

Ismail Hussein Amzat · Byabazaire Yusuf
Editors

Fast forwarding Higher Education Institutions for Global Challenges

Perspectives and Approaches

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ISBN 978-981-287-602-7

ISBN 978-981-287-603-4 (eBook)

DOI 10.1007/978-981-287-603-4

Library of Congress Control Number: 2015947792

Springer Singapore Heidelberg New York Dordrecht London

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Printed on acid-free paper

Springer Science+Business Media Singapore Pte Ltd. is part of Springer Science+Business Media (www.springer.com)

Preface

If there ever was a time for an educational institution to hasten to accommodate global demands, be fast-paced to cope with the challenges of the new era and out-perform to meet the social expectations, it is absolutely now. It is a great honour and privilege for me and my review team to present a timely book on *Educational Institutions Fast-Forward for Global Challenges* to the global readers. This book embarks on a journey of answering various questions and challenges posed by the twenty-first century, especially the role of technology in upgrading teaching and learning in our societies and the role of higher institutions in uplifting the standard of living, society and sustainability. In addition, it covers a wide and broad spectrum of selected authors across the globe and diverse topics across the disciplines.

Part I presents the role of technology in education, especially in improving teaching and learning. As learning is the core business of educational institutions, this part calls authors, academicians and researchers in the field of instructional technology for their academic contributions on how to further uplift the standard of teaching and learning with technology. We are living in the digital age driven by computer technology, where learning and technology are indispensable to each other. Today learners are different compared to yester years as technology has played a big role in reshaping their minds and thinking. Therefore, Chap. 1 of this book titled ‘Fast-Tracking Technology Integration Toward Global Education in Oman’ explored the process for planning and integrating technology in an Arab University. The author argues for the urgency of fast-tracking of technology in an Omani-only public university (SQU) and the readiness to meet the global education mandate.

Chapter 2, titled ‘Rich Text, Rich Teach Expanding Educational Horizons with New Technology’, calls for the expansion of educational horizons through latest technology. The authors argue that, in modern learning to take place, to meet global challenges and to expand educational horizons, systematic changes should be implemented within a contextual relevant framework of education, and a virtual and digital environment should be created. This proposition is supported by the author in Chap. 3, titled ‘Open-Source Pathways to Educational Development’, stating that, for educational institutions to remain frontier, it needs to consistently expand substantial resources such as hardware, software and emerging open-source programs.

Hence, the chapter explores the challenges and opportunities associated with open-source software solution to address particular pedagogical challenges.

Chapter 4, titled 'Managing and Evaluating ICTs in Higher Education: A Reassurance Measure of Sustainable Investment', brought to our attention some issues in evaluation and management of ICT deployment in higher education, analysing the positive effects, incentives, level of integration of ICT appraisal and the challenges of ICT in teaching and learning. Chapter 5 titled 'Digital Technologies and Emerging Educational Objectives: The Need for Transformational Changes in Teacher Education and Training' asserts the emergence of new educational goals and objectives in the twenty-first century in order to institutionalise information technology in human society. The chapter introduces four models to develop a new teaching instruction and pedagogy in higher education for teacher training and education.

Part II deals with teaching and learning for social development. It looks at education as the impetus for social transformation and mobility plus teaching and learning as support mechanisms in the workplace. Higher educational institutions around the world are expected to undergo rapid transformation due to the changing learning demands by introducing new concepts of teaching and learning. Moreover, since higher education institutions are traditionally seen as places where advanced knowledge is produced and transferred, then improving instruction should be an ultimate goal for higher education institutions in contributing to the educational development in the country and improving institutions' climates. Therefore, Chap. 6, titled 'The Transforming Nature of Teaching and Learning in Higher Education: A University of the South Pacific Experience', proposes a new shift focus for Pacific Island countries (PICs) from teaching to learning in meeting global demands. They foresee adherence to change is a permanent feature of learning and teaching. In coping with what the twenty-first century has brought into the classroom, Chap. 7 'Multiculturalism: The Value of Every Individual in the Higher Education Institutions' argues that, in a multicultural classroom, students in South Africa will be empowered through opening more discussions and debates on aspects that are relevant to multiculturalism. They eventually hoped thus to contribute to the formulation of new approaches in teaching students and create classroom atmospheres, free from prejudice and discrimination at higher institutions.

Adherent to the changes in teaching and learning, Chap. 8 'Counselling Ethics Education: Teaching and Learning Development Reformation' disseminates wider comprehension on the current trend in teaching and learning counselling ethics education in more effective ways based on the literature about research conducted on a global scale. The authors arguably claimed that counselling ethics education goes beyond textbooks as it comprises other important elements. In a similar advocacy, Chap. 9, titled 'E-counselling Modality: Following the Changing Learning Needs of Young People in Higher Education Institutions of Malaysia', further advanced the claim that counselling helps to remove obstacles to learning and thus improve academic success and maximise human development. This chapter adopts a holistic approach to address the preventative and remedial dimensions to counselling incorporating computer technology to develop counselling modalities.

Part III addresses the role that the higher education institutions play in nation building and sustainability. It is now the time for higher education institution leaders and government in the developing countries to seize the opportunity created by today's global development by unanimously saying 'enough is enough' and saying goodbye to poverty, corruptions, academic malpractices and anomalies. Putting things in order in society, Chap. 10 'Transforming BRICS to BRINCS for Faster Economic Growth in Nigeria: The Role of Tertiary Educational Institutions' talks about fighting corruption generally in the educational sector in Africa. Thus, it highlights the role that stakeholders can play in curbing corruption in educational sectors in order to produce world-class accountants. With changes and challenges facing higher education, especially in the Island States of the Pacific, Chap. 11 'Capacity Building of Educational Leaders in an Era of Change: The Role of Higher Education Providers' argues that one of the best ways for educational systems to respond effectively to these changes is by providing opportunities for ongoing capacity building of educational leaders. Chapter 12, titled 'Caring: A Useful Tool for Embedding Sustainability into Nursing Education', advocates that caring in nursing is associated with sustainable development and highlights the importance of environmental sustainability agenda in nursing curricula.

Part IV embarks on globalisation, leadership and management. As the educational landscape is changing due to the interjection of globalisation in education, there are some implications on training needs and additional responsibilities of educational institutions' leadership and management, such as equipping individuals with skills and training to meet the challenges at the workplace. Thus, in order to change the status quo of our education and finding ways to prepare our schools for the challenges and opportunities of the twenty-first century, educators and school leaders are expected to go beyond instructional leadership to tackle the contemporary issues brought by the contemporary world. This has made the job of these educational leaders daunting and complex. Chapter 13, titled 'Branding Higher Education Institutions: What It Takes to be Branded', proposes a way forward for higher institutions through trademarking. It emphasises the necessity of branding higher education for global recognition and reputation as well as marketability.

In relation to leadership and management, Chap. 14 'Implementation of Strategic Education Policy Plan at Micro-level Contexts: Management and Leadership Challenges' focuses on analysing the critical role of major departmental players and organisational stakeholders in the strategy of implementing the latest macro-level education policy plan of Malaysia, which is labelled as 'Malaysia Education Blueprint' 2013–2025 (preschool to post-secondary education), while Chap. 15 titled 'Moral Sensitivity Practice in Academic Deanship: Does It Really Matter?' addresses the issue of leadership and morality amongst Filipino college deans. The chapter concluded on the importance of moral sensitivity practice in real life. Chapter 16, titled 'Improving the Quality of Technical Education Through International Standard: The Case of Coast Institute of Technology, Kenya', argues that when ISO 9001: 2008 standards documented on curriculum implementation policy manual are followed by teachers, they may cause a positive change in student academic performance.

As a summary, technology no doubt plays important roles in accelerating higher education performance, especially in improving teaching instruction and methods of learning. Living in the era of globalisation, changes are suggested in the higher education institutions' model and their functions by proposing new teaching and learning approaches as well as leadership that paves the way for critical, creative thinking development as well as rethinking the role of educational leadership that is relevant for the twenty-first-century educational institutions. With the high social expectations and responsibilities mounted on education, higher education institutions are expected to be the impetus for social change and development. Therefore, this book has called upon academics, scholars, educators and researchers from different disciplines to use it as a platform for sharing knowledge and views concerning how to move academic institutions fast-forward in meeting the social demands and global challenges.

Thus, this book looks out for different perspectives and approaches from researchers around the world concerning the further development of higher institutions. This book calls for chapters from authors of different specialisations under education (educational management, instructional technology, psychology, counselling, curriculum, sociology, etc.) to share their knowledge with the world, especially developing countries, in order to improve the performance of higher education institutions and usher in a new era. In the process of sharing, this book aims to shed light on the areas and aspects in academic institutions that need to be strengthened and improved in making higher education institutions key players for innovation, modern nation building, social change and human development. I believe this book will be indeed of great interest and highly useful for a vast array of readers across fields. Master and doctorate students will find it valuable for their course readings and research references.

As an appreciation, this book came into completion with the active participation of many reviewers and various supports from individuals. First of all, I acknowledge with deep appreciation all types of support provided by the review team and colleagues to make this book a reality. Thanks are due to the School of Education and Modern Languages, especially the Department of Educational Management as well as the Institute for Advanced Research in Education, Universiti Utara Malaysia, for their collaboration since it has culminated in publishing this book. I and my team owe an immense debt of gratitude to Springer for working with us and making this book project come to fruition in a most professional manner. Last but not least, I and the review team owe special thanks to the authors of this book for their global contributions and the great lengths they have gone to get this book published. We are truly honoured to know all of you and hope to confirm your participation in our next book project.

Acknowledgements

I would like to take this opportunity to thank my team as this book would not have been possible or as inspiring if it were not for the persistent effort, dedication and commitment by everyone involved. I would like to acknowledge the contribution by Dr. Ruzlan Md Ali, the director of the Institute for Advanced Research in Education (IARE), who kept us together as a team for this book project, and Dr. Mohamed Ibrahim Dahab for sharing the initial idea. Special thanks go to Professor Dr. Nena P. Valdez for her experience, which she shared throughout the project, and for serving as one of the main internal reviewers. Special thanks also go to Dr. Byabazaire Yusuf for his humbleness and patience in working with me as an Editor. I will not forget Dr. Lee Seung Chun, who provided editing and helped as a reviewer, or Dr. Amrita Kaur for her commitment and service as a reviewer. Lastly, I would like to thank the School of Education and Modern Languages (SEML), especially the Dean, Associate Professor Dr. Mohd Izam Ghazali, for giving visiting lecturers an opportunity to prove themselves as an outstanding team of scholars.

Ismail Hussein Amzat (Ph.D.)

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Allan B. de Guzman handles pedagogy, management and research courses at both graduate and undergraduate levels in the University of Santo Tomas. He has extensively published more than 100 articles in various ISI-listed journals and has won national and international awards including the SEAMEO-JASPER Research Award and the 2011 Metrobank Foundation Outstanding Teacher in higher education.

Jin Kuan Kok is an Assistant Professor at the Department of Psychology and Counselling, Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman (UTAR). She has extensive counselling experience with young people and family. Her research interests include narrative inquiry, teenage suicide, adolescence depression and counselling.

Mary Lane-Kelso is an Assistant Professor and faculty member of the Instructional and Learning Technologies Department in the College of Education at Sultan Qaboos University located in the Sultanate of Oman, where she is also part of the team for preparing the college for NCATE/CAEP accreditation. She has a range of active research interests and publications to date including innovative pedagogy, professional development models, global digital citizenship, gaming and mobile

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Lau Hooi Lin is a Senior Lecturer at the Institute of Teacher Education, Penang Campus, Malaysia. She obtained her Bachelor's Degree in Arts 1981 and Diploma of Education 1983 from the University of Malaya; Postgraduate Diploma in Computer Education 1991 from Aichi University of Education, Japan; and Masters of Science in Educational Leadership 1995 from University of Pennsylvania, USA.

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Narsamma Lingam is a Teaching Assistant in the Oceania Centre for Pacific Studies at the University of the South Pacific. Prior to joining the university, she served in the Ministry of Education in different capacities such as a curriculum writer, careers coordinator, professional counsellor and teacher. She holds a Certificate in Counselling and Guidance, Diploma in Education, Bachelor of Education and a Postgraduate Diploma in Psychology from the University of the South Pacific. Recently, she obtained her Master's Degree in Educational Leadership (with distinction) from the University of Otago. She is currently studying towards a Doctor of Philosophy degree in Education.

Govinda Ishwar Lingam is an Associate Professor and Deputy Head of the School of Education at the University of the South Pacific, Suva, Fiji. His previous experience includes secondary school teaching in Fiji, rising to the position of Head of Department for Mathematics, before serving at the Lautoka Teachers' College which is now part of the Fiji National University as Senior Lecturer in Education and later as Head of the School for Education. He obtained his bachelor's and master's degrees from the University of the South Pacific and his doctoral degree from Griffith University, Brisbane, Australia. His research interests include issues relating to social justice in education, teacher education, educational leadership and management, and values education.

Jennifer Loke has keen research and scholarship interests in the vicarious learning and nurturing of caring behaviours in higher education for nursing students; she is particularly interested in the application of nurse caring behaviours in interprofessional learning and working. This has resulted in the collaborative work of this chapter with Bryant Lee, Deborah Lim and Dr. Mary Laurenson, all of whom have special interest in medical, nursing and interprofessional education. Together, the authors have published papers in peer-reviewed journals and book chapters on caring behaviours and the related pedagogic issues. Doctors Loke and Laurenson are

Senior Fellows of the Higher Education Academy (HEA) in the United Kingdom. Jennifer is also an award holder of the prestigious 2012 Professor Sir Ron Cooke International Scholarship; this was awarded by the HEA in recognition of her commitment and capacity to engage a broader sector in building pedagogic practice and policy.

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Joel D. Moore has served as the Deputy Head of School for Education for the School of Arts and Social Sciences since 2013. He has instituted a number of teaching and learning innovations in the classroom including a multidisciplinary unit based around a multi-week crisis simulation. He has also utilized a variety of open-source technologies to enhance student learning in and out of the classroom. He received his Ph.D. in Political Science at Emory University in 2011. His dissertation, *The Varieties of Capitalist Development: The Political Determinants of Economic Governance Systems*, focused on the impact that structural and institutional factors had in constraining policymakers and shaping economic governance systems in Thailand, Malaysia and Singapore.

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Chapter 1

Fast-Tracking Technology Integration Toward Global Education in Oman

Mary Lane-Kelso

Abstract The Instructional and Learning Technologies (ILT) program at Sultan Qaboos University has been investigating strategies to prepare faculty and students to serve their educational mission of becoming a world-class university while also serving their department mission of preparing ILT students for teaching with technology. This author, from a Western country and a faculty member of the ILT Department, discusses research areas explored within the College of Education about the strategies put in place to meet these global goals set forth by the country's leaders. New technologies demand new ways of looking at the world so the intersecting issues born from development and technology emphasize the need for a solid foundation of research-based methods. These strategies are about establishing digital citizenship skills, integrating curriculum with technology-rich pedagogy, and adopting an international accreditation system. These ongoing activities at the College of Education in Oman provide useful indicators of fast-tracking progress for quality education throughout programs.

1.1 Introduction

Global education and technology are terms often used hand in hand for educational improvement. In countries such as the Sultanate of Oman, where educational development has moved at record speed, these terms are often confusing as to how they are applied. Efforts have been made to clarify these concepts and to shape future planning for Omani students on the global educational landscape. Fast-tracking educational development is a process designed to expedite the strategies that support the educational mission of improving education and facilitate the integration of those strategies throughout the educational community (Earley and Jones 2010). To meet the goals set forth by His Majesty Sultan Qaboos of Oman to become a “world-class university” and to “add something new to world knowledge”

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(Sultan Qaboos 2000, Nos. 2–3), faculty at Sultan Qaboos University, Oman’s national university, recognized that the education of their students must take into account the technology realities of the twenty-first century.

1.2 The Sultanate of Oman

The contextual framework to explore the readiness of the faculty and students to fast-track toward global competencies has been deeply considered throughout the process. Oman is located in the southeastern part of the Arabian Peninsula. It is approximately the same size as the US state of Nevada with a population of a little over three million people. More than half a million Omanis live in the major urban area of Muscat, where Sultan Qaboos University is located. Most of the population is Ibadhi Muslim, with over half of its people under the age of 25. For the past 40 years, Oman has been led by a widely respected monarch, His Majesty Sultan Qaboos Bin Said, who brought universal suffrage, health, and education to all Omani citizens.

In 1970, when Sultan Qaboos Bin Said ascended the throne, there were three schools in the country. There are now over 1300 schools enrolling over 600,000 students, nearly half of whom are females. The first university, Sultan Qaboos University, opened in 1986 and is the national university. Its mission is “to achieve excellence in the areas of teaching and learning, research, and community service. It seeks to promote the principles of scientific analysis and creative thinking, to participate in the production, development and dissemination of knowledge, and to interact with national and international communities.” (Sultan Qaboos University Mission 2014). In less than 30 years, enrollment has soared to over 16,000 students with comprehensive offerings through the doctoral level with both male and female equally represented.

Fast-tracked development is in progress, and Sultan Qaboos University is leading the educational community toward its established goals and defined mission. In the College of Education, fast-tracking strategies have been implemented to prepare students for global interactions with cloud computing, to support innovative technology-rich teaching methods, and to assure quality education is being provided. This triad of strategies directly supports the expediency of the College of Education’s mission to prepare graduates in teaching, counseling, and research as well as developing the College as the center of excellence that serves the community and fosters its values and its sustainable development (Sultan Qaboos University College of Education Mission 2014).

In the Instructional and Learning Technologies Department, the author has explored three topics of research: global digital citizenship skills, technology-inspired pedagogy, and international assessment for teaching and learning. Global digital citizenship skills have been established to strengthen the readiness of faculty and students for those important global interactions that technology brings to the forefront. As part of the leadership preparation, technology-inspired

pedagogy has been explored and implemented. During this 3-year process, quality assurance has been a ubiquitous presence in curriculum, coursework, and committee activities as the College of Education in its entirety is preparing for National Council for Accreditation of Teacher Education (NCATE) accreditation. The aforementioned topics stand as guideposts for the department journey of “becoming a world university” as its faculty and students transition onto the international stage of education.

1.3 Three Explorations for Readiness

The Instructional and Learning Technologies (ILT) Department in the College of Education, established in 2005, has at its core the focus to integrate instructional and learning technologies in teaching, research, and societal services throughout the Sultanate. To meet this goal, research initiatives are being carried out to investigate the current needs and practices, as well as explore the potential uses of the new technologies. The three areas of data collection conducted in the past 3 years shared here explore the readiness for technology integration with the intent of fast-tracking students toward these goals. The three areas of studies are distinctive by the scaffolding provided for their approach of including the faculty and students to reflect on the processes as they unfold. Research on action learning suggests that tools being investigated for managing change are often strengthened by inviting the educators to explore the topics with the researcher (McGill and Beaty 2001). This is an ongoing process so the discussion of the readiness of faculty and students and the tasks for implementation are mapped out for the readers to consider.

1.4 Global Digital Citizenship

The first step taken by the author was to explore the readiness of faculty and students in the Instructional and Learning Technologies program for global communications and interactions on the Internet. With the advent of file sharing and now cloud computing when resources are shared from a distance, the guidelines for these cross-cultural interactions become more imperative. This seems an important place to begin to investigate the knowledge and skills of global digital citizenship. Global digital citizenship is defined as the norms of appropriate, responsible, and ethical behavior to use digital technology in global communities. Currently, the ILT curriculum frames teaching and learning within the context of digital technology to prepare students to become educational technology leaders in Oman. However, technology lives in a world without physical boundaries so an intercultural dimension has been a natural part of this process. To improve our students’ abilities to be successful in a global environment, it is necessary to ensure their readiness to do so. To develop a model of curricular competencies, the ILT faculty team began by

identifying the specific needs of the faculty and students. The team sampled baseline elements of digital citizenship, reviewed skills and attitudes of students for global engagement, and measured the extent that internationalization has taken place in the program. Several patterns emerged to define the action plan and prototype that was integrated into a more comprehensive strategic curricular model of the ILT program that interface with objectives, topic strands, and college goals.

From surveys on international education, ILT student attitudes toward internationalization were consistently positive, appreciating the effects international learning appeared to help them both personally and professionally. As important, ILT students appeared enthusiastic toward participating in international student programs and becoming responsible global citizens (Lane-Kelso 2012). Feedback from the ILT faculty showed that appropriate mobile use and ethical use posed a concern as well as the lack of access some of the program students experienced at home.

The ILT faculty's perceptions of their students' skills and dispositions toward global education were also measured and suggest that program students struggle with higher-order thinking skills such as analyzing, evaluating, and applying these global connections. These skills correspond with Bloom's taxonomy of levels of intellectual behavior (Atherton 2011) that suggested higher-order thinking skills need more attention for global citizenship.

Another interesting premise suggested by the data was the perception by faculty that many of the ILT students valued the participation in the democratic process. This disposition toward democratic values serves ILT students well as they increase their participation in educational exchanges and collaborations in the global arena. The data suggests, however, that faculty was concerned with students' preparation to participate in these global collaborations.

1.5 Innovative Teaching Methods and Tools

The next step along the journey involved the rethinking of the roles of the new technologies and the ways in which we teach with them. This required a revisit of best practices in teaching and learning, specifically when integrating the new technologies in the way we teach and the way students learn. The ILT program draws its best practices from the several sources including the International Society for Technology in Education (ISTE) standards for outcome alignment and Chickering and Ehrmann's suggested strategies to integrate technology using best practices to guide ILT methodology (1996). Based on the seven principles of best practice published 9 years earlier, Chickering and Ehrmann presented a set of guidelines to assist faculty in higher education such as encouraging active learning, emphasizing time on task, and respecting diverse talents and ways of learning (Chickering and Gamson 1987). Current methods and tools such as reverse instruction and mobile learning were investigated in the mentor teaching graduate programs during the past 2 years. Considering *how* to teach and *what* tools to use was framed within the cultural context of Omani society. Sultan Qaboos University recognizes

the need to provide authentic, high-order thinking content and technology skills for students to meet global expectations. This requires, however, that faculty also rethink not only *what* we teach students but also the pedagogical *ways* in which we teach with them. ILT faculty began rethinking current practices within the backdrop of the Sultanate's place of development and bridging those practices with best practices that research has placed in the forefront of quality education.

Flipped Instruction Here in the Sultanate of Oman, there has been a long tradition for direct instruction in teaching. A study of reverse instruction, or *flipping*, which also relies on direct instruction, was conducted with a group of mentor teachers to investigate the feasibility of applying the flipping strategy that integrate technologies as part of the process. The idea behind this method is relatively simple. Instead of structuring class work to deliver direct instruction from the teacher in class and giving homework to students to practice outside of class, the sequence is reversed or "flipped" to provide content instruction as homework and practice or application in the classroom (Bergmann and Sams 2012). Based on the mastery learning theory, Benjamin Bloom (1974) demonstrated the mechanism of targeting the higher-order thinking while utilizing the direct instruction that prevails in many classrooms. The homework in the flipped method is delivered through technology-rich means such as podcasts, slide shows, and videos. Readings include online articles, blogs, and websites. Results of flipping showed that most of these experienced mentor teachers express concern about progressing within such a traditional educational field and uncertain if their pedagogical development will be appreciated and new practices allowed (Lane-Kelso 2015). Many appreciated the opportunities for applying innovative strategies while investigating the pedagogical ideas that support it. Using a familiar strategy such as direct-instruction teaching for culturally conservative educators may have flattened the learning curve to allow a more comfortable experience in their own learning. Flipping can provide such an approach that bridges the traditional ways with twenty-first-century tools.

Mobile Learning Exploring the technology tools themselves was also undertaken with the group of mentor teachers at Sultan Qaboos University. This group of teachers did not grow up with technology but all possessed highly sophisticated mobile devices they brought to the classroom each day. A small investigative study using mobile devices for learning explored the potential roles of mobiles in Omani education with this mentor teacher group. The use of mobiles was applied for both class activities and homework assignments during an 8-week period of a course. Data collected through surveys, interviews, and instructor journals suggested that mobile usage had a positive appeal for the participants. Mobile phones, for the most part, also interested the participants both in the theoretical discussions and with assignment usage. Convenience, access, and novelty may have attributed to the positive responses (Lane-Kelso 2014). Additional studies with flipping and mobiles are necessary, but these initial investigations suggest that both flipping and the use of mobiles may provide comfortable conduits to less familiar strategies for more conservative educational countries such as Oman while optimizing technology resources available for teaching and learning.

1.6 Accreditation

The third step that has been taken in conjunction with the others is assuring that the high quality of education is being provided for students by going through the process of approval for accreditation by an international organization, the National Council for Accreditation of Teacher Education (NCATE). The faculty faced a series of transformations as they prepared for this large undertaking. NCATE, a highly respected American performance-based professional accreditation body for teacher preparation, has reminded the faculty of both the commonalities and differences the two cultures share. As any process that delves deeply into the practices of an organization, the NCATE accreditation process challenged commonly held assumptions and practices within the College of Education ecosystem while bringing with it a high degree of recognition. Our project examined these challenges from three unique viewpoints within the Instructional and Learning Technologies Department in the College of Education – an Omani 10-year faculty member, an American head of department (HOD) who has lived and worked in the Sultanate for 2 years, and an international consultant who worked as a former dean from a medium-sized US university. Documenting the process through journals, three differing worldviews and perceptions emerged that share common concerns and distinct disquiets. Concepts such as authentic assessment, digital literacy, and diversity have shown to be applied differently within a foreign context outside of the United States (Lane-Kelso et al. 2015). Timelines and deadlines were also less flexible, while religious and moral education had a more prominent role in Omani curriculum. The strategies to help address these issues will be shared in the next section.

1.7 Planning Readiness for Global Education in Oman

One of the major challenges of globalization for a developing country is to preserve its unique culture and practices amidst the high-paced changes taking place in all segments of their society. The educational institutions, perhaps more than any other sectors, are acutely aware of the pressures placed upon them to progress with modern ideas while preserving the traditional way of life. At the College of Education, the three areas of investigations reveal that faculty and students have felt the conflicting pulls from different directions. Strategies for managing change and moving forward have attempted to inform processes happening simultaneously. There is an immediate demand that faculty and students become competent in digital skills to safely, securely, and appropriately interact with the larger global community of the Internet. At the same time, faculty and students are exposed to new teaching methodologies and technological tools that are expected to be utilized throughout their educational program. Throughout this process, an assessment system foreign to both most faculty and all students is being implemented that redesigns familiar benchmarks for evaluation and grading. These challenges needed guiding and coping strategies for the college to be successful in reaching the goals they set in front of them.

