PEDAGOGY

for Online Learning

Theory and Practice

Rodrigo M. Velasco Ruel F. Ancheta Chinaza Solomon Ironsi editors



Disclaimer

This book is a collection of research articles written by different authors. The authenticity of the data and information is the sole responsibility of the authors. Furthermore, the standpoint and perspective of the authors as expressed in their research articles do not necessarily reflect the stance of the publisher.

Copyright ©2022

Institute of Industry and Academic Research Incorporated

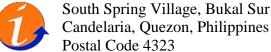
ISBN - 978-621-96514-1-7

All rights reserved. No part of this book may be reproduced or used in any manner without the prior written permission of the copyright owner, except for the use of brief quotations.

To request permissions, contact the publisher at <u>publications@iiari.org.</u>

Published by:

Institute of Industry and Academic Research Incorporated



Contact Numbers: (042) 785-0694 • (+63) 916 387 3537

Visit the website https://iiari.org

Preface

During this unprecedented time, almost all educational institutions have shifted from traditional learning to online learning. When the COVID-19 hit the world, online teaching was no longer an option but a necessity. Due to government restrictions and other related protocols, schools, colleges, and universities opted to deliver academic instructions into online to ensure that students still receive quality learning they deserve. Online learning is a tool in which teaching and learning process still become student-centered, innovative and flexible. However, online learning can also become a disadvantage as there are many challenges associated with online teaching and learning. This e-book offers the different perspectives on online learning: framework, learning experiences both on students and teachers and its associated future management.

The introductory part of this book gives an overview and framework of online learning. It provides technical discussions of learning management systems and teaching and learning modalities used in online learning. It serves as guide in the development of the appropriate learning management system and modality relevant to the capacity and necessity of the academic institutions. The authors shared their actual experiences in the development and management of the systems and programs in online learning.

Part 2 of the book contains the efficacy of online learning experience as per the students' perspective. It highlights the attitude of students towards distance learning at the peak of

the pandemic termed as 'behavioral Coronaphobia.' This part also highlights the expectations of high school and higher education students on online learning and teacher-created videos as a tool in the online learning. The authors shared the results of their studies on the actual experience of their students which unveiled the various positive and negative facets of online learning.

In part 3, the efficacy of online learning as per teachers' perspective is presented. This part highlights the experience of the rural science teachers and the school administrator during the new normal in education. Recommendations outlined on this part serve as bases for further analysis in terms of online teaching-learning implementation. Meanwhile, the future of online learning is outlined in part 4, which can be a basis for further review. The model contained in the paper can be particularly applied in higher education where online platform may be adapted for long in the post-pandemic new normal.

This e-book offers major research results on the conduct and implementation of online teaching and learning in the context of COVID-19 pandemic. It provides a unique perspective on the research issues regarding the effects of online learning from many experts in this field.

Let us learn from the various personal experiences and perspectives of the researchers from various fields of specialization!

About the editors

Dr. Rodrigo M. Velasco has a multicultural perspective of education and research having worked as a professor and administrator in the Philippines, CNMI, USA and Sultanate of Oman. His orientation on multiculturalism and



diversity trained him to cope with different cultural and geographical settings. He is currently an assistant professor of business management and accounting at Gulf College, Sultanate of Oman. As an academician, he has professional qualifications such as Doctor of Business Administration, Diploma in Strategic Management and Leadership from School of Business London, and Certified Human Resource Professional and Certified Marketing Professional from Qualifi, United Kingdom. As a researcher, he is the founding president of the Institute of Industry and Academic Research Incorporated as a platform for open access publications.



Dr. Ruel F. Ancheta is currently an Assistant Professor in Gulf College with more than 2 decades of teaching experience in the graduate and undergraduate levels. Coupled with his teaching, he has massed industry experience in the field of Human

Resource Management and Training and Development. He is a motivated lecturer who strives to make each student feel heard and cared for. He is dedicated to his profession and committed to the development of his students. His field of interests are English Language Teaching, Educational Management and Leadership, and Human Resource Management and Development. He is currently a member of

the Research Council- Oman (TRC). He has written and published various researches in the field of education and English Language Teaching.



