SUITABILITY OF VIRTUAL LEARNING ENVIRONMENT (VLE): AN EMPIRICAL VIEW

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ABSTRACT

A virtual learning Environment (VLE) is an electronic system that can provide online interaction of various kinds that can take place between learners and tutors, including online learning. In a virtual Learning Environment (VLE) students have flexibility in their education. Students in this setting have support from online teachers and can have support at home from a parent. VLE includes web based access to class content, grades, assessments and other class tools. This study was conducted to assess the outcomes of VLE users. By using random sampling technique, a sample of 450 rural and urban users, < 2 hours and >2 hours users, < 25 years and > 25 years users was selected from Jammu district in Jammu and Kashmir State. Virtual Learning Environmental scale was prepared by the investigator to measure the outcomes of VLE users. In the present study t-test was used to find out the difference between two means. Result of the study revealed significant difference in the rural and urban users when knowledge Quality and Identification dimension of VLE are taken as dependent variable. Result also revealed significant difference in less than 2 hours and greater than two hours users when all dimension of VLE are taken as dependent variable and result also revealed significant difference in less than 25 years and greater than 25 years users when personal outcomes Expectations, Social Interaction Ties and Identification dimensions of VLE are taken as dependent variable. This article has certain implication for both educationists and parents as well.

Keywords: VLE, Flexibility, Students and Implication.

INTRODUCTION:

VLE software has origins going back many decades to seminal work, such as that by Engelbert, 1962, we saw computers as helping in the solution of problems. AVLE includes web based access to class content, grades, assessments and other class tools. VLE's provide a means whereby learning material and support is available to students 24 hours a day, seven days a week (Cook, 2005). It is also a social space where users can interact through threaded discussion or chat. VLEs are claimed to offer schools a number of benefits, such as anytime, anywhere access, improved motivation, access so higher or novel learning styles, better integration of information

and communication technology (ICT) tools and increased parental engagement (Becta, 2004). Indeed, Europe wide, there is a perception that VLEs can be "Facilitators of changes in education and pedagogy towards more learner central approaches, enhancing interactivity in learning and helping constructional knowledge building". (EUN, 2003). VLE can include users meeting online through as synchronous web – based application. The teacher is able present lesson through video, power-point, or chatting. The users are able to talk with each other. On the other hand asynchronous causes do, but each learner is learning at his own place, while latter is focussed around the virtual classroom. The Joint Information System Committees (JISC's) definition seems the most widely accepted : "A VLE is an electronic system that can provide online interactions of various kinds that can take place between learners and tutors, including online learning" (JISC, 2003). One of the important definition, VLE is any kind of ICT-based learning arrangement where we find any combination of distance and face-to-face interaction on and where some kind of virtual time and space is present (Malines and Kallermanns, 2004). In a VLE learners have flexibility in their education. Learning in this setting have support from online teachers and can have support from a parent. Learning has dramatically changed over recent decades when technical revolution has brought different opportunities to learn via the Internet (Lahtiven, 1997). The review of related literature provides a picture reflecting on VLE among rural and urban users, less than 2 hours and more than 2 hours users, less than 25 years and more than 25 years users. Still some of the related studies were supported by many researches (Marlns and Kallermanns, 2004; Hara and Kling, 2000; Becta, 2005).

In the present study, we know about the level of perceptions, social relationship, quality of knowledge and personal outcomes of the VLE users. As we know that strong social relationship, good level of perception, good quality of knowledge etc. are very important for the learners or users for happy or good quality of life. As we know that VLE support collaborating environment, flexibility etc. So, there has been increasing need to study how to assess the outcomes of VLE users. Hence the present study is a humble attempt to search an empirical database with certain hypothesis.