Six strategies have been put forth resulting from these three investigations in global digital citizenship, innovative teaching and learning, and accreditation. Clearly this is only the beginning as the university moves forward toward its goals. These strategies have been applied to the Instructional and Learning Technologies Department and have helped to accommodate the deficiencies and clarify some of the confusions during a process of development. The Instructional and Learning Technologies Department faculty discussed the need to develop a plan that was responsive to the Omani students and the emerging roles both faculty and students will play on the world stage. This required a plan that was both cogent of pedagogical strategies and consistent with twenty-first-century technology skills. To date, six courses of action have emerged to guide the process and are presented below.

First, the faculty identified the need for the infusion of global educational principles and digital skill throughout the current ILT curriculum. Beginning from their foundation year, the research results stressed the need to infuse opportunities of practice for global digital citizenship throughout the curriculum in an evolving, organic process. Global digital citizenship surveys of student demonstrated the need for more intensive focus of digital citizenship skills, as did the positive responses to innovative methods and mobile tools to enhance the experiences.

Second, results from students and faculty surveys from all three studies indicated the need for multiple opportunities for higher-order thinking skills practice put in place in forms of integrated activities and long-term, complex projects and scenarios that build on capacities already evident in students. The students seem well practiced in gathering, memorizing, and restating information. However, the data suggested recreating and applying knowledge needs more opportunities in the curriculum for students participating in projects and problem-solving at the global level. Faculty and students showed their abilities to stretch beyond the familiar teaching and learning methods and their eagerness to include innovative teaching strategies and technology tools that were more authentic and ubiquitous.

Third, there is a need to stress the interconnectedness of technology and global issues that exist and their direct effect on the personal and professional lives of ILT faculty and students. Data suggests the ILT students are aware of the issues beyond their borders and their potential impact, but the ILT students do not yet fully experience the personal and familial involvement. Increased access, appropriate mobile usage, cloud computing, innovative teaching methods, and research skills need to be part of the fabric of the future curriculum to better prepare students for interactions on the global level. This includes evaluating and assessing processes in the program we usually take for granted. The accreditation process challenged previously held assumptions about assessment. It is important to allow this examination to continue to thoughtfully make the appropriate decisions for this Omani program allowing for more transparency with the assessment process.

Fourth, incorporate multilinear pathways toward program objectives and goals that expand both upward and outward throughout the program process. Data suggests that as students move into higher-order skill levels, they also need to widen communities of interactions to globally engage within the existing norms. As student and faculty skills and knowledge increase, so must the opportunities for

engagement increase with a wider educational community. This includes increasing global interactions and communications in class activities, increased research collaborations, and international educational exchanges. The use of massive online open courses (MOOCs) for both faculty and students provides the added value of cross-cultural interactions while pursuing additional educational training. These can easily be incorporated into the existing curriculum for students and professionals.

Fifth, it is important to provide ongoing opportunities for students to practice and demonstrate democratic principles throughout the curricular process. Data suggests that students are familiar with the democratic process but need real-world experience to perform their roles of democratic participation and governance. The experience of preparing the departments and college for accreditation has also demonstrated distinct abilities among faculty to lead and conduct teams to plan, develop, and implement the multifaceted process of accreditation. Opportunities to build upon these performances can accelerate success in other areas of aspirations for the college.

Finally, conclusions drawn from all the three areas of study reveal that faculty members seem assured that the college will be successful with teaching and technology improvements as well as with NCATE accreditation. However, the adoption of new methodologies and tools or the NCATE system of assessment must be considered within the cultural traditions of Oman. Educational institutions can be the most conservative of all sectors of any society. Change to these local traditions does not come easy nor should it without a deep examination of the appropriateness to the home culture (Fullan 2002). Concepts such as innovations, diversity, research, assessment, and timelines do not always have cross-cultural normatives but are deeply anchored within the cultural constructs of a nation. For a country such as Oman, with its long history of traditional practices, these examinations must include stakeholders who may not traditionally be part of educational decisions such as students, ministries, and other community leaders. Making these changes must be more fully examined to enhance the collaborative efforts of all parties to evolve into a sum more than its parts. Fallout from factions who have been left out of the process could create serious fissures to be avoided by inclusion of all sectors of society. In this way Oman takes ownership of this process in order for the continual improvement, the cornerstone of quality development, to be maintained.

1.8 Chapter Summary

This chapter put forward the remaining work that needs to be carried out by the administration, faculty, and students. Assessing readiness requires the willingness to adapt the agreed-upon standards of behavior and dispositions for global communications and interactions that recognize technologies playing an important role. The transformative nature of the new technologies on the world also extends to its power in the classroom and needs to be thoughtfully applied to teaching and learning. Integrating technology in the teaching and learning within the curriculum requires

the dedication of the faculty to value their outcomes. Stepping outside the familiarity of traditional teaching methodology also requires courage by the faculty and support by administrators to allow new and unfamiliar teaching strategies to be demonstrated in the university classrooms.

As important a feature to fast-tracking is the establishment of a sound quality assurance plan that evaluates all aspects of students' experiences and operates on a continuum of improvement. Accreditation by a foreign organization can be very challenging, but the legitimacy and transparency this relationship establishes is distinctly valuable toward arriving on the world stage. Fast-tracking features of Sultan Qaboos University have seen its presence expanded beyond its borders, establishing its regional reputation as a world university and quickly establishing a global status of high-quality education. Implications of the change process need to be fully examined and prepare those who long for the traditional to transition without losing the values that define cultures. Change needs to proceed in small increments with minimal disruption among groups who may need more time to adjust to differing methods. The entrance of university communities into the brave new world of global education will be framed within the institutional commitments and sustained support of the ongoing continuous improvement process.

These investigations at Sultan Qaboos University may be considered by other educational ecosystems who also find themselves ready for participation in a global society with technology. Global digital student competencies, strategic professional development for their teachers, and collaborative assessment are currently identified as benchmarks of progress during this journey. Planning for technology integration helps to prepare participants to journey fast and far from their traditional foundational educational experiences. The Sultanate enjoys a special pace of development in which the country can prosper with perceptive planning and rich resources. Planning strategies have been put in place for the field of education by its leaders to assure Oman continues to move forward.

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Chapter 2

Rich Text, Rich Teach: Expanding Educational Horizons with Technology in Malaysia

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Abstract The demand for modernization in educational programs, along with global challenges and competition, mandates an evolved educational system with more inventive managers, teachers, students, graduates, and researchers. Creating such a system calls for embedding modernization into learning and converting educational institutions into entrepreneurial organizations that are innovative in nature and operation. That entrepreneurial spirit involves expanding educational horizons beyond the main campus, to engage in outreach while improving service and quality.

2.1 Introduction

The demand for modernization in educational programs, along with global challenges and competition, mandates an evolved educational system with more inventive managers, teachers, students, graduates, and researchers. Creating such a system calls for embedding modernization into learning and converting educational institutions into entrepreneurial organizations that are innovative in nature and operation. That entrepreneurial spirit involves expanding educational horizons beyond the main campus, to engage in outreach while improving service and quality.

One hope for achieving these ends rests in properly using available information technology, which can add a powerful punch to the modern educational environment. Many Malaysian universities have encouraged using an integrated course website as the nexus of all activities for mediated learning and using specifically developed materials. One of these universities is the subject of this chapter. Located in a small town of perhaps 2,000 near the border with Thailand, the university was

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carved out from about 1,000 ha of wilderness. The university has grander aspirations than its rural location would indicate, looking beyond its verdant manicured grounds to Malaysia's urban centers in the hope of raising the university's profile and academic standing. One reason is that university administration fervently believes that it must meet young people where they are. Thus, this administration hopes to connect with students in both physical and virtual environments.

Expanding horizons requires creating a learning environment utilizing the educational value of technological gadgets and interacting with students in the ways in which they are habituated to communicating. Malay students are among those at the forefront of the digital revolution, so communicating effectively requires a combination of resources. In the traditional classroom, the environment means using appropriate technology like whiteboards or projectors. Outside the classroom, many Malay universities want to develop an online presence in terms of distance learning to bring education to people who are not able to stay on campus because of personal or professional obligations, are geographically isolated in underserved kampungs spread out across the nation, or are far from the university in urban areas. Such expansion can be good for an institution's reputation in the marketplace; it drives up enrollment and keeps tuition money rolling in. From a business perspective, distance learning is less expensive than developing a physical presence at various distant locations.

Massive open online courses (MOOCs) and Open Distance Learning have garnered flashy headlines in the media, as the universities involved have tub-thumped their development. While MOOCs have garnered attention for their creators, these courses remain of limited utility. Malaysia has its share of MOOCs and has witnessed an organization called OpenLearning. According to OpenLearning's online public relations, more than 6,000 students from more than 120 countries across the world have taken their courses (OpenLearning 2014). Despite the happy headlines, MOOCs are for continuing education not for programmatic degree work or even certificates. They are mostly edutainment. The courses are not a proper educational alternative because of their size, impersonality, and lack of legitimacy. Even their progenitors readily admit their limited educational utility. As Carnegie Mellon in the USA notes, "no instructors, no credits, no charge" (BDPA n.d.). The Malaysian version is, as its mission, to "delight our students, make learning a pleasure" (OpenLearning 2014). This Malaysian version of the MOOC seems built less like an educational platform than a business venture that will float on a stock exchange.

An alternative to OpenLearning, Open Distance Learning, often calls upon an impressive range of technologies to enable distance teachers and distance learners to access education and learning opportunities at a time, place, and pace to suit their individual lifestyles, learning preferences, and personal development plans (Idrus and Lateh 2000). They also incorporate flexible methods, as well as modified and specially created learning resources. Such courses are meant for individual, self-paced learning that is made possible by learning interactions with the teachers.

Open University Malaysia, which is run owned by a consortium of 11 universities, describes itself as being flexible and relevant for the working adult. It has an open admission policy (Open University Malaysia 2014). It offers a pinch of this and a dash of that while trumpeting its flexible learning hours, multiple payment methods, user-friendly learning system, flexible entry with credit for life

experiences, and academic excellence with tutors and facilitators (OUM 2014). While this Open Distance Learning programs has degree programs, its coursework does not provide the cognitive apprenticeship of more tradition education. The programs are meant for job and vocational training rather than for developing a community of scholars and scholarship. The facilitators and tutors do not engage in traditional scholarship.

A third alternative for technology delivery of courses by Malaysian universities is attaching courses of regular degree programs in an interactive learning environment and having a traditional professor and a collective learning group. Malaysian universities, including the one described in this chapter, are attempting to do this. Most are struggling to develop proper materials and create adequate delivery systems because of a less-than-adequate broadband delivery system, woeful website management, and lack of institutional resources.

The following observations reflect upon how the university mentioned above is doing with its efforts. The comments below were gathered from 13 female and 8 male second-semester graduate students at this public university in northern Malaysia. About half lived off campus and about half worked outside the university. They were asked to comment upon how the university might create more effective methods of delivering distance learning via the Internet at particular moment in time. The data were collected as a product of a classroom excise conducted during the spring of 2013. Their comments are divided into sections including core services, general and administrative functions, improved instructional methods, flipped classrooms, learning groups, and interaction. Student names were removed to provide for anonymity and to inspire candor.

Overall, students believed that the technology per se was not as important as the transformative power of that technology, which could improve almost every aspect of education, modernize the nature of curriculum, and establish better connections. One student said that, with online connections, students could share work and communicate more productively and creatively:

Using an online system like (the university's online system) as the moderator between the students and lecturers will give a platform to the students to perform better by using the online system. Meantime students can be advanced in technology by creating their own webpage and blogs.... (G)raduate students are using manual study systems and this may lead to poor (ability) in technology among the students. Besides that: Technology + Learning Support + Interactions = Success in Distance Learning.

2.2 Core Services

Students believe that several “core” services should be identified and provided upfront to facilitate using course websites. One suggested that the university create a help desk to resolve difficulties and provide training. If the university were unable to provide such help, students believed that expert class members, under the direction of the professor, should volunteer to help. This help desk could be mounted at the university, or at an external site such as Facebook, which is wildly popular

among Malaysian students (Internet World Statistics 2014). In this way, students could create a self-help feature to provide information about ICT. A student could “ask a question and the ICT helper would answer it to help them.”

Among the other core services that students believed were vital were sharing information about examinations, assignments, and classes. They believed that the proper use of such core services could provide timely information about courses and academic calendars. Proper use, said one survey participant, would ensure that “every student has the necessary information distributed to them” in a timely and efficient manner.

2.3 General and Administrative Functions

Students believed that web-based technology could help with general and administrative functions, including announcements, scheduling, providing resources and samples, and making lecture notes available before class time. Noted one student,

... (The) lecturer also must use the technology properly. If the class was canceled, ... (he) must announce (that) in the portal because not all students live near the campus. If lecturers do not use the medium to make the announcement, it will cause problems for students who come from far away.

A web-based gathering place also could improve the learning process by including up-to-date research analyses and findings, journals articles, and other helpful instructional materials. Additionally, students believed that lecture notes should be delivered via a forum in the Internet, so that students could have materials before the class. This is critical in an English-based classroom because students must become familiar both with the vocabulary and the subject matter. Doing so before class time would preserve that classroom time for discussion and analysis rather than for basic learning, particularly in ESL or ESP environments.

Students believed that the university’s Moodle-based course site might be used more effectively as a “meeting place.” This virtual meeting place was deemed to be critical because of its potential for housing announcements so that students, as one noted, could have “current information whether that information was related to their courses or not.” However, despite the fact that the university encourages the use of this course site, many professors, lacking the technical expertise, do not do so.

2.4 Improving Instructional Methods

Instructional technology provides opportunities for learners to share their personal learning goals and objectives to make learning more meaningful and increases motivation. Social media was viewed as a powerful force to enable this process. Students strongly believed that “social media can improve course delivery” on the graduate level “by using technology such as the Internet, blogs, forums and others.”

This was seen as important because “via social media, graduate (students) can communicate or discuss the lecture” with a classmate. This approach is necessary in a collective-based culture and even more in a classroom environment that uses English as the language of instruction.

This ability of social media to deliver a message to more than one person simultaneously through a SMS or the Internet, without having to go through a “gate-keeper,” was seen as important (Lewin 1943). One student said that:

The features I might use to improve courses that are delivered ... on the graduate level are through an online forum or a blog to give students a response or comment about some topic that we learned in class. This is because some students are shy about giving a response or asking about topic that we learned and discussed in class. By the existence (of an) online forum, a student can ask any question about something that they not clear about anytime.... Nowadays, technology is very important to make our university produce a literate graduate....

Features that students would incorporate include a blog with applications for chatting and email. That means “students can ask for help ... by chatting or email. The blog would also incorporate class notes and assignments, so that students could just upload assignments to this blog.”

Students view social media in general as agents for sharing problems and their solutions with the university and in the classroom. Using social media, students can express their problems and share their opinions with university management in a less confrontational way, an important consideration in a society that values order. Social media is seen as the medium for communicating latest developments taking place at the school. “Whatever happens,” said one student, “it can be updated by ... so that all students can learn the latest information from (the university) itself.” Furthermore, they view this media as a way by which to improve the quality of service.

Students view social media as an engine of change. They believe that social media can be used for the benefit of education and could make education user-friendlier, thus becoming more attractive to students while easing educators’ tasks. What is clear is that the functionalities available on many social media could help lecturers engage in more interactive teaching and learning and to attract students in an atmosphere that is “more fun.”

Students strongly believe that social media also circumvents the lack of time in classrooms, which often prevents a lecturer from interacting more closely with students. Through social media, a lecturer could not only give assignments but include information related to the subjects that they teach and may create a “bond with their students in cyberspace.” Lecturers can also use social media space to better identify students with specific needs and “enhance the relationship between educators and students who have very limited time in the classroom.” In an educational system that is sometimes off-putting and too deferential, students are actually desperate for interaction of any kind from their teachers, who are sometimes off-putting and distant.

Two social media that students often use are blogs and Facebook. The features of both offer many advantages, including the sharing of information quickly and

videoconference features that “demolish geographical factors.” So, the communication between lecturer and student could be both interactive and fast.

Facebook, which is wildly popular in Malaysia among students of all ages, was an often-mentioned application among the participants in this study. Students believed that Facebook functions, such as private message, chatting, and video calls, would produce a more interactive education. Noted one student, “both the blog and Facebook (could be linked) to my hand phone (so that it is) ... easy for me to update information and ... answer questions that are asked.”

In this imagining of interactivity, all students and faculty would be required to have a Facebook account to follow a specific class, and the lecturer would post a topic on the class’s Facebook page. Then all students could read about the topic directly from their mobile, phablet, tablet, or computer and comment upon it. Discussions could also be made through Facebook, with links to additional information, so that this site became an all-inclusive information umbrella.

Noted one student, “Facebook features such as chatting and video conferencing for live education with a lecturer means you can communicate with the lecturer directly face to face just like the situation in class.” Today, in oft absent official use, these students seize the initiative and independently create their own interactive Facebook pages for classes because Facebook is more dependable, scalable, and functional than university-sponsored sites.

Social media are seen as creating online communities providing “a perfect place to find and test insights.” This means that social media can create a community of scholars based on online communities. Discussion groups are seen as facilitating a more interactive learning process with a “reciprocal relationship between lecturers and students and among students.” Such a process is viewed as encouraging students to learn “the spirit of inspiration” and a place to which students could bring new ideas and develop initiative and creativity. These students felt that interactive pages, such as Facebook, made the learning process fun, made students feel comfortable, were convenient, and were easy to follow. Basically, when used appropriately, they felt that these technological resources improved the adequacy and effectiveness of the entire teaching and learning processes.

Using an Internet forum allows anyone to share information with others, and those who want to gather information can use an Internet forum as a resource. “In addition,” said one student, “in my opinion, the Internet forum is ideal because it is more of an interactive communication in which two-way communication occurs.” Such a forum, when properly used, could promote courses offered and improve the university’s image. It also helps overcome fear and shyness, based on gender and culture, that often creates an atmosphere of one-way communication.

In a web blog, the university and the professor could provide new information, the course schedule, and more. These features provide improved accessibility and usability. “That means I could get the information on the Internet,” said one student, in an easily accessible way that has little or no cost. “Social media,” noted another student, “does not require specialized skills and training, (but) requires only modest reinterpretation of existing skills.” Thus, this technology meets several standards Rogers established for the ease of technological diffusion (see Rogers 2003).

2.5 Flipped Classrooms

Proper use of instructional technology allows for a “flipped classroom,” which is vital in an English as a Second Language (ESL) or English for Special Purposes (ESP) environment. Students believe that web-based delivery could be used for learning tutorials. For example, lecturers could present an issue and discussion groups could create an interactive learning environment. Video presentations and podcasts would be a useful addition to any website. Students could view and hear these at any time, and the video could be used to strengthen material presented in a discussion forum. To make the class interactive, video conferencing could be used.

Lecture materials also could be made available through YouTube, permitting students to “listen repeatedly and make them understand better.” Applications for video conferencing would enhance the way in which courses are delivered. Video presentations could be made to explain materials so that students could see those materials anytime. “Students could see the materials repeatedly” so that classroom time could be used for analysis, shoving the bottom tier of Bloom’s taxonomy outside the classroom (Vanderbilt University 2014).

Unfortunately, many Malaysian universities, including this one, are limited in their ability to use such technology. Several factors are responsible. One is a limit on the size of files that may be stored online, which inhibits the use of video. Another is that many educators are neophytes in creating and managing materials. Noted one student, “the adequacy and effectiveness of teaching and learning process using technology depends on the capability and the ability of lecturers to apply it according to learning objectives.” To date, those capabilities are limited and lecturers, though pressured to create materials, are not provided with technical experts. The teachers are often expected to learn the technology on their own and by means of their own resources.

2.6 Interactive Classroom

Graduate students at this university are mostly part-timers. So, attending class and doing the assignments sometimes create difficulties. Distance learning enabled through a forum may be one effective way for expanded course delivery, by sending and receiving assignments and PowerPoint slides and reading materials through a forum. Delivering courses through a forum could enhance class participation because “most people in Asia are afraid to tell what they think and are afraid of giving their opinion when they have an open discussion.” By providing a buffer, a discussion forum could be more efficient and perhaps more “lively” and overcome language, gender, and cultural barriers.

Social media could be used to improve course delivery though groups. First, as one student noted, “we (the students) have already created a group master of (master’s) managerial communication students at Facebook, and usually we discuss

among the group members about the subjects that we do not understand by sharing and exchanging ideas.” Second, students suggested using social media to improve course delivery by using Skype or webcam. For example, “if the lecturer is in Penang, he could still deliver the lecture to the students in class by using Skype or webcam.”

Social media is a vital medium for Malaysian students at all levels, and most use social media in their daily lives. Students believed that if the native course site of the university were upgraded, a lecturer could use this medium more effectively to deliver his or her courses. Besides that, the university could create a social network for each course. Through this medium, “students and lecturer could share information and not only for out university’s students, ... but could open to students from another university.” By using video conferencing abilities, students could share more information and the university could deliver course material wherever the student happened to be. Students are also desperate for two-way communication, encouragement, and academic role models, both of which are often impossible in the traditional setting.

An alternative for creating a better environment was seen as the proper use of Facebook through which private messaging, chatting, and video calls could be used to create a more interactive educational environment. Students could use their hand phones or phablets to update information or answer questions.

Some students would not be obligated to drive long distances to attend class but could participate through a more robust e-learning system. Such a system was seen both as a time-saver and a way to expand the educational environment. An added benefit was seen as the ability of a lecturer to conduct a class while off campus. Students also believed that video conferencing was a way to expand the educational marketplace while making for a more efficient means of communicating and exchanging ideas.

Besides Facebook, students advocated better use of Skype, for better face-to-face communication. “In my own opinion,” said one student, “this technology has to be used wisely and willing by everybody. The class must not have over 10 students.” In this way, a lecturer could create a teaching module that is more personalized and provide individualized instruction to help make the student better understand the subject. Such an approach would work well in helping students work on papers, projects, and theses, all of which require a personal touch and could be done without creating the burden of a long-distance drive.

2.7 Learning Groups

The creation of learning groups, through an online forum or blogs, was seen as vital. Such groups would enable students who are “shy” to respond to or ask questions about topics learned in class. By means of a forum online, students could ask questions about anything they were unsure of. Students believed that such learning communities were ideal because they provided “more of an interactive communication

in which two-way communication occurs.” Chat or discussion rooms were seen as virtual places at which learning could occur among students without the need to be physically present in a class. Discussion groups were seen as being able to create an interactive learning process, which would develop a “reciprocal relationship between lecturers and students and among students.”

A community forum based on group interaction was seen as a necessary. Said one student,

First, we could create a platform for a small group to interact. In this case the participant could be from the respective group members. The group will be named or clustered. For example, “Versace Girls”. By this way, (students could) ... socialize in an informal learning opportunity. The interaction could be via mobile devices. This will allow people to learn in a situation that best suits ... them. The session also could ... open opportunities to people who are interested to listen, read, write and respond. In that way, we get the same message across. In order to encourage active participation, a speaker should post a general topic that invites interest for everybody.

Students did not want these groups to evolve into a Malaysian version of a Wild West Shootout. They wanted discussion groups to reflect the spirit of *budi*. In Malaysia, a person with a high level of *budi* should be thoughtful and considerate, engage in good conduct, and be enlightened and practical when communicating with another (Storz 1999; Monier-Williams 1956). Students wanted these discussion groups to be adult and mature so that “every idea, comment, (and criticism) should be harmonious, clean, intelligent, mature, and transparent.” By doing so, a positive learning environment would be encouraged. Participants could “upload videos, slide presentations and animation presentations to help others understand the topic in more depth.”

2.8 Teacher Interaction

Students believed that technology could improve motivation by inventing a new way to improve teacher-student contacts. Currently, day-to-day contact between teachers and other students is seen as “typically lacking.” With social media, a lecturer could “teach and bond (with students) in cyberspace,” providing students critical emotional and educational support. Additionally, a lecturer could use social media space to better identify students who require more help and reach these students, thus enhancing the relationship of students and the teacher.

Teachers could help motivate learners “by providing consistent and timely feedback, encouraging discussion among students, being well prepared for class, and by encouraging and reinforcing effective student study habits.” For their part, learners also must recognize their strengths and limitations. They also need to understand their learning goals and objectives. A teacher could “help ... learners to explore their strengths or limitations and their learning goals or objectives by assuming a facilitative role in the learning process.”

2.9 Discussion

Because students in Malaysia are similar to contemporaries living in media-rich environments elsewhere, incorporating technology and creating activities that change the pace of the classroom to keep the environment stimulating helps them learn. A human-interest angle helps make connections, and if students could be coaxed to provide their own examples, a culturally appropriate learning environment can be created.

Information technology (IT) can successfully contribute to two ends: creating a blend of classroom materials and delivering those materials in multiple ways. Students who participated in this study believed all available tools should be used advantage of, but they also believed that IT use must be carefully conceived so that sound educational values drove the learning experience.

One critical observation was that technology could help overcome a culturally learned shyness in the classroom. Because students are polite or embarrassed (or both), they sometimes refrain from asking questions or challenging information presented to them. This lack of candor creates difficulties in ensuring that students grasp subject matter. Sometimes they indicate understanding of a concept when they actually don't. So adding simple explanation to clarify what was missed, via an online outlet, can become a vital part of a technologically inspired classroom.

Properly structuring the learning by incorporating technology into the environment helps squeeze the most of precious class time and maximizes good learning experiences. Of course, instructors should not be expected to manage the development of IT-inspired materials on their own. Instructional designers are necessary. Their function includes facilitating structure, including the use of graduated and scaffolded exercises that help in building confidence. If vocabulary building is to be developed in the online learning environment, creating electronic materials in suitable formats and mounting them on community forums or blogs requires the help of technology. In this way, students can flip the classroom and reiterate both the vocabulary and the concept in different ways at their own speed. When used properly, appropriate and online vocabulary and concepts can be used to create authentic learning experiences.

