Paper 3

## CHALLENGES AND ADVANTAGES OF COLLABORATIVE LEARNING

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#### **ABSTRACT**

Collaborative learning is an educational approach to teaching and learning that involves groups of students working together to solve a problem, complete a task or create a product. According to Gerlach "Collaborative learning is based on the idea that learning is a naturally social act in which the participants talk among themselves (Gerlach, 1994). It is through the talk that learning occurs". It is an instructional method that emphasizes students working together in small groups to complete a task or reach a common goal. Teacher role is very important in collaborative learning. To have effective collaborative learning group teachers must know their students well. However ones the group work begins, the teacher's role immediately shift into that of a mentor, facilitator or sometimes merely that of a spectator. Many instructional activities ask learners to collaborate with the goal of enhancing the understandings group members acquire beyond what they might learn working separately. Specifically studies have found that collaboration in the classroom yields memories benefits for students of varying grade levels still, creating a collaborative environment in the classroom can be easier said than done especially when we take into consideration all the different types of technology that teachers must use with their students on a daily basis. The greatest challenge in this sense tends to be ensuring the compatibly and enter operability. Traditional classroom have been turning into collaborative classrooms since educational system have been responding to the changes in their environment yet there have been tough resistance from these who fear they cannot fit a new education paradigm based more on collaboration authority. Nevertheless new challenges create new opportunities that are beneficial for all stake holders of education.

Keywords: Collaborative learning, advantages, challenges.

# **INTRODUCTION:**

One of the biggest casualties of the <u>Covid-19 pandemic</u> and the resultant lockdown has been institutionalised education. Schools have been shut to prevent the spread of the virus and this has given way to online classrooms, a very new concept in India even for the most sophisticated schools. It is commendable how easily some educational institutions have moved to virtual classrooms, all thanks to tools such as Zoom, <u>Google Hangouts</u> and <u>Microsoft</u> Teams. But there are some still struggling to get online.

There are teachers and schools putting extra effort to engage students in classes by revamping timetables, shifting discussions online, taking feedback from parents and monitoring students constantly. While there are some who are doing the bare minimum and using WhatsApp to stay connected with students. Some schools are trying out tools like SeeSaw, Google Suite and YouTube videos to make online classes as engaging as offline ones. But there are also those that are failing miserably at this shift.

Technology has been considered central to the reform of school education and has gained unprecedented momentum during this pandemic. It is being perceived as a panacea to combat all the education/schooling related issues, hence the hurry to transfer classrooms into the virtual world without taking into consideration the reach to all learners. In a country as diverse as India in terms of regional, linguistic, caste, class and gender, and socioeconomic status, the school system is also characterised by stratification from elite to low fee private schools as well as government schools, creating a plethora of issues about specific educational, psychosocial and financial needs of students as well as teachers based on gender, caste, class and socioeconomic status. Under these circumstances, there is no way a unilateral approach to mitigate school education disruption is going to address these diverse and complex set of issues of multiple dimensions.

There are some lessons to be learnt from the countries like Syria, and Kenya and other African countries who for reasons such as conflict, refugee and recurring epidemics like Ebola have the experience of making provisions for the education of children during difficult times. Over the years they have developed strategies to keep the schooling of students going. There is evidence to show that for children belonging to disadvantaged groups, low tech mediums such as radio,

television are useful. In circumstances where even these two are also out of reach, the distribution of paper-based learning materials helps, mostly for girls. Because even if there is a radio or TV in the house, she may not get the opportunity to access it due to the burden of household chores. Therefore the option to distribute books and supplementary notebooks based on audio-video lessons should be contemplated. The experience of tackling the Ebola crisis has helped Sierra Leone to prepare a better strategy to address Covid induced educational disruption. The country has implemented a plan to provide education to its children which includes radio broadcast as well as distribution of pen, pencil and books to students. With 80 per cent mobile phone penetration, the country is trying to capitalise on it by developing a mobile phone-based educational intervention.

