

Learners Engagement in Covid-19 Era and Influence on Academic Performance in Online Health Education

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Background

Inherent emotional distancing in online learning during covid-19 pandemic deteriorated learners' engagement and subsequently impaired their academic performance which brought to the forefront the challenging issue of enhancing student engagement in online learning. In Saudi Arabia, similar to the rest of the world, the COVID-19 pandemic brought unprecedented interruption to university education, with a swift transition to online teaching. Student engagement refers to students expression of opinions or attitudes and behaviors .

According to Mandernach (2015) student engagement is driven by intrinsic motivation or individual needs which makes learners adapt certain practices with determination. Despite universal agreement on importance of learners' engagement, understanding and assessing the level of engagement in higher education remains elusive. In order to acquire knowledge, learners engage in multiple ways and instructors need to recognize their scope of engagement in their own unique context and should monitor and assess student engagement as a component of the overall learning experience.

The aim of this study is to determine level of learner course engagement of allied health learners in online health education and its implications on academic performance.

Methods

A 23-item IRB-approved (IRB No-20-709) questionnaire (Adapted and modified from Handelsman et al) assessing student course engagement was used with a 5-point Likert scale for responses. It was distributed to Allied Health courses learners (n=104) at Faculty of Medicine ,King Fahad Medical City, Saudi Arabia. Individual score of Four engagement factors namely the (participation, skills, emotional and performance engagement) and the overall total Engagement score(sum of participation, skills, emotional and performance engagement) of learners were analyzed, then compared to students' Final Grade in the course.

Results

The questionnaire was distributed to about 104 students, out of which 74 students responded (71.2%). In our study, the total student engagement summed score of all four factors ranged from 56-115, (maximum 115points). The total summed score range for skills engagement subscale was 23-45(maximum 45 points), with Mean/SD-38.11 ± 0.704, for emotional engagement was 10-25(maximum 25 points) Mean/SD-20.01 ± 0.464 for the participation/interaction engagement was 11-30(maximum 30 points), Mean/SD-22.97 ± 0.632 and for the performance engagement was 8-15(maximum 15 points), Mean/SD-12.32 ± 0.254 .Majority of the participants 58(78.4%)with A or B overall current grade scored a total engagement range of 64 -115 , and the participants with overall current grade of C or D 13 (17.6%) scored a total engagement range of 56 -113. Correlations of engagement factors to the final exam grade results showed significant positive correlation for performance engagement and final exam grade(p=0.001) .

Table 1: Demographic data of participants: n=74

No	Data	N	%
1	Females	62	83.8%
	Males	12	16.2%
2	Graduate	39	52.7%
	Postgraduate	34	45.9%
3	Course Duration		
	Less than one year	5	6.8%
	One year	35	47.3%
	Two years	15	20.3%
	Three years	18	24.3%
4	Current Exam Grade		
	A	33	44.6%
	B	25	33.8%
	C	10	13.5%
	D	3	4.1%

Table 2: Mean / Standard Deviation and reliability analysis for each of the Engagement Dimensions (n=74)

No	Engagement dimension	Mean	SD (±)	Reliability
1	Participation Engagement	22.97	0.632	.761
2	Skills Engagement	38.11	0.704	.740
3	Emotional Engagement	20.01	0.464	.779
4	Performance engagement	12.32	0.254	.827

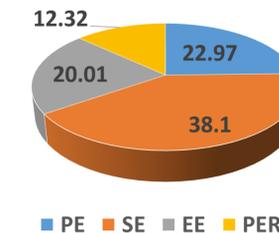
Cronbach's Alpha for overall engagement score was (0.819).

Table 3: Pearson correlation of Engagement factors to Final Exam grade:

No	Engagement dimension	r value	P value
1	Total Engagement	.1860	0.113
2	Participation Engagement	.1090	0.356
3	Skills Engagement	.1540	0.190
4	Emotional Engagement	.1070	0.353
5	Performance engagement	.3930	0.001

Correlations of the engagement factors to the final exam grade and Inspection of the results showed significant positive correlation for performance engagement and final exam grade(p=0.001)

Fig 1: Average scores of Students Engagement



PE=Participation engagement,
SE=Skills engagement,
EE=Emotional engagement,
PER E=Performance engagement).

Conclusion

This study highlights the importance of high level student engagement and its influence on academic performance in online learning in Allied Health Science.

Translational Potential

Student engagement is generally recognized as an essential stimulus on achievement and learning in higher education and as such is being widely explored. In order to efficiently assess learner engagement, one must identify various aspects of engagement that are being utilized.

The four dominant research perspectives on student engagement are the behavioral perspective, which foregrounds student behavior and institutional practice; second, the psychological perspective, which clearly defines engagement as an individual psycho-social process; third the socio-cultural perspective, which highlights the critical role of the socio-political context; and, finally, the holistic perspective, which takes a broader view of engagement. The Student Course Engagement Questionnaire (SCEQ) covers all perspectives.

These engagement approaches emphasize what institutions do to encourage and support individual learner involvement. Mayhew et al. (2016) concluded that, "Students' academic effort and involvement are positively related to desired outcomes including: intellectual and social gains, subject matter competence, and personal and social competence. He also stated that student success is influenced by the degree to which students become engaged and involve in academic and other activities of college life". Student engagement is considered to be among the better predictors of learning.

In our study students who obtained higher grades had better total engagement scores and in specific performance engagement score out of the four subsets of engagement. Behaviors in which students engage during their academic studies are essential for developing their personal learning and academic performance.

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