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"Student Engagement in Traditional Learning vs Online Learning - A comparative study"

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Abstract

Due to the present unprecedented times, the entire world and the businesses have undergone a major change in their functionality, especially so in the Education sector undergoing a major transition from traditional learning to online learning. Due to this unprecedented shift the biggest challenge was engaging students during the course of the virtual classes. Therefore, the purpose of this study is to understand if there are any differences in student engagement for traditional and online modes of education delivery. The Student Course Engagement Questionnaire (SCEQ) was administered to college students in order to gauge their engagement with regards to skills, participation/interaction, emotions, and performance. Exploratory factor analysis presented a 2-factor solution namely Skill Engagement (SE) and Performance Engagement explaining 63% of the variance in student engagement. Furthermore, the results were analyzed using a one-way Analysis of Variance (ANOVA). The results demonstrated that there is significant difference between traditional learning and online learning for the factor skill engagement, however the same was insignificant for performance engagement for the participant students. Additionally, there was no significant relation of engagement with the demographic variables of gender, income, and residential location.

Introduction

The development of management education can be traced back to 18th century and its journey through the 18th century to the 21st century, has been interspaced with change and development. Management education in India has been predominately a derivative of western management thought and practice (Kumar & Dash, 2011). Through the past decades, the world of education has been driven by the fast and rapid revolution namely driven by computer and Internet technologies. Sethy (2008) conceptualizes this development as the pathway leading to new finding, with such changes taking place at a breathtaking speed. Due to this Higher education

(HE), and particularly Management and Business Education, is looking at an unseen crisis. Business schools and learned societies are dealing with a number of critical short-term problems that potentially threaten their existence (Beech & Anseel, 2020). The current crisis of COVID-19 pandemic has caused the largest disruption of education in history, having already had a near-universal impact on learners and educators around the world and across institutions. Going by the estimates, in mid-April 2020, 94 percent of learners worldwide were affected by the pandemic impacting 1.58 billion children and youth, from pre-primary to higher education, in 200 countries (United Nations, 2020).

The short-term impact of the COVID-19 pandemic has led to a cease in face-to-face teaching and a transition to on-line teaching (Beech & Anseel, 2020). This shift ensured continuity in teaching and learning processes and ICT played the role of an enabler in this shift to online delivery of information (United Nations, 2020). At the most fundamental level, COVID-19 poses a challenge to the core activity of supporting the development of students through a broad range of curricular and co-curricular experiences and opportunities. It significantly impeded the delivery of an interactive, personalized and predominantly face-to-face experience based around a rich campus life (Brammer & Clark, 2020). The biggest challenge highlighted during this metamorphosis from physical schooling to online schooling was getting the students engaged in virtual classrooms.

Student engagement is comprehended as a multidimensional concept which encompasses aspects leading towards student success at the secondary and postsecondary levels of education (Fredricks, Blumenfeld, & Paris, 2004). Wellborn, (1991) understands student engagement as the extent of active student involvement in a learning activity. Diversely defined across the literature, engagement may most succinctly be conceptualized as a student's connection to learning and the learning environment which incorporates behavioral, emotional, and cognitive aspects (Marz, Simonsen, & Kitchel, 2016). Students who are not engaged in their schooling and the process of their post-secondary education put themselves at risk to inadequately acquire the knowledge and skills needed for transfer to their future educational and work experiences (Miller, Demoret, & Wadkins, 2009). Ultimately, due to the long-term detrimental effects of the lack of student engagement, it needs significant consideration by educators in order to better understand student behavior and in addressing students' educational needs (Christenson, et al., 2008). Knowledge about the students' perception of their engagement within the context of schooling may provide instructors with evidence to more clearly describe student behaviors within the classroom (Mandernach, Donnelly-Sallee, & Dailey-Hebert, 2011; Svanum & Bigatti, 2009).