No matter how simple a technology or plan is being used to provide education to all, some of the children will remain left out during critical situations due to multiple causes such as poverty, migration, family problems and so on. The education system is destined to face an array of issues post-Covid. These range from a new burden on Government schools due to influx of students from low fee private schools as many of them will no longer be able to afford to pay for education due to financial constraints to psycho-social problems of children arising out of problems at home. All these hardships are going to affect children immensely. Given the above, the government should come forward with a policy perspective on post Covid response to education. This should entail a plan to address the specific academic needs and psycho-social needs of children once they return to school as well as strategies to mitigate Covid induced issues related to the management of schools, addressing emerging learning gaps among children, and training of teachers to use principles of blended learning flipped classroom. Such plans that clarify where to use low as well as high tech educational solutions which will prepare also prepare the government to combat any post Covid crisis such as conflict, natural disaster or for that matter pollution.

Since the COVID -19 pandemic has disrupted the normal lifestyle of people across the globe, the virtual world has come to the rescue. Amongst many institutions schools have also shifted their base to virtual platforms to conduct classes online. Consequently, catering to the needs of all stages of education from pre-primary to university level, online education has emerged as an alternative to ordinary face to face classes. Accordingly, various stakeholders such as government and private organizations are trying their best to assist each other by sprucing up their existing online platforms, apps and providing training to teachers to use these apps and platforms to the

optimum level. Moreover, efforts are being made by both government and non-government organisations and edtech companies to support the school system to make a smooth transition to the virtual world. Up skilling and motivating teachers, organising counselling sessions for stakeholders such as teachers, parents and students are some of the important measures taken by the administration in the recent past. Making a continuous effort to provide customised teaching-learning material suitable for online classes is another way of facilitating the schooling of children. The Central government has recently launched the PM e-VIDYA platform, with 12 new DTH channels, one for each class to reach out to all stratus of society. These efforts have proved beneficial to a sizable chunk of the school-going population.

### Online learning vs. traditional learning:

Most obvious differences between e-learning and traditional learning can be seen in the following:

- IT environment and support
- Communication forms in teaching
- Presentation modes of lecture content.

Time teachers spent preparing for class by writing lesson plans by hand or using a writing machine, looking for inspiration and information exclusively in printed books and materials, as well as time that students spends preparing for exams belongs to the past, at least if we look at the technologies available today. Digitalization, IT and Internet technologies open up new possibilities in creating and implementing the teaching process. Digitalization of teaching and learning materials ensures availability of vast number of information, easy manipulation of contents, offers possibility of real-time update and exchange etc.

The most obvious change that e-learning has brought can be seen in the way we communicate. Traditional face-to-face communication that implicates a strong interaction between a teacher and a student or a group of students and takes place in a classroom at a fixed time should be gradually changed. As an alternative to this, the Internet is offering new forms of communication. Form of communication most similar to face-to-face communication is communication via multipoint videoconference. Videoconference as an Internet service enables us to overcome distance in space between the participants, but distance in time is another thing as all participants have to be present at the time of videoconference in order to have a synchronous effect. This form of

communication is expensive, requires specific kind of equipment and, therefore, unavailable for wide use. Much more acceptable are synchronous forms of communication like e-mail, discussion boards, discussion forums, etc. E-learning materials have to be both in form and content adapted to the requirements of the Web as a medium where e-learning materials are published but also to the requirements of the tools with which we create these materials. A good portion of e-learning teaching materials in Croatia are created by adequate software conversion of previously used PowerPoint slides.

Materials for knowledge assessment, depending on the software tools used, are also created in this way. In most cases those are quiz questions and a student has to mark or connect possible answers. Teaching materials usually contain information about used literature, recommended literature, links and case studies so that students could broaden their knowledge of the subject in question. Next to teaching materials it is useful to also find [1] general information about online learning, technology requirements and resources available to students for technical help, information about how to access the course on the Web, rules, procedures and help for using the interactive tools, course syllabus and administrative regulation.

### **OBJECTIVES:**

- Provides online materials and self assessments to guide students learning processes.
- Increases access to content rich learning materials.
- Facilitates interest and increased interaction
- Provides immediate feed back and positive reinforcement.
- Provides ongoing support for teachers
- Creates balance between different sources of information.

## **Purpose of this study:**

It was felt that by undertaking a detailed study, hidden issues could be brought to light and addressed to ensure these issues impede the adaptation of online learning at the school level by identifying both the obstacles and the positive attitude held by teachers and students, the results of this study could form the basis for a school – wide online learning implementation plan. The results could also be used to build future efforts aimed at implementing online learning not only in the school level but in other colleges. It is anticipated that with the implementation of online

learning at the school, the role of teachers and students are transformed from that of traditional dispensers of knowledge (sage on the stage), to learning facilitators (student centric method)

# The Question

"What are the opinions of teachers and students towards introducing online learning in their teaching strategy?

