

# **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 [publications@iiari.org](mailto:publications@iiari.org).

## Published by:

Institute of Industry and Academic Research Incorporated



South Spring Village, Bukal Sur

Candelaria, Quezon, Philippines

Postal Code 4323

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.

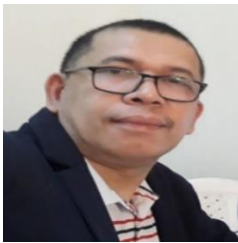
In part 3, the efficacy of online learning as per teachers’ perspective is presented. This part highlights the experience of the rural science teachers and the school administrator during the new normal in education. Recommendations outlined on this part serve as bases for further analysis in terms of 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 multi-cultural 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 University, San Pablo City Campus. He teaches 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 students majoring Mathematics and Educational 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 Education. She was awarded with the Prestigious Excellence in Teaching Award for her outstanding contribution in the field of Education during the 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 education, 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 <i>Marco Paulo J. Burgos</i> .....	2
Collaborative Interaction Management System (CIMS) for Higher Educational Institutions <i>Dr. Salvacion M. Domingo</i> .....	16
The Teaching and Learning Modality in the ‘New Normal’ <i>Helen B. Ancheta</i> .....	42

## Part 2 – The Efficacy of Online Learning Experience – Students’ Perspectives

The Japanese Students’ Behavioral Coronaphobia <i>Hiroko Kanoh</i> .....	57
The On-line Teaching during ‘COVID-19’ Pandemic <i>Prof. Rekha Mahajan</i> .....	72
Online Learning Expectations among Engineering Students <i>Angela L. Reginaldo &amp; Delon A. Ching</i> .....	82
Learning Mathematics in the New Normal through Teacher-Created Videos <i>Jahfet N. Nabayra</i> .....	102

## Part 3 – The Efficacy of Online Learning Experience – Educators’ Perspectives

Looking Through the Lens of Rural Science Teachers in the New Normal Setting <i>Juliet C. San Luis</i> .....	114
--	-----

This is an original copy of the book chapter.

The Administrative Challenge of the ‘New Normal’  
in Education  
*Ruel F. Ancheta* .....129

Balanced Scorecard: A Design Thinking Assessment  
of Higher Education’s Organizational Performance  
*Michael Jere’ D. Abiol* .....138

**Part 4 – The Future of Online Learning**

Future Management of Online Learning in Higher Education  
*Wai Wai Than* .....150

# Balanced Scorecard: A Design Thinking Assessment of Higher Education's Organizational Performance

*Michael Jere' D. Abiol*

## Introduction

A balanced scorecard is a metric of organizational management performance that distinguishes and improves various internal organization positions and the external implications that result from them (Kaplan & Norton, 2009). Organizations use balanced scorecards to measure and offer feedback. Data collection is essential for both quantitative and qualitative results, so managers and executives gather, interpret, and apply information to make better business decisions (Tarvar, 2020). The scorecard offers managers four distinct viewpoints from which to choose indicators which supplement standard financial indices with metrics for customer satisfaction, organizational operations, and innovation and development practices. Moreover, the balanced scorecard encourages radical improvements in critical areas such as commodities, operations, customer behavior, and market development (Kaplan & Norton, 2009).

In a similar context, the design thinking is a method that places the employee experience at the forefront of the initiative. When using design thinking, the company transitions from a process maker to an experience creator, concentrating on the user and the overall experience rather than the process itself. Thinking like a designer entails researching how people behave, creating personas and profiles to better appreciate various demographics, work environments, and real problems they face (CoreAxis, 2017). Corporate training and eLearning allow examining three significant touchpoints within the organization to appreciate better what is needed. These are the procedures, people, and technologies with which workers interact at various stages of their employment with the company (Maier, 2019). For instance,

This is an original copy of the book chapter.

anyone who works on faculty development in higher education understands that adult learners must understand that preparation can benefit them today. For faculty with large workloads and many binding commitments, dedicating even an hour to training can be a significant task. Design thinking is ideal for revising current training, developing new training, selecting a modality, and selecting workshop materials (Wahl, n.d.). As the design thinking revolution in education broadens and deepens, more professionals adopt the design thinking process to their specific contexts (Susie Wise, 2016).