Student engagement has been addressed in literature extensively mostly through the concept of engagement analyzed globally within the context of the total experience in college through the related works of George Kuh. With that in mind, an issue facing the majority of the literature in student engagement is that the distinction between the antecedents, state, and consequences of engagement is not often made (Kahu, 2013). Handelsman et al. (2005) suggested that understanding the

antecedents to student engagement particularly at the course/classroom level, is one approach identified for continuous improvement to education in teaching and learning environments. Further, describing and understanding the antecedents for student engagement could assist course design and instructional decision-making for college teachers. The more instructors know about what students perceive within the classroom regarding the activity taking place, the more equipped they will be to shape and reshape the learning environment. And with the current transition from face-to-face learning to online learning, it is important to understand the perceived engagement of students pursuing management education. Therefore, the main aim of this study was to identify if there are differences in student engagement in traditional and online modes of education delivery. Furthermore, it was also imperative to investigate the impact of demographic variables on student engagement.

Literature Review and Hypothesis Development

Literature has tried to address the differences in traditional classroom learning and E-learning under different contexts. In a study by Li, Qi, Wang, & Wang, (2014), they talked about customary homeroom e-learning, and contrast between social commitment and conduct commitment in two sorts of guidance climate. Results from variance analyzed, proposed that there is no huge contrast between commitments of dynamic learning in various homeroom conditions, whereas there existed huge contrasts for learning of creative and basic reasoning skills. The findings suggest that social commitment in two conditions have no huge benefit over one another, yet e-learning encourages more significant level learning better than traditional learning especially at parts of imaginative reasoning and basic reasoning. A similar examination between customary training and e-learning was conducted by Ilie & Frăsineanu, (2019). They found that the instructive interaction in the e-learning setting is comparably successful as compared to the conventional one. They additionally underscored that relying to a great extent upon the learning climate, the preparation projects should consider the new data innovations.

Studies have also tried to address the differences in the understanding of engagement and motivation levels of students in traditional and e-learning platforms. Rovai, Ponton, Wighting, & Baker, (2007) conducted a multivariate examination to examine if there were contrasts in inspiration between groups. Study results gave proof that e-learning understudies have more grounded natural inspiration. There were no distinctions observed in either of the three extraneous inspiration measures or motivation. They additionally proposed that because of more significant levels of inherent inspiration present in e-students as compared to conventional students, course originators ought to fluctuate the development of these two kinds of courses to more readily coordinate with the persuasive necessities of the students. May (2019) found no significant difference in the outcomes between the students enrolled in face-to-face courses and their companions enrolled for online courses. The researcher tracked down a significant difference in withdrawal rates between face to face and online courses and the quantity of nonattendances between up face to face and online courses. The overall results showed an inclination for face-to-face courses over online courses, and all

forms of engagement were worse in online courses, and better interactions were found in seated courses.

Studies suggest that one of the known pathways to student success is student engagement (Kahu & Nelson, 2018). Fredricks, Blumenfeld, & Paris, (2004) understand engagement as an individual student's psychosocial state: their behavioural, emotional, and cognitive connection to their learning. Student engagement may take many forms, such as attending classes (behavioral engagement), asking questions (cognitive engagement), and/or expressing enjoyment towards the course activities or instructors (Fredricks, Blumenfeld, & Paris, 2004). Handelsman, Briggs, Sullivan, & Towler, (2005) developed a reliable, valid and multi-dimensional measure of college student engagement which they labelled as Student Course Engagement Questionnaire (SCEQ). By using exploratory factor analysis, they identified four interpretable and steady factors and named them as: skills engagement, emotional engagement, participation engagement, and performance engagement. Brown, White, Bowmar, & Power, (2017) assessed the 23 item Student Course Engagement Questionnaire (SCEQ) by administering it to undergraduate students and the exploratory factor analysis for this study identified four factors i.e., study habits, performance, participation, and emotion which explained >49% of the total variance. These findings were steady with those recognized in a past SCEQ assessment.

One of the consistent outcomes of student engagement has been academic achievement (Lei, Cui, & Zhou, 2018). Although there is literature support for the relationship between student engagement and academic achievement, the results so far have been contradictory. There are two major perspectives on this relationship. For example, Zhu (2010) found that there was a significant correlation between student engagement and academic achievement, and this was supported by findings of the research by King (2015), where the researcher concluded that academic achievement was positively correlated with behavioral and emotional engagement. In a similar study by Pietarinen, Soini, and Pyhältö (2014), it was found that there existed a positive correlation between academic success and cognitive engagement. The suggested mechanism underlying these relationships is that student engagement encourages academic success (Crossan, Field, Gallacher, & Merrill, 2003), which further promotes students' engagement with learning activities (Lei, Xu, Shao, & Sang, 2015; Wäschle, Allgaier, Lachner, Fink, & Nückles, 2014). Some researchers have pointed out that, the correlation between behavioral engagement and academic achievement is more obvious as compared to the correlation between emotional and cognitive engagement (Furrer & Skinner, 2003). Taken together, the findings of the above-mentioned studies suggested that different dimensions of student engagement have differing relationships with academic achievement.