OBJECTIVES:

1. To study the difference between less than two hours users and more than two hours users in the personal outcomes Expectations (POE) dimension of Virtual Learning Environment (VLE).
2. To study the difference between less than two hours users and more than two hours users in the social interaction Ties (SIT) dimension of VLE.
3. To study the difference between less than two hours users and more than two hours users in the identification (ID) dimension of VLE.
4. To study the difference between less than two hours users and more than two hours users in the knowledge Quality (KQ) dimension of VLE.
5. To study the difference between less than two hours users and more than two hours users in the Norm of Reciprocity (NR) dimension of VLE.
6. To study the difference between less than twenty five years users and more then twenty five years users in the personal outcome Expectation (POE) dimension of VLE.
7. To study the difference between less than twenty five years users and more then twenty five years users in the social Interaction Ties (SIT) dimension of VLE.
8. To study the difference between less than twenty five years users and more then twenty five years users in the Identification (ID) dimension of VLE.
9. To study the difference between less than twenty five years users and more then twenty five years users in the knowledge Quality (KQ) dimension of VLE.
10. To study the difference between less than twenty five years users and more then twenty five years users in the Norm of Reciprocity (NR) dimension of VLE.
11. To study the difference between rural and urban areas users in the Personal Outcome Expectation (POE) dimension of VLE.
12. To study the difference between rural and urban areas users in the social interaction Ties (SIT) dimension of VLE.
13. To study the difference between rural and urban areas users in the Identification (ID) dimension of VLE.

14. To study the difference between rural and urban areas users in the Knowledge Quality dimension of VLE.
15. To study the difference between rural and urban areas users in the norm of Reciprocity (NR) dimension of VLE.

HYPOTHESES:

1. There will be no significant difference between less than two hours users and more than two hours users in the personal outcome Expectations (POE) dimension of VLE.
2. There will be no significant difference between less than two hours users and more than two hours users in the social Interaction Ties (SIT) dimension of VLE.
3. There will be no significant difference between less than two hours users and more than two hours users in the Identification (ID) dimension of VLE.
4. There will be no significant difference between less than two hours users and more than two hours users in the knowledge quality (KQ) dimension of VLE.
5. There will be no significant difference between less than two hours users and more than two hours users in the Norm of Reciprocity (NR) dimension of VLE.
6. There will be no significant difference between less than twenty five years users and more than twenty five years users in the Personal Outcome Expectations (PDE) dimension of VLE.
7. There will be no significant difference between less than twenty five years users and more than twenty five years users in the Social Interaction Ties (SIT) dimension of VLE.
8. There will be no significant difference between less than twenty five years users and more than twenty five years users in the Identification (ID) dimension of VLE.
9. There will be no significant difference between less than twenty five years users and more than twenty five years users in the Knowledge Quality (KQ) dimension of VLE.
10. There will be no significant difference between less than twenty five years users and more than twenty five years users in the Norm of Reciprocity (NR) dimension of VLE.
11. There will be no significant difference between rural and urban areas users in the personal outcome Expectations (POE) dimension of VLE.

12. There will be no significant difference between rural and urban areas users in the Social Interaction Ties (SIT) dimension of VLE.
13. There will be no significant difference between rural and urban areas users in the Identification (ID) dimension of VLE.
14. There will be no significant difference between rural and urban areas users in the Knowledge Quality (KQ) dimension of VLE.
15. There will be no significant difference between rural and urban areas users in the Norm of Reciprocity (NR) dimension of VLE.

METHOD:

In the present study descriptive survey method of investigation was employed.

Sampling-

In order to conduct the study, 450 users of Jammu district were selected on the basis of rural and urban, less than twenty five years and more the twenty five years, less than two hours and more than two hours users. In all 450 students were randomly selected which included 75 rural and 75 urban users, 75 less than two hours users and 75 more than two hours users, 75 less than 25 years and 75 more than 25 years users.

Tool used-

In this study virtual Learning Environmental Outcomes scale was prepared by the investigator to measure the outcomes of the users.

This scale has 22 items including the following dimensions:

1. Personal Outcomes Expectations (POE).
2. Social Interaction Ties (SIT).
3. Identification (ID)
4. Knowledge Quality (KQ)
5. Norm of Reciprocity (NR)

Statistical Techniques Employed-

To see the significance of the difference in the Virtual Learning Environmental Outcomes of the users, investigators determined the 't-values' of the rural and urban users, less than 25 years and more than 25 years users, less than two hours and more than two hours users.

