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Dataset From " Factors affecting students' eLearning at one South African medical school: A cross-sectional survey: Survey and interviews from A responsive e-learning system for the challenges facing health sciences education

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Kruskal Wallis Analysis for the study

A comparison of the frequency of using university computers by YOS showed no significant differences (p=0.634) between the students in different years, MBBCh1 (*Mean Rank* 186.29), MBBCh3 (*Mean Rank* 185.43), MBBCh6 (*Mean Rank* 174.94), *H* (corrected for ties = 0.910), *df* = 2, *N* = 364.

A comparison of the preferred teaching approach by YOS showed no significant differences (p=0.716) between the students, MBBCh1 (*Mean Rank* 186.27), MBBCh3 (*Mean Rank* 184.29), MBBCh6 (*Mean Rank* 176.25), *H* (corrected for ties) = 0.669, *df* = 2, *N* = 364.

The result for students' preference for simulation or educational games was statistically significant (*p* = 0.027). The result for students' preference for pre-recorded lectures (to allow viewing prior to the lecture session with lecture time used for discussion /other activities) was statistically significant across the three years (*p* = 0.038).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
4.7 Learning management system (e.g. Wits-e/SAKAI)	364	0	3	1.65	.682
4.7 Simulations or educational games	364	0	3	1.19	.776
4.7 Online quizzes/practice tests	364	0	3	1.49	.636

4.7 In-class polling tools (e.g. clickers, Poll Everywhere)	364	0	3	1.15	.812
4.7 Live lecture capture (i.e. record lecture live for later use/review)	364	0	3	1.62	.676
4.7 Pre-recorded lectures (to allow viewing prior to lecture session with lecture time used for discussion/other activities)	364	0	3	1.39	.867
4.7 Videos or multimedia resources	364	0	3	1.56	.584
4.7 Social media (e.g. Facebook, Twitter) as a teaching and learning tool	364	0	3	.82	.924
4.7 Early alert systems designed to catch potential academic trouble as soon as possible	364	0	3	1.70	.680
Valid N (listwise)	364				

Kruskal-Wallis

Ranks			
	Year of study	N	Mean Rank
4.7 Learning management system (e.g. Wits-e/SAKAI)	MBBCh1	126	189.08
	GEMP1/MBBCh3	126	183.98
	Gemp4/MBBCh6	112	173.43
	Total	364	
4.7 Simulations or educational games	MBBCh1	126	197.10
	GEMP1/MBBCh3	126	164.81
	Gemp4/MBBCh6	112	185.97
	Total	364	
4.7 Online quizzes/practice tests	MBBCh1	126	176.28
	GEMP1/MBBCh3	126	185.44
	Gemp4/MBBCh6	112	186.19
	Total	364	
4.7 In-class polling tools (e.g. clickers, Poll Everywhere)	MBBCh1	126	184.06
	GEMP1/MBBCh3	126	181.46
	Gemp4/MBBCh6	112	181.91
	Total	364	
4.7 Live lecture capture (i.e. record lecture live for later use/review)	MBBCh1	126	174.52
	GEMP1/MBBCh3	126	188.30
	Gemp4/MBBCh6	112	184.95
	Total	364	
4.7 Pre-recorded lectures (to allow viewing prior to lecture	MBBCh1	126	181.40
	GEMP1/MBBCh3	126	167.77
	Gemp4/MBBCh6	112	200.30

session with lecture time used for discussion/other activities)	Total	364	
4.7 Videos or multimedia resources	MBBCh1	126	191.12
	GEMP1/MBBCh3	126	176.80
	Gemp4/MBBCh6	112	179.21
	Total	364	
4.7 Social media (e.g. Facebook, Twitter) as a teaching and learning tool	MBBCh1	126	180.67
	GEMP1/MBBCh3	126	173.79
	Gemp4/MBBCh6	112	194.36
	Total	364	
4.7 Early alert systems designed to catch potential academic trouble as soon as possible	MBBCh1	126	179.52
	GEMP1/MBBCh3	126	185.53
	Gemp4/MBBCh6	112	182.44
	Total	364	

