

Cultural Differences in e-Learning Behaviour and Overall Assessment

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Abstract: The article analyses the influence of culture on e-learning behaviour in form of LMS tool usage, assessment of peers, and post-graduate student's grades. E-learning behaviour in this research relates to tool usage such as email, discussion board, number of sessions, time spent etc. The analysis suggests adapting e-learning to participants based on their culture as well as making students aware that there may be a cultural bias in assessing their peer's contributions. Especially European students rate their Asian peers more than 10% lower than their European ones although the overall GPA does not differ. Europeans do better in group assignments than Asian students especially South Asians who perform better at individual assignments in a culturally diverse setting. The qualitative findings provide additional evidence that cultural features do have an impact on e-learning behaviours.

1 INTRODUCTION

Hofstede's (1991, p. 89) definition of culture as "the collective programming of the mind that distinguishes one group or category of people from another" and more recently, the GLOBE project defining culture as "shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted across generations" (House et al., 2004, p. 230) suggest that experiences and shared values constitute a cultural group. Researchers generally agree that variations between groups can exist on multiple dimensions (cognitions, behaviours, and values). However, cross-cultural research is mainly focused on cultural values. In contrast, this paper focuses on behaviours in the context of e-learning. In our paper we investigated the influence of cultural context on online learning behaviour of executive MBA students at an online university based in Singapore. Seven post-graduate elective business simulation courses with a total of 206 students from 2006 to 2010 were analysed. The average age of students was 38 years with predominantly engineering background who want to pursue an MBA to further increase their management competence. Although based in Singapore the online

university attracts a large number of South Asian (e.g. India, Indonesia) as well East Asians (e.g. Japan, China, Taiwan) and Europeans. The seven selected business simulation courses were taught by the same tutor, using the same software (Markstrat from Insead), time span of 12 weeks each, and same weight for assignments. A mix of nationalities was encouraged and sometimes directed by the tutor.

2 RESEARCH OBJECTIVES AND THEORETICAL FRAMEWORK

For cross-cultural theory of E-learning at the national level the major issue is measurement. There are five major perspectives. The first is Hofstede (1991) which has been the most widely used and criticised (Hofstede et al., 2010). Related to this perspective is Project Globe (House et al., 2004) which followed a different approach in methodology and sampling but with similar categories. Trompenaars & Hampden-Turner (2004) represents a third approach which is based on executive participants in management development programs answering questions about value dilemmas. The fourth approach is the Schwartz Value Survey (1992) which covers many countries based on respondents who are students and teachers. Finally,

Triandis (2001) uses an individualism-collectivism spectrum. Each approach has advantages and disadvantages. Typically, an approach is used as a standard measurement of a particular culture. A more qualitative approach is the distinction between high and low context cultures. According to Hall (1976) East-Asia (EA, e.g. Japan) would represent a high context culture whereas Europe (EU) a rather low-context culture with India somewhere in between. Higher context cultures generally have a stronger sense of group orientation, seniority, unspoken rules, and tradition. In Hofstede's (1991) and Trompenaars (2004) classification systems, South-Asia (SA) would be somewhere between EA and EU.

Swierczek and Bechter (2008) amalgamated and applied these approaches to e-learning, see Table 1, demonstrating that High Context cultures show a more a 'wait and see' reactive mode. Low Context learner cultures show higher volume, less depth and can be considered as more provocative and innovative.

Table 1: Features of High vs. Low e-learning cultures.

High Context (East-Asian)	Low Context (European)
Introvert	Extrovert
Modest	Superior
Reactive	Active
Reflective	Thinks outloud
Natural	Exaggerated
Reads First	Posts First
Data Focused	Monologue Dominant
High Frequency	High Involvement
Group oriented	Individual Achievement oriented
Team Harmony	Critical Peer evaluation
Deduction	Induction
Share knowledge within group	Share knowledge openly
Tutor as Leader	Tutor as Facilitator

The purpose of the study is to analyse culture related e-learning behaviour and its outcome.

