrative and academic processes” (Iqbal & Asghar, 2020); exploring SE as a mediating factor for developing “student-teacher relationships and students’ development” among high school students (Siddiqui, 2018); demographic predictors with SE and students’ performance among high school students (Sattar, Ullah, Rehman, & Ismail, 2020). Many other researchers studied AR among secondary school students with variables such as academic performance (Arif & Mirza, 2017; Sarwar, Inamullah, Khan, Anwar, 2010); how to foster AR among secondary school students (Mirza & Arif, 2018); and AR concerning L2 learning (Mahesar, & Jokhio, 2021).

Based on the review of the literature, we formed four conclusions. First, most of the studies conducted explored AR and SE separately with various variables (a detailed review of AR studies was done by Radhamani & Kalaivani, 2021). However, these

studies maintained that AR and SE positively influence students' achievement and other variables. Second, most of the studies were conducted at the school level (middle, high, or secondary higher). Third, most comparative studies compared SES and gender (cf. Radhamani & Kalaivani, 2021). Fourth, we understand that this might not be an exhaustive literature list. Yet, we argue that the relationship between AR and SE still needs to be explicitly explored at the university level. A few studies conducted at the university level focused on different aspects than this current study. Therefore, this study studied the relationship between AR and SE at higher educational level in public and private HEIs. Studies found that students in private institutions show more AR and SE than students in public institutions. Therefore, we examined and compared the levels of AR and SE among students in private and public HEIs.

RESEARCH OBJECTIVES

1. What are the levels of AR among undergraduate social science students in Rawalpindi and Islamabad's public and private HEIs?
2. What are the levels of SE among undergraduate social science students in Rawalpindi and Islamabad's public and private HEIs?
3. How do undergraduate students from the DSS in Rawalpindi and Islamabad differ in terms of their AR and SE at both public and private HEIs?

RESEARCH HYPOTHESES

1. Undergraduates from DSS in both public and private HEIs do not have a high level of AR.
2. Undergraduates from DSS in both public and private HEIs do not have a high level of SE.
3. AR and SE levels among undergraduates from DSS in both public and private HEIs do not differ significantly.
4. The AR levels among undergraduates from DSS in both public and private HEIs do not differ significantly.
5. The SE levels among undergraduates from DSS in both public and private HEIs do not differ significantly.

RESEARCH METHODOLOGY

Sample & Sampling Technique

The sample for the study was selected from the target population by using a stratified random sampling technique (Thompson, 2012). The sample was delimited to 1st-semester undergraduate students of the Social Sciences department from Public and Private HEIs through proportionate random sampling. The sampling framework is given below.

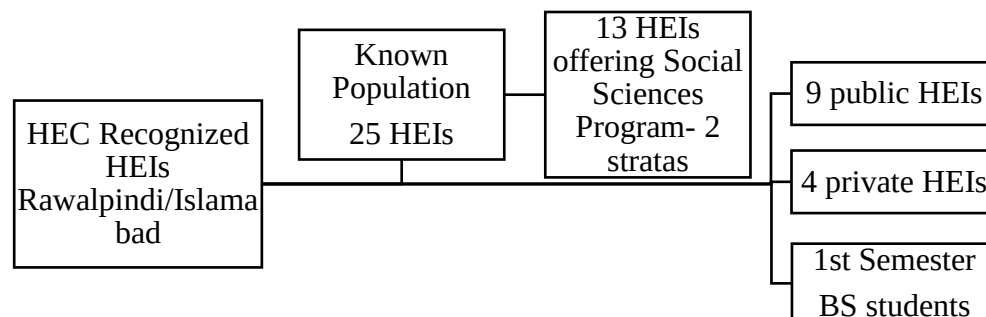


Figure 1: Sampling Framework

Instrumentation

The researchers used standardized tools to measure the variables in the study. The ARS-30 (Cassidy, 2016), was used to gauge students' AR. The ARS-30 is a multidimensional construct scale with 30 items that focuses on behavioral and cognitive-affective reactions to academic adversity.

The cognitive, emotional, and behavioral involvement of the students was assessed using the Student Involvement Scale (SES) (Gunuc & Kuzu, 2015). The SES has been designed explicitly for HEIs. The three constructs that makeup SES are cognitive, emotional, and behavioral engagement. Pilot tests were done on both scales. The Cronbach alpha for ARS-30 and SE- Scale was 0.7 and 0.9.