Many courses can combine old and new technologies and thus create a more effective and dynamic classroom. The successful combination of old and new means blending the delivery of class materials and creating "rich-text materials." Blending delivery is delivering educational materials in multiple means, including textbook, online learning management systems, the Internet, the World Wide Web, the intranet, and CD ROM. Rich-text materials are those that combine multimedia such as print, audio, and video into one well-thought-out and designed package. With careful consideration, each educational technology can be used for what it does best (Walters and Lydiatt 2003).

That is because both blending and creating rich-text maximize the affordances of a technological medium: what the medium offers, what it provides, what it furnishes, and what it invites. For example, paper offers common affordances. Paper is

thin, light, porous, opaque, and flexible. That means you can write on it, fold it, and bind it. Digital technology offers unique affordances too. It is dynamic, is keyboardable, and can instantly transmit large amounts of information. That means the process can create interactivity and dimensionality and can simultaneously appeal to more senses than does paper.

Using Bloom's cognitive taxonomy adds structure to the process of identifying what affordance works best with specific delivery system and materials. Learning experiences, such as comprehension and knowledge that are at the lower levels of Bloom's taxonomy, do not require face-to-face interaction with a teacher. These learning experiences can be served by self-paced, stand-alone technological solutions that students can use on their own. These stand-alones might include dual-language-speaking dictionaries, animated how-to illustrations, or basic readings with links.

More involved learning experiences at the top of the taxonomy, such as evaluation, synthesis, and analysis, probably require guidance in the form of directed threaded discussions over an online learning management system or face-to-face sessions in the classroom. While preparation can be done outside the classroom, analysis and synthesis of a concept ought to be done in an active, direct learning session. By using technology efficiently, valuable classroom time can be preserved for higher-order processes. Properly motivated and self-disciplined students should be able to learn lower-order elements on their own, while the more experienced partner (the teacher) can provide the scaffolding of subject matter to support the student's evolving understanding. The process creates "sticky" learning.

Because students often have uneven educational backgrounds and life experiences, and access to the Internet, experimenting with techniques that provide learning support is critical. A blended learning course should consider second language and foreign language learning issues simultaneously affecting students and faculty and must seek ways to balance available media against classroom needs. This will help in determining which active learning techniques should be used. Some materials may need to be rewritten to minimize difficulty in readability. Words that could be difficult for students can be linked to an online dictionary providing extra information and pronunciation. Concepts needing further explanation can be linked to backup resources explaining and (when appropriate) visually demonstrating those concepts.

2.10 Conclusion

Development requires pedagogical content and technical expertise and the willingness of a university to provide adequate time and financial resources to develop, deliver, and maintain the materials. Additionally, a university must be committed to maintaining the appropriate infrastructure for a 24/7 five 9's (up and running 99.999% of the time) delivery. Currently, this is impossible in Malaysia; broadband speeds remain marginal and unevenly distributed throughout the country and

system maintenance is spotty (Oxford Business Group 2014; see also Ookla Net Index Explorer 2014 for an informative map-based interactive experience). Often responsibility is created without adequate resources provided.

Though the hope is that information technology can add a powerful punch to the modern educational environment, many educators have found that the proper use of available modern technology, rather than the mere presence of that technology, advances learning. Properly designed learning materials inspired and delivered by modern technology add value to a teaching environment in which contact hours are limited. But balancing between the potential of technology and the careful grooming and attention students sometimes require is critical. Technologically inspired teaching materials should create a “cognitive apprenticeship” and use storytelling to convey messages in powerful, attention-getting ways. They should help develop underlying thought processes, such as critical thinking, analysis, and problem-solving. Technology can do other things as well. New materials delivered via the Internet that help with the repetition necessary for developing reading, writing, and listening in English can eliminate drudgery for educators and can be entertaining for students.

Educators have described rich-text materials (materials combining multimedia such as audio and video among others) as potentially “enriching,” “experiential,” “flexible,” “fun,” “powerful,” “self-paced,” and “timesaving.” They also believe that properly used technology could “further critical thinking and independent learning,” expand “individual exploration,” “shift some of the learning out of the classroom,” “expand time for other classroom activities,” “liberate (student and teachers alike) from the mundane,” create an environment of “learning, experimenting, doing, and enjoying,” and level “the playing field between public and private schools” (Walters and Lydiatt 2003).

Because of complexities and the need for expertise, educators should not be expected to create solutions on their own. While they should be familiar with the technology and the software that powers that technology, they are neither full-fledged technicians nor website designers and should not be expected to be. Because of workload, lack of dedicated time, lack of design experience, and occasional technological intimidation, educators should be partnered with others in “production cells” to author rich-text material and to determine means of delivery. Some who have had success in integrating multimedia into course structures have found that production groups should include a content expert, an instructional designer, and a software expert. The content expert (teacher) develops the objectives and thinks about the skill set and knowledge and the values and ethics. The instructional designer helps define what activities are best done with what technology. And, the software expert assembles the package. This, then, is much a collaborative effort.

Developing rich-text materials and identifying suitable means of delivery is part of an organic procedure that moves from a specific list of recommendations, to design, to testing, and to finished product. This procedure recognizes that limits exist. This means envisioning a project in terms of the must-haves, the should-haves, and the nice-to-have bells and whistles.

Creation requires identification of key course concepts first and then considering how those concepts can be best communicated. This is vital because knowing something is quite different than communicating it. After concepts come examples and determining which elements teach which concept is the best.

Getting from inspiration to creation to finished product involves several steps. A technological inventory looking at who has done what, who is planning what, and who would like to do what across the campus would be a good beginning. This inventory will help identify working groups. Creating a strategic plan, with a realistic timeline based upon an understanding of technical requirements, material requirements, the pedagogy, and the students and their needs, is part of the invention process as well.

In doing so, educators must remember that developing rich-text materials with audio, video, and text presents challenges. On the most basic level, rich-text authorship is unlike traditional authorship because it incorporates cutting-edge technology that requires multiple skill sets. The need for multiple skill sets means authors must either learn those new skills or that creation must reside in authorship teams. In the latter case, each member contributes specific technological skills.

Despite some obstacles, rich-text materials offer both pedagogical efficiencies and cost savings. Pedagogical efficiencies include ease of change and customization in attention-getting, engaging packages that would be available to students in an environment in which getting textbook materials is often challenging. Cost savings include reduced “replication” and distribution costs and elimination of all middleman (bookstore) costs. Besides traditional “book purchase” revenue, commercial possibilities include sponsorships with media, software, and hardware companies; licensing agreements; and module-based packaging for continuing education. Because of inherent flexibility, a rich-text can be customized for each classroom or for each student as educators pick and choose among the various modules.

Advantages exist for students and educators alike. If designed carefully, students will find these materials to be engaging and intuitive, combining methods that help them learn best. Educators will find that these materials help them with their teaching tasks and can help develop an organic, continually growing resource library for others to use. Because students find them more attractive, rich-text materials facilitate self-paced individualized instruction and remove repetitive and redundant tasks from the classroom. This leads to Vygotsky’s (1978) inner thinking, allowing students to process information on their own, thus reserving classroom time for interaction with others through discussions, questioning, and other critical thinking processes.

Developing and managing an effective classroom is the product of several fundamentals. These include incorporating the best practices of ESL and/or EFL into the classroom; creating a lesson structure and planning that explains the who, what, where, when, how, and why of what is being done; and utilizing the affordances of appropriate technologies to enhance the delivery and presentation of classroom materials.

Although time is needed to resolve today’s technical problems, as one student noted, “we can always learn while on the way. It has been said that the destination is not goal; it is the process that matters. We should focus on the journey, not the destination. Joy is found not in finishing an activity but in doing it.”

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Chapter 3

Open-Source Pathways to Educational Development

Joel D. Moore

Abstract This chapter will explore the challenges and opportunities associated with the use of open-source software solutions to particular pedagogical challenges. I explore the implementation of various open-source platforms to facilitate the achievement of learning outcomes. Specifically, I will look at the use of open-source software to facilitate peer-assisted and problem-based learning. Readers will gain an appreciation for the potential educational value of these important new open-source resources. Subtopics will include: open-source educational technologies, peer-assisted learning, problem-based learning, and flexible ICT policies for continued innovation.

Flexible ICT policies with sufficient internal quality control will allow individual departments and members of staff to identify open-source technologies that meet their pedagogical needs. Such policies can, with minimal cost, reduce the amount of time required to achieve desired learning outcomes and free academics to contribute to knowledge creation through research.

3.1 Introduction: Changing Landscape of Higher Education

A wide array of observers predict seismic shifts in the future structure of higher education. In particular, the arrival of Massively Open Online Courses (MOOCs) is being heralded as either the pathway to education and opportunity for all or a disruptive innovation that will replace professors with computer screens (Cuban 2012; Yuan et al. 2013). What many of these observers fail to note, however, is the equally rapidly changing structure of the labor market that higher education is meant to prepare students for. In particular, sustained improvements in computing

This project has been supported by the Social and Economic Transformation in Asia Research Platform at Monash University Malaysia.

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power and artificial intelligence have meant that technological changes which historically have been threatening those employed in physical labor occupations are increasingly threatening those in service and professional occupations.

Thus, although MOOCs have the potential to enable a much wider variety of students to access the relatively codified knowledge embodied in higher education content, it is likely that it is precisely this type of knowledge and training that will have a rapidly diminishing value in the labor market. Economist David Autor (2014) suggests that workers' incomes will continue to diverge, with those trained to do repetitive cognitive activities under threat from more and more sophisticated algorithms. Those that will continue to thrive in such a bifurcated labor market will be workers that master abstract skills, requiring problem-solving, creativity, intuition, and persuasion, that (at least for now) computers have a difficult time in replicating (Autor 2014, p. 11).

As such, it is likely that the higher education institutions that survive the seismic changes brought about by these shifts will be those that refocus their teaching and learning energies on developing such abstract skills in their students.¹ To do this, they will have to make the most of learning technologies to free up time for dynamic interactions that leverage both online and face-to-face approaches. In such a landscape, many institutions of higher education that are committed to delivering a high-quality education that prepares students adequately for the coming labor market feel that they must invest in expensive proprietary education technologies to ensure students are well prepared. An alternative way for institutions to achieve this result would be to systematically promote continued innovation using free and open-source software (FOSS).

Free and open-source software is created to be used, modified, and distributed by anyone without charge. FOSS has been adopted by a wide and expanding range of governments, corporations, and nonprofit organizations wishing to reduce the cost burden of purchasing and updating software (Wheeler 2004). FOSS packages are typically associated with vibrant online user/developer communities that identify bugs, suggest improvements, and find workarounds for existing bugs (Jensen et al. 2011; Kishida 2003). FOSS is usually associated with a specific license agreement from the Open Source Initiative and should not be confused with so-called "freemium" software products distributed free of charge by companies that withhold specific proprietary features for paying customers (Evernote and Google Drive are examples of the latter).

In this chapter, I identify particular pedagogical goals associated with the development of abstract skills and show how current FOSS packages can facilitate the achievement of these goals. The rest of the chapter will proceed as follows. First, I outline a few pedagogical goals, relevant to the development these so-called abstract skills, noting the challenges associated with each. Second, I show how FOSS

¹One danger is that the higher education market will be bifurcated, with the bulk of learners participating in MOOCs and left to scramble to adjust to rapid creative destruction of the market. The other tier, who can afford it, will receive an education that leverages the latest, best technologies to maximize F2F learning.

can help overcome these challenges and make the deployment of such approaches more cost and labor effective. Third, I provide a specific example of the successful use of FOSS to create an extended in-class simulation. Last, I draw some general conclusions about the use of FOSS in higher education.

3.2 FOSS and Abstract Skill Acquisition

This section explores the potential contribution of open-source software to decreasing the costs involved with transitioning to a learner-centered curriculum that develops abstract skills. I use undergraduate research projects and in-class simulations as examples of learning and teaching approaches that can be made easier through the application of open-source software. For each approach, I review the pedagogical motivations, the typical bottlenecks and challenges, and the potential benefits of employing open-source software packages.

3.2.1 Facilitating Undergraduate Research: Open Journal/Conference Software

In the process of gaining mastery over disciplinary knowledge created through rigorous research, students should gain insight into the process of knowledge creation. Many institutions of higher education thus place great importance to research-led teaching (Schapper and Mayson 2010). Such a research focus at the undergraduate level can equip students to critically assess the quality of research in their field and keep up-to-date on findings long after graduation. It also provides potential future researchers with invaluable experience and can serve as a way to encourage strong students to pursue further research training.

Research-led teaching often involves professors including some discussion of their own research in the classroom but can also contain activities where students pursue original research projects that go well beyond the usual in-class assessments. Mentoring such projects is necessarily time intensive but can be quite rewarding for both the student and the professor. But there's much more to research than collecting and analyzing data. Students must gain an appreciation of replicability, sharing results, and gaining input from the wider scholarly community. Unfortunately, however, undergraduate research is not typically of sufficient impact and quality to warrant submission in established academic journals. One approach to ensuring that students gain such an appreciation is to create outlets specifically for undergraduate research. These may take the form of an undergraduate research conference or journal. Organizing and managing such outlets is also highly time and labor intensive. Here there are open-source solutions that can both streamline the process and help provide undergraduate students with valuable administrative and event management experience.

Open Journal Systems, a platform developed by the Public Knowledge Project (<https://pkp.sfu.ca/ojs/>), provides an open-source resource for scholars to create open access academic journals. Although the initial installation of the platform can be moderately technically challenging, it can be easily facilitated by a university ITS center. Once installed, it helps scholars with every major step of journal management, including author registration and submission, peer review, and distribution. This platform can be effectively used to help with the administration of a student-run undergraduate research journal. Another platform developed by the Public Knowledge Project, Open Conference Systems (<https://pkp.sfu.ca/ocs/>), facilitates the management of academic conferences, providing services such as issuing a call for papers, accepting submissions and abstracts, conference registration, and creating post-conference proceedings.

Either FOSS package will help a department or university institutionalize undergraduate research that includes peer review and a sharing of results. Logistically, it would be important to have some degree of continuity in the students managing the projects (i.e., senior students who had been helpers in previous years mentoring more junior student helpers). Additionally, by managing the production of a student journal or conference, the students gain practical experience in the sorts of abstract skills required to successfully bring the projects to fruition. That is, they must respond creatively to the myriad of unique challenges that will emerge as they work to get other students to submit, review, and revise their research projects.

3.2.2 Better Group Projects: Peer-Assisted Learning Using Moodle

Another example of an abstract skill that is both incredibly important for the future workplace and especially challenging to teach is effective collaboration. There are a number of important skills that contribute to being an effective team member, such as the ability to resolve interpersonal conflicts, deal with difficult group members, and motivate reluctant partners. Unfortunately it is particularly difficult for students to develop these skills other than through experience and mentoring. By having students participate in multiple well-structured group projects under the supervision of a professor over the course of their academic career, we can increase their experience in and adeptness at collaboration.

Creating and monitoring such group projects can be challenging for busy professors, particularly as many students are naturally resistant to group work and bristle at the thought of group work assessments. Another challenge associated with group projects is maintaining fairness and transparency in assigning grades. It is rare that labor is distributed equally within groups and students may often feel that some members free ride on their hard work. While this may resemble group work in the professional world, the more a professor can do to ensure fairness and transparency in grading, the more students will be likely to participate with enthusiasm.

Unfortunately, it is difficult for the professor to know about any free riding or other problematic group dynamics until late in the project, when it may be too late to do anything about it. In order to catch such problems early enough to intervene effectively, the professor would have to expend substantial time and effort reading drafts and interviewing group members.

This is another area where strategic use of FOSS can help achieve the desired pedagogical outcome with substantially less time and effort. Moodle, an open-source Learning Management System (LMS), has a variety of features that are useful in porting sections of traditional university content online. The package is competitive with proprietary LMS such as Blackboard. One of Moodle's many modules is "workshop," a collaborative feature that allows students to assess their peers' work. Students submit drafts in Moodle and their peers read and review the papers, offering critiques and suggestions.

This module can be employed effectively in group projects to reduce the difficulty and effort required for professors to monitor group dynamics. Rather than read through every individual draft for an assignment, the professor can keep a close watch on the peer reviews created by students in order to see who isn't carrying their weight in the project. Additionally, the professor can watch the tone of communications and give feedback for healthy and unhealthy group dynamics as they occur. Although this module can be effectively utilized for this purpose, in its current form, it lacks some features that could significantly streamline the process.

Here the freemium word processing features in Google Drive offer superior functionality. In Google Drive, students may not only provide general feedback on their peers' submissions, they may have extended conversations about suggested edits directly within the context of their papers. The software allows those with whom the document has been shared to write numerous comments in the margin, with highlights identifying the portions of text that the comments refer to. The author and other peer editors can then reply to each comment individually, allowing for an extended discussion of the appropriateness of the change. This sort of higher-level discussion of the material will help both those that write and those that edit to deepen their understanding of the writing process. Since the professor can see each of these discussions, they can have an even more nuanced view of the students' improvements, grasp of writing and editing, and ability to work together and respond to criticism in a collegial manner.

3.2.3 Simulations: Labor-Intensive Peer-Assisted Learning

In-class simulations can be powerful tools to help students achieve a variety of pedagogical goals. Firstly, in-class simulations can help students to grasp and apply abstract theories in a direct and participative manner. For example, in international relations simulations where students are playing state actors of various sizes, they must take relative power into consideration when deciding upon balancing or bandwagoning strategies vis-à-vis the student groups playing other states. Likewise,

students may gain a much greater and deeper understanding of theories that deal specifically with the challenges associated with interpersonal or interorganizational interactions. For example, theories about the difficulty of collective action become especially relevant to students that are attempting to mobilize one large group or multiple small groups to work toward a common goal.

Even when the subject matter is not explicitly related to social science or human interactions, post-simulation reflective essays can go far in getting students to reach important insights on their own. These will be especially useful once they start in the workplace. Simulations may help students prepare for the workplace in other ways. In addition to being concerned about achieving the goals established by their professor or employer, students will have to work hard to not let their teams down and face peer pressure. Most importantly, those students that take initiative and demonstrate originality and creativity in pursuing their individual and group goals have the potential to have those efforts rewarded to much greater degree than would be the case for a typical essay or exam.

For all these reasons, simulations are highly effective tools to help students across disciplines achieve learning objectives. The trouble is that these sorts of simulations tend to be highly labor intensive on the part of the professor. Not only must the professor carefully design the overall scenarios, roles, victory conditions, and announcements associated with the simulation, they must also do their best to ensure that out-of-class efforts demonstrated by students are sufficiently reflected in the final grade. This can be especially tricky.

If the simulation goes well, students will be meeting in cafés, their homes, the library, and any number of additional spaces outside of the classroom; they will be using emails, text messages, social media messages, and phone calls to negotiate, deliberate, and coordinate their activities. These efforts should be rewarded in the final grade; students should feel that contributions are assessed fairly (Glazier 2011; Jackson 2013; Mathews and LaTronica-Herb 2013).

Thus, well-run simulations tend to be highly labor intensive and professors are dissuaded from employing them despite their numerous pedagogical benefits. But this is an area where strategically employed technology can substantially reduce the labor involved and increase the reliability and transparency of the process.

There are a number of proprietary software packages that educators have used to facilitate the use of in-class simulations and reduce the workload for professors. Each has its own advantages and constraints. A wide variety of software packages have been used for Independent Artifact Simulations, including flash games, third-party games, and even Microsoft Excel spreadsheets (Jackson 2013). For simulations using a more open role-playing framework, there have likewise been numerous programs used.

Blackboard, a popular proprietary LMS, has likewise been used successfully for in-class simulations (Mathews and LaTronica-Herb 2013). With a full suite of features, Blackboard allows the professor to create a highly customizable student simulation experience in one place. Similar results could likely be attained using Moodle. An advantage associated with using a university's existing LMS, whether proprietary or open source, is also a disadvantage: namely, that the students would

already be using it for their normal classwork. This would be an advantage because it means that students would be familiar with the user interface and would not need any prompting or training to access the special simulation content in another platform. It would be a disadvantage because the whole simulation ecosystem would lose some of its “separateness” if it were not sufficiently differentiated from day-to-day coursework. Using the simulation interface, students should immerse themselves in their roles to the fullest extent possible and see the interface components as the recreation of a real-world experience rather than an extension of their studies.

Social networking software (SNS) has a lot to offer as platforms for the provision of in-class simulations. First, as “digital natives” (Prensky 2001) that have gone through their schooling during the social media age, most students are quite familiar with the social network interface. Second, the features built into SNS has a functionality that is especially well suited to simulations. SNSs is equipped with user-centered messages/emails, chat, blog, groups, document sharing, events, and video-sharing capabilities. By employing an SNS, the professor can create a separate digital space where all forms of student engagement and interaction are captured.

SNS *messaging* can be managed as separate to students email accounts such that students realize that all messages sent through the system are to be professional in tone and “in character” according to their simulation roles. This will be for official intra- and intergroup communication.

Chat systems tend to be built into SNSs but can be easily removed if the professor is concerned that they may lead students to return to informal or unprofessional communication styles. The *blog* capabilities may be repurposed to serve a variety of potential functions, depending on the specifics of the simulation. They can easily serve as places for groups to issue press statements or otherwise “public communications” that are meant to be seen by all simulation participants.

The *groups* functionality of SNSs can facilitate intra-group communication. That is, online communication and deliberation among students that are playing complementary roles within a group can take place in one location. For example, students playing an industry group in a trade negotiation simulation can discuss lobbying strategies, refine press statements, and share links to useful information. Additional information can be shared through the *documents* feature of SNSs.

SNSs also feature *events* sections that can be used to arrange both inter- and intra-group offline meetings. These are built with a scheduling calendar and, in some systems, can be integrated with common calendar/scheduling software.

The *videos* capabilities allow students to, where applicable, produce and share video content that they’ve created as a part of the simulation. For example, it may be that a group of public health students playing the role of a government health department in a tourism-dependent city facing an epidemic simulation would need to produce a short informational video that explains the situation to the public at large. By uploading it to the site, they could make it available for other groups, perhaps those playing a tourism industry lobbying group and members of local government, to view the material and provide feedback.

This system allows for quick, seamless grading of all of these items. When assigning roles and inputting them into the SNS, the professor can easily ensure that

all communications are carbon-copied to an email account set up specifically to keep track of the simulation progress. The resulting content can be extracted onto a spreadsheet for rapid monitoring and processing. Thus, what would previously have led to a substantial logistical roadblock and resulted in a significant time lag before the professor could process and respond to these various events can, with the SNS platform, become no more challenging to grade than any other type of student assessment.

Of course, we cannot expect 100 % of students to be familiar with this or any other technology (Margaryan et al. 2011). Nontraditional students in particular may not have substantial experience with social networking websites. Efforts must be taken to ensure sufficient resources for this small subset of students to get training in the use of these platforms. Given that many companies make extensive use of similar platforms (Hinchcliffe 2014), developing experience in a variety of software interfaces should be viewed as important for career preparation.

There is a variety of open-source SNSs currently available. For the purposes of this chapter, I examined the ELGG (<http://www.elgg.org>) and Oxwall (<http://www.oxwall.org>) SNS. Both contained a similar bundle of features that are relevant to facilitating an extended simulation, including: individual member/user detail page, blogs, videos, messaging, chat, and groups. Both allow for sufficient customization of the sections and format.

3.3 FOSS in Practice: A Blended Simulation

In 2013, I used an open-source social media platform, ELGG, to facilitate the provision of a multi-week simulation in a class on international migration. The platform, which I customized for use in this simulation, drastically reduced the amount of time and effort required to get students to achieve the learning objectives of the assessment. The 3-week simulation was designed to encourage the development of the abstract skills identified above: problem-solving, creativity, intuition, and persuasion. Additionally, it was structured so as to get undergraduate students to start thinking about future career pathways.

Students were broken into groups to play a number of roles. Each student was given an in-depth guide to the simulation and his/her role, complete with a description of “victory” conditions (i.e., how to win the game). The general premise of the simulation itself is the reaction of key actors in the international community to an announcement by the Thai military that the refugee camps along the Thai-Burma border would be closed and that refugees from Burma would be repatriated within 4 months.

The conceptual/theoretical lessons that were built into the simulation included: the limitations and opportunities associated with the use of international law to resolve migration/refugee issues, the difficulty of collective action by rights-based NGOs seeking to put pressure on the relevant parties, the degree to which states safeguard their sovereignty when it comes to migration-related decisions, and the

difficulties in reconciling broad policy-level decision making with their human impact. While “winning” the game as such did not impact upon their mark for the course, the competitive impetus of the simulation and recognition by the professor and peers provided sufficient motivation for the majority of students to engage with the simulation. The simulation ran during tutorials for 3 weeks and for part of the lecture period for 1 week. Student groups worked outside of class (in person and via the social media platform) negotiating with other groups.

The first stage of the simulation required each student to read a packet of collected materials relevant to the simulation and an additional reading specific to their particular role. In designing assessments, I ensured a close match between my learning objectives and the assessment structure, as recommended by the literature (Asal and Kratoville 2013; Asal et al. 2013; Raymond and Usherwood 2013). They then had to write an individual analysis of their roles’ position with regard to the announced closure of the camps. The second stage of the simulation began as students formulated group press releases based upon their individual research into their assessment #1 analyses and in reaction to the announcement by the Thai military. Once the position statements were released on the Simulation Web Site (SWS), student groups responded in real-time to one another’s positions via the SWS and in person. This was a feeling out process, facilitated by the professor and students playing news media roles.

The main mechanism of the second stage was the effort by rights-based NGOs to pressure the United States to demand that any solution includes measures to safeguard returnees and alternatives for those who feel that return is unsafe. If NGOs succeeded in resolving differing interests and forming a united campaign, the professor would let the US players know that US public opinion on its Burma policy was becoming negative and that they would have to take rights groups’ demands into account. If the NGOs did not succeed in creating a unified front, the United States was free to embrace or ignore these concerns at its own discretion. The third stage includes private face-to-face and online meetings between players that end in official policies by the state and MNC actors. Victory conditions were evaluated in a post-simulation debriefing.