# Sample:

Using the random lampling techniques to include 25 students and 10 teachers selected for this study.

#### Method:

Questionnaire was used to determine teachers and students opinions towards introducing online learning at the school.

# **Student Remote Learning Survey**

## Name of the school:

### Name of the Student:

### Class:

	Instructions:  To better support you, please answer these questions about how you think and feel, especially while learning remotely. Please respond honestly—there are no right or wrong answers! Your voice is important, so thank you for sharing your thoughts and experiences.		
	Questions	Answer Choices	
1	During the past week, how often did you feel  ? Happy Safe Optimistic Bored Stressed Out Worried	Almost never, Once ia while, Sometimes, Frequently, Almost always	
2	How comfortable are you with doing schoolwork remotely?	Not comfortable at all, Slightly comfortable, Somewhat comfortable, Quite comfortable, Extremely comfortable	
3	How easy is it for you to use the remote learning tools your school provides? (Google Classroom, ClassDojo, etc.)	Not easy at all, Slightly easy, Somewhat easy, Quite easy, Extremely easy	

4	In the past week, how often have you communicated with your teacher(s)?	I have not communicated with my teacher(s) this week.  I have communicated with my teacher(s) one time this week. I have communicated with my teacher(s) 2-3 times this week. I have communicated with my teacher(s) every day this week. I have communicated with my teacher(s) every day this week,  Multiple times a day.	
5	In the past week, how easy was it to stay focused long enough to complete your assignments at home?	Not easy at all, Slightly easy, Somewhat easy, Quite easy, Extremely easy	
6	How often are your teachers flexible /understanding with deadlines?	Almost never, Once in a while, Sometimes, Frequently, Almost all the time	
7	Tell us about how your teacher(s) have helped you through these assignments. In the last week, my teacher(s) have: (Select one)	Given me enough instruction to complete my assignments, Given me some instruction, but not enough to complete my assignments, Not given me enough instruction to complete my assignments N/A – I haven't been given any schoolwork assignments.	
	Tell us about how you have engaged in remote learning. In the last week, you have (Select all that apply)	Joined a video call with your class Joined a video call for one-on-one instruction with your teacher(s) Joined a phone call about learning Posted assignments to an online platform Completed assignments on-paper Received a message (e.g. text, email, etc.) about an assignment Read a book Kept a journal Created project or art Watched cultural event online (e.g. virtual museum tour, concert, etc.) Participated in online exercise activity (e.g. yoga class, Go Noodle, etc.)	
9	Tell us about the most helpful experiences you have had with remote learning in the last week. (Select all that apply)	Joined a video call with your class Joined a video call for one-on-one instruction with your teacher(s) Joined a phone call about learning	

		Posted assignments to an online platform
		Completed assignments on-paper
		Received a message (e.g. text, email, etc.)
		about an assignment Read a book Kept a
		journal Created project or art
		Watched cultural event online (e.g.
		virtual museum tour, concert, etc.)
		Participated in online exercise activity (e.g.
		yoga class, Go Noodle, etc.)
10	In the past week, on the schoolwork	Almost never, Once in a while, Sometimes,
	you have completed remotely, how	Frequently, Almost all the time
	often do your teachers provide	
	feedback?	
11	How often do you have an adult at home	Almost never, Once in a while, Sometimes,
	who helps you complete assignments?	Frequently, Almost all the time
12	On average, how much of your day do you	Less than an hour, 1-2 hours, 2-3 hours,
	spend learning or completing schoolwork?	4 or more hours
13	Please tell us how much you agree with the	Strongly disagree Disagree
	following statement:	Agree
	I am learning new things even while at home.	Strongly Agree
14	How many of your assignments each day	None,
	do you usually complete?	Some (less than half),
1.5	TT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Most (more than half), All
15	How much are you learning during remote	Learning much less,
	learning compared to regular school?	Learning somewhat less,
		Learning about the same, Learning more, Learning much more
16	If you are a student in grades 9-12: Since	Yes No
	you started school at home, has an adult	N/A - I am not a high school student.
	from your school talked to you about your	C
	progress towards graduation, college or	
	career plans?	
17	What grade are you in?	6 - 8
		9 – 12
18	How do you feel overall about distance	• Poor
	education?	Below Average
		• Average
		• Good
10	Do you have access to a Javier for leavely	• Excellent
19	Do you have access to a device for learning online?	• Yes • Ves but it deesn't work well
	Onnie:	• Yes, but it doesn't work well
20	What device do you use for distance	No, I share with others  Lanton
20	learning?	<ul><li>Laptop</li><li>Desktop</li></ul>
	iomining.	<ul><li>Desktop</li><li>Tablet</li></ul>
		<ul> <li>Smartphone</li> </ul>