Dr. Chinaza Solomon Ironsi is a language instructor at the Department of English Language Teaching, Faculty of Educational Sciences, Near East University in Cyprus. He currently teaches English language at Rauf Denktas University. He is a member of TESOL Africa and

editorial board member of international journal of TESOL studies. He has published numerous articles and presented papers in national/international conferences. His research interests are in all areas of language teaching and education. He is happily married to Sarah Ironsi and has two kids Blyss and Apryl.

Featured authors:

Dr. Salvacion M. Domingo

Dr. Salvacion Domingo is currently an assistant professor in the Faculty of Computing Studies at Gulf College, Sultanate of Oman. She is a graduate of Doctor in Information Technology, Master of Science in Computer Science, and Bachelor of Science in Computer Science from AMA University in the Philippines. She has over 16 years of teaching experience in the Philippines and abroad. She has authored and co-authored a number of research and projects in IT. She is a member of the Philippine Society of IT Educators in the Philippines (PSITE) and Computer Science Teachers Association (CSTA). In addition, she is a peer reviewer of The Research Council (TRC) in the Sultanate of Oman.

Marco Paulo J. Burgos

Marco Paulo J. Burgos finished Master of Science in Information Technology at Rizal Technological University, Mandaluyong City. He finished Bachelor of Science in Information as his undergraduate course in Philippine Women's University CDCEC-Calamba and a two-year diploma course in Electro-Mechanics Technology at Dualtech Training Center in Canlubang, Calamba City, Laguna. He is currently working as a lecturer, member of software development committee, and research adviser in the Department of Computing and Informatics at the City College of Calamba. He has various certifications such as National Certificate II in Computer Systems Servicing, Trainers Methodology Certificate 1, National TVET Trainer Certificate and Accredited Competency Assessor for Computer Systems Servicing Certificate.

Helen Bancod-Ancheta

Helen Bancod-Ancheta is currently a School Principal of St. Vincent Blessed School of Manila with 28 years teaching experiences. She has been a Pre-elementary School Directress of Villagers Montessori School in Quezon City for 12 years and a School Principal of St. Gabriel School of Norzagaray in Bulacan for almost five years. As an academician, her field of interest is language teaching, educational management, and developmental reading.

Associate Professor Hiroko Kanoh

Hiroko Kanoh is an associate professor in the Institute of Arts and Sciences National University Corporation Yamagata University, Yamagata prefecture in japan. Her areas of specialization are educational technology, cyber psychology and ICT education. She has more than 20 international and 100 national publications and 30 authored books. She was awarded the Culture, Sports, Science and Technology Minister's Commendation of the field of science and technology in 2010. She graduated from the master's program Tokyo Gakugei University, Tokyo in Japan through the doctoral program at Waseda University, Tokyo in Japan.

Angela L. Reginaldo

Angela L. Reginaldo is presently the Director for Extension and Training Services of the Laguna State Polytechnic University. Has been in the teaching profession for 31 years, handling various mathematics and computer subjects. Has finished BS Applied Mathematics, major in Operations Research at the University of the Philippines at Los Banos, and has finished Master of Arts in Education, with specialization in Administration and Supervision. An active member and incumbent Vice President for Tertiary Level of the Mathematics Teachers Association of the Philippines – San Pablo City Chapter. A Board Member of the Mathematics Mentors of San Pablo City.

Dr. Delon A. Ching

Dr. Delon A. Ching is the Chairperson for Research and Development Office and Mathematics Instructor in the College of Teacher Education of Laguna State Polytechnic San City Campus. University, Pablo He Mathematics and professional subjects in the undergraduate program, statistics and methods of research in the graduate program. He served as panel expert and thesis adviser to majoring **Mathematics** and Educational students Management. He earned his Bachelor's degree in Manuel S. Enverga University Foundation, Master's degree in Southern Luzon State University and Doctorate degree in Laguna State Polytechnic University.

Prof. Rekha Mahajan

Prof. Rekha Mahajan is the Principal at Jagannath Institute of Education, JEMTEC, Greater Noida, India. She is a post graduate in Physics and Education with Doctorate in She was awarded with the Prestigious Education. Excellence in Teaching Award for her outstanding in the field of Education contribution during International Conference at Maharana Pratap University, Udaipur, Rajasthan, India in December 2017. She has over three decades of teaching and administrative experience at various renowned academic institutions. She is the founder Principal of two schools located in Haryana. She has authored and presented several research papers at National and International conferences and has delivered several expert talks on relevant topics.