The use of the open-source social media platform greatly facilitated inter- and intra-group communication and effective and transparent marking. All in-simulation communications were automatically forwarded to me and logged in a spreadsheet. There were 220 total events recorded on the three simulation servers – including both group-to-group messages and press statements. To maintain a similar level of monitoring of student contribution to the simulation without the leverage provided by the SWS would require four or five tutors to collect and process all of the communications, with a substantial time lag. With all of the communications neatly compiled in a spreadsheet, I was able to attach each student’s contributions with their mark for the assessment, making it very transparent and making it easy to provide meaningful feedback. I was very pleased with the overall level of student engagement and feel that there was a spillover effect in tutorial discussions unrelated to the simulation. That is, participation in discussion was much more active in all three tutorials than in the three tutorials in the previous year.

Though setting up and customizing the initial SWS for the simulation was time consuming, I cloned the database containing all of the roles and groups for easy redeploying for future simulations. Thus, there will be diminishing time and labor costs associated with the subsequent use of the SWS. Indeed, one can imagine a collection of archived databases customized to particular simulation scenarios.

3.4 Potential Drawbacks of FOSS in Higher Education

This chapter has thus far identified potential benefits from employing OST in higher education. To be sure, there are some risks and challenges that go along with the application of such technologies.

On the one hand, there is the challenge of identifying the appropriate technologies from the wide array of options. There is a danger associated with centralizing this process within the university ITS department or the central education management department. Doing so would make it difficult to match the software employed with the particular pedagogical needs of the professor teaching the class.

On the other hand, there is also some risk associated with allowing individual professors to identify and experiment with FOSSs they may feel are a good match for their teaching and learning needs. The first risk would be that very few take the time to search out the FOSS that would be the most useful for their particular needs and innovation in teaching and learning would only take place in isolated pockets. Given increasing research demands across academe, this is particularly likely. Those that do spend the time to find a relevant FOSS may be innovative and contribute to the advancement of learning and teaching at the university only to find that their research output and therefore career progression is stifled. The second risk would be that individual professors employ FOSSs with insufficient ITS support and end up delivering substandard “early-adopter” technologies to the detriment of their students. For example, the database supporting a particular FOSS project might crash mid-semester and delete all the work that the students had submitted.

Thus, what is needed is a model that encourages and rewards individual professors to find relevant FOSS solutions to their pedagogical challenges but that also provides sufficient guidelines and support from central ITS and EM. New technologies should be piloted before employing and sufficiently backed up with active tech support.

3.5 Conclusions

The twenty-first-century labor market promises to be as dynamic and uncertain as the twentieth. In order to prepare students, institutions of higher education must work to develop problem-solving skills, creativity, intuition, and the ability to persuade. This chapter has explored the ways in which strategically employed FOSS packages can help professors to overcome some of the logistical and practical

challenges associated with learning and teaching approaches that develop these abstract skills. The examples provided are meant to be illustrative. They are not and cannot either be exhaustive or remain contemporary. New teaching and learning challenges and new FOSS packages will necessarily emerge; what I have outlined is a way of thinking about the use of one to meet the needs of the other.

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Chapter 4

Managing and Evaluating ICTs in Higher Education: A Reassurance Measure for Sustainable Investment

Nafisat Afolake Adedokun-Shittu and Abdul Jaleel Kehinde Shittu

Abstract Evaluating and managing the deployment of ICTs in higher education is a serious issue institution administrators are concerned with because they want to see a meaningful return on their investment. However, one crucial fact that has to be emphasized is that return on investment over ICTs in education cannot be measured in monetary value but in the outcomes generated through teaching and learning with ICTs. As such, this chapter presents a model that provides a practical evaluation tool suitable for comprehensively assessing and managing the ICT deployment process. It provides evidence-based justification to stakeholders such as policymakers, school administrators, educators, researchers, and evaluators on how higher institutions can assess the return ICTs generate in teaching and learning through measurable outcomes and how to manage the resources invested on and the need for continued investment. Hence, evaluating ICTs in education in this chapter will mean appraising the positive effects, assessing the incentives, measuring the level of integration, and examining the challenges associated with the ICTs provided for use in the learning environment.

Keywords ICTs • Higher education • Evaluation • Management • Sustainable investment • Return on investment

4.1 Introduction

Justifying a return on the investment on the deployment of ICTs in higher education not in monetary value but in the outcomes generated through teaching and learning with ICTs is a major concern for stakeholders. Thus, assessing the impact of ICTs

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in teaching and learning through evidenced-based means is essentially required. This is as a result of lack of evaluation tools and methodologies for the assessment of ICT impact on teaching and learning in developing countries (Trucano 2012). As such, this chapter discusses some salient issues in the evaluation and management of ICT deployment in higher education which includes analyzing the positive effects of ICTs, valuing the incentives generated through ICTs, appraising the level of ICT integration, and addressing the challenges associated with ICTs in teaching and learning in higher education. Imperatively, the stakeholders in higher education ICT deployment including university administrators, Ministry of Education, investors, lecturers, and students require this salient research information. Thus, this chapter will inform them on how higher institutions can assess the return ICTs generate in teaching and learning through measurable outcomes and how to manage the resources invested on and the need for continued investment. Researchers can also glean some idea from the theoretical basis of the model adapted in the chapter that serves as a practical evaluation tool for assessing and managing the ICT deployment process. The ICT impact assessment model employed as the theoretical basis in this chapter extends two notable ICT impact assessment theories (Kirkpatrick and Kirkpatrick 2010; Stufflebeam et al. 2003) by adding an important element which is crucial to evaluating and managing ICTs in higher education. This makes it a more comprehensive and viable tool of assessment as such making this chapter a more reassuring measure of sustainable investment in ICTs.

4.2 Literature Review

In this subsection, previous researches that emphasized the essence of evaluating and managing ICTs in higher education for sustainable investment are examined.

ICT (information and communication technology) is defined as an instructional program that prepares individuals to effectively use technology in learning, communication, and life skills (Parker and Jones 2008). Information and communication technology (ICT) includes all forms of evolving technologies that help in facilitating information collection, processing, usage, transfer, storage, retrieval, sharing, interpretation, and adoption. It includes mobile devices, computers, tablets, podcast, Internet, scanners, printers, LCDs, ubiquitous computing, WWW, and a host of yet to be developed technologies (Adedokun-Shittu and Shittu 2013). ICTs in education can be described as any kind of technology that facilitates teaching and learning, improves learning environment, and enhances learning outcomes. Thus, evaluating ICTs in education will mean appraising the positive effects, assessing the incentives, measuring the level of integration, and examining the challenges associated with the ICTs provided for use in the learning environment (Adedokun-Shittu and Shittu 2013). Kozma and Wagner (2005) in Wagner et al. (2005) suggest that evaluation of ICTs in education should concentrate on measures of students and teachers. This signifies measuring the value of ICTs in the perception of lecturers and students on the contributions of ICTs to their teaching and learning output.

infoDev (2006) emphasized that the aims of any evaluations are to see how far the intervention has reached its desired audience, to identify effects, and to measure impacts considering different quantifiable local indicators. Similarly, the World Bank (2004) defines evaluation as the systematic identification of the effects – positive or negative, intended or not – on individual, households, institutions, and the environment caused by a given development activity.

International Association for the Evaluation of Educational Achievement (IEA) offers useful suggestions on how educational technology could be evaluated to ensure successful implementation. These evaluation issues range from policy issues that justify investment returns to technology infusion in the curriculum to analyze whether the intended curriculum is implemented and ultimately attained Adedokun-Shittu and Shittu (2011). The pedagogical uses of ICT are also emphasized on how it is employed in the class by the teachers and how it is received by the students Kankaanranta (2005). Suggestions on some important policy considerations for ICT implementation are given by Kozma (2005) as creating a vision and developing a plan, aligning policies, monitoring and evaluating outcomes. To create a vision and develop a plan that will reinforce broader education reform, he suggests that the technology plan should describe how technology will be coordinated with changes in curriculum, pedagogy, assessment, teacher professional development, and school restructuring.

Trucano (2005) stated that the problem with evaluating ICTs in education is the lack of a common set of indicators; rather than data that can help policymakers gauge the impact of ICT interventions on student learning, quantitative data related to infrastructure (number of computers) are often focused on. He stressed that, if ICTs are to become effective and integral tools in education, and if accountability is to be demonstrated to donors and stakeholders, monitoring and evaluation must be a priority area of focus. There is an absence of widely accepted standard methodologies and indicators to assess impact of ICTs in education. After series of review on ICTs in education, authors (World Bank 2003; Trucano 2012) conclude that evidence is scarce and limited and that the impact of ICT use on learning outcomes is unclear. Therefore they call for the need for cautiously carried out research in different countries with widely accepted methodologies and indicators to assess the impact on education. In response to this, Adedokun-Shittu and Shittu (2013) develops an ICT impact assessment model by employing two grounded impact evaluation models (Kirkpatrick and CIPP) as a theoretical framework to guide the development of the model and the data gathering instruments for impact evaluation in higher education.

4.3 Management of ICTs in Higher Education

Managing the ICTs deployed in higher education requires planning and evaluating both the system and the process involved in the deployment such that measurable impacts can be seen. Newhouse (2002) asserts that investment on ICT in education may not continue unless there is a reassurance or evidence-based justifications that

learners are benefiting to an extent which is commensurate with the level of ICT provision. UNESCO (2013) recommends that to manage ICTs in education, internal and external efficiency, pedagogical and institutional operation, performance, shortcomings, and needs should be addressed. It recommends that evaluation data collected should inform policy decisions. Policy- and decision makers require clear and comprehensive interpretation of policy-informed data analysis. In the same vein, Massy (2003) considers managing higher educational resources as a continued change. He thus suggests, as part of his seven education quality principles, defining outcomes, focusing on the process and assessment, and making decisions based on facts in order to ensure a meaningful resource management and a sustainable policy consideration. Pecht (2008) also identifies that reevaluation of technology use and content delivery methods are efforts undertaken by universities to ensure proper management of their ICT resources. Michigan State University (MSU 2004) emphasized that resource management cannot be successful without data and fact-driven decision making by creating lists of measurable outcomes and determining assessment methods to drive these outcomes. From the foregoing, it is clear that higher education cannot circumvent the issue of ICT assessment if they must attain a substantive return on their investment. Thus, this article presents a comprehensive ICT impact assessment model suitable for assessing internal and external efficiency, pedagogical and institutional operation, performance, shortcomings, and needs as suggested by UNESCO (2013). This model is also appropriate for defining measurable outcomes, focusing on the process and assessment and making decisions based on facts that translate into sustainable policy consideration proposed by Massy (2003). Likewise it is a defining assessment method and a viable tool for assessment and reevaluation of technology use and integration into teaching and learning (MSU 2004; Pecht 2008) given its four dynamic elements (positive effects, integration, incentives, and challenges) and its recurring nature, making it useful for any kind of assessment or evaluation (formative or summative).

4.4 The ICT Impact Assessment Model

Deploying ICTs for educational purpose is a complex, fund-gulping, and continuously evolving process because of the ever-evolving nature of technology itself. This thus requires proper planning, consistent management, and continuous evaluation in order to optimize the ICT facilities, maximize the benefits accruing from it, and actualize substantial return on the huge investment. Return on ICT investment can only translate into fiscal and time expenditure when trade-offs and commensurate benefits are accomplished. As such, higher education institutes should invest simultaneously on evaluating the entire process of ICT deployment in teaching and learning from usage/integration, incentives in terms of access, training and others, effect of ICTs in teaching and learning, and challenges encountered. This article thus presents a model that provides a practical evaluation tool suitable for comprehensively assessing and managing the ICT deployment process to

policymakers, school administrators, educators, researchers, and evaluators. A recent study (Adedokun-Shittu and Shittu 2015) found that deployment of ICTs in higher education is more of cosmetics rather than an integral tool that enhances teaching and learning, strengthens curriculum and assessment, and improves learning output. This fact and many other challenges facing universities in developing countries affect the perceived impacts of ICTs in higher education, consequently failing to provide reasonable justification for continued investment in higher education. Thus, an important challenge facing higher education in developing countries that this chapter seeks to address is inadequate funds for ICT facilities. As such, it is concluded that reassuring government, Ministry of Education, NGOs, and international funding organizations through evidence-based justifications that learners are benefiting to an extent which is commensurate with the level of ICT provision and that investment on ICT in education is achieving a meaningful return is the way to bring about conviction to invest more on higher education ICTs. Thus, the model presented below will be used as a tool to present evidence-based justification to stakeholders on the need for continued investment.

The ICT impact assessment model (Adedokun-Shittu and Shittu 2013) is presented in a cyclic form to indicate the central strength all the elements in the model provide to ICT impact. Each of the elements has an individual and collective effect over the cause. Its cyclic representation depicts that to assess ICT impact on teaching and learning, the process can start from any of the four elements. The positive effects derived from deploying ICT facilities into teaching and learning could be assessed earlier, or the incentives provided in the form of training and mentoring and adequate facilities could follow. The level of usage and integration of ICT in the curriculum, assessment, and pedagogy could also be measured before looking at the barriers and challenges to the limitation in the level of integration. This process could be reversed to suit the situation or the researchers' discretion (Fig. 4.1).

The first element (positive effect) comprise benefits, students' response, and ICT compatibility/comfort in teaching and learning. The benefits including ease in teaching and learning, access to information and up-to-date resources, online interaction between staff and students, establishing contact with the outside world through exchange of academic work, and achieving more in less time are some of the contributions of ICT to teaching and learning. Among the students' response to the use of ICT identified by both students and lecturers are students' punctuality and regularity in class, attentiveness, and high level of ICT appreciation. The class is interactive and students enjoy it and prefer online assignment to offline. They use the Internet to search for resources and are often times ahead of the lecturer, they teach lecturer use of some software, and they contribute greatly in class. Students are pleased with the product of their learning with ICT, and lecturers' proficiency in ICT skills has aided their comfort level and their ability to adapt it to their teaching needs. Authors like Wright et al. (2007), King et al. (2007) have also found similar outcomes as positive effects of ICT in teaching and learning.

Challenges in this model include problems, constraints, and technical issues. Among the problems are plagiarism, absenteeism, and overreliance on ICT. Constrains identified are large students' population, inadequate facilities and limited

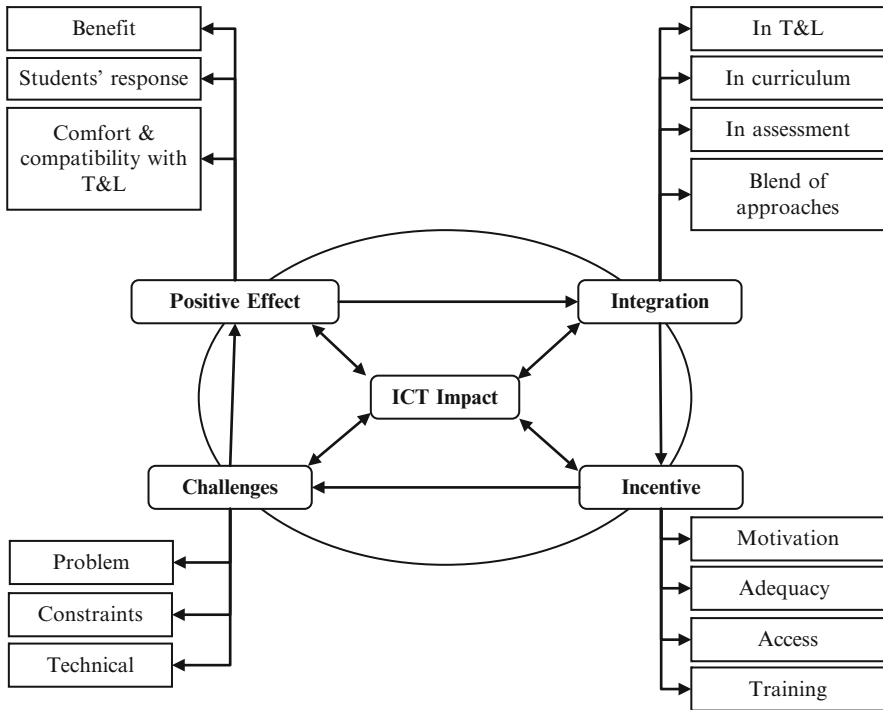


Fig. 4.1 ICT impact assessment model

access in terms of working hours, insufficient buildings for the conduct of computer-based exam, insufficient technical staff, no viable policy on ICT in place, and epileptic power supply. The technical issues revolve around hardware, software, and Internet services. Many authors such as Etter and Merhout (2007), McGill and Bax (2007), and Yusuf (2005) have discussed some of these issues as challenges of ICT in education settings.

The third component of this model is incentives and composes of four issues that include accessibility, adequacy, training, and motivation. King et al. (2007) in a related study also derived incentives as part of the four themes found in their study. Other researchers that have suggested these incentives as part of ICT integration issues are King et al. (2007), Madden et al. (2007), Yusuf (2005), Robinson (2007) and Selinger and Austin (2003). These incentives need to generate some impact to be felt in the area of integration into teaching and learning before the deployment of ICT facilities in higher education institutes could be deemed productive. Hence, the fourth part of this model is integration.

Some of the areas where integration is required are ICT integration in teaching and learning, ICT integration in curriculum, ICT-based assessment, and a blend of ICT-based teaching and learning methods with the traditional method. Robinson (2007) formulated the concept of reconceptualizing the role of technology in school to achieve student learning. He recommends coordinated curricula, performance

standards, and a variety of assessment tools as part of best practices in the school reform. This new model encompasses some of the suggestions given by some authors on the issue of technology integration in teaching and learning. Kozma (2003) in conjunction with the Second Information Technology in Education Study (SITES) in an international study conducted across 28 countries suggested 4 international criteria for selection of technology-based countries for the study. The criteria include significant changes in the roles of teachers and students, goals of the curriculum, assessment practices, educational infrastructure, substantial role or the added value of technology in pedagogical practice, positive students' outcomes and documented impact on learning, and finally sustainability and transferability of the practice to all educational levels in country.

All the elements in this model have sufficient backing from literature; Wagner (2005) in Wagner et al. (2005) in his conceptual framework for ICT refers to positive effect in this model as students' impact and ICT outcomes in terms of skills and proficiency. His intervention design in ICT use in the curriculum, pedagogy, and assessment is translated to integration in this model, while the infrastructure, training, and support all sum up to incentives in this model. Authors like Wright et al. (2007) and King et al. (2007) have also found similar outcomes as positive effects of ICT in teaching and learning. Wagner et al. (2005) categorized ICT outcomes as students' ICT skills, ICT attitudes, information skills, communication skills and lecturers' ICT, and teaching and pedagogical skills. These are explained as students and lecturers' proficiency in the positive effects element of this ICT impact assessment model. Another component of this model is incentives, and it comprises four issues that include accessibility, adequacy, training, and motivation. King et al. (2007) in a related study also derived incentives as part of the four themes found in their study. Wagner et al. (2005) in their conceptual framework for IT named equipment, software, and network as infrastructure, and they highlighted software use, equipment operation, and instructional integration as required training. They also emphasized the need for professional, administrative, and technical support for teachers and students which are all part of incentives in this model. It is implicit that these incentives need to generate some impact to be felt in the area of integration into teaching and learning before the deployment of ICT facilities could be deemed productive. Hence, the next part of this model is integration. Some of the areas where integration is required are ICT integration in teaching and learning, ICT integration in curriculum, ICT-based assessment, and a blend of ICT-based teaching and learning methods with the traditional method. Wagner et al. (2005) recommends that any plan for monitoring and evaluating ICT should elaborate on how ICT is integrated into the curriculum, the pedagogy, and assessment. Robinson (2007) also formulated the concept of reconceptualizing the role of technology in school to achieve student learning. He recommends coordinated curricula, performance standards, and a variety of assessment tools as part of best practices in the school reform.

Challenge(s) is a unique element in this model that is given less mention in many ICT impact assessment models. It was found that many problems, constraints, and technical issues inhibit ICT impact on education. Among the problems are

plagiarism, absenteeism, and overreliance on ICT. Constraints identified are large students' population, inadequate facilities, insufficient buildings for the conduct of computer-based exam, insufficient technical staff, no viable policy on ICT, and irregular power supply. The technical issues revolve around hardware, software, and Internet services. Authors such as Yusuf (2010) and Adedokun-Shittu and Shittu (2015) have discussed some of these issues as challenges of ICT in education settings.

No matter how perfect an implementation is, it will definitely have some loopholes that need to be observed to achieve optimal benefit. Likewise the essence of assessment or evaluation (formative or summative) is to examine if an implementation is achieving its desired goals. Thus, it is essential to foresee any immediate or future challenges to the successful implementation of the program. Specifically since this model is on ICT impact assessment and ICT is an ever-evolving subject, it is appropriate to from time to time assess the challenges, gap, and update needed to meet up with the developing nature of ICT required in the education system.

Kozma (2005) in Wagner et al. (2005) corroborates this by saying, "Impact research results are not static, but rather and especially in the fast-moving area of ICT must be seen as subject to change over time" (p. 17). A confirmation on this could be made through the concluding words of Wright et al. (2007) in a study assessing how blended model improves teachers' delivery of education curriculum. Concluding on the problems encountered by both teachers and students, they resolved through Murphy's Law dictum thus; "... 'Anything that can go wrong will!' certainly applies to technology.... These issues of access and connection speed continue to present challenges" (p. 59). University authority therefore should mitigate the effects of the challenges lecturers and students face with their ICT integration in teaching and learning and provide adequate incentives that will improve positive effects of ICT on their teaching and learning.

4.5 Conclusion

The ICT impact assessment model discussed in this chapter is conceived as a framework for researchers on impact assessment. Its four dynamic elements (positive effects, integration, incentives, and challenges) and its recurring nature make it suitable for any kind of assessment or evaluation (formative or summative). It is appropriate for assessing internal and external efficiency, pedagogical and institutional operation, performance, shortcomings, and needs. It is equally useful for defining measurable outcomes, focusing on the process and assessment, and making decisions based on facts. Ultimately, it is a defining assessment method and a viable tool for assessment and reevaluation of technology use and integration into teaching and learning.

4.6 Implication for Further Research

This chapter discusses some salient issues in the evaluation and management of ICT deployment in higher education which includes analyzing the positive effects of ICTs, valuing the incentives generated through ICTs, appraising the level of ICT integration, and addressing the challenges associated with ICTs in teaching and learning in higher education. This list is exhaustive when evaluating ICTs in teaching and learning is being addressed; thus, researchers should explore further areas that can be of immense benefit to education stakeholders. The stakeholders in higher education ICT deployment include university administrators, Ministry of Education, investors, lecturers, and students. Thus, this chapter informs them on how higher institutions can assess the return ICTs generate in teaching and learning through measurable outcomes and how to manage the resources invested on and the need for continued investment. Researchers can also glean some idea from the theoretical basis of the model adapted in the chapter that serves as a practical evaluation tool for assessing and managing the ICT deployment process.

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Chapter 5

Digital Technologies and Emerging Educational Objectives: The Need for Transformational Changes in Teacher Education and Training

Sani Alhaji Garba and Byabazaire Yusuf

Abstract The institutionalisation of information technology in human society has necessitated the emergence of new educational goals and objectives. This study identifies the emerging educational goal and objectives of the twenty-first century and examines the challenging role of higher education in the information age. This article introduces four models that can guide and fast-track the integration of new knowledge domains in the curriculum structure and the development of new instructional and pedagogical designs in higher education to facilitate the attainment of the educational goal and objectives of the twenty-first century. The article also introduces a structural model of providing the foundation needed for higher education in the twenty-first century in the present information and technology-driven world of globalisation. Based on existing studies, this article considers the role of teacher education as being critical in addressing the various challenges associated with the transformational changes needed for higher education in the twenty-first century.

5.1 Introduction

The world is currently witnessing remarkable development in Computer, Internet and Digital Communication Technologies (CIDCT). This development has over the years increased human interaction with the computer (Teo 2008), the Internet and other digital communication technologies (Garba 2014) in all aspects of human activities (Umar and Maswan 2007). The increasing use of these technologies

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(CIDCT) has made communication between individuals, groups, communities, organisations and institutions easier, faster and more convenient (Luppicini and Haghi 2013), thus no longer making distance and time a barrier to communication and interaction the world over (Onasanya et al. 2010). This development has facilitated the global flow and access to information at any point in time. The global integration and institutionalised use of the computer, the Internet and digital communication technology in human society has ushered in the ‘information age’, which is characterised by ‘globalisation’ and gradual transformation of the world into a global village (Roy 2009; Webster 1995).

With these developments, surviving the challenges of living in an emerging information age that is knowledge driven and technology oriented, every member of the global community needs to have information literacy (IL), the ability to search, access and use information as a base for knowledge construction, decision-making and problem-solving (ALA 1998; Bruce 1999; Corral 2008; Mutch 1997), and technological literacy (TL)—the basic knowledge and ability to use the computer, the Internet and other digital communication technologies in the search, access, use, processing and dissemination of information (Dakers 2006; Keller 2010). The two emerging educational needs (IL and TL) have increased the number of basic literacy domains from five to seven (i.e. reading ability and skills, writing ability and skills, numerical literacy and skills, basic science literacy and skills, language and communication skills, information literacy and skills and technological literacy and skills). This has necessitated a redefinition of the ‘basic literacy’ concept in the information age of the twenty-first century.

Blending the seven literacy domains in redefining the basic literacy concept has led to the emergence of ‘ICT literacy skills and competence’ as a concept that defines the new standard for basic literacy in the twenty-first century. Basic literacy in the present information age is therefore not restricted to reading, writing, numeracy, science and language development (ACL 2000). The five are blended with information and technology literacy to represent ICT literacy skills and competence—the ability to read and write, use numbers and appreciate scientific knowledge, use technology and information and use of language in communication. Knowledge of information and technological skills have now become additional knowledge domains of basic education. The education industry is now faced with a new challenge (Cisco 2008), which is to help learners acquire (at the school level) the basic knowledge and skills of using technology and information in addition to reading, writing, numeracy, science and language use (Moore 2002) as the basic foundation for higher education in the twenty-first century (Pont 2001) and, consequently, introduce new (twenty-first century) educational goals and objectives at all levels of learning.