Furthermore, with the established positive links of engagement with various factors as illustrated by the literature above, Dahalan, Hassan, & Atan, (2012) went on to investigate if e-mentoring could be a viable intervention to enable student engagement in online learning with the intention of developing and enhancing the

skills, knowledge, confidence, and cultural understanding of the lesser skilled individuals. The findings suggested that student's/learner's attitude play a critical role in anticipating and accepting e-mentoring. This provides sufficient evidence to support that student's/learner's attitude is a critical factor for effective e-mentoring program leading to high involvement with the mentor for better engagement.

Basis the above literature review, the primary objective of this study is to examine if there are any differences in the student engagement for traditional and online learning for postgraduate students. Therefore, basis the primary objective, the secondary objectives of the study are:

- 1.To understand student learning engagement with respect to traditional and online learning.
- 2.To explore the differences in student engagement for traditional and online mode of learning.
- 3.To investigate the impact of the demographic variables on the engagement levels of students for traditional and online method of learning.

Methods

The descriptive study examined the student engagement for post graduate students for traditional and e-Learning courses. In the present study, post graduate students pursuing management studies within Mumbai completed a questionnaire about their perceptions towards their engagement. The target population for this study consisted of postgraduate college students enrolled in management courses during the academic years 2019-2020 and 2020-2021. The normality and reliability of the data are inspected before the parametric analyses. The results of the survey are then analyzed using a one-way Analysis Of Variance (ANOVA). Basis the literature review and the objective of the study the following hypothesis is formulated:

H1: There is a significant difference between traditional learning and online learning in student engagement for the post graduate students.

The results of the ANOVA are discussed with reference to the p-values obtained. If the p-value is lower than 0.05, H₀ is rejected. In contrast, if the p-value is above 0.05, H₁ is rejected.

Instrumentation and Procedure

The Student Course Engagement Questionnaire (SCEQ) measuring four dimensions of college student engagement: a) skills engagement, b) participation/interaction engagement, c) emotional engagement, and d) performance engagement (Handelsman, Briggs, Sullivan, & Towler, 2005) was administered to students by the google form. The SCEQ has demonstrated effectiveness in assessing student course engagement across multiple studies (Miller, Demoret, & Wadkins, 2009; Svanum & Bigatti, 2009). The instrument has 23 equally weighted items each assessed using a 5-point Likert scale. All students were given appropriate instructions on completing the questionnaire and an information note which described the background and purpose of the research. By

completing the SCEQ, the participant had consented to take part in the study. The 1 – 5 Likert scale indicated responses to statements where 1 indicated that the statement was “much less like me”, whereas 5 indicated that the statement was “much more like me”. The middle point on the scale (3) indicated no preference, such that the statement was neither “more like me” nor “less like me”. All data collected were analysed using IBM SPSS version 22 software.

Results and Discussion

The data analysis included descriptive measures for variables at each level of measurement. The participants are also differentiated basis their gender (male or female), family income, and residence location.

Demographics

One hundred and fourteen (114) students responded to the recruitment email and followed the google form link to participate in the study. 100% of the participants had experienced traditional and online classes while they were enrolled in master’s degree programs and were more than 20 years in age.

The summaries of the participants are tabulated in Table 1. Before any parametric analyses are done on the survey data, normality tests are carried out first. The Kolmogorov-Smirnov and Shapiro-Wilk normality tests are used to investigate the normality of the data for the traditional and the online categories. Table 2 shows the normality test results for the survey data. It is found that p-values for all the categories defined are greater than 0.05. This indicates that the possibility of the data set being not normal is rejected and the probability that the data is normal is greater than 95%. Hence, the data is reliable enough for further parametric analyses.

