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Blended Learning: Basis for Institutional Development Model

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ABSTRACT

This quantitative study was conducted to determine the implementation of blended learning in ASSCAT and develop an institutional model of flexible learning in the new normal. The data was collected from the selected fifty-eight (58) faculty members of Agusan del Sur State College of Agriculture and Technology through survey. The responses from the participants were thoroughly analysed. From the responses of the participants, it can be gleaned that most of the respondents uses smartphone and laptop. Meanwhile, most of the faculty respondents preferred the use of modules/hand-outs/factsheets followed by online references. Meanwhile, respondents generally perceived the extent of the preparation on the implementation for flexible learning modality delivery in the college as poor. Further, the respondents also perceived the preparation of flexible learning modality in teaching and learning in the institution as sometimes challenging. The results of this study also highlight the challenges encountered by faculty in the flexible learning delivery which were rooted in the following common reasons: unstable internet connection, lack of educational gadgets and materials and challenges in module production.

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INTRODUCTION

The crisis brought by the COVID-19 pandemic reshaped the traditional system by moving from traditional face-to face instruction to flexible learning (Cortes, 2022). However, in the study of Wanner and Palmer (2015), they stated that flexible learning has an increasing demand on the part of the teachers. It is because they need to deal with increased workload and time commitment because they need to spend on tasks such as producing modules and electronic materials, coping with student questions, and assessing their outputs (Ma'arop & Embi, 2016). With all of these compelling reasons, the implementation of flexible learning gave excess baggage to the work that a teacher carries in this time of the pandemic.

Agusan del Sur State College of Agriculture and Technology (ASSCAT), one of the Higher Education Institutions in Caraga Region, implemented flexible learning for the first semester of the academic year 2020-2021 pursuant to the BOT Resolution No. 20-087, s. 2020. With this, the teachers experienced difficulties most especially in accommodating the different learning modalities chosen by respective students. In this regard, the implementation of flexible learning puts emphasis that is timely and relevant to be addressed because there is a big tendency that it would become perennial problem in the future most especially that we do not know when this pandemic will end. It is in this context that the researcher felt the urgency of conducting a research focused on exploring the current practices and issues of blended learning in ASSCAT and come up with a proposed blended learning model for institutional adoption and implementation, specifically, to determine the current blended learning practices in ASSCAT, determine the challenges of the faculty and students on the current blended learning practices, how do the faculty cope with the challenges encountered on the blended learning practices of ASSCAT, what blended learning model can be designed to improve the current blended learning in ASSCAT and how valid is the blended learning model.

THEORETICAL REVIEW

In Malaysia, open and flexible learning served as a tool that helps to provide instruction for all (Zainuddin & Idrus, 2017). However, it requires a high level of effort from the teacher which adds to the demand for their work (Ma'arop & Embi, 2016). This aforesaid situation was also experienced by Indonesian teachers in providing instruction through e-learning as part of their flexibility due to the closure of schools during the COVID-19 pandemic (Almathari et.al, 2022).

Futhermore, the same scenario was experienced by the Australian teachers who mentioned that they felt pressured in utilizing flexible learning due to its demands (Wanner & Palmer, 2015).

On the other hand, educational institutions in the Philippines implemented flexible learning in order to provide alternative modes to continue the educational services without compromising the health and safety of the students (Magsambol, 2022a). It is in accord with CHED COVID Advisory 1-7 or the Guidelines for the prevention, control, and mitigation of the spread of Coronavirus (Commission on Higher Education Education, 2022a).

METHODOLOGY

Research Design

This study employed a quantitative research design in exploring the perspectives of the faculty on the implementation of flexible learning in ASSCAT.

Instrument

The survey instrument consisted of 60 questions directed to all respondents. Of the questions, 56 were multiple choice and 4 were open-ended questions. Survey questionnaire examined the extent of preparation for flexible learning modality delivery and challenges in the preparation of flexible learning modality through 4-point Likert Scale**.** Meanwhile, responses to the challenges of flexible learning modality delivery are through respondent's personal experiences and perspectives in an open-ended questions.