Every higher education institution aims to enhance their competitive advantage through a proper competition plan. Thus, every firm's policy formulation, and implementation are essential enablers. To carry out its plan, organizations are using the new principles in Design Thinking to formulate the balanced scorecard to improve and maintain competition (Ambastha, 2019). In this context, this study evaluates the design thinking of organizational performance in higher education through the balanced scorecard perspectives. It particularly discusses how design thinking develops the balanced scorecard in organizational performance using one online modality.

## **Methodology**

This research involves a case study, an in-depth examination of a specific research topic as compared to a broad statistical survey or systematic comparative investigation. The case study condenses a vast field of study into a few conveniently researched examples. The case study research design is often helpful in determining if a given hypothesis or paradigm corresponds to real-world phenomena (USCLibraries, 2021). This research method is beneficial for putting scientific models to the test by putting them in real-world contexts. The case study strategy empowers in-depth, multifaceted investigations of emotional issues in their real-world settings. Specifically, the qualitative case study analysis allows researchers to perform an in-depth investigation of complex phenomena within a specific framework.

Participants in this study were ten selected employees from a higher educational institution in Iligan City in the Philippines. The purposively selected participants were the primary informants in a focus group discussion (FGD). The FGDs can be classified as interviews of individuals to collect various information, which could have as few as four participants and as many as ten (Statistic solutions, 2021). In this data gathering method, the participants were asked open-ended questions in an immersive environment where they publicly shared ideas. The open-ended questions are free-form that encourage respondents to reply in open text format, allowing them to respond based on their complete experience, feeling, and interpretation. It relies on accessible and subjective questions and answers on a given topic of conversation, with space for more probing by the researcher depending on the respondent's response (Bhat, 2020).

With the current restrictions implemented by the government, the FGD was conducted online. The participants were asked questions related to their perception and analysis of the organizational performance in terms of financial, education and growth, internal process and customer satisfaction. The participants gave their consents on the conduct of the FGD as well as the recording of the entire discussion. From the recordings, the data were summarized and sorted according to the themes. The themes were the four perspectives of the balanced scorecard. Based the keywords given during the discussion, the responses were summarized and tabulated

## Findings and Discussion

**Table 1:**  
*HEIs Financial Performance*

Perspective	Summarized responses of the participants
Financial	<ul style="list-style-type: none"> <li>• The school management focuses on strategic approaches, such as the cost of transitioning from face-to-face to the school's preferred learning management system.</li> <li>• In a pandemic, the management must have all the financial and strategic resources to prepare its stakeholders.</li> </ul>



The table 1 summarizes the participants' thoughts about the organization's finances. In general, the pandemic had a detrimental influence on the economy, which impacts the financial elements of the educational institution and its stakeholders. In particular, the participants reiterated on the school management's focus on the recruitment strategies for a more significant increase in student population. In terms of cost, the associated expense of shifting from face-to-face to the school's preferred learning management system is a major concern. The positive correlation on the two factors equates to "lower population is equal to lower income." Relative to this, the participants assert that the HEI has all necessary financial resources and policies to prepare its stakeholders for the consequences of the pandemic.

The FGD highlights that during the pandemic the company's financial status and stakeholders are a source of concern. For instance, personal finance is one area where the coronavirus pandemic has had a negative effect. The situation severely caused disruptions on the ability of the students to afford the cost of their education which the pandemic has made it much more difficult (Reinicke, 2021). While students' finances are bleak, the impact of which to the HEI enrolment and operation is much bigger. The low enrollment rates have the potential to jeopardize funding. When the coronavirus pandemic shut down school buildings, the education system was already suffering the repercussions of the Great Recession, throwing the world into economic shock (Modan, 2020). With the decreasing number of student enrolment comes the increasing cost of learning modalities. There are many unknowns, but scenario preparation should be in full swing, with schools reopening in various ways (ERS, 2021).