Table 1. Demographic Characteristic of Participants (N=114)

Characteristic	Frequency	Valid percent	Cumulative percent
Gender			
Male	50	43.9	43.9
Female	64	56.1	100
Income Group (lakhs)			
<3	40	35.1	35.1
3 – 5	40	35.1	70.2
5 -10	29	25.4	95.6
>10	5	4.4	100.0
Residence Location			
South Mumbai	12	10.5	10.5
Central Mumbai	52	45.6	56.1
Navi Mumbai	12	10.5	66.7
Western Mumbai	10	8.8	75.4
Central Suburbs	19	16.7	92.1

Western Suburbs	9	7.9	100.0
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Table 2. Tests for Normality for survey data^a

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	df	p-value	Statistics	df	p-value
Results	0.095	114	0.200	0.947	114	0.140

*. This is a lower bound of the true significance; a. Lilliefors Significance Correction

Exploratory Factor Analysis

An exploratory factor analysis was performed on questionnaire responses using the principle axis factoring method with varimax rotation. An initial 4 factor solution explained more than 68% of the total variance. In preliminary analyses, four items had cross loading and/or inadequate loading problems (item loading less than .25), which were removed from the item pool. The remaining 19 items produced adequate loadings, and no item cross-loaded on any factor. The factor analysis resulted in a 19-item final version of the SCEQ-M. Table 3 shows the factor loadings of the 19 retained items of the SCEQ-M. The revised 2-factor solution which emerged explained 63% of the variance. These two factors were named as Factor 1 (SE): Skill Engagement and Factor 2 (PE): Performance Engagement. In addition, the Kaiser-Meyer Olkin value was .944, which exceeds the suggested minimum value of .5, and Bartlett’s test was statistically significant ($p < .01$), which also indicated that the data were suitable for factor analysis. The internal reliability of the scale was assessed using Cronbach’s alpha (α) coefficient and it was found to be .956 and it is found that the alpha coefficients for the scale is above 0.7, indicating that the internal consistency and reliability of the data are acceptable and hence suitable for further analysis. The rule of thumb for Cronbach’s alpha is that the closer the alpha is to 1, the higher the reliability (Kothari, 2004).

Table 3. Results of Exploratory Factor Analysis

Factor	Item Loading	Items loaded
Skill Engagement	0.695	SE1
	0.738	SE2
	0.772	SE3
	0.755	SE6
	0.706	SE7
Performance Engagement	0.673	PE1
	0.610	PE2

0.765	PE3
0.724	PE4
0.842	PE5
0.746	PE6
0.796	PE7
0.759	PE8
0.698	PE9
0.768	PE10
0.678	PE11
0.758	PE12
0.768	PE13

SE: Skill Engagement; PE: Performance Engagement
 Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Basis the above factor analysis outcomes, the following secondary hypothesis are proposed:

H1a: There is significant difference between traditional learning and online learning in student skill engagement for the post graduate students.

H1b: There is significant difference between traditional learning and online learning in student performance engagement for the post graduate students.

Table 4 shows the results of the one-way ANOVA for the survey data. The parametric analyses using the one-way ANOVA show that the p-value of the relationship is less than 0.05, indicating that the possibility of a significant difference existing between traditional and online engagement.

Table 4. One-way ANOVA for gender, income, residential location for traditional and online student engagement.

Learning Method		Sum of Squares	df	Mean Square	F	Sig.
Gender						
Traditional	Between Groups	0.361	1	0.361	0.954	0.331
	Within Groups	42.328	112	0.378		
	Total	42.688	113			
Online	Between Groups	0.009	1	0.009	0.015	0.903
	Within Groups	69.901	112	0.624		
	Total	69.910	113			
Income						
Traditional	Between Groups	1.970	3	0.657	1.774	0.156
	Within Groups	40.718	110	0.370		
	Total	42.688	113			

Online	Between Groups	1.771	3	0.590	0.953	0.418
	Within Groups	68.140	110	0.619		
	Total	69.910	113			
Residential Location						
Traditional	Between Groups	1.074	5	0.215	0.558	0.732
	Within Groups	41.614	108	0.385		
	Total	42.688	113			
Online	Between Groups	4.060	5	0.812	1.332	0.256
	Within Groups	65.851	108	0.610		
	Total	69.910	113			

Analysis carried out to investigate if there are any significant effects from the gender, income and residential location of the participants on their engagement in traditional and online learning by using the one-way Analysis Of Variance (ANOVA). It is found that the p-values are greater than 0.05, implying that these two lecturing methods are not significantly affected by gender, income and residential location.