Data Collection

The data collection process was carried out for four and half months in thirteen public and private HEIs, out of which nine were public institutions and four were private. The response rate of the questionnaires was above ninety percent. Please see the sampling framework for details.

Data Analysis

To answer the first two research questions, the levels (AR & SE) were calculated using mean scores through descriptive analysis. To determine the categories for levels (AR & SE), Santiago's (2010) methodology of using "the exact descriptive and numerical equivalents," was applied. Using Santiago's descriptive values helped keep the cut points the same for all HEIs. Values of the mean scores were used to support or reject $H_0 1$ and $H_0 2$.

ANOVA was used to compare the levels of AR and SE among undergraduates of both types of HEIs in order to respond to the third research question. The test's results were

used to confirm or disprove the $H_0 3$, $H_0 3.1$, $H_0 3.2$ hypotheses.

RESULTS AND DATA ANALYSIS

Table 1: Descriptive Measures of Academic Resilience (AR) and Students' Engagement (SE) in Higher Education Institutions

Descriptive Interpretation	AR	Public HEIs F	Private HEIs F	SE	Public HEIs F	Private HEIs F
Very High	4.5- 5.0	--	--	4.5- 5.0	--	--
High	3.5- 4.49	100	70	3.5- 4.49	100	100
Moderate	2.5- 3.49	--	30	2.5- 3.49	--	--
Low	1.5- 2.49	--	--	1.5- 2.49	--	--
Very Low	0.5- 1.49	--	--	0.5- 1.49	--	--
	Mean Score	3.65	3.63	Mean Score	3.96	3.91
Descriptive Interpretation	High AR		High AR		High SE	High SE

Table 1 shows the descriptive interpretation of the mean score. i.e., the degree of measurement for the levels of AR and SE. to respond to R1, Table 1 explains that the Mean score of AR for Public HEIs' is 3.65 while the AR mean score of Private HEIs is 3.63. According to the analysis, both undergraduate students from both types of HEIs had significant levels of AR.

To answer the R2, descriptive data analysis shows that SE among students from both types HEIs had high SE levels (see Table 1). The mean score of the SE level at Public HEIs is 3.96, while the mean score of the SE level at private HEIs is 3.91. The next objective was to determine the difference between the AR and SE levels across both types of HEIs. It was anticipated that there would be no statistical difference between the AR level and SE level across HEIs.

To determine whether the values of the two variables differ statistically, one-way ANOVA analyses were performed. Table 2 shows that there is no statistically significant difference between the mean scores of public and private HEIs, with $F(1, 819) = 0.657$, $p < 0.418$. Table 2 also indicates a significant association in the mean score between SE of Public and Private HEIs, $F(1, 819) = 19.856$, $p < 0.000$.

Table 2: ANOVA of Independent Variables

		Sum Squares	of Df	Mean Square	F	Sig.
Academic Resilience	Between Groups	80.42	1	80.412	0.657	0.418
	Within Groups	100118.089	818	122.394		
	Total	100198.501	819			
Students' Engagement	Between Groups	6930.258	1	6930.258	19.856	0.000
	Within Groups	285500.352	818	349.022		
	Total	292430.610	819			

FINDINGS AND DISCUSSION

Undergraduate students in DSS at both types of HEIs reported high levels of AR. This result refutes the null hypothesis H_0 1. To foster a sense of commitment toward their learning objectives, students are encouraged to actively participate. Though the descriptive analysis showed high levels of AR and SE among participants from both public and private HEIs, digging deeper into the AR and SE subconstructs revealed some differences. The participant undergraduate students of this study from public HEIs showed a moderate perseverance level as compared to their counterparts studying in private HEIs. This means that undergraduate students from private HEIs are prone to take and use feedback more positively, handle difficult situations more efficiently, and are intrinsically motivated to achieve their goals in comparison to undergraduate students from public HEIs. As a result, perseverance is a crucial AR sub-construct and signal that aids students in completing activities (Oluremi, 2014; Ryan & Beamish, 2018). Two subconstructs of AR (reflective and adaptive help-seeking & negative and emotional response) were further explored for comparative analysis. Undergraduate students from both types of HEIs were found to exhibit high levels of the two subconstructs. The undergraduate students demonstrate a great amount of persistence in trying again and exerting effort to complete tasks. They also actively seek out their instructors' assistance and are very career-focused. The literature suggests that characteristics such as motivation, student performance, and self-directed learning result in a considerable amount of self-reflection and adaptive support-seeking among students (Newman, 2008; Karabiyik, 2020).