21	How much time do you spend each day	• 1-3 hours		
	on an average on distance education?	• 3-5 hours		
	-	• 5-7 hours		
		• 7-10 hours		
		• 10+ hours		
22	How effective has remote learning been for	Not at all effective		
	you?	Slightly effective		
		Moderately effective		
		• Very effective		
		• Extremely effective		
23	Do you enjoy learning remotely?	• Yes, absolutely		
		• Yes, but I would like to change a		
		few things		
		• No, there are quite a few		
		challenges		
		No, not at all		
24	How helpful are your teachers while studying	Not at all helpful		
	online?	Slightly helpful		
		Moderately helpful		
		Very helpful		
		Extremely helpful		

# Table 1 Students interest for online learning

Type of question	Number of students	%
Yes	10	40%
No	14	56%
No answer	1	4%
Total	25	100%

From the data in Table 1 we can see that 10 students are interested in online learning, 14 students are not interested in online learning and one student didn't answer the questions.

# Disadvantages of online learning according to student's opinion

- No direct communication among students
- No interaction
- Loneliness, depression
- Costs of internet
- No compulsion for learning
- Working long hours on the computer can be harmful
- Loss of tradition.

# Advantages of online learning acc to student's opinion

Learning from own home

Everything in the same place

Easy access to information

No fixed tiles of learning

Freedom in choosing teaching materials

Possibility of repetition if necessary

Table: 2

Forms of online learning in regard with traditional form of learning

Learning form	Number of students	%
Only online learning	7	28%
Supplement to the traditional form	14	56%
No. interested in online learning at all	4	16%
Total	25	100%

This table indicates that 28% of students would accept online learning as a form of learning but only as a supplement to traditional form of learning. 56% of students would accept traditional form of learning and 16% of students showed no interest in online learning. This table indicates that students are willing to accept innovations in educational system, but are, since online learning is & new and tried form of learning.

This survey was to determine what students consider the advantages and disadvantages of online learning.

### Online learning survey questions for teachers:

This questionnaire consists of 15 positively and negatively phrased statements. The questionnaire was designed to be applicable to the study's population interns of actual and perceived working conditions. A four point Likert scale was used consisting of 1) strongly agree, 2) agree, 3) not sure, 4) disagree.

This analysis presents the statistical findings for measure of teachers opinions towards introducing online learning in their teaching strategies.

# Online learning survey questions for teachers

# Name of the school:

### Name of the teacher:

# **Instructions:**

To better support you, please answer these questions about how you think and feel, especially while teaching remotely. Please respond honestly—there are no right or wrong answers! Your voice is important, so thank you for sharing your thoughts and experiences.

Sl.	Statements	Strongly	Agree	Not sure	Disagree	Remarks
No		agree				
1.	I can easily use Microsoft office tools					
	such as word and power point to					
	create documents					
2.	I can easily perform file management					
	tasks on my computer such as					
	copying, moving, renaming and					
	deleting files or folders					
3.	I enjoy conversing with others online					
	through social media or other					
	discussion forums					
4.	I can log in to Canvas and					
	use basic features such as					
	Assignments, Discussions,					
	and the Canvas Inbox.					
5.	I use the Internet to locate resources					
	for teaching.					
6.	I provide timely, constructive					
	feedback to students about					
	assignments and questions.					
7.	I am available to my students on a					
	regular basis for questions and					
	assistance					
8.	I enjoy facilitating interactions among					
	my students.					
9.	I enjoy lecturing to my students for					
10	most of the class period.					
10.	I use a variety of teaching strategies					
1.1	to help my students learn.					
11.	My students take a midterm and a					
	final but have few or no other					
10	assignments in the course.					
12.	I enjoy trying new teaching					
10	approaches.					
13.	I provide lessons and					
	activities that are connected to					
ĺ	real-world applications.		1			

14.	I communicate my	
	expectations about	
	participation, behavior, and	
	work quality to my students	
15.	I feel comfortable conveying my	
	personality and/or emotions	
	through writing.	