Jahfet N. Nabayra

Jahfet N. Nabayra is currently a college instructor and the chairperson of the Quality Assurance unit of the Aklan State University - College of Teacher Education where he graduated with a Bachelor of Secondary Education major in Mathematics degree as Magna Cum Laude last 2016. He is currently pursuing his Doctor of Philosophy in Science Education major in Mathematics at the West Visayas State University. He has ongoing and completed researches in the fields of mathematics education, instructional material development, ethnomathematics, and flexible learning modalities in the new normal. In addition, he has published some of his completed researches in local and international refereed journals.

Juliet C. San Luis

Juliet C. San Luis is currently a fourth-year college education student at Calayan Educational Foundation Incorporated under the Bachelor of Secondary Education program major in Science. She is a 23-year-old aspiring teacher from Lucena City, Quezon, Province. She has been consistently an honor student leading her class academically with humility. She serves as a leader, being the Vice President for Internal Affairs of Young Educators' Circle in CEFI. She shows great interest in research events and conferences, particularly in the field of education, intending to raise awareness and empower others through knowledge that academic writing can provide.

Michael Jere' D. Abiol

Michael Jere' D. Abiol is currently the **Business** Administration Program Head at St. Peter's College in Iligan City. He is now pursuing a Doctor of Management at Capitol University in Cagayan De Oro City. His research interests include business administration, business management, finance, innovation, and design thinking. Mr. Abiol pursued and completed BS Business Administration (2013) and Master of Business Administration (2015). In addition, he also earned units of the Doctorate in Business Administration (2019). The author's extensive expertise in academia and the business world established his credibility of business education in higher education.

Wai Wai Than

Wai Wai Than is a former lecturer at Department of Educational Psychology in Sagaing University of Education. From that university, she got her bachelor's degree (BEd) in 2008 and Master's degree (MEd) specializing in Advanced Educational Guidance and Counselling in 2012. At present, she is also studying as a fourth year PhD student at Yangon University of Education. Her PhD dissertation focuses on student satisfaction in the field of higher education. She has delivered lectures on educational psychology to undergraduate and post-graduate students, conducting her PhD dissertation, and supervising MEd theses.

Table of Contents

Part 1 – The Framework of Online Learning
Learning Management System for Data Structures and Algorithm Marco Paulo J. Burgos
Collaborative Interaction Management System (CIMS) for Higher Educational Institutions Dr. Salvacion M. Domingo
The Teaching and Learning Modality in the 'New Normal' Helen B. Ancheta
Part 2 – The Efficacy of Online Learning Experience – Students' Perspectives
The Japanese Students' Behavioral Coronaphobia Hiroko Kanoh
The On-line Teaching during 'COVID-19' Pandemic Prof. Rekha Mahajan
Online Learning Expectations among Engineering Students Angela L. Reginaldo & Delon A. Ching
Learning Mathematics in the New Normal through Teacher-Created Videos Jahfet N. Nabayra
Part 3 – The Efficacy of Online Learning Experience – Educators' Perspectives
Looking Through the Lens of Rural Science Teachers in the New Normal Setting

The Administrative Challenge of the 'New Normal'
n Education
Ruel F. Ancheta125
Balanced Scorecard: A Design Thinking Assessment
of Higher Education's Organizational Performance
Michael Jere' D. Abiol138
Part 4 – The Future of Online Learning
Future Management of Online Learning in Higher Education
Vai Wai Than

The Online Teaching during 'COVID-19' Pandemic

Prof. Rekha Mahajan

Introduction

The evolution of man depends largely on the continuity of our education system which has continuously evolved over centuries. Revolutions in science, information, and communication technology have added new dimensions in imparting education. Today it has transcended into a potent system of imparting knowledge. At present, the modern education system has blended new technologies for effective teaching and learning. Despite the effective use of these new innovations like laptops, mobiles, internet etc., the teacher continues be the main key player in imparting knowledge and education to the young and growing.

The internet has made online learning possible. Many researchers and educators are interested in online learning to enhance and improve student learning outcomes while combating the reduction in resources, which is very common in higher education (Farinella *et al.*, 2000; Kim & Bonk, 2006; Pape, 2010). This new mode of learning has been embraced by the academic community which has been labeled 'e-learning'. Lee *et al.* (2009) defines e-learning as web-based learning which utilizes web-based communication, collaboration, multimedia, knowledge transfer, and training to support learners' active learning without the time and space barriers.