The research questions are:

1. What is the relationship between a culture like South-Asia (SA), Europe (EU) or East-Asia (EA) on e-learning behaviours?
2. Does culture influence e-learning?
3. Is it possible to design an e-learning approach which is compatible with different cultures?

The objectives of this research:

1. To assess e-learning behaviours of post-graduate students.
2. To determine the influence of cultural values on e-learning behaviours.

3. To identify the impact of culture on e-learning activities.
4. To compare peer assessments of participants working together with student colleagues from different cultures.
5. To propose a multi-culturally compatible approach to e-learning design.

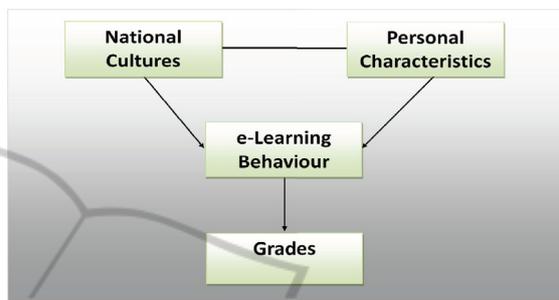


Figure 1: Research Framework.

The paper is structured in the way that overall assessments for students and tutor will be analysed in a first step. In a second step student online behaviour (input) and grades (output) split by cultural group will be compared. Included in the grade analysis is a comparison of peer assessment grades followed by relative success of cultural regions in group vs. individual assignments. In line with a mixed method approach (Creswell, 2009) some quotes from online discussions are provided. To test the hypothesis that there are cultural differences a second, purely quantitative, approach was used by grouping of students (clustering) along major e-learning behavioural dimensions (factors). Finally, results of both approaches were compared and recommendations given.

3 FINDINGS

3.1 Overall Assessment

The overall assessment grade (GPA) consisted of seven components. Discussion Board (DB) contributions accounting for 30%, two case studies (GA) 30%, final project (FP) 15% and final exam 25%. The case studies did not differ in complexity but were replaced by more current ones every two years. Case studies and final project (summary of the key learning points of the simulation game) were group assignments with team sizes ranging from five to seven participants.

Table 2: Overall assessment and its components.

	N	Mean	Std. Deviation
GA_1	205	82.93	14.525
GA_2	206	83.04	14.581
FP	206	82.71	12.708
DB_1	206	84.76	11.565
DB_2	206	84.41	12.942
DB_3	206	81.85	14.089
Final Exam	206	77.13	13.596
GPA	206	81.54	10.085
Valid N	205		

Grades ranged from 0 to 100, average see Table 2. Final exam score is below other assessment criteria which could be related to exam phobia or time pressure or tutor related by not advising students what was expected. The grades for online participation on the Discussion Board (DB) declined slightly toward the end of the course: DB_1: week 1-4; DB_2: week 5-8; DB_3 week 9-12. The two group assignments (GA_1 & GA_2) took place in the first eight weeks whereas the final project (FP) was due at the end of the course, shortly before the final exam. The GPA is relatively high which may be due to the fact that this was an elective course. Whereas individual assignments were solely graded by the tutor, the group assignments had a peer assessment component whereby each student was asked to rate team colleague's contributions on a scale 1-5.

Students were asked to evaluate subject content (25 questions) and tutor (22 questions) upon completion of the course. Table 3 shows the averages of five selected questions on a scale 1-5:

S_A4. The various learning tools were used effectively (e.g. discussion boards, self-assessment exercises, instant messenger, webinar).

S_B7. The case studies and final project selected for this subject were useful for my learning needs.

S_C3. The ratio of individual to team assignments was appropriate.

S_E1. Overall, how would you rate the quality of your learning in this subject?

T_D1: Overall, how would you rate the performance of the professor in this subject?