This development has far-reaching implications in educational practices at all levels of learning. It implies the need for adjustment in the curriculum structure, instructional designs, learning objectives, pedagogical approaches and methods of assessment and evaluation of learning outcome, if educational practices are to be redirected towards achieving the educational goals and their emerging objectives in the twenty-first century.

5.2 Integrating the Twenty-First-Century Educational Goals and Objectives in Higher Education

Preparing learners towards becoming ‘global citizens’ who can properly fit into the globalised world of the information age, which is technology and knowledge driven, is the overall goal of education in the twenty-first century (UNESCO 2014). Although global citizenship is a multidimensional concept that is accorded a different interpretation and meaning by scholars (Lane et al. 2013), the conception of the term global citizen within the context of this work is the alignment of technology and information literacy as the foundational bases of acquiring global knowledge and gaining an understanding of the world as a single community. Therefore, preparing learners towards becoming global citizens refers to the process of building information and technological competencies alongside professional development among learners for active participation in addressing global issues while contributing to global peace and development in their professional capabilities. Hence, the curriculum structure and educational activities in higher education need to be redirected towards the achievement of this goal (Murray and Perez 2014). Learners seeking higher education should possess the basic foundation upon which the desired twenty-first-century goal-oriented higher education can be built and developed. Consequently, basic education has to be properly structured to provide the foundation needed to achieve the twenty-first-century educational goal in higher education.

5.2.1 *Building the Desired Foundation for Twenty-First-Century Higher Education*

To provide the foundation needed for twenty-first-century higher education, basic education (primary and secondary education) has to be directed towards providing functional literacy (permanent ICT literacy skills). The curriculum structure and learning activities at this level of education should be directed towards developing the ability of learners to read, write, use numbers (numeracy), appreciate science, speak (language and communication), use the computer and the Internet and use of information (Braslavsky 2001). The model in Fig. 5.1 shows the desired structure of basic education in the twenty-first century as a foundation for twenty-first-century higher education in the information age.

Basic education, as shown in the model, is to provide learners with functional ICT literacy (Panel 2007) as a foundation for higher education. The subject to be taught should reflect the development of the four knowledge domains in achieving the seven educational objectives listed in the model (structure). To achieve the listed objectives, computer and information science need to be introduced as new subjects in the school curriculum (for technology and information literacy domains) in

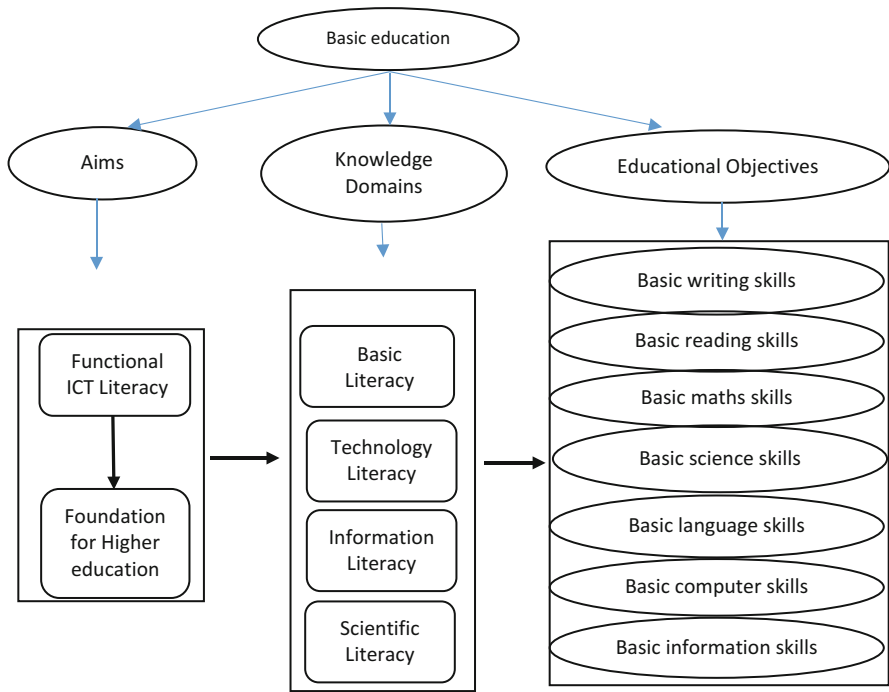


Fig. 5.1 Twenty-first-century structure of basic education

addition to the existing conventional subjects. This is done in most countries (and incorporated into the basic education policy). However, the level of implementation and the success stories differ among nations (Boyer and Moore 2014). In most of the third world nations of Africa and Asia, a large number of students are completing their basic education without acquiring the desired functional information and technological literacy (Garba 2014; Yusuf 2005). This is because schoolteachers lack the ICT literacy skills and competence needed for teaching the newly introduced computer and information literacy-related subjects (Yusuf 2005), particularly the rural and suburban areas where access to the ICT infrastructure is a major issue. This situation is responsible for the existing wide gap in ICT literacy skills and competence among the members of the global community. Not even 30 % of the total world population of approximately seven (7) billion people have the desired ICT literacy skills and competence (Rao 2009). Achieving the identified objectives of basic education provides the foundational base needed for twenty-first-century higher education. The structure of higher education should therefore build on the foundation provided in basic education programmes for the development of twenty-first-century skills among learners as a necessary requirement of becoming global citizens of the information age.

5.2.2 Building the Twenty-First-Century Higher Education Structure

The goal of higher education in the twenty-first century centres on the professional development of learners in their respective areas of specialisation and the development of twenty-first-century skills, as indicated in Fig. 5.2.

The model presents two major aims and six objectives in twenty-first-century higher education. Therefore, educational activities in institutions of higher learning should be directed towards the development of a sound knowledge and deeper understanding of the relevant concept, principles and theories of knowledge in areas of choice for specialisation among learners; sound knowledge of information and communication technology (ICT), its application in professional practices and personal living; skills of inquiry, independent and lifelong learning; problem-solving and decision-making skills; and ability to collaborate and work in a team. Achieving these emerging twenty-first-century learning objectives in higher education requires

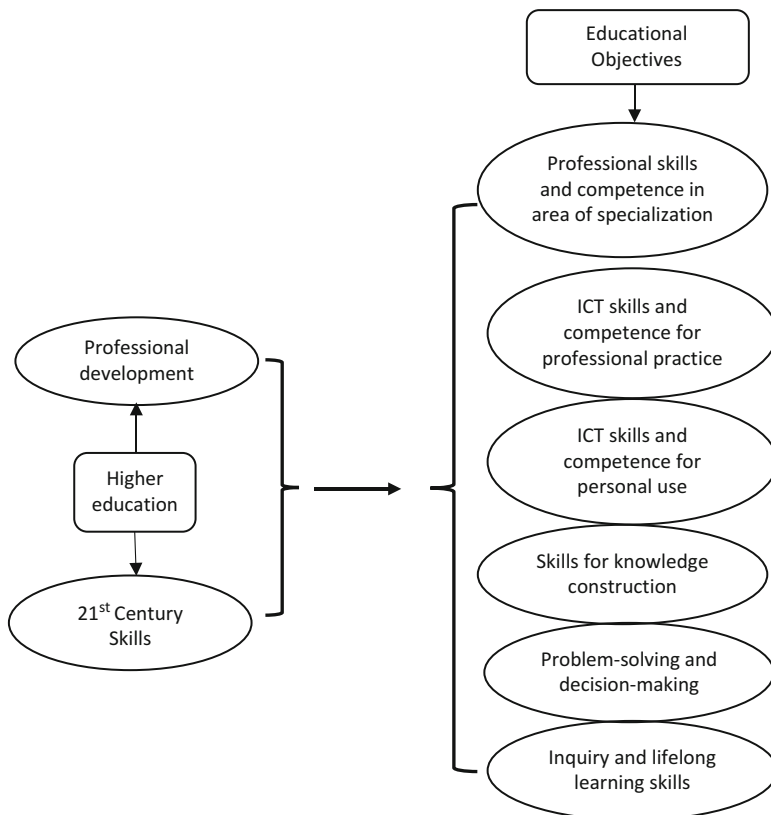


Fig. 5.2 The basic structure of twenty-first-century higher education

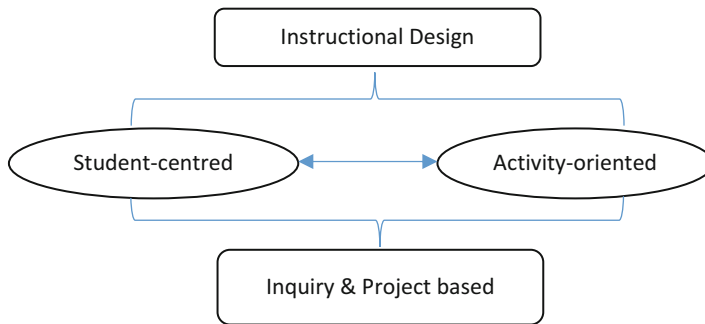


Fig. 5.3 Pattern of instructional design for twenty-first-century higher education

a full integration of ICT in the teaching-learning process, while the teaching-learning process has to be student centred and activity and inquiry oriented directed towards knowledge construction and problem-solving. Figure 5.3 shows the desired pattern of instructional design for teaching and learning in twenty-first-century higher education.

The diagram in Fig. 5.3 shows a changing pattern of instruction for higher education. Learning instruction has to be student centred. In such a learning environment, the role of the instructor (lecturer) or faculty member has to change from that of a knowledge provider (and a source of information for learning content) to that of a mentor and facilitator. Thus, instead of providing information and transmitting content knowledge, the faculty member facilitates and guides learners towards the exploration of information for subject content knowledge. In addition, the role of learners would have to change from that of passive listeners to that of active engagement in exploring information and building knowledge. This approach to instructional design makes teaching and learning more interactive, project based and inquiry oriented. The use of information technology in this approach is necessary in facilitating the role of the learner and faculty member. Figure 5.4 provides a general guide to how pedagogical approaches can be blended with technology to facilitate teaching and learning in the instructional design described in Fig. 5.3.

Information and learning content, technology and the GPM learning interaction are at the core centre of the pedagogical approach. Both learners and course instructors have to engage the use of relevant digital technological gadgets in the exploration of information and learning materials in line with the course curriculum structure. Web 2.0 accessed through the Internet becomes the major source of information for learning materials in the use of this approach. Thus, instead of the instructor providing the information and learning materials, learners are mentored and urged to use technology and Internet resources to explore information that would help them in understanding the course content. The course instructor has to employ the use of blended pedagogy (integrating more than one teaching method and technique in a single instruction) in creating a desired classroom-learning environment for inquiry-based learning activities.

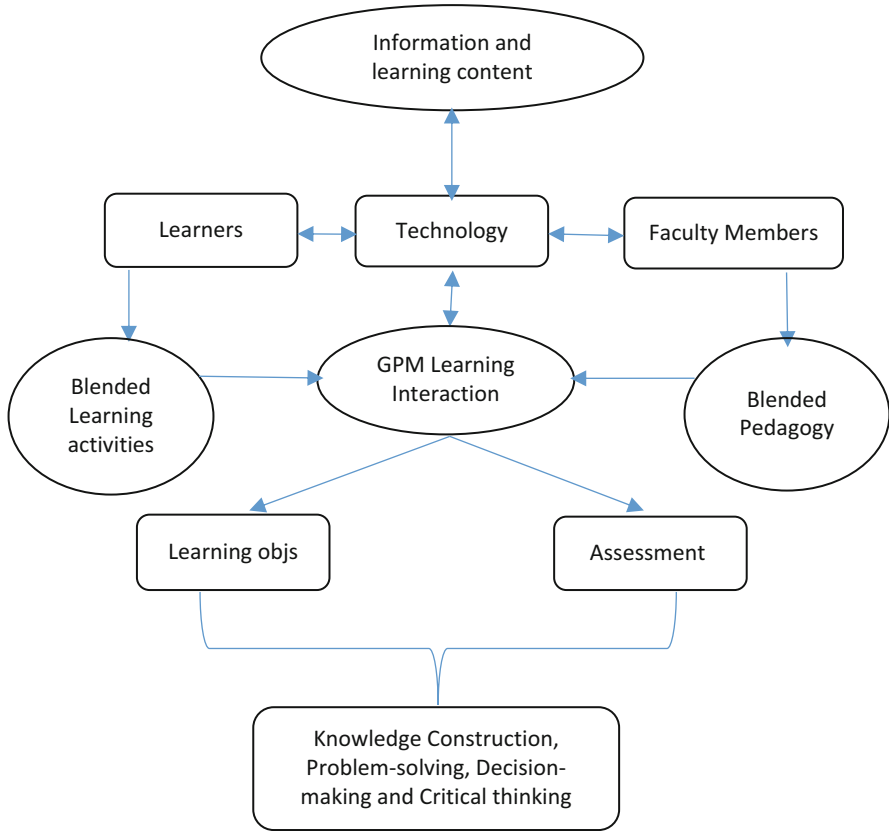


Fig. 5.4 Pedagogical approach to instruction for twenty-first-century higher education

The teaching-learning interaction can be structured into the giving, prompting and making stages (Hammond and Manfra 2009). The instruction may start with ‘giving’, in which instructors can integrate the use of the lecture method with a demonstration to introduce issues, situations and phenomenon to be investigated or the project to be undertaken in the course. By blending a number of pedagogical designs with a questioning approach, the course instructor could establish the need for inquiry and then prompt and motivate the learners into the (web) inquiry process at the second stage. The learning activities at this stage are centred on the learners’ involvement in the exploration of information using the computer and the Internet in establishing a deeper understanding of the issues, phenomenon, situation and project introduced to the class at the ‘giving’ stage. At the last stage, ‘making’, learners are to be engaged in the study of the information and materials gathered at the intermediate stage to build and construe knowledge. Learners are to apply the knowledge they have construed in:

- (a) Building a deeper meaning and understanding of the facts, concepts, theories, principles and procedures relating to issues under their investigation
- (b) Providing a proper explanation to situations and phenomena relating to the issues they are investigating
- (c) Solving problems raised or introduced at the giving stage or identified in the study process
- (d) Taking suitable decisions regarding the project they are working on individually and in groups

An assessment of the learning outcome in this approach has to shift from the conventional cognitive evaluation of content learning (through paper-pencil exams) to a more comprehensive evaluation system that can assess the acquisition and development of twenty-first-century skills.

In the three-stage GPM learning process, both the course instructor (using blended pedagogy and technology) and the learners (using blended learning activities and technology) are actively involved in the teaching-learning process that is activity oriented and inquiry based (Hammond and Manfra 2009). The course instructor works in the process as a mentor and a facilitator, while the learners' activities are centred on the exploration of information and the study of learning materials to build and construe knowledge for problem-solving and decision-making. The process promotes independent and lifelong learning skills; inquiry and problem-solving skills; collaboration, teamwork, leadership and decision-making skills; and the improvement of information and technological skills among learners, thus potentially facilitating the attainment of the twenty-first-century educational objectives identified in Fig. 5.2.

5.2.3 *The Challenges*

A number of peculiar issues that vary from institution to institution and from country to country have made the attainment of twenty-first-century educational goals and objectives a challenge to many institutions of higher learning. Such challenging issues include:

- (a) Lack of proper understanding of the changing trends in educational goals and objectives by policymakers, administrators and some of the academics
- (b) Unwillingness of some academics to effectively integrate ICT in their pedagogical practices due to either item 1 (a) above, 3 (c) or 4 (d) below or even both
- (c) Lack of sound knowledge, skills and competence in the use and application of ICT in educational practices on the side of both academics and administration staff in some of the institutions of higher education
- (d) Poor ICT infrastructure and Internet connectivity
- (e) Lack of a universally accepted theoretical, conceptual frameworks and models for ICT integration in educational practices
- (f) Lack of a universally accepted framework for the development of a twenty-first-century curriculum structure that can accommodate the emerging twenty-first-

century educational objectives and instructional designs and pedagogical approaches at both the subject discipline level and institutional level

The above issues are not universally applicable to all the institutions of higher learning. Some are at the stage of understanding the emerging twenty-first-century educational goals and objectives and trying to establish the need for its integration. Others are at the stage of making provision for ICT infrastructure and Internet connectivity, professional development of academic and nonacademic staff towards ICT skills and competence and encouraging the integration of ICT in administration, teaching and learning (and the shift towards the use of student-centred pedagogy). Few institutions are at the stage of exploring (researching) how best the emerging twenty-first-century educational goals and objectives can be integrated into the curriculum structure and assessment system in terms of the subject disciplines and institutional level; the development of new instructional designs can facilitate the integration of technology and development of twenty-first century skills. The current developments in higher education in relation to the issues listed above suggest five possible transformational stages in building a twenty-first-century learning environment for higher education that includes the following in hierarchical order:

- (a) Identifying and understanding the changing role of higher education and emerging educational objectives relevant to the present information age for twenty-first-century learners
- (b) Providing an ICT infrastructure and access to the Internet and modern digital technological gadgets for teaching and learning
- (c) Providing intensive training of academics on ICT skills and their applications in teaching and learning
- (d) Ensuring effective integration of relevant technology as they emerge in the teaching-learning process by:
 1. Restructuring the existing curriculum framework to accommodate new domains (information and technological knowledge and skills) as they relate to the respective subject disciplines in higher education
 2. Creating new instructional designs and models that can facilitate the integration of modern technology in the teaching-learning process for the respective subject disciplines
 3. Creating new pedagogical designs that promote the use of relevant technologies in inquiry- and project-based learning
 4. Redesigning the existing learning outcomes to reflect knowledge construction, problem-solving and decision-making (thus, accommodating the emerging twenty-first-century learning objectives)
 5. Redesigning the method and system of evaluating the learning outcome to reflect the assessment of inquiry skills, knowledge construction, problem-solving skills, decision-making skills, independent learning skills, lifelong learning skills and higher-order thinking skills (accommodating the twenty-first-century skills for surviving the challenge of living in the present information age)

6. Utilising the potential of cloud-computing technology and MOOCs as complementing resources in teaching, learning and assessment
- (e) Establishing and institutionalising the twenty-first-century learning environment
 - (f) Establishing and consolidating good practices suitable for teaching and learning in the twenty-first-century learning environment for twenty-first-century learners in higher education

Considering the issues identified earlier and the transformational stages involved in building a twenty-first-century learning environment for higher education, the role of academics is critical (Garba et al. 2013). To a large extent, the success or otherwise of building and sustaining a twenty-first-century learning environment is dependent on educators—academic staff (and teachers at the school level). Going through the stages of transformational development for building the desired twenty-first-century higher education structure requires the services of academic staff (and teachers at the school level) with sound knowledge, skills and training in handling the challenges of teaching and learning in the twenty-first-century learning environment. Thus, is teacher education and training directed towards producing the desired twenty-first-century academics?

5.3 Coping with the Challenges Ahead: The Role of Teacher Education and Training

Teacher education and training is expected to produce a new breed of academics (educators, teachers and faculty members) for twenty-first-century teaching and learning at all levels of education (Oakley 2008). Such a desired new breed of academics (at all levels) should be able to blend pedagogy with technology in redirecting the process of teaching and learning subject content (Webb et al. 2011) concerning the development of twenty-first-century skills among learners. This has been the major challenge of teacher education and the training industry in the information age (NIES 2009), a challenge that is well recognised and appreciated by teacher educators the world over (Teo 2008). Addressing this challenge is critical and education must be directed at all levels towards achieving the emerging educational goals and objectives of education and in the development of twenty-first-century skills among learners. Over the years, this concern has encouraged a series of research studies that focus on how teacher education and training can best be transformed. Some of the research findings have reported the need for ICT to be integrated in teacher education and teacher training (Jung 2005) and for teacher educators to model the use of the relevant digital technology in their professional practices (Parker 1997). This has prompted the government of many countries to make various efforts in providing the needed ICT infrastructure in public teacher training institutions. Yet, even with the facilities provided, teacher educators in most institutions hardly use technology in their teaching, and graduate teachers hardly acquire the competency needed for ICT integration in teaching and learning either

as teachers or as faculty members (Garba 2014). This development has shifted the concern of stakeholders to 'how ICT can be integrated in teacher education and training' and how teacher educators can be encouraged to model the use of technology for twenty-first-century teaching and learning.

With more research findings being reported, it is becoming clearer that providing ICT facilities and its simple usage (mostly power point presentation) in teaching within the context of teacher education and training is not enough to produce the desired academics for twenty-first-century education. Perhaps, for ICT to be deeply rooted in teacher education and training, the curriculum structure, pedagogical approach, learning outcome and objectives of teacher education need to be restructured to reflect the twenty-first-century educational objectives. Thus, the framework to guide the transformation of teacher education becomes the issue of concern. However, recently, the work of Mishra and Koehler in, 2006 and 2009 provides a major breakthrough. Their work provides a framework that can guide the meaningful transformation of teacher education and training for twenty-first-century teacher education. The framework introduces 'knowledge of technology' as a core curriculum component in teacher education, consequently adding four new knowledge domains to the existing three domains established in the framework of Shulman (1986) to create seven TPACK domains of teacher education (Koehler and Mishra, 2009). Most researchers and education practitioners consider the framework as providing the general framework needed in restructuring teacher education curriculum. The popularity of the framework has motivated a series of further studies investigating and examining the framework from different dimensions. Some of the studies investigated:

1. How knowledge of some of the domains can be assessed and evaluated and have identified validated instruments that can be used in measuring some of the domains (Archambault and Crippen 2009; Schmidt et al. 2010)
2. How knowledge of the domains can help faculty members and schoolteachers integrate technology in their teaching
3. The effect of some of the domains on preservice teachers in specific subject areas (Landra 2010)
4. The effect of the framework on the instructional designs for specific subject disciplines and some specific pedagogical approaches (Chai et al. 2010)

Despite the volume of existing studies on TPACK theory and framework, currently, there is no report of any teacher training institution or faculty of education that has fully integrated the framework in its curriculum structure, instructional designs and pedagogical practices. Thus, the research findings on how best the framework can be integrated in its full form into the existing teacher education and training curriculum structure are limited. Therefore, much work is needed in exploring the integration of the seven knowledge domains in the existing curriculum structure of each subject discipline within the context of teacher education and training. Further studies would also be needed in examining the application of the knowledge domains in lesson planning, classroom instructional designs and pedagogical approaches for the development of twenty-first-century skills among learners and the attainment of twenty-first-century educational objectives.

5.4 Conclusion

Digital technology has caused the emergence of new educational objectives for twenty-first-century teaching and learning. Although some higher educational institutions in many countries have responded, or are in the midst of preparing a strategy to deal with this new phenomenon, it is clear that transformational changes in teacher education and training should be at the core of the planning strategy. For teacher education and training institutions to live up to their expectations in producing the desired academics capable of providing the training needed in building the desired foundation for twenty-first-century higher education at the basic level, a comprehensive strategic plan for the full integration of the TPACK framework into their curriculum structure, instructional design and pedagogical approach is needed. Further efforts will have to be undertaken in this direction, as new findings and knowledge emerge based on future innovative studies. With learners having a proper foundation built at their basic educational level and a new structure initiated based on the models provided in Figs. 5.2, 5.3 and 5.4, the transformation of higher education for the attainment of twenty-first-century higher education may be a logical conclusion.

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Chapter 6

The Transforming Nature of Teaching and Learning in Higher Education: A University of the South Pacific Experience

Akhila Nand Sharma and Irene Yee Chief

Abstract Consistent with the global trend, the Pacific Island countries (PICs) are attempting to shift the focus of instruction from teaching to learning. As a key player in educational technology, the University of the South Pacific (USP) provides blended and online learning to students in PICs. However, owing to the scattered nature of PICs, financial constraints and underdeveloped infrastructure, communication has always been difficult. Educational technology, nevertheless, has the capacity to interweave across these limitations, enabling students to study from where they are and collaborate and cooperate with their colleagues, educators and researchers across the USP region and beyond.

This paper discusses USP's educational technology initiatives that promote the focus of instruction from teaching to learning in teacher education. This emphasis is necessary owing to the rapid changing scene in the nature of higher education as well as basic, primary and secondary education. Further, education now is seen increasingly as infusing graduates with competencies and skills like creativity, innovation and adaptability (Adams and Hamm 2012). This paper argues that change is a permanent feature of learning and teaching and the use of educational technology stimulates ongoing pedagogical changes and sustains constructively aligned classroom practices.

Keywords Constructive alignment • Online learning • Blended learning • Web 2.0 • Teacher education • Pacific Island countries • Multiculturalism • Collaborative learning

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6.1 Introduction

The University of the South Pacific (USP) is the prime provider of tertiary education in the Pacific region and an international centre of excellence for teaching and learning, research and consultancy for over 40 years. A major preoccupation has been to prepare teachers for the schools in the USP region. It serves the diverse needs of its 12 countries: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu which are spread over 30 million km² of the Pacific Ocean. The population of these countries range from about 1000 in Tokelau, the smallest, to over 800,000 in Fiji (Population Census 2007). USP has 14 campuses, the main one is located in Suva, Fiji. Of its nearly 20,000 students, more than half choose to study via ‘distance’ (USP Handbook and Calendar 2014, p. 28).

While the socioeconomic and political environments in these countries vary considerably, they share similar development challenges such as poverty, unstable governance, environmental degradation, gender inequality and brain drain (Evans and Hazelman 2006) as well as issues and problems associated with climate change and sea-level rising.

Furthermore, these countries are diverse in their languages, cultures, traditions, religions and in the level of their education, development and the quality and the quantity of their teachers. The infrastructure, especially electricity and telecommunications provisions, is intermittent in many of these countries, and thus, providing ‘distance education’ effectively is a challenging endeavour. Print-based learning has served the region well for a number of years. Therefore, USP considers distance and flexible learning (DFL) as the ‘water in the sand’ permeating the educational needs of the Pacific Island countries and building pathways to achieving the Education For All (EFA) and Millennium Goals and addressing the challenges initiated by climate change.

It is underscored that the learning strategies and tools such as site-based video conferencing and the use of the Internet are equally relevant in the traditional classroom or on-campus teaching and learning. These enable the students and teachers to develop competencies such as collaborative learning, critical thinking, decision-making, handling dynamic situations, working in teams, communicating effectively and transforming organizations into learning communities. Adding value to learning using blended and online approaches extends the horizon of learning from the school to community and from teachers to multidisciplinary teams of educators working together in the learning process (UNESCO 2002; Pelgrun and Law 2003; Heredero 2006). The establishment of community ‘Internet hubs’ in semiurban and rural areas in Fiji has improved the accessibility of USP’s flexible learning programmes and courses.