In addition to natural development, certain situation sometimes forces the system to evolve so as to meet the present day needs. For instance, the global health pandemic brought by COVID-19 is one such situation that changed the learning modality overnight. As the whole world stood-still and complete lock-downs in place, learning has to continue. Presently, the physical "brick and mortar" classroom is starting to lose its monopoly as the place of learning. There have also been increases in demand for online learning from students from all walks of life. The present

circumstances led to new utilization of laptops, mobiles and internet as the platform for the delivery of the education services. These gadgets brought a ray of hope for the education system. Truly, the COVID 19 brought major change to the current education system. At this stage, it is essential for the academic community to be prepared and accustomed as this may be the 'new' normal in the future of education.

In view of the impact of COVID-19 in the India's education system, online courses have expanded rapidly and have the potential to extend further the educational opportunities. The online courses are difficult, especially for the students who are least prepared (Bettinger & Loeb, 2017). Accordingly, the students' learning and persistence outcomes are worse when they take online courses than regular face to face classes.

It is important that researchers and educators examine the effectiveness of online learning in educating students compared to traditional face-to-face learning. Guided by what Confucius once said "Tell me and I will forget. Show me and I will remember. Involve me and I will understand", this study assessed the actual implementation of the online classes in one of the private college in India. The objective of the study was to understand the utility of online classes in comparison to regular class room classes. It also identified he problem faced by the students during the online classes.

Literature Review

The positive effects as well as negative effects of online teaching have been discussed in most literature. Several authors noted the benefits and uses of online learning as well as its effectiveness in educating students. It has been identified that the online learning modality is useful for professional development. Its cost-effectiveness is used to combat the rising cost of postsecondary education, credit equivalency at the postsecondary level, and the possibility of providing a world class education with a broadband connection (Bartley & Golek, 2004; De la Varre *et al.*, 2011; Gratton-Lavoie & Stanley, 2009; Lorenzetti, 2013). For instance,

Nesler and Lettus (1995) reported higher ratings on clinical competence among nurses graduating from an online program than nurses who were traditionally prepared. This also gives hope that online learning will be able to provide a world class education to anyone, anywhere, and anytime as long as they have access to the internet. As Nguyen (2015) felt that it would be too easy to jump on the online learning or dismiss.

However, there were number of reports indicating no difference between online and traditional approach. Fallah and Ubell (2000) compared midterm exam scores between online and traditional students at Stevens Institute of Technology and found little or no difference in student outcomes. Similarly, Freeman and Capper (1999) also found no differences in learning outcomes between business students participating in role simulations either face-to-face or asynchronously over distance. Furthermore, Arbaugh (2000) compared the course grades of classroom-based and Internet-based MBA students and found no significant differences between them.

Methodology

This study utilized the quantitative research method. Through the use of a questionnaire, the feedback of the students was generated to assess their use of the online classes.

In order to understand the utility of online classes in comparison to regular class room classes, the feedback of the students was taken each semester. The survey questionnaire was in the form of closed questions. There were four simple but critical questions asked.

Q1: Are the objectives of the online sessions clearly understood?

Q2: Is there an effectiveness of participation and interaction in the online sessions?

Q3: Are topics covered in the online classes were relevant to the course curriculum?

Q4: Are contents were organized and easy to follow?

Each question has three options namely Good, Average or Poor. In addition, an open unstructured response of students was also collected for the specific problems faced during the online classes.

At the height of the COVID-19 pandemic last 2020, the regular classes were suspended during the second-half of March 2020. Steps were taken to start online classes for the Semester II and Semester IV for a period of five weeks. There were 78 students in Semester II and 98 students in Semester IV. There were two (2) to thee (3) one hour classes per week for these students. During these periods, feedback was solicited from all the students on their use of online classes. The feedback was received at Saturdays of each week. The periods of gathering students' feedback were the weeks of 23-27 March 2020, 29 March- 3 April, 7-9 April 2020, 13-17 April 2020 and 20-24 April 2020.

The data were analysed using frequency count, percentage and weighted mean.

Results and Discussion

 Table 1

 Summary of Students Feedback by Question

Question Question	%
1	64.3
2	45.9
3	77.3
4	61.2

Table 1 shows the overall feedback received from the students. There was 100% students' attendance in online classes for five weeks. The feedback was received during Saturday at the end of week. The results show that the highest percentage was for Question 3 on the topics covered relevant to the course curriculum with 77.3%. It was followed by Question 1 on the students'

understanding of the online session objectives with 64.3% and Question 4 on the organized contents with 61.2%. The lowest response of students was for Question 2 on effectiveness of the participation and interaction in the online class with 45.9%.

