



Assessing First-Year University Students' Engagement to support Student Development

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Introduction

- *COVID-19* created unprecedented challenges for universities as both students and lecturers adopt remote teaching and learning.
- The transition to university is especially challenging for Malaysian students due to “disconnect between secondary schools and universities” (Terpstra-Tong & Ahmad, 2018, p851).
- Student engagement is critical for successful adaptation into the university environment (Kahu et al., 2019)
- There are a variety of definitions, dimensionalities and measurements for the concept of student engagement.
- The lack of consensus on student engagement warrant more research to examine its dimensionality, instruments, and concurrent validity (Christenson, Reschly, & Wylie, 2012; Fredricks & McColskey, 2012).
- The measurement of first year university student engagement can help inform and enhance universities’ student development programs (Coertjens et al., 2017; Krause & Coates, 2008).

Introduction

- This study examine first year university student engagement and assess the student engagement measurement developed by Krause and Coates (2008) in the Malaysian context.
- According to Krause and Coates (2008), first year university student engagement has 7 dimensions
 - Transition Engagement Scale (TES)
 - Academic Engagement Scale (AES)
 - Peer Engagement Scale (PES)
 - Student-Staff Engagement Scale (SES)
 - Intellectual Engagement Scale (IES)
 - Online Engagement Scale (OES)
 - Beyond-class Engagement Scale (BES)

Methodology

- ▶ Research instrument is adapted from Krause and Coates (2008).
- ▶ Research questionnaire is in both Bahasa Melayu and English to facilitate respondents' understanding of the questionnaire items.
- ▶ Research sample consisted of 142 first year Malaysian public university students obtained via cluster sampling.

Table 1. Respondents' Profile ($N = 142$)

	Classification	Number	Percentage
Gender	Female	98	69
	Male	44	31
Ethnicity	Malay	74	52
	Chinese	52	37
	Indian	12	8
	Others	4	3

Findings

Reliability of Measurement Instrument

Cronbach's alpha values indicate high reliability for all seven engagement sub-scales

Table 2. Measurement Instrument Reliability Statistics

	No of Items	Cronbach's Alpha
Transition engagement scale (TES)	7	0.941
Academic engagement scale (AES)	9	0.838
Peer engagement scale (PES)	9	0.923
Student-staff engagement scale (SES)	11	0.961
Intellectual engagement scale (IES)	5	0.936
Online engagement scale (OES)	11	0.955
Beyond-class engagement scale (BES)	6	0.924

Distribution of First Year University Student Engagement Qualities

- ▶ Sample statistics showed that the rank order for first year university student are
 - ▶ online engagement (strongest)
 - ▶ student-staff engagement
 - ▶ transition engagement
 - ▶ beyond-class engagement
 - ▶ intellectual engagement
 - ▶ peer engagement
 - ▶ academic engagement (weakest)
- ▶ High student online engagement suggest that ICT tools be prioritised to enhance student engagement in first year university students

Table 3. Sample Statistics of First Year Student Engagement Qualities ($N = 142$)

	Mean	Std Deviation	Rank order
Online Engagement (OE)	2.37	0.95	1
Student-Staff Engagement (SE)	2.40	0.89	2
Transition engagement (TE)	2.47	0.98	3
Beyond-class Engagement (BE)	2.47	0.94	4
Intellectual Engagement (IE)	2.52	0.89	5
Peer Engagement (PE)	2.61	0.81	6
Academic Engagement (AE)	2.86	0.69	7

- ▶ Out of 58 student engagement items, the student engagement items that were strongest are
 - ▶ Using email / Whatsapp / Facebook to contact other students
 - ▶ Using Internet regularly for study purposes
 - ▶ Using email / Whats App / Facebook to contact course mates
- ▶ All the top 3 items were from the Online Engagement (OE) category

- ▶ The student engagement items that were weakest are
 - ▶ Reading the textbook before attending class
 - ▶ Asking questions in class
 - ▶ Borrowing books from the university library
- ▶ All 3 weak items are from the Academic Engagement (AE) category

- ▶ t-tests were all statistically significant and indicate that students are moderately engaged in all seven student engagement dimensions

Table 5. T-Test of First Year Student Engagement Qualities (*N* = 142)

	Mean	SD	Test value=3	
			t(142)	p
Transition Engagement (TE)	2.4668	0.98106	-6.476	0.000
Academic Engagement (AE)	2.8576	0.69084	-2.456	0.015
Peer Engagement (PE)	2.6064	0.80794	-5.805	0.000
Student-Staff Engagement (SE)	2.4014	0.89159	-8.000	0.000
Intellectual Engagement (IE)	2.5183	0.89194	-6.435	0.000
Online Engagement (OE)	2.3700	0.95320	-7.875	0.000
Beyond-Class Engagement (BE)	2.4695	0.93854	-6.736	0.000

- ▶ Pearson correlation test indicate that student engagement dimensions are significantly and positively related.
- ▶ Academic Engagement is most strongly correlated with Intellectual Engagement suggesting that freshman academic engagement can be improved by helping students to choose courses which they enjoy studying and are in line with their interests.

Table 6. Correlations between Engagement Types (*N* = 142)

	TE	AE	PE	SE	IE	OE
Academic Engagement (AE)	.636**					
Peer Engagement (PE)	.736**	.674**				
Student-staff Engagement (SE)	.753**	.619**	.803**			
Intellectual Engagement (IE)	.755**	.687**	.783**	.828**		
Online Engagement (OE)	.715**	.557**	.783**	.799**	.787**	
Beyond-class Engagement (BE)	.734**	.634**	.802**	.801**	.826**	.794**

Conclusion

- ▶ This study assessed seven qualities of engagement among freshman students in a public university. First year university students were most engaged with regard to Online Engagement (OE) while their academic engagement was the weakest.
- ▶ Low academic engagement compared to other student engagement qualities reflects inability to adapt from school based to university based learning (Kahu et. Al., 2019; Krause & Coates, 2008; Lee et. Al., 2020).
- ▶ Future first year student development programs should have a stronger emphasis in developing academic engagement.
- ▶ Workshops can also be held to train faculty members to academically engage first year university students (Erickson, Peters, & Strommer, 2009; Lee, Portillo, & Meneely, 2020).

Conclusion

- ▶ This study found the scale developed by Krause and Coates (2008) for first-year undergraduate students in Australia to be a highly reliable measurement instrument in the Malaysian context.
- ▶ Study limitation- respondents are “traditional” first year students enrolled in face to face university courses.
- ▶ Future research could study online student engagement of first year university students enrolled in non-traditional modes of learning such as moocs (Massive Open Online Course), distance learning and hybrid learning.

THANK YOU

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