ANALYSIS AND INTERPRETATION OF DATA:

Table – 1

Shows the t-value in all dimensions of VLE users (<2 hours and >2hours)

Here "<2 hours" users coded as 'T' and "> 2 hours" users coded as 'S'

Domain	Input	N	M	SE_{DM}	t-value	Result
POE	T	75	3.88	0.17	8.12*	Hypothesis no. 1 rejected
	S	75	5.26			
SIT	T	75	2.60	0.14	5.14*	Hypothesis no. 2 rejected
	S	75	3.32			
ID	T	75	2.60	0.17	3.53*	Hypothesis no. 3 rejected
	S	75	3.20			
KQ	T	75	3.75	0.20	6.90*	Hypothesis no. 4 rejected
	S	75	5.11			
NR	T	75	1.28	0.10	5.10*	Hypothesis no. 5 rejected
	S	75	1.79			

*Significant at 0.05 level **Significant at 0.01 level

Form the result of the table 1, it is clear that there are significant mean difference in less than 2 hours and greater than two users when personal outcome Expectation (POE), Social Interaction Ties (SIT), Identification (ID) Knowledge Quality (KQ) and Norms of Reciprocity (NR)

dimensions of VLE are taken as dependent variable. The mean value of POE is 3.88 and 5.26, standard error mean deviation is 0.17, therefore t-value is 8.12. Hence it is significant at 0.05 level. Again, the mean value of SIT is 2.60 and 3.32, SE_{DM} is 0.14, therefore t-value is 5.14. Hence it is significant at 0.05 level. The table further shows that the mean value of ID dimension of VLE users (>2 hours and >2 hours) is 2.60 and 3.20, SE_{DM} is 0.17 and t-value is 3.53. Hence it is significant at 0.05 level. Again, the mean value of KQ dimension of VLE users is 3.73 and 5.11, SE_{DM} is 0.20, therefore t-value is 6.90. Hence it is significant at 0.05 level. Table 1 further shows that mean value of NR dimension of VLE users is 1.28 and 1.79, SF_{DM} is 0.10, t-value is 5.10. Hence it is significant at 0.05 level.

Table – 2

Shows the t-value in all dimensions of VLE users (<25 years and >25 years)

Here "< 25 years" users coded as 'A' and "> 25 years" users coded as 'B"

Domain	Input	N	M	SE_{DM}	t-value	Result
POE	A	75	4.00	0.17	1.24	Hypothesis no. 6 accepted
	B	75	4.21			
SIT	A	75	2.59	0.14	1.43	Hypothesis no. 7 accepted
	B	75	2.79			
ID	A	75	2.36	0.17	0.24	Hypothesis no. 8 accepted
	B	75	2.40			
KQ	A	75	4.13	0.17	3.65*	Hypothesis no. 9 rejected
	B	75	4.75			
NR	A	75	1.33	0.10	2.40*	Hypothesis no. 10 rejected
	B	75	1.57			

*Significant at 0.05 level **Significant at 0.01 level

Form the result of the table 2, it is clear that there is no significant mean difference in less than 25 years and greater than 25 years users when the personal outcome Expectations, social Interaction Ties, Identification dimensions of VLE are taken as dependent variable. The above table further shows that there are significant mean difference in less than 25 years and greater than 25 years users when knowledge Quality and Norms of Reciprocity dimensions of VLE are taken as dependent variable. The mean value of Knowledge Quality dimension of VLE users in 4.13 and 4.75, SE_{DM} is 10.17, t-value is 3.65. Hence it is significant at 0.05 level. Again, the mean value of Norms of Reciprocity dimension of VLE users is 1.33 and 1.57, SE_{DM} is 0.10, t-value is 2.40. Hence it is significant at 0.05 level.

Table – 3

Shows the t-value in all dimensions of VLE users (Rural & Urban)

Here 'Rural' users coded as 'X' and 'Urban' users coded as 'Y'

Domain	Input	N	M	SE_{DM}	t-value	Result
POE	Y Y	75 75	4.52 4.33	0.22	0.86	Hypothesis no. 11 accepted
SIT	X Y	75 75	3.24 3.55	0.17	1.82	Hypothesis no. 12 accepted
ID	X Y	75 75	3.17 3.61	0.17	2.59*	Hypothesis no. 13 rejected
KQ	X Y	75 75	4.88 5.44	0.17	3.29*	Hypothesis no. 14 rejected
NR	X Y	75 75	1.48 1.43	0.10	0.50	Hypothesis no. 15 accepted