The four subject related (S_) items as well as overall tutor satisfaction (T_) was high. For obvious reasons it is not possible to make the link between individual evaluation and a particular student; otherwise the tutor may penalise that student in courses to come (Table 3).

Table 3: Course evaluation by students.

	N	Mean	Std. Deviation
S_A4	206	4.30	0.881
S_B7	206	4.47	0.689
S_C3	206	4.36	0.751
S_E1	206	4.46	0.645
T_D1	206	4.51	0.703
Valid N	206		

There is a significant high correlation between perceived quality of learning and tutor performance which indicates that a student who 'likes' the tutor may also like the subject and vice versa, see Table 4.

Table 4: Correlation between Subject and Tutor satisfaction.

		S_E1	T_D1
S_E1	Pearson Correlation	1.000	.851**
	Sig. (2-tailed)		.000
	N	206.000	206
T_D1	Pearson Correlation	.851**	1.000
	Sig. (2-tailed)	.000	
	N	206	206.000

** . Correlation is significant at the 0.01 level (2-tailed).

This should be taken into consideration when assessing a tutor's performance based on students' evaluations as many universities nowadays do. For example, the Singaporean university in question will not renew contracts if the overall evaluation falls short of 4.2 which may be caused by teaching a less exiting subject or the pedagogical performance of the tutor. As above evaluation shows, students were generally satisfied with subject and tutor which may be a result of their active learning behaviour.

3.2 Learning Behaviour

The business simulation course consisted of 160 SCORM modules. Blackboard served as LMS with readily available statistics such as:

- Number of session during the 12 week course
- Total Time spent
- Number of eMails read
- Number of eMails sent
- Number of DB posts read
- Number of DB replies posted
- Number of times the (LMS internal) organizer with upcoming events/deadline was viewed
- Peer assessment scores and Grades

Most of the behavioural input factors correlate positively with the GPA. Students that engage via email or discussion board are more successful. The

Table 5: Correlations: Input vs. Overall Assessment Grade (GPA).

Pearson Correlation	Sessions	Total Time	Mail_Read	Mail_Sent	DB_Read	DB_Posted	SCORM	Organiser	GPA
Sessions		.467**	.209**	.312**	.479**	.453**	.631**	.146*	.397**
Total Time	.467**		.111	.144*	.226**	.386**	.389**	-.109	.330**
Mail_Read	.209**	.111		.660**	.055	-.022	.187**	.056	.171*
Mail_Sent	.312**	.144*	.660**		.165*	.131	.166*	-.001	.224**
DB_Read	.479**	.226**	.055	.165*		.294**	.161*	.062	.178*
DB_Posted	.453**	.386**	-.022	.131	.294**		.138*	.026	.379**
SCORM	.631**	.389**	.187**	.166*	.161*	.138*		.194**	.274**
Organiser	.146*	-.109	.056	-.001	.062	.026	.194**		-.042
GPA	.397**	.330**	.171*	.224**	.178*	.379**	.274**	-.042	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

only tool that did not contribute to the success was the organizer; viewing deadlines doesn't seem to constitute a high performing student. On the contrary, it correlates slightly (but non-significantly) negatively, see Table 5. Organizer is a typical 'uncertainty avoidance' parameter.

Table 5 suggests that e-learning behaviour component correlate i.e. a student spending a lot of time online is also more active and gets a better grade than not so active ones. There is a high correlation between mail read and sent as well as DB posted and read which may indicate a preference for a specific communication tool.

3.2.1 Cultural Differences

At first sight there seem to be no significant differences between East-Asian (EA) students, Europeans (EU) and South-Asians (SA). Numbers of sessions as well as average grades (GPA) are similar, see Table 6, and do not differ significantly.

Table 6: Overall Sessions and GPA.

Nationality		N	Mean	Std. Deviation
EA	Sessions	75	147.65	77.509
	GPA	75	81.35	10.732
EU	Sessions	32	144.41	93.429
	GPA	32	81.70	11.541
SA	Sessions	99	142.53	78.528
	GPA	99	81.64	9.143

Given that a course lasts for 12 weeks it can be concluded that on average a student logs in around 1 ½ times per day; more realistically, once per working day and 5 times over the weekend because they were executive students.