While education is a key to development, infusing pedagogy with Web 2.0 tools is the ‘master key’ that can provide a powerful backing to Education For All (EFA) for ongoing learning especially for teachers who are responsible for facilitating education in their respective schools and communities. It is, therefore, important to reorientate print-based learning to blended and online learning, especially in teacher education, to support sustainable learning focusing on learning to learn habits.

6.2 USP: The Education Technology Leader in the South Pacific

Information and communication technologies have been integral to the USP's teaching through distance education since its early years. From six courses in 1971, courses have grown steadily to programmes offered online. The present enrolment total of 28,375 (R. Chandra, University Communication, December 18, 2014) includes untrained and undertrained teachers because some of the Pacific Island countries (PICs), such as Tuvalu and Nauru, do not have their own teacher training institutions. Several courses and programmes such as Postgraduate Certificate in Tertiary Teaching and most of the Bachelor of Education courses for early childhood, primary and secondary school teachers are online. Print mode, especially in teacher education courses, is still important and used widely because technology access in many parts of the region is unavailable or is of low quality owing to limited bandwidth and expensive international telecommunications. The University has successfully strengthened its outreach infrastructure across the ocean through Japan International Cooperation Agency (JICA) aid programmes. In 2006, the University converted USPNet into an Internet Protocol (IP)-based system, so that all communications and data exchange would use a common standard platform based around Internet technologies. Until that time, the University maintained a variety of different analogue and digital technologies in a patchwork network (Whelan and Bhartu 2007). This consolidation moved from phases of experiments to implementation of online learning at the institutional level. Each USP campus now has teleconferencing facilities, computers and Internet access. Furthermore, some early childhood, primary and secondary schools and students are purchasing their own computers and mobile devices such as laptops, tablets and smartphones to access USP courses. Students surveyed showed that 64 % owned computers or laptops. Other students use computer lab facilities across the USP campuses (Kala 2013).

In brief, through its flexible initiatives, USP attempts to provide access to unique, satisfying and stimulating learning experiences to students and teachers away from the traditional classroom setting. Students and teachers also have the opportunity to use Web 2.0 tools that include blogs and the e-portfolios for learners to provide evidence of their learning. Schon (1987) emphasizes that 'reflection-in-action' has a critical function, questioning the assumptional structure of knowing-in-action. It allows the final year learners to also reflect in action and reflect on action as part of the learning community (Henderson and Gornik 2007; Schon 1987; Biggs and Tang 2011).

The Centre for Flexible Learning at USP provides students with many more choices over and above the traditional face-to-face teaching, and our teacher education programmes take advantage of this. Thus, the rationale behind our ICT-driven open education has the potential to enrich the traditional classroom learning especially by extending the boundaries of learning to the community. As our students including student-teachers are learning within the communities of our 14 regional campuses, they obtain contextual environment that empowers them to examine and critique

their communities, practices and institutions (Gonzalez et al. 2005). Similarly, Armstrong (2004) goes on to add that ‘praxis, therefore, never occurs within a vacuum, and are always historical, political and economic constraints to be taken into account insofar as praxis both shapes and is shaped by those constraints’ (p. 16). Furthermore, the provision of space for sharing reflection in discussion forum intertwines the contextual knowledge with content to give voice to learners or students. It also emphasizes that the information the students obtain is from multiple perspectives and hence is prepared to work in different contexts. The inclusion of technology in our courses and programmes enables our graduates to adapt and adjust to the changing situations and challenges.

Since 2010 students admitted to degree programmes at USP are required to take four university generic courses, and these include UU100 Communications and Information Literacy, UU114 English for Academic Purposes, UU200 Ethics and Governance and UU204 Pacific Worlds. Therefore, all students, including student-teachers, are provided the opportunity to acquire technology skills to navigate courses in the learning management system Moodle. This is done to stress that digital literacy skills are essential for learners to study our courses employing different modes of learning and teaching successfully (Chief et al. 2014).

In particular, the learning experiences in the teacher education programmes at USP are based on the constructively aligned pedagogy that ensures student-centred models in which students collaborate in teams and take responsibilities for their own learning and in their own place of residence employing Web 2.0 tools. In a survey of three universities in Fiji, Kala (2013) found that 64 % of students owned computers or laptops. These figures may not reflect the other PICs but there is an increase in having access to computers or mobile devices.

6.3 ICT in Secondary Education in Pacific Island Countries

The University of the South Pacific prepares ICT teachers for the secondary schools in PICs. As already mentioned, it is compulsory for students to take ED100 Communications and Information Literacy. Therefore, it is important to look briefly at the ICT education in secondary schools in PICs. Two major pieces of work on ICT in secondary education in PICs (Williams et al. 2004; ICT Capacity Building at USP Project 2005) stress the significance of ICT in the socioeconomic development of the island nations. Furthermore, these studies emphasize the need for relevant educational policy changes to accommodate ICT education in schools and teacher education curricula. Policy initiatives and the ‘political will’ would enable students at various levels of the school system to attain technology skills and expertise to improve their performance in activities such as communication, health, education and social and economic activities by employing affordable digital network infrastructure. Genuine commitment on the part of the policy-makers and educational leaders is necessary to prepare policy-users including principals, teachers, students and parents. These studies also revealed that the ‘readiness’ of the stakeholders, especially teachers and principals, is one of the major constraints in the successful

development and implementation of ICT education in schools and their communities. The use of technology has now captured most of the commercial and educational sectors, and therefore, school leavers must have digital literacy for employability, worthwhile living and sustainable development. The Government of Fiji has taken a determined effort and established several Internet community centres in semiurban and rural locations to provide these opportunities. This Government initiative provides additional value to our teacher education as well as all other USP courses for that matter, by providing greater online access. It was pleasing to note during the school practicum visit that one of our student-teachers used online digital facilities in her lessons at Year 1 level in a semiurban primary school. We were also told that many parents visit the school in the evenings to use Internet facilities at the school. It is likely, therefore, that collaborative learning among the teachers, parents and students will increase.

Another major problem that constrains the successful implementation of ICT in secondary schools in PICs, according to the abovementioned studies, is the shortage of appropriately qualified teachers. The compulsory retirement of teachers at age 55 in Fiji (Coutts and Koroi 2012) has also affected the use of technology in our schools. Therefore, many students were not able to take advantage of the pedagogical strengths of technology with the frequent changes of teachers in schools. The other teacher education institutions in PICs should also include ICT in their education programmes, and the authorities concerned should make provision for in-service and ongoing professional development programmes as new ideas and tools enter the school system. In Fiji, it was planned that by 2013, there would be no shortages of teachers as the three universities were able to provide the necessary teachers (Swami 2013). Sustaining and maintaining teachers so that there is continuity has impacted the implementation of staff development programmes in using technology in schools.

This viewpoint finds support in the following comments of Pelgrum and Law (2003, p. 58): 'The prime focus of staff development in many countries has moved to the training of all school teachers so that they can make use of computers in their day-to-day teaching activities, and the necessary staff development programmes for principals and technology coordinators to lead and support ICT implementation across the curriculum'. The lack of career pathways for secondary school teachers did not incentivize teachers who are interested in using technology (Bakalevu 2005). According to Williams et al. (2004) and Khan (2005), teachers teaching computer science felt that they were not given adequate remuneration and they treated their appointment as temporary. They also felt that they were insecure as grant-in-aid teachers and could be displaced. There is, therefore, not sufficient reward system in the school systems in the PICs to persuade teachers with ICT qualification to remain at schools. According to Becta (cited in Pelgrum and Law 2003), this 'drain' of trained ICT teachers to more highly paid IT-related jobs is not uncommon worldwide. Many PICs have identified similar constraints in the development, implementation and sustainability of ICT education in their schools. The regional workshop (2005) established that many countries of PICs (such as Nauru, Kiribati and the Republic of the Marshall Islands) have yet to develop ICT curriculum for their schools. However, some countries such as Niue, Fiji and Cook Islands have

attempted to integrate technology in their curriculum. For example, Niue has ICT learning centres and the Solomon Islands the ‘People First Net and Youth First’ computer centres. Samoa intends to develop ICT centres in its schools and Fiji now has community telecentres. To date, there are 26 such sites in Fiji. Since March 26, 2012, 111,307 Fijians have used the centres for accessing ICT service. In addition to the usual benefits of the telecentre programme, the Government ensures free access to ICT services to schools and communities, especially those that do not have means to access services owing to socioeconomic or geographical challenges. It reinforces that affordability to service and devices is no longer a barrier and teachers and students can use these during classes. In the annual report of the Ministry of Education, National Heritage, Culture and Arts for Fiji (2013), one of the key pillars is making Fiji a knowledge-based society. To a large extent, the telecentres extended the accessibility of the USP’s teacher education, professional development and postgraduate programmes. To provide updated information on the key events in relation to education and ICT in PICs, the Institute of Education (IOE) of the University of the South Pacific operates a network for Pacific Educators. Through this network, IOE is able to assist member countries in developing their ICT curriculum and ICT-related professional development for teachers (Johansson-Fua 2005).

Briefly, then, most PICs have taken initiatives in developing ICT in their secondary school curricula. According to Johansson-Fua (2005), however, the initiatives are hindered by the current supporting infrastructure. Infrastructural issues were further reinforced during the implementation of Moodle (Whelan and Bhartu 2007). Finally, equality and accessibility to ICT still remain a challenge in PICs.

6.4 Technology in Teacher Education

The teacher education programmes of USP support the view that learning is a lifelong process where students must acquire constructive and inquiry-based skills as their living process unfolds. In the learner-centred approach, the learners become architects of their learning process with the professional guidance from teachers/lecturers. In this learning mode, technology applications become vital and more user oriented. Technology makes the physical environment more suitable for learning individually and collaboratively. Moreover, learning becomes more flexible in terms of ‘time’ and ‘space’. The UNESCO ICT Competency Framework for Teachers (2011) provides three approaches to examine technology in teacher education: technology literacy, knowledge deepening and knowledge creation.

The use of ICT pedagogy in our traditional classroom involves a paradigm shift on the part of teachers. Moreover, the curriculum is now developed to accommodate appropriate digital language and new technologies that the teachers need to be familiar with. This shift is one of the flatteners of traditional teacher-directed teaching and learning in higher education at USP. The use of a learning management system, in this case Moodle, across the university enabled all the courses to have a virtual presence (Hogan 2005). According to Rao (personal communication, December 12,

2014), the Learning Systems Team of the Centre for Flexible Learning at USP has provided training to practising teachers designated by the Fiji Ministry of Education, National Heritage, Culture and Arts on the use of Moodle.

Flexible learning at USP enables learners to select their mode of delivery, that is, traditional face to face, blended and online. New pedagogies in the classroom provide direct and indirect ways of empowering students and the student-teachers to learn and use ICT in their day-to-day activities. The use of technology at the classroom level is capacity and confidence building in the use of technology for both lecturers and students. For example, teachers in their final teaching in ED300 Practicum are expected to submit their lesson plans, samples of their teaching aids (artefacts) in photos or video and reflection notes in an e-portfolio for grading. The creation of the e-portfolio provides opportunities for active learning in using technology, and this enables learners to communicate with one another in discussion boards and reflection in blogs. These learning opportunities engage learners in their classrooms and at the same time are evidence based of their teaching and learning. In our teacher education programmes, we believe that these are knowledge-deepening ways of preparing teachers to use technology in their classrooms. These experiences can initiate teachers to provide conducive environments for learners to explore, research and engage in knowledge creation (UNESCO 2011; Butcher 2013).

As a key element in curriculum implementation and innovation, teachers play a crucial role in adopting and/or adapting and integrating ICT in education in their classrooms. New competencies are required for integrating ICT into the learning process. These include handling hardware and software, designing curriculum, coaching, monitoring, developing digital materials, developing a vision of ICT in education and cooperating with colleagues (Pelgrun and Law 2003). The USP's teacher education programmes are attempting to address the following needs.

First is the readiness of the stakeholders. It is also important to stress that all the lecturers in USP's School of Education (SOE) should be prepared first so that they could integrate ICT in all teacher education courses. In the present strategic plan of 2013–2018 (USP 2013), one of the key objectives is to 'transform USP's pedagogy and curriculum'. This involves Initiative 1.1 'accelerating staff development for effective application of new pedagogies and technologies' and Initiative 1.4 'undertaking a large scale conversion of USP courses for flexible delivery' (p. 23). The School of Education has taken initiatives in this direction and offers online courses in the Postgraduate Certificate in Tertiary Teaching programme. The programme is available only to lecturers of the various tertiary institutions in the PICs. The courses are designed to provide practical teaching methods for online and blended learning and provide lecturers first-hand experience in working online as students. The course is practical and provides training and practice in how to setup, teach and facilitate online and blended courses. The role of the lecturer is that of a facilitator rather than an instructor. In other words, the lecturer helps the students to create an environment that stimulates their own active or deep learning versus surface learning. As teachers are based in the PICs, they bring and share their contextual teaching and learning experiences and expertise to online class discussions. The other aspects of technology such as collaborating in groups, chats and discussion boards are also employed

where students engage with and learn from one another. Learners' voices provide the facilitators with their expression of learning.

6.5 Teacher Education Through Blended and Online Mode

The University of the South Pacific also offers its teacher education programmes through blended and online modes. These are popular approaches because in-service teachers are able to study while they are serving in their schools. Preservice teachers also take education courses via the Internet because many are not financially able to come on the main campus in Fiji. The effective use of ICT is, therefore, essential. USP is continuously seeking ways to advance its use of ICT so that quality teacher education can be offered. It has been responsible for teacher education for all levels of formal education from early childhood through to tertiary for a number of years now. The School of Education has been successful in offering most of its teacher education programmes via print. This includes Bachelor of Education in early childhood education, primary and secondary in-service programmes and secondary pre-service education programmes. The School is presently revising these offerings to make these programmes more widely accessible to teachers in all PICs. Embedding instructional design to provide interactivity enables learners to develop a learning community using technology as mentioned above. Teacher capacity building is one of the priority areas in the present strategic plan at USP (USP 2013–2018).

Transforming teaching through blended and online modes across 12 PICs has its difficulties which include the varying Internet speed and the shortage of local tutors for student support (Evans and Hazelman 2006). Exorbitant cost of the Internet in some countries is also a deterrent. The teaching workloads of the faculty also influence the amount of energy teachers can devote to developing interactive courses.

The Postgraduate Diploma in Educational Leadership courses employ strategies such as videoconferencing, face-to-face tutorials, audio tutorials using USP's satellite network, class discussion forums and sometimes Skype. The courses are popular in PICs. Students have expressed their satisfaction through student evaluation reports in blended courses (Sharma 2009). This was supported in a current study entitled 'Learners' satisfaction, and preference for, different instructional delivery modes: a case study from the University of South Pacific' (Raturi 2010). The blended and online offerings have the potential to facilitate reflective learning and constructivism. Dialogic and collaborative learning enables learners to 'learn to learn' and chart the 'uncharted waters' of their daily living.

6.6 Principles of Constructive Alignment

In the preparation and professional development of our lecturers, student-teachers and in-service teachers, USP has now begun to use the principles of 'constructive alignment'. According to Biggs and Tang (2011), 'Constructive alignment is based on the

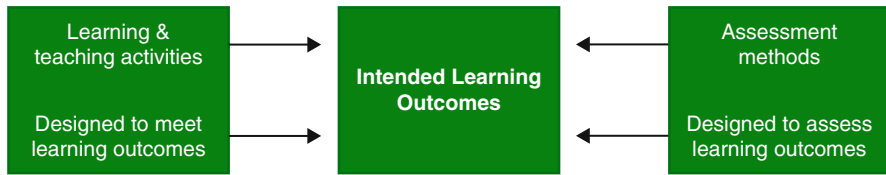


Fig. 6.1 Framework of constructive alignment (Adapted from Biggs and Tang 2011)

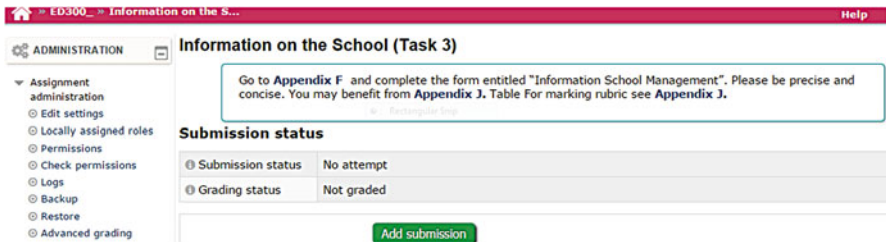


Fig. 6.2 Illustration of templates used in ED300 Practicum

twin principles of constructivism in learning, and alignment both of learning and teaching activities and of assessment tasks to the intended learning outcomes’ (p. 108). Figure 6.1 illustrates this. The student-teachers, SOE lecturers and school-based associate teachers are prepared to use this model. The model facilitates partnership in student-teacher education and training. The parents and the members of school community are also encouraged to participate especially in providing resources and coordinating community skills such as music, dance and arts. The sustainability of this partnership is maintained through regular workshops and informal dialogic sessions.

Our teacher-educators and professional development coordinators create a learning environment with the appropriate teaching learning activities and assessment tasks for student-teachers to engage in to achieve the intended learning outcomes (ILOs). The ILOs set the scene for constructivism by using high-level verbs, such as apply, analyse, construct, examine, reflect and create, that indicate a standard of performance and the subject content to be learnt. We derive our verbs from the Bloom’s and SOLO taxonomies that provide a staircase of verbs necessary for deep and functioning learning (Biggs and Tang 2011). Based on the ILOs, we select the teaching activities and assessment tasks. Accordingly, the student-teachers get engage with the content, their peers, the context and their teachers. Upon completing the course or workshop, the learners (student-teachers, lecturers or in-service teachers) are expected to apply the principles of constructive alignment in their teaching and learning process. The student-teachers use the templates (Fig. 6.2) for preparing their lesson plans, recording their lesson observations and providing other information on the school. Then, they upload it into their e-portfolios. The template for preparing the lesson is presented in Fig. 6.3.

Name of student teacher		School	
Subject		Level/Form/Class	
Duration of the lesson		Date	Time
Topic of the lesson			
Associate teacher			
Lesson content			
Lesson setting/context/ learning environment			
Key words/concepts/terms			
Text books/references			
Intended learning outcomes <i>At the end of the lesson the students will be able to:</i>	Teaching learning activities	Assessment tasks	Resources
1.			
2.			
3.			
Lesson development procedures. Answer the following questions.			
<ol style="list-style-type: none"> How will you begin the lesson? How will you engage the students in learning? You may like to use teaching learning activities such as, group work, problem-based learning, inquiry-based learning, case-studies, individual work and peer- discussion. How will you assess the lesson? Mention both formative and summative approaches How will you end the lesson? Mention activities as summative assessment and homework [for example, written work, readings and investigation] 			

Fig. 6.3 The template for preparing a lesson is shown [only key aspects are shown]

ED300: PRIMARY & SECONDARY SCHOOL PRACTICUM ASSESSMENT SCORING RUBRIC

Practicum Assessment Item	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Task 1: e-Portfolio			
1. Description and reflection of small-group cooperative learning in relation to the holistic development of teaching and learning. (7 mark)	Exemplary online submissions organized and clearly linked by section headings to list progressively to small-group cooperative learning and other classroom activities. Entries demonstrate clear and deep reflection and analysis of situations grounded in both context and professional knowledge. Citation are incorporated are appropriate. Photos of student-activities are of excellent quality. (6-7)	Includes online submissions organized and clearly linked by section headings of small-group cooperative learning and other classroom activities. The submissions represent a complete and clear summary of the activities and the relationship to professional growth. (3.5-5.5)	Poorly organized online submission that does not reflect small-group cooperative learning. Submissions contain errors in grammar, spelling. Submissions fail to demonstrate awareness, reflection and growth as a professional. (<3)
2. Showcasing snaps/pictures relating to small-group cooperative learning. (5 marks)	Experience and knowledge of small-group cooperative learning display high level of understanding and applicability. Citation of relevant professional sources are incorporated and documented within the submission. Photos of student activities are of very good quality. (4-5)	Submissions include the description of activity, reflection on observation of actions within the context and in relation to information previously learned in core education courses and relevant professional readings are of good quality. (2.5-3.5)	Inadequate organization. Submissions fail to demonstrate awareness, reflection and growth of professional knowledge. Need to read more about small-group cooperative learning. (<2.5)

Fig. 6.4 A portion of the practicum scoring rubric

6.6.1 Template for Preparing a Lesson

The rubric (Fig. 6.4) illustrates the assessment of a constructively aligned lesson among the different elements of the curriculum on the one hand and the tools to unlock students’ thinking and learning on the other.

6.7 Conclusion

In this paper an attempt was made to discuss the transforming nature of teaching and learning process in higher education at USP with particular reference to the teacher education programmes. Furthermore, blended and online modes of teaching and learning are seen as the key motivating factors in this change process. It maintains that teacher preparation is a partnership among the teacher training institutes, schools and their communities and the policy-makers. The paper reinforces that good quality teachers can be prepared in the framework of constructive alignment. However, it acknowledges that some of the early complexities and challenges in using technology and engaging stakeholders meaningfully continue to exist. Despite these limitations, USP is taking deliberate steps to move away from print-based education and infuse Web 2.0 tools into blended and online courses in its strategic plan.

The utilization of the Internet to offer blended and online courses by USP's School of Education offers student-driven learning and is committed to preparing active and lifelong educators and students across the PICs. The blended and online modes provide opportunities for students to engage in a constructivist framework. Developing technology competencies and skills in the stakeholders and educators can actively empower the development of students and the nation. With increasing access, the blended and online learning approaches will encompass a much greater part of our teacher education initiatives across the PICs. The use of technology has empowered students to engage in their contextual environment and interact and collaborate with their teachers, colleagues and expert facilitators from in and beyond the South Pacific region.

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Chapter 7

Multiculturalism: The Value of Every Individual in Higher Education Institutions

Mabatho Sedibe

Abstract After the inception of South African new democratic society in 1994, the concept multiculturalism became well known to the South African citizens. Thus, this chapter is meant to provide an overview of the concept “multiculturalism” in the higher educational institutions (HEIs). The terms multiculturalism and cultural diversity in this chapter are therefore used interchangeably, aiming at providing and yielding important insights into the students’ learning. A further point is that in this chapter students will be empowered through opening more discussions and debates on aspects that are relevant to multiculturalism. This hopefully will contribute towards the formulation of new approaches to students for their teaching and learning. Given the glimpse of the chapter, it is with no surprise to you as students to read through the chapter as it will assist you with your educational events.

Keywords Culturalism • Higher Education Institutions • Co-operative learning

7.1 Learning Outcomes

After having completed this module, students should be able to:

- Define the concept of cultural diversity from a South African perspective.
- Describe the theoretical framework underpinning cultural diversity/multiculturalism.
- Critically discuss personal teaching and learning in the learning needs of students/learners.
- Describe changes in the post-1994 South African pedagogy based on changing learning needs of students/learners.
- Manage and teach in a culturally diverse classroom setting.

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- Use co-operative learning as a teaching strategy that can enhance awareness of cultural diversity.
- Provide evidence of competence through analysing a case study.
- Critically discuss multiculturalism in the democratic South African Higher Education Institutions of Teaching and Learning

7.2 Introduction

There have been drastic changes in policy formulation in education nationally and internationally. The South African policy formulation came into effect in order to redress inequity and the lack of social justice of the previous governments. This chapter on teaching in a multicultural setting will be focusing also on cultural diversity, the term synonymous to multiculturalism in the higher educational institutions/universities. This will also assist lecturers regarding teaching and learning in culturally diverse educational settings.

These settings are therefore expected to accommodate heterogeneous students from other countries with different cultures, backgrounds, abilities, religions and races as contained in the Higher Education Amendment Act (2012) of South Africa. This Act stipulates that there should be redress of past discrimination and ensures representivity and equal access to all and that there should be no discrimination when teaching students at institutions of learning such as in the universities. The purpose of the Act is to make students aware of cultural diversity. It examined national government policy documents and various perspectives from literature to argue that cultural diversity in a teaching and learning environment is essential if we want to promote equity and inclusivity in our university education system.

7.3 The Concept of Multiculturalism or Cultural Diversity

Multiculturalism relates to teaching and learning about the cultures of different races, cultures, religions, abilities and languages in any educational system. In this chapter, one can define the concept of multiculturalism as that which refers to more than one culture among groups of people or students in higher educational institutions. Multiculturalism according to Flowers and Richardson (1996, p. 609) emphasises the value of diversity as a core principle and that all cultural groups should be treated with respect and as equals.

Multicultural education is an ambiguous and somewhat controversial concept. Sleeter and Grant (2009) characterise multicultural education as an umbrella concept around issues of race, language, social class and culture as well as disability and gender. Banks (2010) and Gollnick and Chinn (2009) portray multicultural education as an educational strategy wherein the cultural background of each people is valued, viewed positively and used to develop effective instruction. Multiculturalism

also can be called cultural diversity as it deals with the manifold ways in which the cultures of groups and societies find expression. These expressions are passed on within and among groups and societies. Diversity encompasses race, class, gender, religious, linguistic, cultural, physical and other differences. In summary it implies that no two students are exactly the same. Scholars therefore often use the terms diversity and multiculturalism interchangeably.

7.3.1 Theoretical Framework Underpinning Cultural Diversity/Multiculturalism

The Republic of South Africa's Constitution of 1996 contributes to the framework of cultural diversity, and this will develop every student's knowledge, value and skills necessary for a diverse society. By using this framework, students will be able to learn to see their own identities in relation to those of others.

This should be strengthened by the proposed framework developed by Tajfel (1982) which is "social identity" theory. The logic in this theory is that it helps in the understanding of why the individual may hold negative attitudes towards cultural diversity. According to this theory, belonging to a cultural group creates a psychological state within an individual that confers a collective self- or social identity. The individual comes to know himself/herself by interacting with the self to help form an identity. This means that social identity theory serves as a foundation for explaining the negative effects of cultural diversity on teamwork. This is because while social identity generates group solidarity and conformity, at the same time it can also produce negative outcomes as individuals attribute a negative social status to those outside their social group and identify only with those who share the same social identity.