Table 5. Results of hypothesis testing by using one-way ANOVA.

Engagement	Sum of Squares	df	Mean Square	F	Sig.
Skill Engagement					
Between Groups	2.654	1	2.654	5.469	0.020
Within Groups	109.675	226	0.485		
Total	112.329	227			
Performance Engagement					
Between Groups	1.107	1	1.107	1.712	0.192
Within Groups	146.172	226	0.647		
Total	147.279	227			

Table 5 presents the results on the effects of traditional and online learning methods on student engagement. It was observed that the p-value for skill engagement was less than 0.05 and p-value for performance engagement was higher than 0.05, hence the hypothesis H1a is accepted and the data didn't support hypothesis H1b. Additional observations on the results presented in Table 5 are presented in Table 6, which show that the mean of skill engagement for traditional learning (Mean = 3.77) is slightly higher than online learning, indicating that the skill engagement for traditional learning is higher than online learning. Similarly, the mean for performance engagement is higher for traditional learning as compared to online learning, however the p-value is greater than 0.05 and hence not supporting the hypothesis.

Table 6. Group statistics for data

	N	Mean	Std. Deviation	Std. Error Mean
Skill Engagement	114			

Traditional learning	114	3.7789	0.55134	0.05164
Online learning	114	3.5632	0.81645	0.07647
Total	228	3.6711	0.70345	0.04659
Performance Engagement	114			
Traditional learning	114	3.8830	0.77684	0.07276
Online learning	114	3.7437	0.83071	0.07780
Total	228	3.8134	0.80549	0.05334

As is observed from the above results, the demographic variables of gender, income and residential location were not significant predictors for student engagement for both traditional and online learning. Additionally, it was observed that the student skill engagement was higher for traditional learning with respect to clarifying of doubts in class ($p = 0.003$), completion of assignments ($p = 0.008$) and taking of notes in class ($p = 0.004$), paying attention to the class ($p = 0.008$) and trying to make the course more interesting for self ($p = 0.041$). One of the reasons pointed out by the students of is that the traditional learning presents more opportunities for the students to easily understand and comprehend the learnings with the support of the faculties and fellow students. This is supported by the literature as highlighted by findings of Tawil, Ismail, Shaari, Osman, & Nopiah, (2011) who found greater mean values for students' engagement towards traditional lecturing methods than e-learning for the courses in Mathematics and Statistics. Traditional lecturing was also found to be better than online learning for trainees in dentistry (Browne et al., 2004). The preceding findings appear to dispute the findings by Wong & Ng, 2016, who found greater mean values for students' perception towards eLearning lecturing methods than traditional learning. Hence, different results may be yielded across different study areas.

Actively engaging students in learning is central to academic success and improved outcomes (Docherty, et al., 2018). The use of online platforms such as Blackboard, can be useful to create discussion forums, provide feedback and participate in online discussions. However, some studies reported these activities as being of limited value to learning where students' participation was passive rather than actively engaging (Dyment, Stone, & Milthorpe, 2020). Students reported higher engagement with meaningful activities that were linked to summative assessment and those activities with a personalised approach in which lecturers actively participated (Dyment, Stone, & Milthorpe, 2020; Randsdell, Borrer, & Su, 2018). An absence of meaningful activities can lead to a more surface learning approach leading to poorer learning outcomes (Dolmans, Loyens, Marcq, & Gijbels, 2016). Therefore, building relationships between students and lecturers can be beneficial for active engagement of the students in classes (Bramble, et al., 2018; Dismore, Turner, & Huang, 2019).