Similarly, participating undergraduate students showed abilities for monitoring their accomplishments, controlling their emotions when they become anxious, and reflecting on their development. The research also demonstrates that social science

undergraduate students at public HEIs develop an increased tendency for concern. They are adept at managing stress to prevent it from interfering with their efforts to complete tasks, and they constantly assess their strengths and limitations to raise their performance (Wortha, Azevedo, Taub, & Narciss, 2019). Additionally, the literature suggests that negative emotions and fear of failing are indicators of motivation and goal achievement among resilient students. Since students are highly motivated, high negative emotional markers are indicative of this (Rowe & Fitness, 2018; Wara, Aloka, & Odongo, 2018). The findings demonstrate that undergraduate students in DSS from both types of HEIs are highly resilient academically – thus refuting the null hypothesis, which states that AR among social science undergraduate students is not high in both types of HEIs.

The results indicate that DSS undergraduates reported greater levels of SE from both types of HEIs (see Table 1) – thus refuting the null hypothesis that undergraduates from DSS in HEIs (public & private) do not have high SE levels. This indicates that the participating undergraduate students studying at HEIs (public & private) were actively engaged in learning in their classrooms. Students who have actively engaged in their academic work are more likely to be successful (Ebede, 2018) – thus lowering dropout rates in HEIs.

According to statistical findings for R3, there was no discernible difference in AR levels between the public and private HEIs, $F = 0.657$, $p = 0.418$. A significant F value ($p > 0.05$) indicates that undergraduates at private HEIs do not have higher AR levels than their counterparts at public HEIs. Based on the statistically negligible discrepancies in the AR levels, H_0 3.1 was approved. However, $F = 19.856$, $p = 0.000$ demonstrated a substantial difference in SE levels between public and private HEIs. A significant F value ($p > 0.05$) indicates higher levels of SE among undergraduates from public HEIs than those from private HEIs – thus rejecting H_0 3.2. Additionally, among undergraduate social science students from HEIs (public & private), the computed effect size of 0.323 shows a minor difference between the two SE groups (McLeod, 2019). The results of the current study confirm the high AR among undergraduate social science students at public and private HEIs. The results of the current investigation confirm the high AR among undergraduate social science students at public and private HEIs. However, there was no discernible difference between students at public and private HEIs. Similar results were found by Caldera Montes, Aceves Lupercio, and Reynoso Gonzalez (2016) in their recent study.

Based on the results of the study, it is concluded that undergraduates studying at DSS in HEIs (both public & private) have high AR and SE levels. No significant difference exists between AR and SE among undergraduates of both public and private HEIs. Nevertheless, certain differences are observed between them. Perseverance is one of

the sub-constructs of academic resilience reveals a moderate level in public higher education institutions in contrast to the other sub-constructs (e.g., adaptive help-seeking & emotional response).

RECOMMENDATIONS

Students are academically resilient in public HEIs. They only need more engaging learning opportunities. Public HEIs may offer professional development for their faculty focused on SE strategies. Further studies that focus on finding the correlation between AR and SE and other variables (e.g., perseverance & negative emotions) affect SE at HEIs.

REFERENCES

- Alva, S. A. (1991). Academic invulnerability among Mexican-American students: The importance of protective resources and appraisals. *Hispanic Journal of Behavioral Sciences*, 13(1), 18–34. DOI: 10.1177/07399863910131002
- Arif, M.I., & Mirza, M.S. (2017). Effectiveness of an intervention program in fostering academic resilience of students at risk of failure at the secondary school level. *Bulletin of Education and Research*, 39(1), 251-264.
- Beeber, L.S. (1999). Testing an explanatory model of the development of depressive symptoms in young women during a life transition. *Journal of American College Health*, 47(5), 227- 234.
- Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M., (2020). Mapping research in student engagement and educational technology in higher education: a systematic evidence map. *International Journal of Educational Technology in Higher Education*, 17(2), 1-30.
- Bovier, P., Charlot, E., & Perneger, V. (2004). Perceived stress, internal resources, and social support as determinants of mental health in young adults. *Quality of Life Research*, 13 (1), 161-170.
- Caldera Montes, J. F., Aceves Lupercio, B. I., & Reynoso Gonzalez, O. U. (2016). Resilience in university students. A comparative study among different careers. *Psicogente*, 19(36), 227-239.
- Cassidy, S. (2016). The Academic Resilience Scale (ARS-30): A new multidimensional construct measure. *Front Psychology*, 7, 1- 12.
- Chung, H. F. (2008). *Resiliency and character strengths among college students*. ProQuest. (Unpublished doctoral dissertation). The University of Arizona, Tucson.
- De Baca, C. (2010). *Resiliency and academic performance. A review of the literature*: Scholar Centric retrieved at www.ScholarCentric.com.
- Ebede, S. S. (2018). *Student engagement in higher education: Measuring the differences in community engagement*. (Doctoral Dissertation). University of Northern Iowa, Cedar Falls, Iowa, United States.
- Edwards, K. J., Herschberger, P.J., Russel, R. K., & Markert, R.J. (2001). Stress, negative social exchange, and health symptoms in university students. *Journal of American*