Despite an overall similar picture, we see

behavioural differences when comparing cultural regions in more detail. Differences between EA (East-Asians) and SA (South-Asians) and EU (Europeans) that were significant at 0.05 levels are highlighted in *italics*, see Table 7.

Table 7: e-Learning behaviour by culture.

	Nationality	N	Mean	Sig.
Mail_Read	EA	75	48.8	
	SA	99	<i>50.47</i>	Yes, vs. EA
	EU	32	<i>53.16</i>	Yes, vs. EA
Mail_Sent	EA	74	6.18	no
	SA	99	7.36	no
	EU	32	10.53	no
DB_Read	EA	75	4707	
	SA	99	<i>7264</i>	Yes, vs. EA
	EU	32	<i>8240</i>	Yes, vs. EA
DB_Posted	EA	75	101	
	SA	99	102	
	EU	32	<i>157</i>	Yes, vs. EA & SA
SCORM	EA	75	204	no
	SA	99	191	no
	EU	32	181	no
Organiser	EA	75	7.21	no
	SA	99	7.51	no
	EU	32	8.19	no

SA and EU read more mails and more DB posts. Given the fact that each student posts around 100 replies on the DB and on average there are 40 students per class, we can expect around 4000 DB postings per course. This means that EA view a post more or less once whereas their SA counterparts

view some post at least twice. EU were the most active group in DB postings which didn't translate into a better DB grade, see Table 8.

Table 8: Grade Component Differences by Culture.

	Nationality	N	Mean	Sig.
GA_1	EA	75	82.79	
	SA	98	81.49	
	EU	32	87.66	Yes, vs. EA & SA
GA_2	EA	75	82.55	
	SA	99	82.24	
	EU	32	86.66	Yes, vs. EA & SA
FP	EA	75	81.41	No
	SA	99	83.48	No
	EU	32	83.38	No
DB_1	EA	75	86.39	No
	SA	99	84.10	No
	EU	32	83.00	No
DB_2	EA	75	83.15	No
	SA	99	84.68	No
	EU	32	86.56	No
DB_3	EA	75	81.67	Yes, vs. EU
	SA	99	83.63	Yes, vs. EU
	EU	32	76.81	
Exam	EA	75	76.64	No
	SA	99	77.99	No
	EU	32	75.59	No

An explanation could be that EA's and SA's postings show more substance and EU are more frequent but shallower. Whereas emails do not form part of the grade, DB contributions do. An extensive list with evaluation criteria was provided prior to the course to eliminate a subjective judgement as much as possible.

After analysing the behavioural input (Table 7), what tools were used, we looked at the grade in more detail (Table 8). We have seen in Table 6 that the overall grade did not differ significantly between EA, EU, and SA. Looking at the grade components/criteria, however, there are three differences, see Table 8.

EU students seem to take it relatively easier with DB contributions toward the end of the term (DB_3: week 9-12) whereas their Asian counterparts maintain their high level of activity throughout the course.

3.2.2 Peer Assessment

Peer assessment is essential part of collaborative learning.

Table 9: Peer Assessment.

Assessment Criteria	Name	Team members (initials)				
		GJ	FC	BW	JA	MS
Collection of data	Goh J	5	5	5	3	3
	Foo C	3	3	4	4	4
	Bob W	3	3	4	5	4
	Joy A	4	4	5	5	5
	Muthu S	4	4	5	5	5
Data analysis	Goh J	5	4	5	4	3
	Foo C	3	2	3	4	2
	Bob W	3	3	5	5	4
	Joy A	4	4	5	5	5
	Muthu S	4	4	5	5	5
Co-ordination and writing of submission	Goh J	5	5	4	3	3
	Foo C	2	4	5	2	4
	Bob W	3	3	5	4	4
	Joy A	4	4	5	5	5
	Muthu S	4	4	5	5	5
Overall quality of input (creative ideas, insights)	Goh J	5	4	4	3	3
	Foo C	3	3	4	5	4
	Bob W	3	3	4	5	4
	Joy A	4	4	5	5	5
	Muthu S	4	4	5	5	5
Overall contribution to the efficient functioning of team	Goh J	5	5	5	3	3
	Foo C	3	2	4	5	4
	Bob W	4	4	5	5	4
	Joy A	4	4	5	5	5
	Muthu S	4	4	5	5	5