Table 2Summary of 'Good' Students' Feedback

	Semester II	Semester IV	Average %		
Week 1	52.6	42.9	47.8		
Week 2	21.8	17.3	19.6		
Week 3	77.0	29.0	53.0		
Week 4	70.5	47.0	58.8		
Week 5	51.0	34.0	42.5		
Overall %	54.6	34.0	44.2		

Table 2 shows the summary of the students' feedback with 'Good' ratings. The percent response was higher for the students of Semester II than Semester IV while the overall percentage response was 44.2%. After first week, there was a dip in the response of the students during second week which may be attributed to lack of interaction between teacher and student as well as due to poor network. As the online teaching was new experience for the students, it was difficult for the students to concentrate. After the second week, steps were initiated to reorient the students on the nature and purpose of online teaching up. This led to a dramatic increase in the responses of the students during 3rd and 4th week. Moreover, the response of students in Semester II was much higher in comparison to the students in Semester IV.

Table 3Comparison of Students' Feedback by Semester

	Good		Ave	rage	Poor	
Q	SII	S IV	SII	S IV	SII	S IV
1	72.7	55.8	26.7	38.9	0.5	5.2
2	50.2	41.6	47.5	46.0	2.3	12.4
3	83.9	70.7	16.1	25.9	0.0	3.4
4	71.6	50.8	26.3	41.2	2.1	8.0
Mean	69.6	54.7	29.2	38.0 1.2		7.2
Overall %	62.2		33.6		4.2	

Table 3 shows the comparison of the percentage of responses as 'Good', 'Average' and 'Poor'. It was evident from the results that the maximum number of students at 62.2% considered the online teaching as 'Good'. Furthermore, there were number of students in Semester IV who considered online teaching as 'Poor' in comparison to their normal class room teaching. There were more students in Semester II who considered online classes 'Good' compared to more students in Semester IV who considered online classes as only 'Average' and 'Poor'. Furthermore, the "Good' response of the students was highest for 'Question 3' followed by 'Question 1' and 'Question 4'. On the other hand, the 'Average' or 'Poor' response of students was highest for 'Question 2' followed by 'Question 1'.

Table 4 shows the summary of the students' feedback by week. On analysing the data week-wise and question-wise, the response of students to online in comparison to class room teaching were rated into 'Good', 'Average' and 'Poor'. It was observed that the objectives of the online sessions (Question 1) were better understood by the students in Semester II than Semester IV. It was also observed that on making efforts to make them understand better the objectives of the online classes, the score has improved.

 Table 4

 Summary of the Students' Feedback by Week

	Question		1	- 2	2	:	3	4	1
Week	Grade	SII	SIV	SII	S IV	SII	S IV	SII	S IV
1	Good	70.7	47.6	48.8	35.7	82.9	61.9	73.2	38.1
	Average	29.3	40.5	46.3	42.9	17.1	31.0	24.4	45.2
	Poor	0.0	11.9	4.9	21.4	0.0	7.1	2.4	16.7
2	Good	64.7	88.2	35.3	64.7	76.5	94.1	64.7	58.9
	Average	35.3	11.8	53.0	23.5	23.5	5.9	35.3	35.3
	Poor	0.0	0.0	11.8	11.8	0.0	0.0	0.0	5.9
3	Good	70.0	42.9	46.7	25.0	78.3	60.7	66.7	60.7
	Average	30.0	42.9	51.7	57.1	21.7	28.6	30.0	32.1
	Poor	0.0	14.3	1.7	17.9	0.0	10.7	3.3	7.1
4	Good	72.7	58.7	52.7	45.7	92.7	73.9	78.2	47.8
	Average	25.5	41.3	45.5	47.8	7.3	26.1	20.0	47.8
	Poor	1.8	0.0	1.8	6.5	0.0	0.0	1.8	4.3
5	Good	82.5	63.6	57.5	48.5	82.5	78.8	70.0	66.7
	Average	17.5	36.4	42.5	45.5	17.5	21.2	30.0	30.3
	Poor	0.0	0.0	0.0	6.1	0.0	0.0	0.0	3.0

The participation and interaction of the student and teachers (Question 2) are most important in any class room. The results indicated that participation and interaction was limited to students of both the semesters. Most of the students had 'Good' or 'Average' participation and interaction. Initially, there were more students with low participation and interaction which was improved in the later weeks. It was clear that the students were not fully satisfied with the online interaction and prefer regular class room studies.