Respondents of the Study

This study employed a quantitative research design in exploring the perspectives of the faculty on the implementation of flexible learning in ASSCAT. Using random sampling, 58 faculty members participated as the respondents of the study of which 13 from the college of Engineering and Information Sciences (CEIS), 17 from College of Teacher Education (CTE), 14 from College of Arts and Sciences (CAS) and 14 from College of Agriculture (CA).

Analysis of the Data

Quantitative data was analysed using descriptive statistics specifically percentage and average mean. More so, open–ended questions are used to add to the validity and reliability of the findings.

RESULTS

Table 1: Percentage of the Respondents per College

No.	College	No. of Participants	Percentage
1.	CA	14	24.14%
2.	CAS	14	24.14%
3.	CEIS	14	22.41%
4.	CTE	13	29.31%
	Total	**58**	100%

Table 1 provides the breakdown of the survey respondents based on the four (4) colleges, of which 24. 14% of the respondents were faculty from the College of Agriculture (CA), 24.14% from the College of Arts and Sciences (CAS), 22.41% from College of Engineering and Information Sciences (CEIS) and 29.31% from College of Teacher Education (CTE).

Table 2: Demographic Profile of the Respondents in terms of Age

Age Range	Number of Respondents	Percentage
25-35	28	48.28 %
36-45	17	29.31 %
less than 25 years	5	8.62 %
more than 46 years old	8	13.79 %
Total	**58**	100 %

Table 2 provides the breakdown of the age of the respondents of which 48.28 % of the faculty members are within an age range of 25-35 years old, 29.31 % are within 36-45 years old, 8.62 % from age range of less than 25 years and 13.79 % are more than 46 years old.

Table 3: Demographic Profile of the Respondents in terms of Rank/Position

Rank/Position	Total Number	Percentage
Instructor I	4	6.9%
Instructor III	1	1.72%
Assistant Professor I	6	10.3%
Assistant Professor 2	5	8.62%
Assistant Professor 3	**1**	1.72%
Assistant Professor 4	1	1.72%
Associate Professor I	1	1.72%
Associate Professor 2	5	8.62%
Associate Professor 3	8	13.8%
Associate Professor IV	1	1.72%
Associate Professor V	1	1.72%
Professor I	1	1.72%
Professor 4	3	5.17%
COS	20	34.5%
Total	**58**	**100%%**

It can be gleaned on table 3 the demographic profile of the respondents in terms of rank/position of which most of faculty respondents are COS with 34.5%, Associate Professor 3 with 13.8%, Assistant Professor I with 10.3%, Assistant Professor 2 and Associate Professor 2 with 8.62%, Instructor I with 6.9%, Professor 4 with 5.17% and Instructor III, Assistant Professor 3, Assistant Professor 4, Associate Professor I, Associate Professor IV, Associate Professor V and Professor I, respectively, with 1.72%.

Table 4: Demographic Profile of the Respondents in terms of Gadget Used

Gadgets used for classes	Number	Percentage
Smartphone	55	40.44 %
laptop	54	39.71 %
desktop	27	19.85 %

Table 4 shows the demographic profile of the respondents in terms of gadget used of which 40.44% of the respondents uses smartphone, 39.71% uses laptop and 19.85% for desktop.

Table 5: Demographic Profile of the Respondents in terms of Teaching Modality Preference

Teaching Modality Preference	Number	Percentage
Modules/Handouts/Factsheets	56	41.48 %
Online References	40	29.63 %
Video Conferencing	26	19.26 %
Project-based	5	3.70 %
Collaborative projects	5	3.70 %
Recorded courses	**3**	2.22 %

Table 5 presents the demographic profile of the respondents in terms of teaching modality preference of which 41.48 % of the faculty respondents preferred modules/hand-outs/factsheets, 29.63 % for online references, 19.26 % for video conferencing, 3.70 % for Project-based, 3.70 % for Collaborative projects, and 2.22 % for recorded courses.