Table 2 summarizes participants' perspectives on the organization's education and development. During the pandemic, the institution adopted the online learning modality with asynchronous and synchronous sessions. The participants mentioned that the e-learning is an achievement of the school. The FGD highlights positive insights on e-learning particularly the utilization of various resources and the use of design thinking

techniques giving students variety of possibilities for learning eventually helping them succeed. The participants also asserted that the use of the design thinking process for successful practice studies included technology in hybrid courses. In addition, the design thinking technique facilitated participatory and empathy-driven creative educational activities, which aided implementation and transformed the experience and community perception.

**Table 2**  
*HEIs Education and Growth Performance*

<b>Perspective</b>	<b>Summarized responses of the participants</b>
Education and growth	<ul style="list-style-type: none"> <li>• This e-learning modality improves school success, where students are more likely to succeed as teachers use various resources, including the design thinking processes.</li> <li>• The design thinking approach is used to examine technology in hybrid courses. The design thinking methods facilitated participatory and empathy-driven creative educational activities that boosted the transformational experience and the resultant feeling of community.</li> </ul>

It is well-researched that online instruction, like most teaching techniques, has advantages and disadvantages. According to Gautam Priyanka (2020), decoding and comprehending the positives and negatives would assist institutes in developing plans for more effective conduct of lectures, ensuring students have an uninterrupted learning journey. Considering the current situation, the world has come to a halt, programs have been postponed, workplaces and classrooms have been closed. The online learning enabled students to continue their schooling which is the preferred educational model for schools (Angdhiri, 2020). However, as addressed by Simenson-Gurolnick and Miller (2021), designing and introducing large-scale distance learning is a modern challenge for multiple school programs. For this, creative thinking would offer a novel approach to address the challenge which may be counterintuitive to take a human-centered approach. Nevertheless, by having stakeholder needs, teachers at the core of

distance learning design, there are multitude of opportunities for innovation in an online atmosphere.

**Table 3**  
*HEIs Internal Process Performance*

<b>Perspective</b>	<b>Summarized responses of the participants</b>
Internal Process	<ul style="list-style-type: none"> <li>• The organization transitioned successfully from paper to paperless transactions throughout deployment. Providing online procedures in any way, shape, or form is a must-have for every firm in the new digital age and beyond.</li> <li>• Since the organization's major current income source was its online platform, it was vital to integrate databases and website output monitoring in the process.</li> </ul>

Table 3 displays the participants' assessment of the organization's internal processes. As to their observations, throughout the implementation phase and until the present, the institution seamlessly transitioned from paper to paperless transactions. Accordingly, it advances the organizational status in the new digital age and beyond by meeting the demands of the modern-day learners. The participants also describe the offering of online procedures in any way, shape, or form which is a must-have for every organization. The participants' evaluation also pointed out the vital database monitoring involved as part of the process which bring together the accurate data acquired from the organization's productivity initiatives and online components.

With the shift to online learning, all transactions were also fully online which facilitates faster and easier process. This is supported by Tan (2014) with his evaluation of online enrollment that increases productivity and reduces needless documentation. Moreover, online transaction consistently develops operation and promotional technologies, enabling users to sign up when and where it is most suitable for them from every Internet-enabled computer. However, this requires investment and resource allocations for the organization Wow Digital (2021) suggests that

an online registration system, which is becoming society's standard, demonstrates credibility and a forward-thinking strategy. In today's ever-changing world, incorporating sustainability into a business strategy is no longer an option. Considering a values-driven approach when implementing business strategies can be critical to long-term success, and sustainability initiatives can contribute to an organization's overall success in addition to driving social and environmental change (Chladek, 2017). Moreover, sustainable development will fuel company growth (Alexandra, 2019).

**Table 4**  
*HEIs Performance on Customer Satisfaction*

Department	Summarized responses of the participants
Customer satisfaction	<ul style="list-style-type: none"> <li>• Both learners and educators started the problematic phase on the transition of online modality, yet the essence of the process paves the way to sustainable education amidst pandemic.</li> <li>• Students recognize the importance of online modality, which improves institutions in the new world.</li> </ul>

Table 4 summarizes participants' responses on the organization's customer satisfaction. According to them, both the learners and educators started the challenging transition to virtual learning, but the core of the process prepares the way for sustainable education in the face of pandemic. The participants also profoundly asserted that virtual education is the most significant change in the modern education. The whole situation has been characterized as a dramatic change in the structure which also opened up additional opportunities for individuals. The participants are positive that the teachers and students realized the value of online education in improving the institution in the modern world.