Medical students preferences for the listed technologies by year of study (Kruskal-Wallis) (N=364)

Technology	Kruskal-Wallis	Df	Asymp. Sig.
Learning management system (e.g. Wits-e/SAKAI)	1.702	2	0.427
Simulations or educational games	7.214	2	*0.027
Online quizzes/practice tests	.869	2	0.648

In-class polling tools (e.g. clickers, Poll Everywhere)	.052	2	0.974
Live lecture capture (i.e. record lecture live for later use/review)	1.733	2	0.420
Pre-recorded lectures (to allow viewing prior to lecture session with lecture time used for discussion/other activities)	6.537	2	*0.038
Videos or multimedia resources	1.743	2	.0418
Social media (e.g. Facebook, Twitter) as a teaching and learning tool	2.692	2	.0260
Early alert systems designed to catch potential academic trouble as soon as possible	.277	2	.0871

There was no significant difference by YOS in student wish to be better prepared on entry to university to use the LMS (p=0.134) and basic office/browsers (p=0.404), and preparedness to use technology (p=0.700).

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
4.10. I wish I had been better prepared to use institution- specific technology when I started university (e.g. the course registration system, the learning management system, the library search system)	364	2.01	1.207	0	4
4.10 I am more likely to skip classes when streamed or recorded lectures are available online	364	1.87	1.240	0	4
4.10 I am more likely to skip classes when materials presented in class are available online	364	1.95	1.188	0	4
4.10 When I entered university, I was adequately prepared to use technology needed in my courses	364	1.23	1.188	0	4

4.10. I wish I had been better prepared to use basic software programs and applications when I started university (e.g. Microsoft Office, Windows explorer, etc.)	364	2.52	1.241	0	4
Year of study	364	.96	.809	0	2

Ranks

	Year of study	N	Mean Rank
4.10. I wish I had been better prepared to use institution-specific technology when I started university (e.g. the course registration system, the learning management system, the library search system)	MBBCh1	126	197.16
	GEMP1/MBB Ch3	126	176.33
	Gemp4/MBB Ch6	112	172.95
	Total	364	
4.10 I am more likely to skip classes when streamed or recorded lectures are available online	MBBCh1	126	191.47
	GEMP1/MBB Ch3	126	173.95
	Gemp4/MBB Ch6	112	182.03
	Total	364	
4.10 I am more likely to skip classes when materials presented in class are available online	MBBCh1	126	195.51
	GEMP1/MBB Ch3	126	177.31
	Gemp4/MBB Ch6	112	173.71
	Total	364	
	MBBCh1	126	177.38

4.10 When I entered university, I was adequately prepared to use technology needed in my courses	GEMP1/MBB Ch3	126	182.38
	Gemp4/MBB Ch6	112	188.40
	Total	364	
4.10. I wish I had been better prepared to use basic software programs and applications when I started university (e.g. Microsoft Office, Windows explorer, etc.)	MBBCh1	126	192.11
	GEMP1/MBB Ch3	126	175.47
	Gemp4/MBB Ch6	112	179.59
	Total	364	

Test Statistics[a,b]					
	4.10. I wish I had been better prepared to use institution-specific technology when I started university (e.g. the course registration system, the learning management system, the library search system) ?	4.10 I am more likely to skip classes when streamed or recorded lectures are available online	4.10 I am more likely to skip classes when materials presented in class are available online	4.10 When I entered university, I was adequately prepared to use technology needed in my courses	4.10. I wish I had been better prepared to use basic software programs and applications when I started university (e.g. Microsoft Office, Windows explorer, etc.) ?
Kruskal-Wallis H	4.016	1.854	3.217	.712	1.815
df	2	2	2	2	2
Asymp. Sig.	.134	.396	.200	.700	.404
a. Kruskal Wallis Test					
b. Grouping Variable: Year of study					