Table 6: Extent of Preparation for Flexible Learning Modality Delivery

	INDICATORS	Average Mean	Verbal Response
Schedule and Place of Learning *When and where learning occurs*			
1	The school provides scheduling on when to conduct synchronous and asynchronous classes.	2.41	Disagree
2	The students have access to learning materials in different formats.	2.43	Disagree
3	The students can join synchronous and asynchronous from the place they are comfortable to work in.	2.55	Agree
4	The students can access learning materials anytime at any location.	2.45	Disagree
	Sub-average	**2.46**	Disagree
Content			
1	The school library has online accessibility for the content references of learning materials.	2.3	Disagree

2	Learning materials are viewed for its relevance and flexibility by panel of reviewers.	2.6	Agree
3	Faculty can collaborate with other faculty members who share the same courses.	2.6	Agree
4	The learning content provides opportunity for students to control their own learning process and improve their learning experiences.	1.8	Disagree
	Sub-average	**2.34**	Disagree
Instructional Delivery			
1	The school allows various approaches to teaching and learning.	2.8	Agree
2	The school has instructional delivery methods for teaching and learning.	2.8	Agree
3	Learning activities are contextualized and localized.	2.2	Disagree
4	The teacher uses flipped classroom (lecture/discussion videos to watch for later) as a tool for lesson delivery.	2.5	Disagree
5	The faculty uses gamification in synchronous classes to encourage virtual interaction in the class.	2.2	Disagree
6	Lessons provide supplementary activities that create automatic grading and group discussion via social networks applications.	2.5	Disagree
Strategies			
1	Learning activities are varied and flexible.	2.5	Disagree
2	Activities encourage collaboration.	2.4	Disagree
3	Course instructors provide real time help via video-based or text-based tutoring so that students can have better emotional perception while addressing the course work.	2	Disagree
4	Learning activities enable flexibility by offering learners several ways of studying (individually, in groups, collaboratively).	2.7	Agree
	Sub-average	**2.42**	Disagree
Learning resources			
1	Learning resources/materials are available in different formats (electronic, digital, or printed)	3.3	Strongly Agree
2	The school allows the faculty/student to use mix and adapt open education resources (OER) resources to fit to his/her learning context.	2.9	Agree
3	The school library provides a huge amount of open learning resources.	2.2	Disagree

4	Learning resources are available upon request.	2.4	Disagree
	Sub-average	**2.71**	Agree
Technology			
1	The school utilizes a learning management system (LMS).	2.1	Disagree
2	The school has an internet connection ranging from 100kbps -2Mbps that can be used for live webcasting and video conferencing.	2.3	Disagree
3	The school has an internet connection ranging from 56kbps-128kbps that can be used for audio-video conferencing.	2.3	Disagree
4	The school has internet connection ranging from 256kbps-384kbps that can be used for whiteboards and slides.	2.1	Disagree
5	The school has an internet connection which consists of 128kbps that can be used for chatting and instant messaging.	2.7	Agree
	Sub-average	**2.31**	Disagree

INDICATORS		**Average Mean**	
Assessment			
1	The faculty has the academic freedom to use authentic assessment activities (oral presentations, thesis defense) and flexible learning modalities.	2.6	Agree
2	Assessment tests or evaluations are computer-based.	3.5	Strongly Agree
3	The LMS provides real time learning traces of the assessment activities of the students.	2.6	Agree
4	Courses used e-portfolio as an assessment.	2.5	Disagree
5	Courses allow different media tools for presentations, generation of content, resubmission of activities as links.	2.7	Agree
	Sub-average	**2.78**	Agree
Support and Services			
1	The school provides any of the following: modem, laptop, phone, desktop or similar gadgets for the faculty.	3.7	Strongly Agree
2	The school monitors conduct of classes using online platforms (Messenger, Google Workspace).	2.5	Disagree
3	The school provides virtual face-to-face technology (video conferencing) for class observations.	2.5	Disagree
4	The school has given the faculty freedom to make needs known in the school.	2.5	Disagree
5	The school has designed webinars with	3.1	Agree