After each group assignment including the final project students were asked to rate anonymously their peers on 5 categories, see above Table 9, from 1-5. The peer assessment accounts for around 25% of the group assignment grade. Because we hypothesized that groups from the same culture will rank their peers higher than from other cultures we calculated three different peer scores.

In Table 9 we see peer scores of 5 students:

- Goh J: EA
- Foo C: EA
- Bob W: EU
- Joy A: SA
- Muthu S: SA

To calculate the Peer_other (culture) score for Goh (the average score s/he gave to peers, not the one s/he received) we will not consider Foo because s/he is from the same culture, instead only the two SA and one EU team member will be considered. For Peer_own only Foo would qualify. Peer_score gives the average score this person gave to all team members.

We can see that EU and SA give similar scores between 4.1 and 4.3 to students sharing the same cultural background but drop if they evaluate students from another cultures; especially the EU gap is significantly high (4.289 vs. 3.747).

Table 10: Peer Score.

	Nationality	N	Mean	Std. Deviation
Peer_score	EU	32	4.018	0.571
	SA	99	4.006	0.522
	EA	75	4.040	0.540
Peer_own	EU	32	4.289	0.454
	SA	99	4.113	0.566
	EA	75	4.230	0.560
Peer_other	EU	32	3.747	10.328
	SA	99	3.899	0.517
	EA	75	3.860	0.540

The results confirm that there is a cultural bias in peer assessment which may be down to the fact that one relates more easily to the own culture. A similar pattern can be found on DB where students tend to reply to postings made by same culture students more frequently than others. One could argue that it is difficult, for example, for an Indian to relate to Haier as for a Chinese to Amul and more engaging the other way round.

3.2.3 Group vs. Individual Assignments

Looking at the grades, SA performed 1.59% better than average in the final project (FP) and EA 1.25% better in the GAs. A minus sign indicates a tendency to the left (GA) and a plus sign to the right (FP), see Table 11. EA preferred group assignments, whereas SA preferred Individual assignments. Both, GA and FP are group assignments but at a different level. GA covered case studies whereas the FP was far more team oriented in form of a simulation game. Quite often students split case study tasks getting close to becoming an individual assignment.

GroupvsIndi measured the different performance between team work (GA, FP) and truly individual assignments (3 DBs, final exam). Only SA performed better at individual assignments. Pramila (2011) came to similar conclusions that Indian students are more individualistic and less group-oriented which would bring them closer to low context cultures.

Table 11: Group vs. Individual Assignment.

	Nationality	N	Mean	Std. Deviation
GAvsFP	SA	99	1.586	11.466
	EA	75	-1.253	11.517
	EU	32	3.000	14.870
GroupvsIndi	SA	99	0.210	5.536
	EA	75	-0.290	7.657
	EU	32	-5.400	16.440

Surprisingly, Europeans tend toward group assignments. The values in above tables do not represent perceptions or likeability, instead they stand for the relative success, expressed as grade points (range from 0 to 100), between various forms of formal assessments. One reason could be that Europeans take the initiative and volunteer to become team leaders. A study by Klein (2012) has shown that successful teams have a strong leadership and delegate tasks; similar to this study a computer game/simulation was analysed. Sometimes EU students were frustrated by the slow pace of reaching a (for high context cultures typical) consensus and took things in their own hands (Table 12).

Table 12: Sample DB Postings.