Conclusion

This study has successfully proven that there is a significant difference between the traditional and online learning methods for student engagement for some factors of student engagement like skill engagement, however it didn't find support for performance engagement for post graduate management students. The study also

revealed that the students' engagement was higher for traditional learning with respect to clarifying of doubts in class, completion of assignments and taking of notes in class, paying attention to the class and trying to make the course more interesting for self. Looking into the future it is undoubted that online learning can be a strong proponent in the progression of modern teaching and learning methods. Therefore, a combination between the two would hence be termed blended learning. Blended learning is a combination of instructional methods (Driscoll, 2002). It is also understood as a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning (Rovai & Jordan, 2004). Thus, it is also important to note that a balance between traditional learning and e-learning is essential to reap the full competitive advantage of e-learning approaches.

For future studies, it is suggested that more actual or experimental data (pertaining to the students' academic results) are captured and analyzed to verify the significance of the different learning methods. Furthermore, the cluster of students that participate in the study could also be broadened to include other streams of studies across different levels like school, graduation for instance. Overall, even though more analyses are required to verify the existing findings and innovate future discoveries in traditional and online learning, this study still serves as preliminary evidence on the versatility and performance of learning techniques in post graduate management students.

References

- Beech, N., & Anseel, F. (2020). COVID-19 and Its Impact on Management Research and Education: Threats, Opportunities and a Manifesto. *British Journal of Management*, 31(3), 447-449.
- Bramble, M., Maxwell, H., Einboden, R., Farington, S., Say, R., Beh, C. L., . . . Rickard, G. (2018). Exploring and Improving Student Engagement in an Accelerated Undergraduate Nursing Program through a Mentoring Partnership: An Action Research Study. *International Journal of Nursing Education Scholarship*, 15(1). doi:<https://doi.org/10.1515/ijnes-2017-0090>
- Brammer, S., & Clark, T. (2020). COVID-19 and Management Education: Reflections on Challenges, Opportunities, and Potential Futures. *British Journal of Management*, 31(3), 453-456.
- Brown, S. J., White, S., Bowmar, A., & Power, N. (2017). Student engagement in a compulsory introductory physiology course. *Journal of the Scholarship of Teaching and Learning*, 52.
- Christenson, S. L., Reschly, A. L., Appleton, J. J., Berman, S., Spanjers, D., & Varro, P. (2008). Best practices in fostering student engagement. *Best Practices in School Psychology*, 5(1), 1099-1120.
- Crossan, B., Field, J., Gallacher, J., & Merrill, B. (2003). Understanding participation in learning for nontraditional adult learners: Learning careers and the construction of learning identities. *British Journal of Sociology of Education*, 24, 55-67.

- Dahalan, N., Hassan, H., & Atan, H. (2012). Student engagement in online learning: Learners attitude toward e-mentoring. *Procedia-Social and Behavioral Sciences*, 67, 464-475.
- Dismore, H., Turner, R., & Huang, R. (2019). Let me edutain you! Practices of student engagement employed by new lecturers. *Higher Education Research & Development*, 38(2), 235-249.
- Docherty, A., Warkentin, P., Borgen, J., Garthe, K. A., Fischer, K., & Najjar, R. (2018). Enhancing student engagement: innovative strategies for intentional learning. *Journal of Professional Nursing*, 34(6), 470-474.
- Dolmans, D., Loyens, S., Marcq, H., & Gijbels, D. (2016). Deep and surface learning in problem-based learning: a review of the literature. *Advances in Health Sciences Education*, 21(5), 1087–1112. doi:<https://doi.org/10.1007/s10459-015-9645-6>.
- Driscoll, M. (2002). Blended learning: Let's get beyond e-learning. Retrieved from <http://www.ltimagazine.com>.
- Dyment, J., Stone, C., & Milthorpe, N. (2020). Beyond busy work: rethinking the measurement of. *Higher Education Research & Development*. doi:: <https://doi.org/10.1080/07294360.2020.1732879>.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272.
- 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.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, 95, 148–162.
- Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *The Journal of Educational Research*, 98(3), 184-192.
- Ilie, V., & Frăsineanu, E. S. (2019). Traditional Learning Versus E-Learning. *Edu World 2018*, (pp. 1192-1201).
- Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758-773.
- Kahu, E. R., & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research & Development*, 37(1), 58-71.
- King, R. B. (2015). Sense of relatedness boosts engagement, achievement, and well-being: A latent growth model study. *Contemporary Educational Psychology*, 42, 26–38.
- Kothari, C. (2004). *Research Methodology: Methods and Techniques* ((2nd Revised ed.) ed.). New Delhi: New Age International Publishers.
- Kumar, S., & Dash, M. K. (2011). Management education in India: Trends, issues and implications. *Research Journal of International Studies*, 18(1), 16-26.
- Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality An International Journal*, 46(3), 517-528.