Sl. No	Statements	Strongly agree %	Agree %
1.	I can easily use Microsoft office tools such as word and power point to create documents	85%	15%
2.	I can easily perform file management tasks on my computer such as copying, moving, renaming and deleting files or folders	90%	10%
3.	I enjoy conversing with others online through social media or other discussion forums	80%	20%
4.	I can log in to Canvas and use basic features such as Assignments, Discussions, and the Canvas Inbox.	85%	15%
5.	I use the Internet to locate resources for teaching.	90%	10%
6.	I provide timely, constructive feedback to students about assignments and questions.	85%	15%
7.	I am available to my students on a regular basis for questions and assistance	75%	25%
8.	I enjoy facilitating interactions among my students.	85%	15%
9.	I enjoy lecturing to my students for most of the class period.	70%	30%
10.	I use a variety of teaching strategies to help my students learn.	85%	15%
11.	My students take a midterm and a final but have few or no other assignments in the course.	80%	20%
12.	I enjoy trying new teaching approaches.	90%	10%
13.	I provide lessons and activities that are connected to real-world applications.	90%	10%
14.	I communicate my expectations about participation, behavior, and work quality to my students	80%	20%
15.	I feel comfortable conveying my personality and/or emotions through writing.	85%	15%

# **Data Analysis -Discussion**

Results of this investigation revealed "commonly held opinions" among students and teachers on the introduction of online learning at the school. These results indicate that students and teachers tend to view online learning positively. The opinion that online learning will benefit for teachers, students, and learning in general. Results of this study echo earlier studies by Kleiman (2000),

Minton (2000), and Teacher (2000). In spite of these positive findings, some reservations towards online learning were nonetheless revealed in the data. Most faculty surveyed expressed concern that the introduction of online learning would require increases in staff and student numbers to make online learning economically viable.

Results of this study also revealed other widespread opinions on the introduction of online learning:

- online Learning provides rich resources to students and teachers
- online Learning can make teaching more efficient
- online Learning can save teachers and students time and effort
- online Learning provides students greater access to educational opportunities

In summary, the results of this survey reinforce outcomes of similar studies conducted by Haugland and Wright (1997) and Hartly and Robertson (2001). While it remains to be seen if online learning can live-up to faculty's current expectations and perceptions, it does indicate they are open to the possibilities offered by online learning.

- It is easy to monitor teaching and learning processes via e-learning
- online Learning can minimize costs
- online Learning can help to standardized course contents and learning materials

Survey results also indicated that faculty members do not perceive that online learning reduces teamwork and collaboration between students, or causes fragmentation of work and loss of consistency in learning, or results in a decline in learner achievement.

It is anticipated that online learning will be met with minimal resistance internally. Nonetheless, this survey also revealed key weaknesses. Faculty members are of the opinion that the monitoring and evaluation processes via online learning might be difficult. Results also indicate that many requirements must be fulfilled before implementing online learning at the school level. Teachers and students must have sufficient training; they must have access to well-prepared online course and teaching materials; sufficient groundwork must be laid to ensure that the adoption of elearning is embraced by all involved. More importantly, the survey also reveals that the transition towards online learning must be done gradually.

# **CONCLUSION**

It is hoped that this study will contribute to a better understanding of teachers and students opinions towards introducing online learning at the School. These findings are consistent with those found in the current literature. Current literature indicates that training is necessary before students and teachers are exposed to online learning. A clear strategy is therefore required prior to implementing online learning. The survey also reveals that gradual implementation is desirable, until teachers and students are comfortable using online learning technology and convinced of its application as a viable teaching/ learning delivery strategy. Results of this study are anticipated to strengthen the status of online learning at the school and other distance learning institutions in the region, and other areas of world. Some important outcomes of this study point to the need for further investigation. Many questions have yet to be answered.

### **REFERENCES:**

**Ballard, R.** (2000). *Networking K-12 Education*. Retrieved April 25, 2004 from: http://www.abegs.org/fntok/htm

**Becker, H.** (1991). When Powerful Tools Meet Conventional Beliefs and Institutional Constraints. *Computing Teacher*, 18(8), 6-9.