EU:	Lets get started with the activity, before we run out of time.
EA_1:	From a suggestion made by Prof, I have purchased all the market research studies.
EA_2:	Thanks! Please go ahead.
SA_1:	My relocation got me really tied up. Moved from Egypt to UAE after 9 years. Tough call. Ready to contribute and will from now.
EU:	Team, Any update... we have to make decision by midnight today for next round.
EA_2:	I doubt anyone has the time to do a thorough analysis of the results from period 1. I have made some simple observations:...
SA_2:	Guys, We missed tdy's deadline to upload next decision on Markstrat. Need to ensure that we do our best fr next round..
EU:	The way we have been doing this is quite disorganized and without directions...
SA_1:	Logging in.
EU:	Hi team, I have initiated 2 R&D projects: ...

Table 12 demonstrates that the EU student shows leadership whereas EA_1 tries to avoid uncertainty (another feature of high context cultures) and gets reconfirmed by EA_2. Both EAs including the one SA do not move things forward; they rather take a 'wait and see' attitude. Finding themselves in the diver seat may challenge EU students resulting in better grades in group than individual assignments. Language proficiency could be another reason.

3.2.4 Grouping across Cultures

We have seen that culture has an impact on e-learning behaviour and learning success. However, even within a culture differences can exist; a person from one culture can be closer to another culture than its own. To analyse the proximity of students in the sample a cluster analysis was conducted.

To reduce the number of dimensions a factor analysis was applied beforehand, resulting in 3 major dimensions, see Table 13.

Table 13: Rotated Component Matrix.

	Factor		
	Time	eMail	Organizer
Sessions	.798	.231	.341
Total Time	.747	.093	-.133
DB_Posted	.716	-.066	-.096
DB_Read	.590	.048	.099
Mail_Read	-.005	.915	.073
Mail_Sent	.160	.887	-.021
Organiser	-.086	-.034	.894
SCORM	.523	.188	.527

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Factor 1 is the most important dimension and can explain 29.5%, Factor 2 21.6% and Factor 3 14% of variance. Along these 3 dimensions a subsequent clustering of students was conducted. Whereas Factor 1 and 2 correlate positively with the GPA, Factor 3 does not, see Table 14.

Table 14: Correlations between Factors and GPA.

		GPA
REGR factor score 1	Pearson Correlation	.440**
REGR factor score 2	Pearson Correlation	.176*
REGR factor score 3	Pearson Correlation	-0.004

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

A cluster analysis based on the three factors resulted in 4 distinct groups (Table 15).

Table 15: Cluster by Nationality.

Cluster	EA		EU		SA	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
1 (SA)	1	1.4%	0	.0%	18	18.2%
2 (SA)	0	.0%	0	.0%	81	81.8%
3 (EU)	0	.0%	32	100.0%	0	.0%
4 (EA)	73	98.6%	0	.0%	0	.0%
Combined	74	100.0%	32	100.0%	99	100.0%

Cluster 1 is dominated by SA, cluster 2 also by SA, cluster 3 by EU and cluster 4 by EA. This

confirms that there are cultural differences in e-learning behaviour; Cluster centroids, see Table 16.

Table 16: Centroids.

Cluster	REGR factor score 1		REGR factor score 2		REGR factor score 3	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
	1	0.344	1.68	0.353	1.37	1.95
2	-0.19	0.793	-0.07	0.637	-0.34	0.429
3	0.241	1.21	0.226	1.23	-0.23	1
4	0.011	0.833	-0.11	1.08	-0.03	0.691

Because the standard deviations are very high the confidence intervals are also very broad. Figure 2 illustrates the means and intervals for all 4 clusters on Factor 1. Only Figure 4, the organizer dimension, shows non-overlapping confidence intervals.

However when looking at Table 13 it shows that Factor 3, viewing the organizer tool, does not correlate with the GPA, confirming its non-significance to overall assessment.