7.3.1.1 Criticisms of Tajfel's Theory

Like any theoretical framework, social identity theory has of course its critics. A major criticism has been that:

- Subgroup formation can create a potential for relationship conflict.
- Subgroup also can restrict access to communication and information, thus affecting co-operation in the team/group, interpersonal with group and leadership.

7.3.2 Changes in Pedagogy Based on Changing Learning Needs of Students

There have been many changes in the education systems internationally. This is not easy but is necessary, inevitable and beneficial. This is supported by Bar-Yam et al. (2002) who stated that the rapid changes and increased complexity of today's world present new challenges and put new demands on our education system. They further

mention that there has been generally a growing awareness of the necessity to change and improve the preparation of students for productive functioning in the continually changing and highly demanding world environment. Any teaching and learning strategy for change should include diverse contexts in order to accommodate all the students/learners. It is through constant evaluation, monitoring and audit often end up leading to change and improvement.

Change in teaching and learning is necessary in order to align with societal needs. According to Carlopio (1998, p. 2), change is described as the adoption of an innovation, where the ultimate goal is to improve outcomes through an alteration of practices or of the ways of doing things. This means that change in teaching and learning situation is an ongoing complex process aiming at meeting holistic human needs. Meeting such needs can lead to, for example, healthy holistic growth and development of students/learners in a world characterised by change.

7.3.2.1 Personal Teaching and Learning in the Learning Needs of Students

Based on the above discussion, it is thus important as teachers and lecturers to apply a wide range of teaching and learning strategies that can assist in addressing and meeting students/learners' diverse needs, including social, intellectual, physical, emotional and spiritual needs. A variety of teaching and learning strategies should be used to accommodate such needs. This implies that flexible teaching and learning strategies should be used in order to cater for the needs of students/learners with diverse needs. This can be done through the use of diverse resources, teaching and learning media, teaching and learning methods, time and pace and tasks and assessments as well as acknowledging the students'/learners' prior knowledge. This prior knowledge is important to consider because it assists in the understanding and building of new knowledge, thus leading to the development of higher-order thinking or flexible thinking.

7.4 Managing a Culturally Diverse University Classroom

Regardless of how many years you may have taught, every year begins anew. Classrooms and curriculum may look similar but times and demographics of communities change. Managing cultural diversity is a challenging yet has emerged as one of the most promising strategies for diverse groups of university students. Learning activities can be structured competitively, individually and co-operatively. In competitive activities students work against one another to see who is best with individual activities. Interaction is not encouraged/promoted. In co-operative teaching strategy, learning occurs when small groups of these students work together to help another in learning activities. This in a way encourages multiculturalism because students will be concentrating more on working together as a team in order to achieve intended learning outcomes.

7.4.1 Teaching Culturally Diverse Students in an Educational Setting

Cultural diversity according to UNESCO (21 October 2005) refers to “the ways in which the cultures of groups and societies find expression and these expressions are passed on within and among groups and societies”. This has implications for multicultural education for all. Teachers, students and parents should therefore understand and appreciate human diversity irrespective of the socio-economic background of individuals as well as the demographic location. The meaning of cultural diversity arising from the definition above can further be explained that we should encourage, protect and promote understanding of the importance of diverse cultures through educational and public debates.

When we teach in a culturally diverse environment, we should attempt to make students feel at home and be accepted by seeing them as all the same but unique. We need to try to also learn their cultures. Sleeter (1995) explains that one needs to understand values, beliefs and traditions of cultures different from one’s own. The recognition of cultural diversity should therefore occur throughout the teaching and learning process, with its curriculum which has to sensitively address ethnic background, social class and gender in order to be accepted by all groups. We should attempt to frequently use qualifiers such as some, many or most when discussing various cultural groups. If one does not apply the above approach, some students may feel separated and ignored, and their education suffers. This runs counter to South Africa’s Constitution (1996), which states that, “we all have the right to basic education”. The Constitution of the Republic of South Africa (1996) states that “everyone has the right to use the language and to participate in the cultural life of her/his choice, but no one exercising these rights may do so in a manner inconsistent with any provision of the Bill of Rights”. This means that cultural diversity of students, teachers and society at large should be respected, without trampling the rights of others.

A classroom should be a model for democracy and equity, through developing activities that accommodate every student with an aim to eradicate racism, ethnic prejudice and sexism. Sleeter (1995) believes that “students who do not readily fit because of cultural background, language, learning style and learning ability require teaching strategies that remediate difficulties or build bridges between the students and the school”. A similar conclusion was reached by Lasley et al. (2002), who argue that “all youngsters can learn at significantly higher levels if teacher instructional practice changes to accommodate the diverse learning styles of students”. It can thus be reasoned that in any teaching and learning situation, we should employ flexible teaching strategies in order to accommodate students’ differences. In that way we will be showing respect, tolerance, openness and sensitivity to one another, despite our different backgrounds, thus attempting to find common ground and build unity in our country, South Africa.

To support the issue of using teaching strategies that can accommodate students’ differences, Killen (2007) points out that there are different strategies such as

discussion, group work, problem-solving, student research, direct instruction, co-operative learning, etc. for teaching in a diverse classroom.

These strategies are relevant to teaching a culturally diverse classroom, but in this chapter, the focus is more on co-operative teaching and learning strategy as this is viewed as being relevant to embracing cultural diversity. It embraces diversity because it allows and helps students to interact and share their experiences in their groups as they discuss and share their different knowledge in order to succeed in their learning process. Such students need to be taught the same content by the teachers using a range of teaching strategies to accommodate their diverse cultures. For example, a teaching and learning strategy called co-operative strategy will be discussed below to show how it enhances cultural diversity. A book written by Killen (2014) on teaching strategies for quality teaching and learning can be consulted in that regard.

7.4.1.1 Co-operative Learning Strategy

Co-operative learning strategy has emerged as one of the most promising strategies for diverse groups of students. Co-operative learning is understood to be learning that takes place in an environment where students in small groups share ideas and work collaboratively to complete academic tasks. Learning during co-operative group work has shown that group members acquired group skills and move beyond their individuality. The effect of co-operative learning in culturally and racially heterogeneous groups has been researched thoroughly. For example, Carsperz et al. (2004) confirmed that students prefer to work in culturally diverse teams because cultural diversity helps to improve their creativity in problem-solving. There are more points of view to help solve the problem. The findings suggest that a co-operative peer tutoring classroom can have a positive measurable effect on the interethnic behaviour and academic learning of school children.

Overall, co-operative learning has been found to influence positively the social relations with students of different ethnic backgrounds. Therefore, co-operatively structured settings might be effective in preventing or reducing prejudice.

7.4.1.2 Co-operative Learning in a Culturally Diverse University Classroom

Dune and Bennet (1994) as well as Davidson and Kroll (1991) see co-operative learning as learning that “takes place in an environment where students in small groups share ideas and work collaboratively to complete academic tasks”.

This method refers to working together as a team with an aim of developing communication competencies in a culturally diverse environment. It is a holistic approach which addresses the diverse students in the classroom environment. According to Calitz (2000) collaboration includes problem-solving, decision-

making, planning and intervention strategies. In this chapter, collaboration means working together in order to share expertise, specialised cultural knowledge and diverse skills in a culturally diverse classroom.

The above views are important as they can increase students and peer interaction especially in big classes. For example, students can learn to improve their understanding and develop co-operative group skills. They can also gain an appreciation and respect for different cultures in the classroom as well as promote acceptances of individual differences, hence acknowledging diversity. This idea is supported Watson et al. (1993) who state that “culturally diverse teams out-performed homogeneous groups under certain conditions”. Carsperz et al. (2004) add that “... working in culturally diverse teams ...help improving students creativity in problem-solving and skills in managing diversity”.

Through collaboration one may begin to learn to understand and accept things that make us different and also to see that we are all unique but equal. From this statement, students can be prepared to change the bias and discriminating aspects of society, aiming at developing the intellectual, social and personal growth of individuals to their highest potential.

Activities

- You have been introduced to the Constitution of the Republic of South Africa (1996) during your few years of schooling with its Bill of Rights (1996) as a component. Spend few minutes in your group and discuss the concept cultural diversity and its advantages as well as disadvantages in a university classroom setting. In your discussion include how you can use co-operative learning as a strategy to enhance culturally diverse classroom.
- In your groups, design a poster/banner that creates cultural diversity awareness.
- What do you understand by the term “No Child Left Behind”? Choose the teaching method that you would use in discussing it in your classroom.

7.4.2 Educational Implications of Multiculturalism in a University Classroom Setting

There are numerous positive implications of multiculturalism in a university classroom situation. Below are just a few points:

Multiculturalism leads to acceptance and respecting of others’ cultures. Knowing other people’s culture and becoming more socialized without discrimination. Students who are taught about multicultural or diversity education tend to achieve better than those who are not so taught. Such students start to develop a sense of sharing ideas and knowledge as well as a sense of oneness.

7.4.3 Conclusion

Becoming culturally diverse is an ongoing complex process and not a destination to be reached soon. We should search what we need to change through relevant teaching and learning methods in order to provide students with opportunities to understand, accept and appreciate each other. Our commitment to teaching and learning should be in the context of evolving knowledge base.

Students face the reality of cultural diversity every day on campuses as student communities become increasingly diverse as a result of the new dispensation. Facilitating an awareness of as well as the ability to manage cultural diversity is important in higher educational institutions. This should be accompanied by the context of students and a positive climate conducive to enhancing cultural diversity.

Living with cultural diversity depends on a great co-operation, communication and mutual understanding between parents, students and community at large. Positive relationships are important for the promotion of equal education. This means nearly after 21 years, we don't need to persuade people about multiculturalism. We just need to try to make it a reality in places in our country that appear not to have experienced improvement or change in the way education is carried out.

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Chapter 8

Counseling Ethics Education: Teaching and Learning Development Reformation

Noor Syamilah Zakaria and Jane Warren

Abstract Counseling ethics competency is an essential part of counselor identity development, and counseling ethics education is one major component of knowledge acquisition in counseling profession training standards. The chapter disseminates comprehension on the current trend in teaching and learning counseling ethics education in more effective ways based on the literature than research conducted by the profound counseling researchers, globally. Teaching and learning counseling ethics education undertakings are more than just content acquirement from textbooks; it encompasses salient elements such as safety, connection, respect, engagement, accountability, reinforcement, application, personalization, and teamwork. The chapter stances education foundation as the avenue to gaining knowledge, skills, and basic foundation in learning counseling ethics; education integration as the catalyst to understanding course content and application using experiential activities and hands-on orientation; and education application as the platform to utilizing the code of ethics across courses throughout the training program. The chapter also poses recommendations for counselor educators and counseling students toward enhanced ideas and more effective methods in teaching and learning counseling ethics education to strengthen the educational institutions in meeting the social demands and global challenges.

8.1 Introduction

In the journey of becoming a professional, a person learns skills important for the specific profession. Counseling ethics education is one of the most important areas of knowledge acquisition in the counseling profession (Sommers-Flanagan and Sommers-Flanagan 2007; Zakaria 2007). Therefore, counselor educators have a

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significant responsibility to prepare counseling students to learn, understand, experience, and apply counseling ethics education to their personal and professional work (Corey et al. 2005; Harun and Mokhtar 2008; Lambie et al. 2010; Urofsky and Sowa 2004). To echo the importance of counseling ethics education comprehension and application, research has been continuously conducted to assess counselor education training programs as well as counseling students in addressing many levels of inquiries. These level of inquiries include wide range of topics such as cognitive flexibility, counselor wellness, developmental readiness, ethical knowledge, impact of various types of educational interventions, multiculturalism, professional identity development, and supervision (Zakaria 2013).

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards state that the training programs need “to ensure that counseling students develop a professional counselor identity and master the knowledge and skills to practice effectively” (CACREP 2009, p. 2). The CACREP overarching mission is to promote the professional competence of the counseling profession through the development of preparation standards, encouragement of excellence in program development, and accreditation of professional preparation programs. The CACREP standards also support advancing the counseling professionals through their excellence in counselor education training programs: to ensure fair and consistent ethical decision-making processes; to serve as responsible leaders in protecting the public; to promote practices that reflect openness to growth, change, and collaboration; to create and strengthen standards that reflect the needs of society; to respect the diversity of instructional approaches and strategies; and to encourage program improvement and best practices (CACREP 2009). In addition to the CACREP standards, the American Counseling Association (ACA) emphasizes that ethical competency is paramount for the counseling profession and counseling professionals (ACA 2014). Although research continues to evaluate the impact of learning activities and growth in counseling students, there is a need to prioritize future research and elevate the discussion that identifies how counseling ethics education is learned, understood, experienced, and applied by the counseling students to their evolving professional identity and work in counselor education training programs.

The purpose of this chapter is to disseminate comprehension on the current trend in teaching and learning counseling ethics education in more effective ways based on the insightful literature than research conducted by the profound counseling researchers, globally. There have been conversations raised by many counseling ethics education experts that teaching and learning counseling ethics education is more than just content acquirement from textbooks; it includes other salient elements such as safety, connection, respect, engagement, accountability, reinforcement, application, personalization, and teamwork (Zakaria 2013). Ultimately, this chapter may generate a new set of methodology strategies in teaching and learning counseling ethics education in more effective ways for future counseling professionals.

8.2 Counseling Ethics Education Overview

The inquiry about what comprises a good life and how an individual distinguishes between the good and the bad has been contemplated by many philosophers for centuries. These same wonderments continue to have relevance for counseling profession, which provide a foundation for the counseling professionals to think, behave, and make ethical decisions based upon the appropriate framework in everyday routines. The ancient and contemporary philosophies could encourage the counseling professionals to embrace and appreciate the process of critical thinking, making sound ethical judgment, and acting ethically, which all are at the heart of ethics (Jungers and Gregoire 2013; Remley and Herlihy 2010).

The word “ethics” comes from the Greek word “ethos,” which means to explain character or custom. Among professionals, ethics usually refers to performing good behaviors (Sommers-Flanagan and Sommers-Flanagan 2007). Moreover, learning to be an ethical professional is comparable to the process of becoming an effective member of a new culture (Handelsman et al. 2005). In becoming a professional, an individual learns skills essential and expected for the specific profession. To be an ethical professional, an individual needs to learn, understand, experience, and apply ethics information and knowledge through direct ethics instruction and direct life experiences, which can be developed over time (Israel and Lassonde 2007; Jungers and Gregoire 2013).

An individual could grasp and comprehend information about ethics education through knowing the self. To know the self means to learn more in-depth about the self; to be familiar with the belief systems, values, and morals; and to discover how these interconnected constructs can affect ethical decision-making process throughout the lifespan (Jungers and Gregoire 2013). An individual could also grasp ethics understandings through life experiences gained from the interactions with families, friends, communities, and spirituality affiliations. An individual with ethics enthusiasm and curiosity could learn a great deal about ethics education from direct instructional learning environment by enrolling in a formal ethics education class, dialoguing with ethics educators, exchanging information with ethics experts, attending ethics education workshops and conferences, or even making one’s own ethical mistakes throughout a career lifespan (Warren and Douglas 2012). These direct instructional mediums embed and infuse ethics education content through good classroom ethics pedagogy.

A good classroom ethics pedagogy is a process that involves changes and enlightenments in teaching and learning ethics education. It is always a good reminder for an ethics educator that while intentionally teaching ethics education, the educator could potentially alter the student’s existing knowledge, belief system, and worldview regarding certain challenging issues. Therefore, an effective ethics pedagogy involves in-depth discussions on ethical challenges that relate to the student’s integrity. The integrity would assist the ethics student to grasp the ethics education meaning from its content (Jungers and Gregoire 2013).

It is notable that teaching ethics is complex (Kitchener 1984, 1986); and teaching counseling ethics is challenging since there is a broad range of topics, there is no unification about its goals, and there is no specific method to teach (Hill 2004; Urofsky and Sowa 2004). The goals for counseling ethics education are diverse and include such areas as knowledge of the ethics codes, aptitude to practice ethically, knowledge of at least one decision-making model, awareness of ethical issues, tolerance for ambiguity, willingness to consult, ego strength, and self-care (Behun 2008; Mohamed 2009). Counseling ethics education is anticipated to instill counseling ethics awareness and integrate professional ethics knowledge in counseling students and equally encourage wellness and self-care appreciation among counseling practitioners (CACREP 2009; Corey et al. 2005; Hendricks et al. 2009; Roscoe 2009).

These complexities of counseling ethics education provide new challenges for counselor educators to work with counseling students who have diverse social, cognitive, and ego developmental levels (Greason and Cashwell 2009; Mohamed et al. 2008; Neukrug and Milliken 2011). At the heart of a sound ethical counseling practice, there lies a framework of respect, care, and sensitivity toward others in ensuring the highest professional standard of services within the counseling profession realm. This framework guarantees the care of self, care of clients, and care of colleagues, which are all based upon a counseling professional's personal and professional morals, values, principles, and personhood quality.

8.3 Education Foundation in Counseling Ethics Education

Education foundation in counseling ethics education considers the avenues for counseling students to gaining knowledge, skills, and basic foundation pertinent to counseling profession. It is based on two learning avenues: (a) formal counseling ethics education, which focuses on the importance of classroom-based counseling ethics education course instruction and activities, and (b) informal counseling ethics education, which focuses on the importance of knowing the self, as well as the importance of families, friends, communities, and spirituality affiliations in learning and comprehending counseling ethics education.

8.3.1 Formal Counseling Ethics Education

To date, there are hundreds of counseling courses provided by counselor education training programs available globally, for an individual who has interest in the counseling profession and would like to learn more to become a counseling professional (Zakaria 2013). It might be difficult to choose which one is the most appropriate or the best program; and it is also very challenging to decide how these courses compare to one another. There is a wide choice of nearly 500 different counseling methods offered, which combine the emphasis on thoughts, behaviors, and feelings

(Amis 2011). This combination allows the counseling professionals to choose the most helpful method to assist the clients, as the clients face their difficult life challenges and seek for professional help.

It is essential for a counselor educator to care about the future counseling professionals' welfare (ACA 2014; CACREP 2009). Therefore, it is paramount to assist counseling students to gain the best learning experiences by balancing the course structure, content, process, and evaluation, with sensitivity to serve each student's learning style, individual uniqueness, classroom interest, and therapeutic dialogue. Moreover, it is also part of the ethical responsibility for a counselor educator to be mindful about the need to inform the higher authority of any potential risks from the learning activities designed for formal counseling ethics education curriculum and instruction (ACA 2014; CACREP 2009).

To create an effective learning environment and maintain multicultural awareness, a counselor educator must obtain adequate knowledge of course content and learn appropriate instructional delivery methods to manage classroom culture and dynamics. Moreover, to cultivate ethical practices among the counseling students, there are several formal guidelines documents such as the ACA Code of Ethics (2014) and the CACREP Standards (2009) to safeguard the counseling profession. However, these guidelines do not sufficiently recommend the minimum standards of practice and competencies for a counseling professional (Levitt and Jacques 2005). Hence, a counselor educator needs to be aware and proactively identify the minimum standards as well as the potential challenges that might occur in dealing with legal, ethical, and multicultural issues in the counseling ethics education classroom and instruction.

Literature in the counseling field suggests the following skills for counselor educators to address these potential challenges: (a) able to overcome a monocultural teaching perspective; (b) able to manage classroom composition; (c) able to be mindful of larger institutional, community, and social climates that may impact classroom environment; (d) able to be aware of personal culture biases, worldviews, stereotypes, and prejudices; and (e) able to recognize personal limitations and knowledge about certain cultural groups to avoid misconceptions (Fier and Ramsey 2005). To improve counseling students' ethics education learning outcomes, what is learned in the classroom needs to be investigated. The absence of clear perceptions in learning objectives and anticipated learning outcomes may negatively affect a counselor educator by not being able to effectively identify strategies to enhance teaching and learning counseling ethics education (Nygaard et al. 2009; Spruill and Benschhoff 2000). For a counselor educator, a broad spectrum of approach including self-awareness, congruency, identity development maturity, and skill levels may improve the classroom educational experiences among counseling students.

8.3.2 Informal Counseling Ethics Education

The self-awareness, self-reflection, personal insights, and self-therapeutic process provide a valuable outlook into the world of others, thus enhancing the ability of becoming an ethical counseling professional (Gladding 2009a, b). Carl Jung, a

prominent counseling theorist, taught that once a couple decided to share their lives and live together in a house, there would be more than just that particular couple in the house. The couple would bring traditions and memories from their own family of origin. In a similar way, the parallel metaphor occurs when an educator enters a classroom of 20 students, there would be as if 60 or more people exist in that same classroom to learn the many forms of knowledge addressed by the educator (Jungers and Gregoire 2013).

Learning must occur in the context in which the sources may derive from experiences collected along the way throughout the life. These experiences can be quilted from families, friends, peers, teachers, community, and spiritual understandings. In addition, the intimacy with each person in the classroom would affect other people in the same classroom. Learning can be framed as a very intimate journey that can benefit from recognition of risks, vulnerability, and trust, in addition to the inclusion of seemingly small matters that occur in the everyday classroom routines and activities (Brown 2008).

8.4 Education Integration in Counseling Ethics Education

Education integration in counseling ethics education functions as a form of catalyst for counseling students to understand counseling ethics education course contents and applications, using experiential activities and hands-on orientation. It is a continuing avenue for counseling students to further learn, understand, experience, and apply the basic counseling ethics education knowledge and skills pertinent to the counseling profession. Education integration is embedded in two learning methods: (a) experiential and hands-on orientation, which focused on the wide range of apparent benefits for hands-on tasks, real-life situations, and counseling practice environments, (b) and experiential assignments in counseling ethics education class.

8.4.1 Experiential and Hands-On Orientation

Experiential and hands-on orientation education provides an avenue to promote students' engagement in the learning process, which would encourage them to become motivated and self-directed students. Research in education confirms that experiential education is effective, given it injects a natural interest within students, creates a more meaningful and fun learning environment, enhances long-term memory and productivity, and produces a distinguished set of skills to survive in later life (Leavy 2009; Warren et al. 2010a; Wurdinger and Carlson 2010).

Experiential education is also known as a pragmatic, progressive, holistic, constructivist, and student-centered teaching strategy (Dewey 1997; Hayes 2007). This educational method is guided by certain principles including learning by doing, promoting hands-on learning, using a problem-solving process, addressing real-world

problems, encouraging students' interaction among each other and with the learning content, engaging with direct experiences, and using multiple subjects to enhance interdisciplinary learning. These learning principles emphasize the unity of the education theory and practice. The relationship between the educators and the students is perceived as symbiotic (Cornelius-White and Harbaugh 2010). There are five types of experiential education commonly applied by many educators, which include active learning, problem-based or inquiry-based learning, project-based learning, service-based learning, and place-based learning (Wurdinger and Carlson 2010).

8.4.2 *Experiential Assignments in Counseling Ethics Education Class*

One potential method for teaching counseling ethics could include experiential education. Experiential education enables transformation from extrinsic knowledge into intrinsic meaning, which allows counseling students to engage and reflect upon their experiences and beliefs and apply the ethics knowledge into their daily lives (Friedberg et al. 2009; Kolb 1984; Warren et al. 2010b). The examples of educational strategies which emphasized benefits of experiential activities in learning counseling ethics education are the journaling (Lent 2009), the professional helper interview reflection paper (Warren et al. 2010a), the ethics bookmark (Warren et al. 2012), the wellness collage (Butler-Kisber 2008), and the ethics dilemma decision-making group discussion (Corey et al. 2005).

To fulfill the counselor educator's ethical obligations, a counselor educator also needs to know how to assist counseling students to best negotiate the meaning from their experiences, as they participate in the essential counseling ethics education classroom activities. The counselor educator's existing knowledge of counseling ethics could combine well with pedagogical talents and support and could assist the counseling students to find the best answers for particular ethical inquiries. Effective education promotes the counseling students' mind border-crossing between their previous information about counseling ethics education and current norms and practice of counseling ethics (Settlage et al. 2008). This teaching effort demonstrated by the counselor educator would foster the counseling students to be courageous and apply the counseling ethics knowledge learned from the classroom curriculum and instruction activities into the real-world practice of ethical counseling professionals.

8.5 Education Application in Counseling Ethics Education

Education application in counseling ethics education offers further conversation for counseling students to utilize the code of ethics learned in counseling ethics education class, across courses throughout the training programs, and in the training clinics. The code of ethics serves as an important document to safeguard the counseling

profession, counseling professionals, and the clients (ACA 2014). It also promotes an ongoing practice for counseling students to apply ethical knowledge and skills in the counseling profession into the real-world practice.

8.5.1 The ACA Code of Ethics Application

The counseling profession formed its first set of ethical standard in 1961 under the guidance of the ACA. The code of ethics and its formulation as a standard of practice is very significant for the counseling profession because it heightens the credibility of the counseling profession, counseling professionals, and the counseling services rendered to the clients. The ACA Code of Ethics (2014), which is the latest revised version of the ethics code, extends the sense of shared identity and values to the profession. The ACA Code of Ethics (2014) contains nine main sections that address these particular areas: Section A (The Counseling Relationship), Section B (Confidentiality and Privacy), Section C (Professional Responsibility), Section D (Relationships with Other Professionals), Section E (Evaluation, Assessment, and Interpretation), Section F (Supervision, Training, and Teaching), Section G (Research and Publication), Section H (Distance Counseling, Technology, and Social Media), and Section I (Resolving Ethical Issues).

In a nutshell, the code of ethics serves as a guideline toward ethical behaviors for counseling professionals to assist them in making the best possible ethical decisions within the uncertain or compromising situations. It provides behavioral guidelines for those who identify with and use the title “counseling professional” or “counselor.” For many counseling professionals and counseling students, the words “counseling ethics” are perceived similar with “code of ethics” because most of the time, in order to comply with the ethical standard of practice, the code of ethics serves as the main reference for all services rendered.