The results for time spent online for research purposes by YOS were statistically significant (p = 0.04). There were no significant differences between the students in different years for time spent online for social media usage by YOS *(p = 0.638)*, MBBCh1 (*Mean Rank* 179.15), MBBCh3 (*Mean Rank* 179.73), MBBCh6 (*Mean Rank* 189.38), *H* (corrected for ties) = 0.762, *df* = 2, *N* = 364,*;* and for streaming video for academic purposes (*p = 0.47).* MBBCh1 (*Mean Rank* 187.37), MBBCh3 (*Mean Rank* 173.80), MBBCh6 (*Mean Rank* 186.81), *H* (corrected for ties) = 1.510, *df* = 2, *N* = 364,

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
5.3 Online research/homework	364	0	3	1.88	.816
5.3 Social media(e.g. Facebook, Twitter) for academic purposes	364	0	3	1.39	1.005
5.3 Streaming video for academic purposes	364	0	3	1.38	.890
5.3 Other online activity?	364	0	3	1.54	1.195
Valid N (listwise)	364				

Kruskal-Wallis

Ranks			
	Year of study	N	Mean Rank
5.3 Online research/homework	MBBCh1	126	174.25
	GEMP1/MBBCh3	126	173.46
	Gemp4/MBBCh6	112	201.95
	Total	364	
5.3 Streaming video for academic purposes	MBBCh1	126	187.37
	GEMP1/MBBCh3	126	173.80
	Gemp4/MBBCh6	112	186.81
	Total	364	

Test Statistics[a,b]		
	5.3 Online research/homework	5.3 Streaming video for academic purposes
Kruskal-Wallis H	6.251	1.510
df	2	2
Asymp. Sig.	.044	.470
a. Kruskal Wallis Test		
b. Grouping Variable: Year of study		

The results for how students connect to their own data provider by YOS were statistically insignificant (p = 0.279): MBBCh1 (*Mean Rank* =183.53), MBBCh3 (*Mean Rank* = 175.04), MBBCh6 (*Mean Rank* = 189.74), H (corrected for ties) = 2.551, df = 2, N = 364.

The Kruskal Wallis results for students' experiences with Wi-Fi connectivity by YOS were not significant for student housing (p = 0.544)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
5.1 WI-FI in student housing	364	0	5	3.25	2.025
Valid N (listwise)	364				

Ranks			
	Year of study	N	Mean Rank
5.1 WI-FI in student housing:	MBBCh1	126	190.25
	GEMP1/MBBCh3	126	179.08
	Gemp4/MBBCh6	112	177.63
	Total	364	
	GEMP1/MBBCh3	126	178.87
	Gemp4/MBBCh6	112	204.39
	Total	364	
	GEMP1/MBBCh3	126	196.37
	Gemp4/MBBCh6	112	164.17
	Total	364	

	5.1 WI-FI in student housing:
Kruskal-Wallis H	1.219
df	2
Asymp. Sig.	.544

There were no significant differences between students' perceptions of their instructors' use of technology by YOS. The Kruskal Wallis results for taking notes, to deepen learning, and to enhance learning were not significant: MBBCh1 (*Mean Rank* 186.162), MBBCh3 (*Mean Rank* 183.93), MBBCh6 (*Mean Rank* 176.78), *H* (corrected for ties) = 0.586, *df* = 2, *N* = 364, *p* = 0.746; MBBCh1 (*Mean Rank* 184.60), MBBCh3 (*Mean Rank* 181.69), MBBCh6 (*Mean Rank* 181.052), *H* (corrected for ties) = 0.087, *df* = 2, *N* = 364, *p* = 0.957; MBBCh1 (*Mean Rank* 179.24), MBBCh3 (*Mean Rank* 182.93), MBBCh6 (*Mean Rank* 185.69), *H* (corrected for ties) = 0.258, *df* = 2, *N* = 364, *p* = 0.879, respectively.