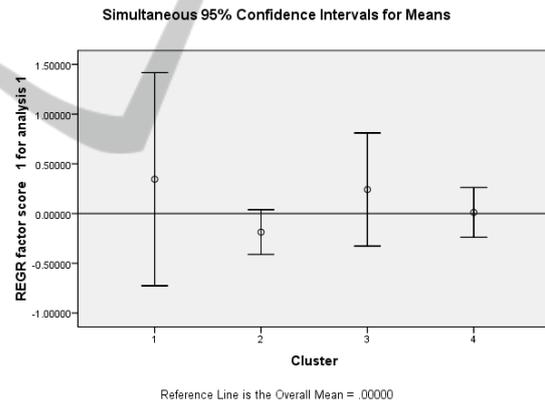


Figure 2: Factor 1 group means.

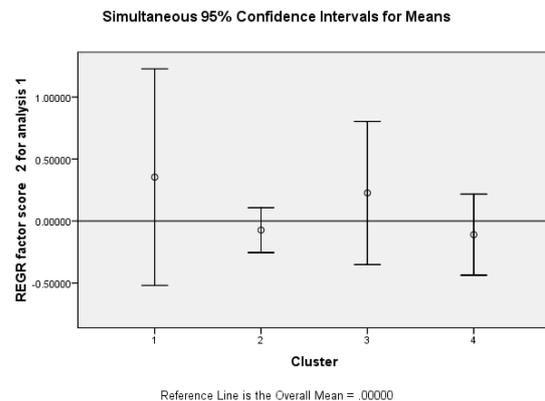


Figure 3: Factor 2 group means.

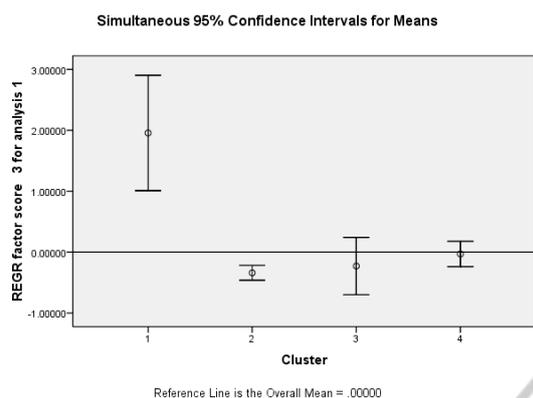


Figure 4: Factor 3 group means.

Both, cluster 1 and 2 consisted mainly of South-Asian students whereas cluster 1 was more active than cluster 2. Since both share the same cultural background other reasons must exist why there is a difference. In a further step the executive student's educational background, age group, current location (domestic or expat), and job were analysed. It was found that in the more active cluster 1 there were significantly more SA working abroad as expats or either having their own business or planning to have and were on average 4 years younger. In most cases the first two attributes exclude each other; either a person is working as expat for a company or is running his/her own business domestically. Whereas one can easily understand that a business owner's intrinsic motivation to study may be higher than a normal employee, the fact that expats perform better is not that obvious. Their job and family demands are usually higher than those working in their home country. Therefore, one would expect that they have less time to study. Possible reasons why they perform better could be: rigid time management, high motivation, and fewer distractions. Many of Cluster 1 (Indian) students were working in the Middle East especially UAE. Combined with the fact that they are younger and therefore likely to be more career-oriented may make them better performing students. Whether a student just started or was close to the end of the programme made another significant difference. Students had to take 16 courses plus a Master Thesis in form of a project. Because the analysed course was an elective it could be taken as 5th course earliest and as late as 16th. More experienced SA students having at least done 10 courses performed significantly better than students taking it as 5th until 9th. It seems that there is a learning curve and maybe a motivational push toward the end of the programme to improve the final GPA.