- Lei, H., Xu, G., Shao, C., & Sang, J. (2015). The relationship between teachers' caring behavior and academic achievement of students: The mediating role of learning self-efficacy [In Chinese]. *Psychological Development and Education*, 31, 188–197.
- Li, F., Qi, J., Wang, G., & Wang, X. (2014). Traditional Classroom VS E-learning in Higher Education: Difference between Students' Behavioral Engagement. *Journal of Emerging Technologies in Learning (iJET)*, 9(2), 48-51. doi:http://dx.doi.org/10.3991/ijet.v9i2.3268
- Mandernach, B. J., Donnelly-Sallee, E., & Dailey-Hebert, A. (2011). Assessing course student engagement. *Promoting student engagement*, 1, 277-281.
- Marz, A. A., Simonsen, J. C., & Kitchel, T. (2016). Undergraduate Student Course Engagement and the Influence of Student, Contextual, and Teacher Variables. *Journal of Agricultural Education*, 212-228.
- May, S. C. (2019). *A Comparative Analysis of Student Success and Perceptions of Engagement between Face-to-Face and Online College Courses* (Doctoral dissertation). Lindenwood University.
- Miller, R. L., Demoret, M., & Wadkins, T. (2009). Promoting student engagement in the classroom. In S. McCarthy, V. Karandashev, M. Stevens, A. Thatcher, J. Jaafar, K. Moore, . . . W. Gomes, *Teaching psychology around the world* (pp. 424-440). Newcastle, UK: Cambridge Scholars Publishing.
- Miller, R. L., Demoret, M., & Wadkins, T. (2009). Promoting student engagement in the classroom. *Teaching psychology around the world*, 2, 424-440.
- Pietarinen, J., Soini, T., & Pyhältö, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research*, 67, 40–51.
- Randsdell, S., Borrer, J., & Su, H. (2018). Users not watchers: motivation and the use of. *Distance Learning*, 15(2), 35–39.
- Rovai, A. P., & Jordan, H. P. (2004). Blended Learning and Sense of Community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning*, 5(2).
- Rovai, A., Ponton, M., Wighting, M., & Baker, J. (2007). A comparative analysis of student motivation in traditional classroom and e-learning courses. *International Journal on E-learning*, 6(3), 413-432.
- Sethy, S. S. (2008). Distance Education in the Age of Globalization: An Overwhelming Desire towards Blended Learning. *Turkish Online Journal of Distance Education*, 9(3).
- Svanum, S., & Bigatti, S. M. (2009). Academic course engagement during one semester forecasts college success: Engaged students are more likely to earn a degree, do it faster, and do it better. *Journal of College Student Development*, 50(1), 120-132.
- Tawil, N., Ismail, N., Shaari, I., Osman, H., & Nopiah, N. (2011). E-learning versus traditional method in teaching mathematics and statistics courses for engineering students in Universiti Kebangsaan Malaysia. . *Proceedings of the Congress of Teaching and Learning*.
- United Nations. (2020). *Policy Brief: Education during COVID-19 and beyond*.

- Wäschle, K., Allgaier, A., Lachner, A., Fink, S., & Nückles, M. (2014). Procrastination and self-efficacy: Tracing vicious and virtuous circles in self-regulated learning. *Learning and Instruction, 29*, 103–114.
- Wellborn, J. G. (1991). *Engaged and disaffected action: The conceptualization and measurement of motivation in the academic domain*. Rochester: University of Rochester.
- Wong, W. K., & Ng, P. K. (2016). An Empirical Study on E-Learning versus Traditional Learning among Electronics Engineering Students. *American Journal of Applied Sciences, 13*(6), 836-844.
- Zhu, X. X. (2010). *A study of the relationship between fear of failure, learning engagement and academic performance in high school students (Master's thesis)*. Shijiazhuang, China: Hebei Normal University.