-
- College Health*, 50 (2), 75-79.
- Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, 59(2), 117-142.
- Garcia-Crespo, F. J., Fernandez-Alonso, R., & Muniz, J. (2021). Academic resilience in European countries: The role of teachers, families, and student profiles. *PloS one*, 16(7), e0253409.
- Gunuca, S. & Kuzub, A. (2015). Student engagement scale: development, reliability, and validity. *Assessment & Evaluation in Higher Education*, 40 (4) 587–610. <http://dx.doi.org/10.1080/02602938.2014.938019>
- Halai, N. (2011). Private higher education in Pakistan. *International Higher Education*, (64) 1-5.
- Hanson, T.L. & Austin, G. (2003). *Student health risks, resilience, and academic performance in California: Year 2 Report, Longitudinal Analyses*. Los Alamitos, CA: WestEd.
- Hashim, S., Kuldass, S., & Ismail, H. N. (2016). A review of literature on at-risk adolescent students in Malaysia: Needing an academic resilience model. In *SHS Web of Conferences* (Vol. 23, p. 04004). EDP Sciences.
- Howard, S., & Johnson, B. (2000). What makes the difference? Children and teachers talk about resilient outcomes for children 'at risk'. *Educational Studies*, 26(3), 321-337.
- Iqbal, J., & Asghar, A. (2020). Effect of university administrative and academic processes on student engagement: An empirical evidence from Pakistan *UMT Education Review*, 3 (2), 85-109.
- Ismael-Lennon, A. A. (2010). An examination of academic resilience among high-achieving Hispanic-American male inner-city adolescents. *PCOM Psychology Dissertations*. 159. https://digitalcommons.pcom.edu/psychology_dissertations/159
- Kantanis, T. (2000). The role of social transition in students': adjustment to the first-year of university. *Journal of Institutional Research*, 9(1), 100-110.
- Karabiyik, C. (2020). Interaction between academic resilience and academic achievement of teacher trainees. *International Online Journal of Education and Teaching*, 7(4), 1585-1601.
- Khan, N., Aajiz, N. M., & Ali, A. (2018). Comparison of management practices in public and private universities in Khyber Pakhtunkhwa. *Journal of Education and Educational Development*, 5(1), 108-122.
- Mahesar, I. K., & Jokhio, A. A. (2021). Investigating the impact of resilience on learners' motivated behavior of L2 and proficiency in English of university students at Karachi, Pakistan. *Ethical Lingua: Journal of Language Teaching and Literature*, 8(2), 333-345. <https://doi.org/10.30605/25409190.290>
- Mallick, M.K., & Kaur, S. (2016). Academic resilience among senior secondary school students: influence of learning environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), 20- 27. <https://doi.org/10.21659/rupkatha.v8n2.03>
- McCain III, H. C. (2021). *Academic resilience, student engagement, and academic achievement among black male undergraduates at predominantly white institutions* (Doctoral dissertation, Western Michigan University).
- McLeod, S. A. (2019, July 10). What does effect size tell you? Simply psychology: <https://www.simplypsychology.org/effect-size.html>
-