4 CONCLUSIONS

We demonstrated that cultural differences in e-learning behaviour, assessment grade components, and peer assessment exist. A major issue in e-learning is whether the trend will be to greater convergence or more divergence (Edmundson, 2006). Greater convergence would mean e-learners worldwide are becoming more similar. More divergence would signify that e-learners are more likely to be significantly different (Blanchard and Allard, 2010). This study provided support for the divergence trend. One size will not fit all. Course design will need to be more adaptive not more generalisable. Unfortunately most e-learning courses have been designed by Westerners, including the analysed courses at the Singaporean university. However, the fastest-growing markets are non-Western: China and India.

5 IMPLICATIONS

Make students aware that there is a cultural bias.
 Encourage EA to take the lead in group assignments.
 Encourage SA to pull their weight in group assignments.

Make students aware that viewing the organizing tool reflects uncertainty avoidance but does not give a better grade.

Stress DB assessment criteria to EU to achieve more substance and less quantity.

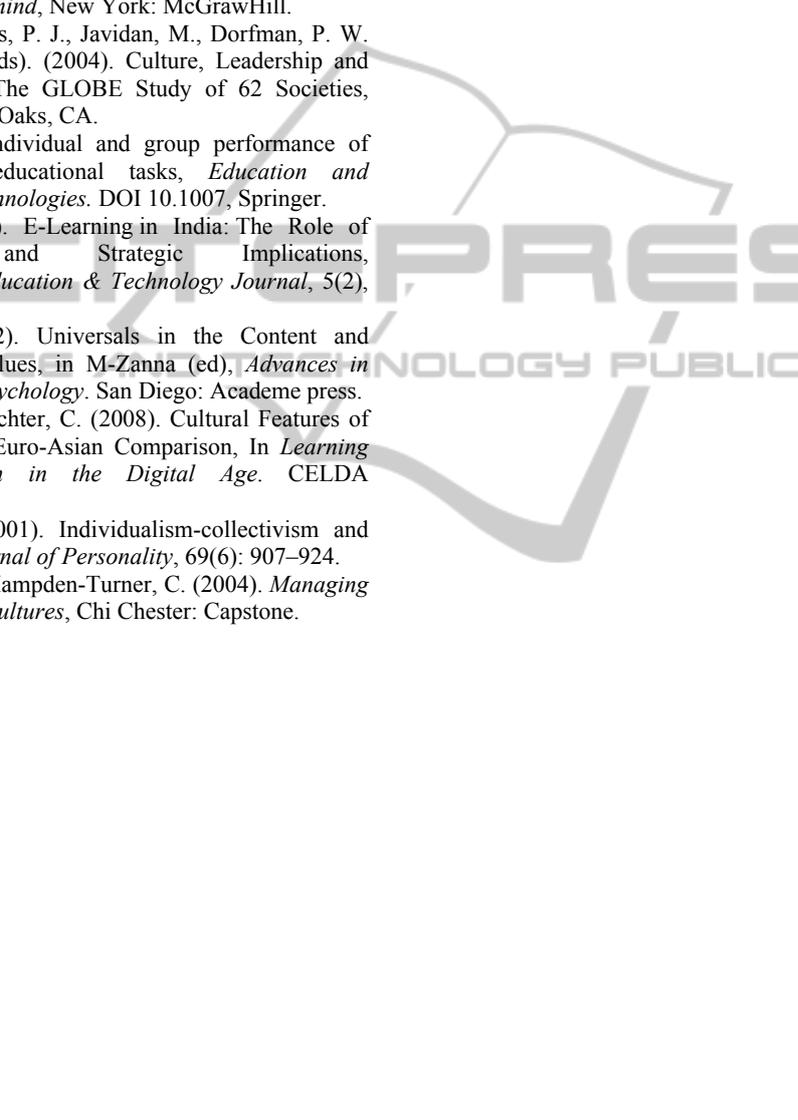
Encourage students working as expats or planning to start their own business to share their experiences with others and serve as role model.

Further research in form of longitudinal studies (Goda & Mine, 2011) should take the behavioural changes over time into account as well as the impact of foreign exposure such as working as expat.

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