The description of the participants' learning experience is supported by Heap (2017) where the learners can select their own learning experience that better suits their interests by studying online. In the online environment, classroom sessions are set in a conventional atmosphere where students have the flexibility to

choose their schedules for independent learnings. With the flexibility, most online students appear committed to their tasks while set aside other tasks. Through multi-tasking, learners can manage their learning experience in an online class. This is the same environment for the Community College of Aurora (2019) where the new learning models have emerged offering students suitable curriculum with various options allowing individuals to graduate from the program they have begun but have not completed.

## **Conclusion**

The coronavirus pandemic has had a negative impact on the financial aspect of the educational institutions. The results of the FGD showed the critical financial challenges faced during the COVID-19 caused by low enrollment rates which jeopardized funding. The pandemic also forced the school to provide learning modalities through proper planning in order to reopen the teaching and learning in various ways. The study also revealed that the online learning modality, like other educational methods, has benefits and drawbacks. The participants added that designing and integrating massive learning activities is an instruction period for many school programs, and creative thought provide a revolutionary solution to addressing the drawbacks of online learning. The participants also believe on the human-centered approach to the problem by putting stakeholder interests and teachers at the center of distance learning design.

With the challenge of online learning, the school management must first focus on implementing strategies to increase student enrolment and impose cost-cutting measure to cover up the losses incurred in the transitioning to the online learning. In order to successfully implement the online learning, teachers are encouraged to continuously employ design thinking methods to provide students with options for learning new material. Lastly, the school must formulate strategic plans to sustain the operational performance of the organization despite the challenges of the pandemic. To this, a new way of thinking will definitely create the

‘new normal’ in the field of education. As the online learning is here to stay, the schools must be able to embrace this new model of education.

## References

- Alexandra, S. (2019). *What Is Sustainability in Business?* | HBS Online. Harvard Business School Online. <https://online.hbs.edu/blog/post/what-is-sustainability-in-business>
- Allen, M. (2017). *What is textual analysis?* : SAGE Research Methods. <https://methods.sagepub.com/reference/the-sage-encyclopedia-of-communication-research-methods/i14636.xml>
- Ambastha, A. (2019). *Using Design Thinking Methodology for evolving Balanced Scorecard: Case of an Indian Firm* | Request PDF. [https://www.researchgate.net/publication/336900016\\_Using\\_Design\\_Thinking\\_Methodology\\_for\\_evolution\\_Balanced\\_Scorecard\\_Case\\_of\\_an\\_Indian\\_Firm](https://www.researchgate.net/publication/336900016_Using_Design_Thinking_Methodology_for_evolution_Balanced_Scorecard_Case_of_an_Indian_Firm)
- Angdhiri, R. P. (2020). Challenges of home learning during a pandemic through a student's eyes - Lifestyle - The Jakarta Post. In *The Jakarta Post.com*. <https://www.thejakartapost.com/life/2020/04/11/challenges-of-home-learning-during-a-pandemic-through-the-eyes-of-a-student.html>
- Bhat, A. (2020). Open-Ended Questions: Definition, Characteristics, Examples, and Advantages. In *QuestionPro*. <https://www.questionpro.com/blog/what-are-open-ended-questions/>
- Chladek, N. (2017). *The importance of sustainability in packaging*. Pro Carton. <https://online.hbs.edu/blog/post/business-sustainability-strategies>
- Community College of Aurora. (2019). *Benefits of Online Education* | Community College of Aurora in Colorado: Aurora, Denver Metro, and Online. <https://www.ccaurora.edu/programs-classes/online-learning/benefits-online-education>