	collaboration in mind on the delivery of flexible learning modalities.		
6	The school allows collaborative module-making among the faculty.	3.2	Agree
7	The school provides technical support to assist in troubleshooting problems related to technology use.	3.2	Agree
	Sub-average	**2.95**	Agree
	Total Average	**2.56**	Agree

Table 6 presents the college's extent of preparation for flexible learning modality delivery in terms of schedule and place of learning, content, instructional delivery, strategies, learning resources, technology, assessment, and support and services. It can be gleaned from the table that generally, the respondents perceived the extent on the preparation on the implementation for flexible learning modality delivery in the college is poor with a total average mean of 2.56.

Meanwhile, the parameters schedule and place of learning, content, instructional delivery, strategies and technology has average mean of 2.46, 2.34, 2.49, 2.42, and 2.31 respectively which implies that the preparation is poor.

According to Coy, Marino and Serianni (2014), the demand for virtual learning environments is growing (p.64). With that growth comes more students with more needs. It is the instructor's responsibility to consider the needs of all students as he or she designs an online learning environment. Finding ways to present curricular content to students is only half the battle. Teachers also need to organize the content in a manageable way. Lehman and Conceição (2014) explained that using modular (or "chunking") techniques, "helped the students reduce cognitive overload and allowed them to focus on the content without becoming overwhelmed" (p. 24).

In addition, providing "multiple means of engagement" refers to the "why" of learning. This includes using a variety of engagement techniques which may include providing options for "recruiting interest, sustaining effort and persistence, and self-regulation" (Cast.org, 2014). Also, according to Cleveland-Innes, et.al (2017), creating an effective blended learning environment means making appropriate choices and overcoming the challenges that come with the use of technology.

Moreover, the parameters learning resources, assessment and support and services are perceived by the respondents as good with an average mean of 2.71, 2.78 and 2.95 respectively.

Table 7: Challenges of HEI's in the Preparation of Flexible Learning Modality in Teaching and Learning

INDICATORS		Average Mean	Verbal Response
Schedule and Place of Learning			
1	Learning Management System (LMS) is available.	2.6	Agree
2	The students are able to submit requirements on-time.	2.6	Agree
	Sub-average	**2.61**	**Agree**
Content			
1	Learning content are readily understood.	2.4	Disagree
2	The students have a hard time digesting concepts found on the content.	3.2	Agree
	Sub-average	**2.79**	**Agree**
Instructional Delivery			
1	Scheduled activities and requirements are submitted on-time.	2.2	Disagree
2	The coursework has improved student's skills.	2.2	Disagree
	Sub-average	**2.18**	**Disagree**
Strategies			
1	Flexible learning modalities effectively improved the proficiency of the students.	**2.16**	**Disagree**
Learning Resources			
1	The school has an adequate file hosting services (Google Drive, Drop Box)	2.9	Agree
2	The faculty can efficiently access the learning resources provided by the school.	1.8	Disagree
	Sub-average	**2.34**	**Disagree**
Technology			
1	There is an adequate access to strong internet connection.	2.07	Disagree
2	Learning Management System is available.	2.36	Disagree
	Sub-average	**2.22**	**Disagree**
Assessment			
1	Evaluation and assessment activities are efficiently delivered.	2.4	Disagree
2	Assessment activities have improved the skills of the students.	1.8	Disagree
3	Assessment activities significantly improved the	2.1	Disagree

	students' understanding of the content.		
	Sub-average	**2.09**	**Disagree**
Support and Services			
1	The school has organized webinars of training related to the use of LMS.	2.14	Disagree
2	The school has provided an easy access in contacting academic or administrative staff for inquiries relative to the delivery of flexible learning modalities.	2.36	Disagree
3	There is assurance of modem, laptop, android phones, desktop, flash drive or similar gadgets for the faculty purposely for IM's preparation.	2.81	Agree
4	Technical assistance for software/hardware concerns is evident.	2.36	Disagree
	Sub-average	**2.42**	**Disagree**
	Total Average	2.35	Disagree