**Biddara, J.,** and Dias, A. *International Review of Research in Open and Distance Learning, 4*(2). Retrieved April 22, 2004 from: <a href="http://www.irrodl.org/content/v4.2/bidarra-dias.html">http://www.irrodl.org/content/v4.2/bidarra-dias.html</a>

**Carry, D.,** and Willis, J. (2001). Technology and Teacher Education. *Association of Advancement of Computing in Education*. Charlottesville, VA.

**Fahy, P. J.** (1999). Reflections on the Productivity Paradox and Distance Education Technology. *Journal of Distance Education* 13(2). Retrieved July 14, 2004 from: <a href="http://cade.icaap.org/vol13.2/fahy.html">http://cade.icaap.org/vol13.2/fahy.html</a>

**Fournier, B.** (2002) e-learning in Europe. *Noir Sur Blanc*, 3(1), 1-24.

GE Source World Guide (2004). *Bahrain Demographics*. Retrieve July 14, 2004 from: http://www.gesource.ac.uk/worldguide/html/821\_people.html

**Hauben, M. (2002).** *History of ARPENET: The "open" history of the ARPANET/ Internet.* Retrieved November 19, 2003, from: http://www.dei.isep.ipp.pt/docs/arpa.html

**Haugland, S.,** and Wright, J. (1997). Young Children and Technology: A world of discovery. Boston, MA.: Allyn and Bacon.

**Hall, B.,** and Snider, A. (2000). Glossary: The Hottest Buzz Word in the Industry. *Learning*, 44(4), 85 - 104.

**Hannafin, R.,** and Savenye, S. (1993). Technology in the Classroom: The teachers' new role and resistance to it. *Educational Technology*, 33(6), 26 - 31.

**Hara, N., and Kling, R.** (2000). Students' Distress with a Web-based Distance Education Course: An ethnographic study of participants' experiences. *Information, Communication and Society* 3(4), 557 - 579.

**Hartly, J., and Robertson, D.** ( **2001**). e-learning in Schools. *Times Educational Supplement,* 12(5), 16-20.

**Jamlan, M.** (2002). Distance Learning Between Current Practice and Future Perspectives. *Journal of Educational and Psychological Sciences*, 3(1), 138 – 162.

**Kleiman, G. (2000).** Myths and Realities About technology in K-12 Schools. LNT Perspectives. *The Online Journal of the Leadership and the New Technologies Community.* Retrieved April 25, 2004 from: <a href="http://www.edc.org/LNT/NewsIssue14/feature1.htm">http://www.edc.org/LNT/NewsIssue14/feature1.htm</a>

**Kook, J. (1997).** Computers and Communication Networks in Educational Settings in the Twenty First Century: Preparation for Educator's New Roles. *Educational Technology*, *37*(2), 56 – 60.

Laurillard, D. (2002). Rethinking Elementary Teaching. London: Routledge.

**Magnusson, M., and Svensson, L. (2000).** Technology and Pedagogy in e-Learning: A case study of attitudes among teachers. *Proceedings of the First International Conference on Knowledge Management.* 1-14.

Mason, M. (2001). Globalising Education: Trend and Applications. London: Routledge.

**McKenzie**, **J.** (1998). The Information Literate School Community. From Now On. *The Educational Technology Journal*, 8(1), 22 – 27.

**Minton, M. (2000).** Is Your Organization Ready for e-learning? *Communication Project Magazine*, 15(3), 1-8.

Nitko, A. J. (1996). Educational Assessment of Students. Second Edition. Mahwah, NJ.: Merrill, an Imprint of Prentice Hall.

**O'Donnell, J. (1991).** Teacher Perception of Their e-learning Needs to Integrate e-learning into Classroom Instruction. Unpublished doctoral dissertation, University of Southern California at Los Angeles.

**Salmon, G.** (2000). e-Moderating the Key to Teaching and Learning Online. London: Clays Ltd.

**Schofield, J.** (1997). *Internet, Classroom Cultures and Changes*. Cambridge, MA.: Cambridge University.

**Spender, D.** (2001). e-Learning: are Universities Prepared? In *Online Learning in a Borderless Market*. Conference proceedings at a conference held at Griffiths University Gold Coast Campus (p. 59-63). Canberra: Department of Education, Training and Youth Affairs.

**Teather, D. (2000).** How to Learn the Hardware Way. *The Guardian*, 23(3), 77 – 79

**Urdan, T., and Weggen, C. (2000).** Corporate e-learning Exploring. A New Frontier. *Computer News*, 53(11), 35 - 36.

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