*Significant at 0.05 level **Significant at 0.01 level

Form the result of the table 3, it is evident that there are no significant mean difference in rural and urban users when personal outcome Expectations, Social-Interaction Ties and Norms of Reciprocity areas of VLE are taken as dependent variable. The above table further shows that there are also significant mean difference in rural and urban users when knowledge Quality and Identification dimensions of VLE are taken as dependent variable. The mean score of Knowledge Quality area of VLE users is 4.88 and 5.44 and standard error mean deviation is 0.17, therefore t-value is 3.29. Hence it is significant at 0.05 level. Again, the mean value of Identification area of VLE users (rural and urban) is 3.17 and 3.61 and standard error mean deviation is 0.17, therefore t-value is 2.59. Hence, it is significant at 0.05 level.

DISCUSSION:

The result of the present study are to be seen in the light of some related research evidences. The study shows a significant mean difference in the different dimension of VLE users. This may be attributed to fact that the sample of the present study was small. So, similar studies need to be repeated on a larger sample. This result is supported by many researchers. (Ripen & Earl, 2007; Weller, 2007; Kamin'ski, 2005; Franco, 2000)

The obtained result indicates that environment of urban area users in the Identification and Knowledge Quality area of virtual Learning Environment is better than rural area users. They are well versed with the knowledge of VLE. The obtained result also indicates that greater then two hours users are better in all the area of VLE than less than two hours users. So, this shows that greater than two hours users are well versed with the knowledge of VLE. The obtained result also indicates that greater than 25 years users are better in KQ and NR area of VLE than less than 25 years users. This shows that greater than 25 years users have better virtual Learning Environment. For this reason they shows better performance in the area of VLE. On the other hand users of less than 25 years are also need to engage in VLE activities to move towards the desires goals and objectives.

EDUCATIONAL IMPLICATIONS:

VLE plays an important role in developing collaboration, flexibility, quality of knowledge among the users. Virtual Learning Environment of users is influenced by a number of internal and external factors. Educational Institutions needs to aware of the teachers from VLE and these teachers provide knowledge to their students about VLE. Apart from this, Educational Institutions and teachers should asked the parents to aware of VLE. If teachers parents and students are well versed with the knowledge of VLE, then our society will become a collaborative and flexible society.

References

1. British Educational Communications and Technology Agency (2004) What the research says about Virtual Learning Environments in teaching and learning, Coventry, BECTA.
2. British Educational Communications and Technology Agency (2005), An introduction to Learning Platforms for School Leaders, online at ecta.org.uk/corporate/publications/documents/learning_platforms_leaders.pdf Centre for Innovation in Mathematics Teaching (CIMT CIMT) (2005), Mathematics enhancement programme, online at http://www.cimt.plymouth.ac.uk/projects/mep/default/htm
3. Cook, J. (2005). Review of Virtual Learning Environment in UK Medical, Dental and Veterinary Education, Institute for Learning and Technology.
4. (EUN) (2003) Virtual Learning Environments for European schools, Brussels, European Schoolnet.
5. Franco, A. (2000). Thew Interactive physics course on the internet. Computer and Education in the 21st Century. Springer. Pp.175-184.
6. Hara,N.C. & kling, R. (2000) Students Distress with a Web-based Distance Education Course: an ethrographic study of participants experiences (CSI working paper). Centre for Social Informatics. Indiana University.
7. Information Systems Committee (JISC JISC) (2003) Virtual and Managed Learning Environment, online at www.jisc.ac.uk/indc.cfm?name=issue_vle_mle

8. Kaminski, J.(2005). Editorial Moodle-A User Friendly, Open Source Course Management Journal of Nursing Informatics (ojNi), 9 (i) online.

9. Lahtiven, E., Verkkopedg ogiika, Helsinki (1997), Korhonen; V., Verkko-Opetusja Yliopistopedageo-Giikka, Tampere 2004.

10. Marlins, L.L. & Kellermanns, F.W. (2004). A Model of Business School Students Acceptance of Web-based Course Management System, (Academy of Management Learning and Educational, 3,7-26) Italian.

11. Weller, M. (2007), Virtual Learning Environment: using. Choosing and Developing your VLE London; Routledg