Sometimes, students and teachers fear that it was not possible to cover and complete all topics (Question 3). As per the students'

perception, there was fairly high percentage in both the semesters. It implies that the topics relevant to the course curriculum were completely covered although the percentages were higher for Semester II students than Semester IV students.

Though the teachers were also new to the online classes, the contents also need to be organized and easy to follow (Question 4). Most of the students felt that the contents were fully organized and it was much easier to follow which make the online teaching equally useful as class room teaching.

Conclusion

It was evident from the study that the online classes were not able to compensate for participation of students and interaction with the teacher to clear their doubts. The face-to-face interaction of students and teacher is essential that give better understanding of the subject. On the other hand, it was possible to improve the objectives of the clear understanding of online session and to cover the topics as per course curriculum. The teachers were efficient on organizing the contents which were easy to follow. It may be noted that online teaching was not able to compensate the practical hands-on teacher training wherein the teacher is in one-to-one interaction with its pupil.

It was suggested that the teachers may go through training programmes for online teaching. In view of the COVID-19 emergency, the concept of online teaching may also be included as part of the course curriculum and teaching programmes in school and colleges in the future. Continued improvement of online curricula and instruction can strengthen the quality of these courses and hence the educational opportunities for the most inneed populations.

For schools and colleges, it would be too easy to implement online learning or cancel the classes. At this circumstances, online learning is at least as effective as the traditional format, but the evidence is, by no means, conclusive. At present, we feel that the online learning story is still being written. How it progresses will likely depend on many factors.

References

- Arbaugh, J.B. (2000). Virtual Classroom versus Physical Classroom: an exploratory study of class discussion patterns and student learning in an asynchronous Internet-based MBA course. *Journal of Management Education*, 24 (2), 213-233.
- Bartley, S. J., and Golek, J. H. (2004). Evaluating the Cost Effectiveness of Online and Face-to-Face Instruction. *Educational Technology & Society*, 7(4), 167–175.
- Bettinger E. and Loeb S. (2017) Promises and pitfalls of online education. Evidence Speaks Reports, Vol 2, #15, pp1-4. B Economic Studies at Brookings
- De la Varre, C., Keane, J., and Irvin, M. J. (2011). Enhancing Online Distance Education in Small Rural US Schools: A Hybrid, Learner-Centred Model. *Journal of Asynchronous Learning Networks*, 15(4), 35–46.
- Fallah, M. H., and Ubell, R. (2000). Blind scores in a graduate test. Conventional compared with web-based outcomes. *ALN Magazine*, 4 (2).
- Farinella, J. A., Hobbs, B. K., and Weeks, H. S. (2000). Distance delivery: The faculty perspective. *Financial Practice and Education*, 10, 184–194.
- Freeman, M.A. and Capper. J. M. (1999). Exploiting the web for education: An anonymous asynchronous role simulation. *Australian Journal of Educational Technology*, 15 (1), 95-116.
- Gratton-Lavoie, C., and Stanley, D. (2009). Teaching and learning principles of Microeconomics online: An empirical assessment. *The Journal of Economic Education*, 40(1), 3–25.
- Kim, K., and Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says. *Educause Quarterly*, 29(4), 22.

- Lee, B-C., Yoon, J-O.and Lee, I. (2009). Learners' acceptance of e-learning in South Korea: Theories and results, *Computers & Education*, 53(4), 1320-1329.
- Lorenzetti, J. (2013.). Academic Administration Running a MOOC: Secrets of the World's Largest Distance Education Classes - Magna Publications.
- Nesler, M.S., and Lettus, M. K. (1995). A follow-up study of external degree graduates fromFlorida. Paper presented at the 103rd Annual Convention of the American Psychological Association, New York, August.
- Nguyen T. 2015. The Effectiveness of Online Learning: Beyond No Significant Difference and Future Horizons. MERLOT Journal of Online Learning and Teaching Vol. 11, No. 2, 309-319.
- Pape, L. (2010). Blended Teaching & Learning. *School Administrator*, 67(4), 16–21.