- CoreAxis. (2017). *How to Improve the Performance Management Process with Design Thinking | CoreAxis Corporate Training & eLearning*. <https://coreaxis.com/insights/blog/how-to-improve-the-performance-management-process-with-design-thinking>
- Dube, S. (2019). *Writing open-ended and closed-ended questions for user research*. <https://www.invespcro.com/blog/writing-open-ended-and-closed-ended-questions-for-user-research/>
- ERS. (2021). *The Financial Implications of COVID-19 on School Districts | Education Resource Strategies*. [https://www.erstrategies.org/news/blog\\_financial\\_implications\\_of\\_covid-19\\_on\\_school\\_districts](https://www.erstrategies.org/news/blog_financial_implications_of_covid-19_on_school_districts)
- Gautam Priyanka. (2020). *Advantages And Disadvantages Of Online Learning - eLearning Industry*. <https://Elearningindustry.Com/Advantages-and-Disadvantages-Online-Learning>. <https://elearningindustry.com/advantages-and-disadvantages-online-learning>
- Kaplan, R. S., & Norton, D. P. (2009). Putting the balanced scorecard to work. In *The Economic Impact of Knowledge* (pp. 315–324). <https://doi.org/10.1016/b978-0-7506-7009-8.50023-9>
- Lotich, P. (2011). *What are the Purpose and Advantages of Focus Group Interviews? | Social Media Today*. Social Media Today. <https://www.socialmediatoday.com/content/what-purpose-and-advantages-focus-group-interviews>
- Maier, S. (2019). *Using Design Thinking and a People-Centered Performance Management Process - HR Daily Advisor*. <https://hrdailyadvisor.blr.com/2019/03/04/using-design-thinking-and-a-people-centered-performance-management-process/>
- Modan, N. (2020). *Five financial issues schools will face due to the coronavirus-induced recession | K-12 Dive*. <https://www.k12dive.com/news/5-financial-issues-schools-will-face-due-to-the-coronavirus-induced-recessi/583054/>
- Norman, S. (2016). 5 Advantages Of Online Learning: Education Without Leaving Home - eLearning Industry. In *eLearning Industry* (pp. 1–22). <https://elearningindustry.com/5-advantages-of-online-learning-education-without-leaving->

- home
- Reinicke, C. (2021). *The pandemic has upended personal finance education in schools*.  
<https://www.cnn.com/2021/04/05/the-pandemic-has-upended-personal-finance-education-in-schools.html>
- Simenson-Gurolnick, J., & Miller, K. (2021). *Applying Design Thinking to Finance | CFO.University*. Regional Educational Laboratory.  
[https://ies.ed.gov/ncee/edLabs/regions/pacific/blogs/blog38\\_applying-design-thinking-to-distance-learning.asp](https://ies.ed.gov/ncee/edLabs/regions/pacific/blogs/blog38_applying-design-thinking-to-distance-learning.asp)
- Statisticsolutions. (2021). *What are Focus Group Interviews and Why Should I Conduct Them?* Statistics Solutions.  
<https://www.statisticssolutions.com/what-are-focus-group-interviews-and-why-should-i-conduct-them/>
- Susie Wise. (2016). *Design Thinking in Education: Empathy, Challenge, Discovery, and Sharing*. Edutopia.  
<https://www.edutopia.org/blog/design-thinking-empathy-challenge-discovery-sharing-susie-wise>
- Tarvar, E. (2020). *Balanced Scorecard Definition | Investopedia*. Investopedia.  
<https://www.investopedia.com/terms/b/balancedscorecard.asp>
- The Active Network. (2014). *The Top 10 Benefits of Online Registration for You and Your Participants | Active Network*.  
<http://www.activenetwork.sg/event-management-resources/articles/top-10-benefits-of-online-registration.htm>
- USCLibraries. (2021). *Types of Research Designs - Organizing Your Social Sciences Research Paper - Research Guides at the University of Southern California*. The University of Southern California - Library.  
<https://libguides.usc.edu/writingguide/researchdesigns>
- Wahl, L. (n.d.). *Design Thinking for Faculty Pedagogy Training – WCET Frontiers*. Retrieved April 24, 2021, from <https://wcefntiers.org/2020/02/21/design-thinking-for-faculty-training/>
- Wow, Digital. (2021). *5 Benefits of Online Registration Systems*.  
<https://wowdigital.com/blog/5-benefits-of-using-an-online-registration-system/>