Table 7 presents the challenges of HEI's in the preparation of flexible learning modality in teaching and learning in terms of schedule and place of learning, content, instructional delivery, strategies, learning resources, technology, assessment, and support and services. It can be gleaned from the table that generally, the respondents perceived the preparation of flexible learning modality in teaching and learning in the institution as sometimes challenge for faculty members.

It also evident that the parameters instructional delivery, strategies, learning resources, technology, assessment and support and services are perceived by the respondents as sometimes a challenge with mean score of 2.18, 2.16, 2.34, 2.22, 2.09 and 2.42 respectively. Also, the parameters schedule and place of learning and content are perceived by the respondents as a challenge with a mean score of 2.61 and 2.79, respectively.

The data revealed that some instructors who aim to implement blended courses lack specific instructional design framework to be used for the curricula (Alebaikan & Troudi, 2010). They also lack in competency to create a harmony between the two environments; face-to-face and online (Gedik et al., 2013; Lotrecchiano et al., 2013). Such constraints create problems for them in ensuring learning effectiveness.

Another challenge faced by instructors is in deciding the right blend; as in how much time should be allocated for classroom meetings and virtual learning respectively (Alebaikan & Troudi, 2010; Korr et al., 2012; Gedik et al., 2012). They consider this as a daunting task since they have to critically find the balance between the two environments. Alebaikan and Troudi (2010) in their study mentioned about lack of instructional design framework to be used as guide and instructors' insufficient knowledge as the contributing factors for this problem.

In terms of technological aspects, it is observed that internet connection fault has posed the greatest challenge for blended learning implementors (Alebaikan & Troudi, 2010; Ramos et al., 2011; Heaney & Walker, 2012; Levin et al., 2013). Issues like poor wheather (Levin et al., 2013), limited bandwitdh access (Alebaikan & Troudi, 2010) and inability to view students' body language in online environment (Heaney & Walker, 2012) are among the restrictions that comes with technology. This issue has become one of the barriers in blended learning.

Table 8: HEI's Response to the Challenges of Flexible Learning Modality Delivery in Teaching and Learning

	Major Themes	Core Ideas
Experiences on the Delivery of Flexible Learning Modalities	Facing Difficulties in the New Normal Instructions	-feeling bombarded with a ton of papers for checking -being unable to force the students to submit their outputs on time due to flexibility -spending more time than what is required from the official load due to difficulty in delineating time in working and resting. -having not enough time for preparation of the lesson due to overlapping activities like webinars -having difficulty in crafting modules due to an increased in workload -facing problems in the distribution and retrieval of modules -having difficulty in teaching subjects that need physical interaction
	Attending Webinars on Pedagogies in the New Normal	-attending online seminar-workshops on digital citizenship -having free and easy access to webinars for capacity-building like seminar-workshop on instructional making -having exposure to

		different online platforms -introduced to different technologies that can be used for flexible learning
Challenges on the shifts of learning modality from face-to-face to flexible learning modalities	Having unstable internet connection	-Having difficulty in conducting online classes due to poor connectivity -Having delays on the updates of students and teachers due to poor internet connection -looking for other places outside the residence to have better connectivity -being unable to conduct virtual class due to internet problems. -having difficulty in explaining the topic due to signal interruption
	Lacking Educational Gadget and Materials	-Having difficulty in accessing information and updates due to low-end gadget. -experiencing digital-divide among students due to lack of gadgets
	Experiencing challenges in module production	-lacking equipment for faster reproduction -producing a module for a short span of time -forcing to do publishable modules in this time of pandemic
HEI support in the delivery of flexible learning modalities	Providing internet connection	-Providing internet connection by the institution that is capable of downloading documents and conducting synchronous classes -Provision of communication allowance per month through load card