-
- Mirza, M.S., & Arif, M.I. (2018). Fostering academic resilience of students at risk of failure at the secondary school level. *Journal of Behavioural Sciences*, 28(1), 33-50.
- Mohan, V., & Verma, M. (2020). Self-regulated learning strategies in relation to academic resilience, *Voice of Research*, 9(3), 27-34.
- Mwangi, C. N., Ireri, A. M., & Mwaniki, E. W. (2017). Correlates of academic resilience among secondary school students in Kiambu County, Kenya. *Interdisciplinary Education and Psychology*, 1(1), 4.
- Newman, R. (2002). How self-regulated learners cope with academic difficulty: the role of adaptive help-seeking. *Theory into Practice*, 41, 132–138. DOI: 10.1207/s15430421tip4102_10
- Oluremi, O. A. (2014). Academic perseverance, class attendance and students' academic engagement: A correlational study. *European Journal of Educational Sciences*, 1(2), 133-140.
- Pinki., & Duhan, K. (2020). Academic stress and academic resilience among government and private school students across stream. *International Journal of Education & Management Studies*, 10(2), 168-174
- Radhamani, K., & Kalaivani, D. (2021). Academic resilience among students: A review of literature. *International Journal of Research and Review*, 8(6), 360-369. DOI: <https://doi.org/10.52403/ijrr.20210646>
- Richter, F. D., & Tjosvold, D. (1980). Effects of student participation in classroom decision making on attitudes, peer interaction, motivation, and learning. *Journal of Applied Psychology*, 65(1), 74-80.
- Romano, L., Angelini, G., Consiglio, P., & Fiorilli, C. (2021). Academic resilience and engagement in high school students: The mediating role of perceived teacher emotional support. *European journal of investigation in health, psychology and education*, 11(2), 334–344. <https://doi.org/10.3390/ejihpe11020025>
- Rowe, A. D., & Fitness, J. (2018). Understanding the role of negative emotions in adult learning and achievement: A social functional perspective. *Behavioral Sciences*, 8(27) 1-20.
- Ryan, A., & Beamish, P. (2018). Mindset, perseverance, and learning. *TEACH Journal Of Christian Education*, 12(2), 43-50.
- Sandoval-Hernández, A., & Białowolski, P. (2016). Factors and conditions promoting academic resilience: a TIMSS-based analysis of five Asian education systems. *Asia Pacific Education Review*, 17(3), 511-520.
- Sarwar, M., Inamullah, H., Khan, N., Anwar, N. (2010). Resilience and academic achievement of male and female secondary level students in Pakistan. *Journal of College Teaching & Learning*, 7(8), 19-24.
- Sattar, T., Ullah, M. I., Rehman, A. U., & Ismail, H. (2020). Association of demographic predictors with multidimensional aspects of students' engagement and Education, *Administration & Law*, 3(1), 53-61. <https://doi.org/10.47067/real.v3i1.21>
- Siddiqi, A. (2018), Mediating role of students' engagement to their classes: An experience from higher education in Pakistan, *Asian Association of Open Universities Journal*, 13(2), 130-144. <https://doi.org/10.1108/AAOUJ-04-2018-0017>
- Solberg, V.S.H., Gusavac, N., Hamann, T., Felch, J., Johnson, J., Lamborn, S., & Torres, J. (1998). The Adaptive Success Identity Plan (ASIP): A career intervention for college
-

-
- students. *Career Developments Quarterly*, 47, 48-95.
- Thompson, S.K. (2012). *Sampling: Stratified sampling*. New York, NY: SAGE.
- Wang, M., Haertel, G., & Walberg, H. (1994). What helps the student to learn?. *Educational Life*, 90, 45-49.
- Wang, J. (2009). A study of resiliency characteristics in the adjustment of international graduate students at American universities. *Journal of Studies in International Education*, 13 (1) 22-45.
- Wara, E., Aloka, P. J., & Odongo, B. C. (2018). Relationship between emotional engagement and academic achievement among Kenyan secondary school students. *Academic Journal of Interdisciplinary Studies*, 7(1), 107-118.
- Wortha, F., Azevedo, R., Taub, M., & Narciss, S. (2019). Multiple negative emotions during learning with digital learning environments–Evidence on their detrimental effect on learning from two methodological approaches. *Frontiers In Psychology*, 10, 1-19.
- Xu, K. M., Meijs, C., Gijsselaers, H. J., Neroni, J., & de Groot, R. H. (2020). Measuring perseverance and passion in distance education students: psychometric properties of the grit questionnaire and associations with academic performance. *Frontiers in Psychology*, 11, 1-12.
- Ye, W., Strietholt, R., & Blömeke, S. (2021). Academic resilience: underlying norms and validity of definitions. *Educational Assessment, Evaluation, and Accountability*, 33(1), 169-202.