		- Having consistent monitoring of the internet signal in school
	Providing Educational Gadgets and Materials	-Supplying laptop and cellphones for faculty - providing support through additional printers for reproduction of printed materials
HEI's response in addressing the challenges posed by the new normal	Strengthening technical support	-Hatid-Aral Program - Provision of Institutional LMS
	Keeping abreast with Technological and Pedagogical Trends	-Upgrading the technological knowledge of the faculty -Having the need for teachers to learn and master the use of different applications and online platforms -Having the need for teachers to learn new teaching strategies
	Policy Development	- Crafted institutional FTLA Policy

DISCUSSION

In this chapter, the researcher presents the data gathered in this study for the purpose of descriptive and statistical analysis and interpretation of findings. The discussion of the topics is presented in the following: demographic profile of the respondents, extent of preparation for flexible learning modality delivery, challenges of HEI's in the preparation of flexible learning modality in teaching and learning and HEIs response to the challenges of flexible learning modality delivery in teaching and learning.

It can be gleaned that most of the respondents uses smartphone and laptop. Meanwhile, most of the faculty respondents preferred the use of modules/hand-outs/factsheets followed by online references. Further, the respondents also perceived the preparation of flexible learning modality in teaching and learning in the institution as sometimes challenging.

The implementation of flexible learning gave experiences as well as challenges to the higher education teachers in this time of global health crisis. With this, the experiences encountered were the following: facing difficulties in

the new normal instructions and attending webinars on pedagogies in the new normal. However, faculty also encountered problems in implementing flexible learning in the new normal and it was rooted in the following common reasons: unstable internet connection, lack of educational gadgets and materials and challenges in module production. These problems affected the smooth implementation of flexible learning because faculty need to address all of the problems and difficulties which caused them to extend time and effort just to cope with the demand.

Moreover, one of the benefits of flexible learning is that teachers were able to attend webinars on pedagogies in the new normal. When pandemic was situated, webinars became free and accessible for all in order to capacitate teachers on how to use different online platforms and technologies for digital citizenship. On contrary, faculty members also encountered different challenges in the new normal instruction because they were bombarded with top of paper works and extracurricular activities. In addition, faculty also experiences unstable internet connection and lack of gadget and materials to be used this is because this provision is only for plantilla faculty members. Module reproduction was also one of the problems due to limited time.

The aforementioned experiences above are supported by Wanner and Palmer (2015) stating that flexible learning gives a higher demand on the work of the teachers. In addition, Ma'arop and Embi (2016) supported the claim that teachers have a lot of things to accomplish such as they need to create and reproduce instructional materials for students.

On the other point of view, the college shows support in the delivery of flexible learning modalities through providing internet connection and educational gadgets and materials to faculty members. Meanwhile, part of the college's response in addressing challenges posed by new normal are strengthening technical support, keeping abreast with technological and pedagogical trends and crafting of policy development.

This study is only limited to the perception of faculty members in ASSCAT. However, the result of this study is important as basis for development of institutional blended learning model. In addition, it is recommended to conduct a similar study in a wider range of locations and a larger number of participants to gather more substantial information about the study. It also suggested to conduct different research about student's perception on the implementation of flexible learning.

CONCLUSIONS AND RECOMMENDATIONS

This research confirms that blended learning has a positive impact on institutional learning effectiveness. There is an increase in student engagement, learning outcomes, and institutional adaptability to this model.

The positive influence of Blended Learning on student performance and learning outcome achievement is reflected in the comparative analysis with traditional learning.

The institution has shown good adaptability to the blended learning model, with faculty and staff readiness, and adequate technological infrastructure and support.

Student feedback indicates a high level of satisfaction with Blended Learning, including the combination of online and face-to-face components, the availability of resources, and the support provided.

Identified challenges during the implementation of Blended Learning include technical issues, lecturer resistance, and logistical challenges that need further attention.

Continue faculty professional development to improve skills in designing and delivering Blended Learning content, especially in the use of technology, online pedagogy, and interactive teaching methods. Advocate for investment in technology infrastructure to support a seamless blended learning experience for educators and students. Development or enhancement of student support services, including guidance, counseling, and technical support to address challenges they may face. Implement a continuous evaluation system to regularly monitor and evaluate the effectiveness of the Blended Learning model, involving surveys, feedback, and academic performance reviews.

FURTHER STUDY

Suggestions for further research are to explore the technical aspects of blended learning implementation, including the effectiveness of the online platform, the integration of learning technologies, and the adequacy of technical support for lecturers and students.

REFERENCES

Allen, I. E., Seaman, J., & Garrett, R. (2007). Blending in: The extent and promise of blended learning education in the United States. Retrieved from http://www.sloan-c.org/publications/survey/pdf/Blending_In.pdf

Brooks, L. (2008). An analysis of factors that affect faculty attitudes toward a blended learning environment. (Ph.D dissertation, Faculty of the College of Education, TUI University, California).

DeLacey, B. J., & Leonard, D. A. (2002). Case study on technology and distance in education at the Harvard Business School. Educational Technology and Society, 5(2), 13-28.

Eddy, L. J., Nor-Aziah, A., & Jasmine, J. (2014). Blended Learning: Examining Concepts and Practices. In E. Mohamed-Amin (Ed.), Blended & Flipped Learning: Case Studies in Malaysian HEIs. Bangi: Pusat Pengajaran & Teknologi Pembelajaran, Universiti Kebangsaan Malaysia.

Garnham, C., & Kaleta, R. (2002). Introduction to hybrid courses [electronic version]. Teaching with Technology Today, 8(6), Retrieved from http://www.uwsa.edu/ttt/articles/garnham.htm

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. The Internet and Higher Education, 7(2), 95-105. http://dx.doi.org/10.1016/j.iheduc.2004.02.001

Garrison, R., & Vaughan, H. (2008). Blended learning in higher education: Framework, principles and guidelines. New York: John Wiley & Sons.

Kim, K. J., Bonk, C. J., & Oh, E. (2008). The present and future state of blended learning in workplace learning setting in the United States. Performance Inprovement, 47(8), 5-16. http://dx.doi.org/10.1002/pfi.20018

Korr, J., Derwin, E. B., Greene, K., & Sokoloff, W. (2012). Transitioning an Adult-Serving University to a Blended Learning Model. The Journal of Continuing Higher Education, 60, 2-11. http://dx.doi.org/10.1080/07377363.2012.649123

Levin, S., Whitsett, D., & Wood, G. (2013). Teaching MSW social work practice in a blended online learning environment. Journal of Teaching in Social Work, 33, 408-420. http://dx.doi.org/10.1080/08841233.2013.829168

Lionarakis, A., & Parademetriou, D. (2003). The quality of the learning experience: A comparative studybetween open distance and conventional education. Turkish Online Journal of Distance Education, 4(2).Retrieved from http://tojde.anadolu.edu.tr/tojde10/articles/lionarakis.htm

Singh, H., & Reed, C. (2001). A White Paper: Achieving success with blended learning, 6. Lexington, MA: Centra Software. http://dx.doi.org/10.2514/2.1489 The Oxford Group. (2013). Blended Learning–Correct Use, Challenges and Best Practices, Report 2013. Kineo.

Wakefield, A. B., Carlisle, C., Hall, A., & Attree, M. J. (2009). Patient safety investigations: The need for interprofessional learning. Learning in Health and Social Care, 8(1), 22. http://dx.doi.org/10.1111/j.1473-6861.2008.00192.x

Young, J. R. (2002). 'Hybrid' teaching seeks to end the divide between traditional and online instructions.