Counselor education training programs require counseling students to practice counseling skills and enhance important counseling competencies. While attending the clients or in role-plays, these counseling students are trained to apply the counseling skills learned with the guidance of the code of ethics, which requires the provision of ethical services. Ethical dilemmas emerge in all counseling training and practice settings, always appear ambiguously, and are impossible to plan for in advance. An ethical quandary arises when a counseling student experiences a particular conflict that could not be easily addressed by one’s own moral principles or the ethical codes of the profession (Laine 2000). It is a situation when a counseling student is unable to find the right or wrong decision for a particular circumstance. Eventually, the decision is made thoughtfully and perhaps the more correct compared to the alternatives.

In facing an ethical dilemma, a counseling student needs more than just the code of ethics for guidance. The counseling student needs to have an in-depth comprehension on how to apply the code of ethics together with the relevant resources, in order to make the most justified and fitting decision. The counseling student’s intention,

motivation, and ways of cognitive structure toward the ethically sensitive situation may confirm or violate the code of ethics. Ethical decision-making consists of being consciously aware of one's values, principles, and allegiances to the ethical codes, as well as intuitions and feelings within the context characterized by the professional relationships (Remley and Herlihy 2010).

In an actual work setting, a counseling professional may also experience an ethical dilemma with an immediacy and personal involvement that draws empathy, intuitions, feelings, and emotions (Laine 2000). The early exposure to the opportunities to apply code of ethics in handling various ethical dilemmas provides a priceless experience to the counseling students. A real-world application of the code of ethics, such as occurs during series of practices in a counselor education training clinic, can accurately inform these students on how to apply counseling ethics education in more effective ways.

8.5.2 Counseling Ethics Education Course Application

Currently, the focus of many counselor education training programs is on egalitarian and collaborative teaching and learning, which means much attention is being placed on relationship building between counselor educators and counseling students. This focus could create positive, collaborative relationships in teaching and learning process, as well as ensure the applicability of the knowledge conveyed across the courses taught in the counselor education training programs (Smaby and Maddux 2010). In applying counseling ethics education to evolving professional identities and work in the program, counseling students learn best at their own pace, and a counselor educator needs to respect the uniqueness in each student to promote a positive learning environment. The evidence for counseling ethics knowledge comprehension can be shown through the counseling students' application of particular ethics knowledge in the other counseling courses.

Since no two days are the same in the classroom and instruction, counselor educators must be flexible in achieving teaching and learning goals. Moreover, punishment is found not to be an effective means in teaching, even though it has been approved as a method of control in modern life (Skinner 1953). Many educators view that reinforcement could build the capacity of students to learn, while punishment could tear their learning capacity down. Consequently, an effective counselor education training program could incorporate lesson designs with a variety of teaching techniques and acknowledge the learning styles across courses, which are required for the counseling students, and avoid punishment and fear-based learning environment.

To deliver course content and provide reading materials essential for each topic are among the tasks and responsibilities of counselor educators; however, more important perhaps is the experiences that the counseling students would gain through collaborative works with others. Many counselor educators appreciate active, safe, and supportive dialogues in the classroom with the belief that future

counseling professionals would change certain perspectives and worldviews because of their positive learning experiences in the classroom. This openness to others parallels the counseling relationship. Although the developmental perspective respects time and efforts as catalyst for changes in learning, it is also important to support the need for space and freedom of choice to encourage future counseling professionals to be autonomous.

In counselor education training programs, curriculum and motivation are two elements needed to be considered in assisting students to learn. It is important to be mindful that the syllabus completion is a core endeavor, which carefully defines a curriculum. Although the course content is necessary and validates the accreditation requirements, “how” the counselor educators teach is what allows the future counseling professionals to grow and transform. Knowledge, experience, nurturance, setting, and safety combined are all essential ingredients to foster holistic counseling ethics education application and provide meaningful changes in education experiences.

8.6 Recommendations for Counselor Educators and Counseling Students

Counseling students together with counselor educators puts forth the effort necessary to develop counseling ethics education knowledge and skills. Teaching institutions and counselor education training programs need to provide appropriate environment to facilitate educators’ teaching and students’ learning (Axelson and Flick 2011). The first recommendation is to create an effective and engaging classroom environment for teaching and learning counseling ethics education. According to Handelsman et al. (2005), there are three reasons ethics training is not simple: (1) the rules taught surrounding code of ethics are vague and conflicting, (2) learning about ethics of a profession by watching models is incomplete at best, and (3) ethics is a study of right or wrong, but often taught as the study of wrong. Consequently, counseling ethics education is often perceived as cut-and-dry and dull course content. Jonas (2010) suggested that counselor educators need to create a kind and fun classroom environment. Provine (2000) explained further that laughter is typically not just a response to jokes created but actually pulls people together. Therefore, making learning counseling ethics education fun may improve creativity, reduce stress, and help counseling students master difficult information because it can promote higher-order thinking skills and de-escalates tense situations (Manning 2002).

The second recommendation is to improve classroom environment for teaching and learning counseling ethics education by applying a persuasive pedagogy (Livingston 2010). In persuasive pedagogical classroom environment, there is a clear connection made between rational explanation, critical dialogue, and teaching. This means counselor educators are able to provide honest reasons for any ethical situation discussions and able to welcome any radical questions inquired by counseling students. To enhance counseling ethics education teaching and learning experiences,

counselor educators and counseling students could adopt three questions that are usually used in persuasive pedagogy: (1) “What do we believe about the particular ethical situation?” (2) “How do we balance our perspectives with our intentions to help clients with appropriate ethics understandings?” (3) “How do we make sense of the gray areas where knowledge is rarely considered absolute truth?” To implement persuasive pedagogy into teaching and learning counseling ethics education, counselor educators must be prepared to respond tough questions posed by counseling students in the classroom, which requires further ethical considerations and explanations to produce justifiable answers.

The third recommendation is to know more about self. Counselor educators can empower counseling students to develop more self-awareness and to do more self-evaluation. In addition, counselor educators also could encourage counseling students to seek their own counseling services to ultimately improve knowledge about themselves, both their strengths and limitations. By participating in personal counseling, counseling students could better understand themselves and foster understanding about others as well (ACA 2014; La Torre 2005). Self-awareness enables counselors to not impose their values onto clients, which is considered an ethical responsibility of counseling professionals (ACA 2014).

The final recommendation is to infuse experiential activities into counseling ethics education teaching and learning endeavors. Counseling students could grasp considerable counseling ethics education knowledge and confidence from the experiential assignments in the counseling ethics education class (Arthur and Achenbach 2002; Corey et al. 2005). Counseling students may already have gained content knowledge and skills in counseling ethics education; however, these tangible assignments make learning more real and fun. Creative-experiential assignments such as the ethics bookmark can foster consciousness on the importance of an ethical reminder (Warren et al. 2012). On the other hand, the wellness collage can foster awareness of self-care and the importance of wellness to the personal and professional life of a counseling professional (Smith 2011). Due to the impact of wellness and self-care on counseling professionals’ career spans, perhaps these experiential classroom activities can be assigned not just for counseling ethics education class. Instead, these activities can become longitudinally creative-experiential activities for any counselor education training programs.

8.7 Conclusion

The significance of counseling ethics education for counseling students, counselor educators, and counseling profession as the whole is evident. It is notable that counseling ethics education is more than just content acquisition from the textbooks. It comprises other important elements embedded beyond just a cut-and-dry content which include safety, connection, respect, engagement, accountability, reinforcement, application, personalization, and teamwork. The discussion for each subchapter in education foundation, education integration, education application, and

recommendations for counselor educators and counseling students hopefully would provide teaching and learning development reformation for counselor educators and counseling students, toward enhanced ideas and more effective methods to overcome the limitations and challenges in teaching and learning counseling ethics education in this century.

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Chapter 9

E-counselling Modality: Following the Changing Learning Needs of Young People in Higher Education Institutions of Malaysia

Jin Kuan Kok

Abstract Counselling helps to remove obstacles to learning and thus improve academic success and maximise human development. Traditional counselling approaches may not be able to effectively reach out to the technology-savvy generation because the way young people learn and how they go about seeking help has changed tremendously. This paper adopts a holistic approach to counselling which addresses the preventative, developmental and remedial dimensions to counselling, incorporating computer technology for the development of new counselling modalities to support Malaysian youths in this competitive globalised world. The importance, advantages and challenges of using e-counselling modalities will be reviewed. Mental health issues will be discussed against the backdrop of higher learning institutions in the Malaysian context. E-counselling approaches are effective as a resource in disseminating mental health information to raise public awareness, reaching out and offering guidance to young people. More research is needed to investigate its practicality with regard to the establishment of policies, collaboration among the stakeholders and facilitating factors from the various dimensions of counselling and the resources of the context.

Keywords E-counselling • E-counselling modality • Higher education • Malaysian youths

9.1 Introduction

Counselling services are essential in a higher education system, as they facilitate healthy and positive development. By removing obstacles to learning, counselling helps students to maximise learning, to achieve educational success and thus to enhance human development of the country. The development of human capital has

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been identified as being of prime importance in Malaysia. The Malaysian National Higher Education Strategic Plan (2007–2010) aims to transform the whole nation by training up “human capital” and creating a work force for economic growth. The NEM (New Economic Model) unveiled by Prime Minister Datuk Seri Najib Tun Razak (2010) focuses on improving the quality of the workforce. The ETP (Economic Transformation Programme) has further stressed that this grand vision is to enable the people of this country to secure better jobs and to raise the productivity of the country’s economy. Hence, the role of higher education institutions (HEI) is critical and the Ministry of Higher Education is in a crucial and pivotal position to produce an enormous number of university graduates. However, the concern faced at the moment is not the number of graduates in Malaysia, but the prevalence of increasing numbers of young people who encounter mental health issues such as depression has increased in Malaysia and that has hindered human development (Redhwan Ahmed and Dhekra Hamoud 2012). The National Health and Morbidity (2011) reported that young Malaysians in the 16–19- and 20–24-year age groups had a higher prevalence of psychiatric morbidity (14.4 % and 12.1 %, respectively) compared to other age groups (Institute for Public Health 2008). University students revealed a much higher prevalence of depression, with 37.2 % of students (18–24 years old) experiencing at least a moderate level of depression.

Emotional distress and mental health issues have become obstacles that affect human development in Malaysia. There is an urgent need to provide our college or university students with guidance and counselling so that they can overcome the challenges they face. Our university students are still in their developmental stages of late adolescence and emerging adulthood. In fact, the period of emerging adulthood (Arnett 2000) has been lengthened as a result of social change (Santröck 2010). Our young people face many challenges and difficulties. They are growing up in an increasingly competitive, globalised society, characterised by uncertainty, rapid and frequent change and insecurity. Dr Adnan (Wong 2011) expresses concerns about the psychological well-being of Malaysian youth and summarised the challenges they face from both developmental and societal changes. He suggests that rising stress levels in a transitional society are the main factor contributing to the enormous challenges to the young people in Malaysia. He identifies the weakening of the traditional protective factors such as family, community and religious support system. He concludes that the young today are pretty much on their own and describes this phenomenon as “shortened rationality and truncated emotionality” and very often “suicide is an easy way out” (Wong 2011; Kok and Goh 2011). The transition for our young people consists of two dimensions: life transition on the one hand and societal change on the other. Therefore, HEIs have to take on the guidance and counselling role for youth development as the young are the country’s assets. In order to transform Malaysia into a developed, high-income economy by 2020, focusing on education and developing our youth is vitally important. In order to effectively develop our youth, adapting to their changing needs in learning or information taking is of utmost importance.

Rahmat and Osman (2012) have advocated for integrating high technology in teaching and learning strategies in order to adapt to the characteristics of learners in

this twenty-first century. The high-technology environment has tremendously changed the teaching and learning pedagogies adopted by many higher institutions in Malaysia in terms of content production and involvement of students in learning. Integration of high technology in learning is seen as an empowering tool because it will encourage students to take ownership by actively participating in acquiring and production of knowledge in an innovative way (Rahmat and Osman 2012; Ertmer 2005).

Similar paradigm shift is required in the field of counselling in which counselling is an important component in education. Counselling is a process to help young people to de-learn and relearn so that they can become a more effective person in their lives. Traditional counselling is normally a one-on-one personal approach. Due to the advancement of information communication technology (ICT), we need to consider a change in our approach so that we can reach out to our young people. New technology has penetrated every aspect of young lives, including how they learn and how they seek help. Based on the report by comScore Word Metrix, Malaysia ranked number four in the world in terms of average minutes spent per visitor on social networks and second based on the Asia-Pacific region with the 181.2 min (ComScore Media Metrix 2010; Mustafa and Hamzah 2011). More than 65 % of young Malaysians are active Internet users (Internet World Stats 2010). E-counselling was found to be a new modality or means to reach out to our young people, the millennial generation and the networked generation (Maples and Han 2008). Many young people use ICT as a self-help tool to seek for mental health information (Tuti Iryani et al. 2005).

9.2 The Importance of E-counselling

E-counselling has been identified as e-therapy, web-based counselling and cyber counselling that has incorporated ICT into counselling services (Alice 2009; Barak 1999). E-counselling in higher education was first developed by Stanford University and the University of California, USA (Wardell 2008), and was widely accepted in European and US universities (Kuittinen et al. 2008; Khelifa 2007), Korea (Maples and Han 2008) and many other countries. Online counselling services were found to be effective for individuals, families and organisations, as it is convenient and cost-effective; it is accessible for people from geographically remote areas or with disabilities (Moulding 2007); it provides immediate real communication via webcam or chat room (Alice 2009; Cherry 2010); and the text-based mode (email writing, messaging) receives positive feedback in that writing brings focus, clarity and insight and enables thinking, reflection and therapeutic time (Akahori et al. 2000; Kali Manro 2008; Zainah et al. 2010). Therefore, it is especially beneficial for bedridden or housebound people and people who fear direct face-to-face counselling. In Malaysia, it will be particularly beneficial for people who fear stigmatisation, as counselling was extremely unpopular in schools and colleges (Chai 2000; Low et al. 2013).

E-counselling in HEIs of Malaysia is still at an initial developmental stage. There are fewer than 20 e-counselling services among the 48 public and private universities

in Malaysia; only a handful of them are actively providing services. Those e-counselling programmes focus mainly on two dimensions.

Firstly, it is for the purpose of providing emotional support (via emails and forum) and an educational approach (upload/download articles, words of wisdom and activities) such as has been done in the Universiti Utara Malaysia (UUM) and the International Islamic University Malaysia (IIUM). Secondly, it is for the purpose of providing text form, web-based support. Examples are the counselling provision at Malaysia University of Science and Technology (MUST) and Majlis Kaunseling dan Kerjaya Universiti Malaysia (MAKUMA). Research on e-counselling in Malaysian higher education has provided invaluable insights and feedback for system creation and evaluation especially for the technical procedures and management of e-counselling (Hasbullah 2011). Overseas research on e-counselling also gives valuable feedback on the technical aspects of evaluation criteria such as functions, content, type of pages and user interface (Kuittineen et al. 2001), and it produced valuable insights into future system development for digital educational resources in the current digital turn of decentralised world (Mills 2010). The benefits of using e-counselling are well researched (Tuti Iryani et al. 2005; Vaughan 2007); its benefits of adding value to higher education are evident (Pattison and Harris 2006).

Table 9.1 summarises the differences between traditional and e-counselling approaches. It is apparent that the e-counselling approach has its advantages in flexibility in terms of locality and accessibility as it is borderless and not time bound, so university students can access it at anytime and anywhere at no cost. Most importantly it helps tremendously for students who are fearful of being stigmatised. This is especially true when mental health issues are involved. Malaysia is still a conservative society in which most of its people from different ethnic groups have

Table 9.1 Comparison of traditional counselling and e-counselling for e-generation modality

Traditional guidance and counselling	E-guidance and e-counselling
Face to face	Virtual: making use of ICT, similar to real communication
Locality bound	Accessible anywhere
Time bound	Accessible anytime
Suitable for remedial, preventive and developmental programmes. Suitable for severe abuse or suicide cases	Suitable for preventive, developmental and mild intervention programmes, but not suitable for severe abuse or suicide cases
Require resources to manage a guidance or counselling centre	Digital educational or guidance resources can be recycled
Unpopular in Malaysia as youths fear stigmatisation	No fear of stigmatisation
May be considered conservative which makes youths reluctant to seek help	Trendy and matches the new emergent youth culture; group forum approach resembles group counselling as youths get supports from their peers via ICT
Therapeutic relationship was found to be the facilitating factor across different counselling approaches	Some research found that therapeutic relationships could be established, but some reveals therapeutic alliances in cyberworld are difficult

concerns about honour and shame. Having mental health issues can be shameful. It is evident in research that mental health patients from Asian countries would somatise their mental health symptoms (Lu 2002) because it is more acceptable to have physical or somatised problems instead of mental or psychological distress. Besides, those Chinese who believe in Buddhism would use spirituality as a reason to explain their psychological or mental health problems. Tseng (2007) investigating “dissociative behaviour” found that it was known as “latah” and “koro” which refer to a typical reserved and inward looking behaviour found in Malay culture. All these phenomena may be quite similar to those of patients suffering from depression, which is overwhelmingly dominated by an alternation of the sense of perception in relation to the world and to one’s own body. Due to the concepts of honour and shame in Asian culture, young people with mental health problems are afraid to seek help. Therefore, e-counselling can be an effective resource for them.

From a holistic perspective, both traditional and e-counselling approaches share the same basic functions of counselling, namely, preventive, developmental and remedial functions. Counselling does not only serve as a remedial function which involves dealing solely with intervention when problems are identified, it also involves preventive and developmental dimensions as most young people experience a relatively untroubled psychological development (Pattison and Harris 2006). Developmental dimensions of counselling include career awareness, development of various transferable skills such as time management, etc.; preventative dimensions of counselling include conflict and stress management, coping with negative peer influence, and drug abuse prevention where students can be educated using group approaches for the prevention of future problems. As students in higher learning institutions are late adolescents and emergent young adults, they are at a transitional stage of life: changing from secondary schools to colleges or universities and from dependence to independence in terms of leaving home to stay at a hostel and freedom to manage own time and daily living arrangements. Numerous psychosocial problems and stresses are common which include conflicts with classmates, break-up of a relationship, academic difficulties or failure, friendship issues, inability to cope with the changes in a new environment, negative peer influence, etc. Ang and Huan (2006) have identified academic stress as a significant contributor to a variety of mental and behavioural disorders, such as depression, anxiety and even suicidal behaviour.

Therefore, just as in traditional counselling approaches, e-counselling for young people in HEI would need to include interventional (remedial), developmental and preventative approaches (Schmidt 2008). In order to work effectively with the youth, it seems imperative to address these three dimensions of counselling, incorporating into them the youth IT-savvy culture.

9.3 E-counselling and Mental Health Issues

In the following, using e-counselling as a holistic approach for mental health issues will be discussed.

9.3.1 Preventative Function of Counselling

The use of the Internet is effective for the dissemination of useful mental health information. Help-seeking behaviour among youths has changed; young people use the Internet for mental health information (Callahan and Inckle 2012; Gould et al. 2002; Hayati and Kamarul 2008). Gould (2002) found that 18.2 % of adolescents use the Internet as a help-seeking resource. There was an increase in help seeking using the Internet in relation to suicide and mental health issues. Therefore, information posted on the Internet will be effectively accessible by many young people. This effective dissemination of mental health Internet information will raise public awareness of the need to be mindful of one's own mental health and be more watchful for possible critical cases among their peers or friends.

9.3.2 Developmental Function of Counselling

Tuti Iryani and his team of researchers (2005) studied the Internet help-seeking behaviour of a group of high-risk teenagers, aged 16, from schools in Kuala Lumpur. Their findings revealed that as many as 30.4 % of high-risk youths sought help for emotional problems on the Internet. Callahan and Inckle (2012) confirmed that those who sought help using online sources were significantly among the younger age range. The use of the Internet for help for emotional disturbance and mental health issues can be explained by the uninhibiting effect of anonymity (Callahan and Inckle 2012). In Malaysia, it will be particularly beneficial for people who fear stigmatisation, as visiting a counsellor or psychiatrist was extremely unpopular in schools and colleges (Chai 2000; Kok and Lee 2012). Young people who seek help from the Internet will find assistance in the development of some skills by online self-help courses. Stress management, conflict resolution, positive attitude building and positive habits of mind are useful recourses for young people. Skills development such as positive and rational problem-solving and coping skills will also be helpful when young people are faced with the loss of friends or break-up relationships as it was found from previous research that romantic relationships and school stress were the two main factors in suicidality among Malaysian youths (Kok and Goh 2011).

9.3.3 Remedy Function of Counselling

The Internet can be used as a useful means to detect or identify potential mental health issues in order to render necessary help for them. Chen and his associates (2005) researched the factors relating to adolescent suicide in Malaysia and found a close relationship between suicide thought (ideation) and suicide attempts. The

findings of this research have shown educational and health professionals that early identification of suicide ideation and treatment of potential suicides are important to save our teens. Similarly, early awareness of levels of stress or conflicts faced would prompt early remedy-seeking behaviours. Online environments foster anonymity and enable young people to discuss sensitive issues like mental health and suicide (Newman et al. 2011; Kraus et al. 2011). Using the Internet to provide mental health information and care is a new form of approach (Alice 2009; Barak and Finn 2010; Mustafa and Hamzah 2011; Zamani and Yusoof 2010). It is helpful when the Internet provides important helplines or counselling centre information so that the help seekers can access a counsellor, psychologist or other mental health professionals as early as possible so that interventions or remedies can be provided.

To conclude this section, useful mental health information will be beneficial for public mental health awareness, both for the troubled young people and the peers or family members around them. Early identification of problems will thus lead to early intervention. However, there needs to be some coordination between various stakeholders from HEI for e-counselling to be effective. The stakeholders include government agencies such as Ministry of Health, Ministry of Higher Education, Student Counselling Units of HEI, parents and community professionals. More research needs to be carried out to investigate how various facilitating factors could work together to maximise the effectiveness of this approach.

9.4 Challenges and Future Research

Utilising the Internet as a resource for mental health or therapy is still in its infancy. It is not without difficulties, particularly because the establishment of therapeutic relationships in face-to-face counselling is a necessity (Lambert and Ogles 2004) but would be difficult to assess in e-counselling (Zainah et al. 2010). Difficulties remain such as misrepresentation of client information (Callahan and Inckle 2012) and interpretation of the text-based mode (Kali Manro 2008). Non-verbal observation will be difficult to access, even in Skype counselling; the cyber-net therapeutic alliances may be difficult to evaluate. Psychotherapists and counsellors in Malaysia view e-counselling positively, but many of them still prefer traditional face-to-face counselling (Zainah et al. 2010). Therefore, more research is needed to conduct to further investigations into the practical difficulties (Mallen and Vogel 2005; Yun and Yuan 2010). When e-counselling becomes more acceptable to the public, ethical issues such as licence requirements and confidentiality have to be addressed and governed by the establishment of policies and codes of conduct especially for a multicultural society like Malaysia. Although the Association for Counselling and Therapy Online (ACTO) provides clear guidelines for online counsellors, the role of policymakers in Malaysia is pivotal to set up policies and regulations so that e-counselling work will be governed by those online professional ethical codes.

Future research can focus on the facilitating factors from the service providers (e-counsellors) and the end users (e-counselees) plus the network users.

All stakeholders need to work collaboratively to effectively provide counselling services for the young people in Malaysia.

9.5 Conclusion

E-counselling has become increasingly important in an Internet-savvy society especially for the young people. It can function holistically as a new counselling modality for mental health support. It also helps to develop some essential skills among our young people. There is some awareness of e-counselling in Malaysia focusing on the dissemination of mental health information and reaching out to young people utilising the advancement of technology. More research needs to be conducted to identify contextual difficulties in practice. More research will help to discover the facilitating factors from the various aspects of counselling in Malaysian higher learning institutions and how various stakeholders from HEI can work collaboratively for the benefits of young people in Malaysia.

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Chapter 10

Transforming BRICS to BRINCS for Faster Economic Growth in Nigeria: The Role of Tertiary Educational Institutions

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Abstract Forming of economic, social and political blocs of nations is a way of fast-tracking the achievement of national development of the nations involved. This paper reviews the transformation of BRIC to BRICS and the hope that the transformation would extend to BRINCS (Brazil, Russia, India, Nigeria, China and South Africa), with a view to ensuring faster economic growth in Nigeria. The paper emphasises on the role tertiary educational institutions could play to ensure faster economic growth and development in Nigeria as the transformation extends to BRINCS. The paper is a literature review type, emphasising on conceptual and empirical works in the subject matter. The paper reveals that the BRICS nations and their initiatives of establishing development bank and other economic growth and development institutions would fast-track the development of those countries and other emerging nations that could benefit from their initiatives. The paper also establishes that tertiary educational institutions have a lot of roles to play in the areas of research, teaching and community services to ensure that Nigerian leaders are guided in enlisting the country into the economic bloc (to be transformed to BRINCS) and to ensure the success of its initiatives. The paper strongly recommends a close working relationship between the relevant government agencies and the academia to articulate ways of ensuring that Nigeria is enlisted into the BRICS bloc of nations, as soon as possible.

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10.1 Introduction

The BRICS, being a new cooperative alliance or bloc of five nations (Brazil, Russia, India, China and South Africa), is set to become an economic and political power to reckon with in the scheme of things globally. Initially it was BRIC before the admission of South Africa, as an economic power from the African continent.

The BRICS bloc global economic, political and social influence is huge, considering its combined population of around 2.85 billion people which is around 43 % of the global population (Clackson 2014) and its combined nominal gross domestic products of about US\$13.7 trillion (Nkoana-Mashaban 2012). These are some indicators of the great and important roles these nations can play in the global economic arena, thereby challenging the dominant roles of transnational organisations like the World Bank, the International Monetary Funds, etc (Escobar 1980; Graham 1996; 2001).

The BRICS bloc and the institutions, financial and otherwise, that the bloc is likely to establish have the potentials for enhancing the sustainable development process of the member countries and beyond in the competitive global economy. The formation of the BRICS and consequently the establishment of its planned development bank could be seen as positive developments towards supporting the visions, missions and specific economic development objectives of member countries and beyond as they work towards ensuring effective public governance (Alonso and Anthony 2014; Barry 2014; Clackson 2014).

The formation of the planned development bank of the bloc is a way of launching out a solid competitor to the World Bank and IMF, as funds from the bank are used by the member countries to accelerate or sustain their development and exercise economic policy influence over other economies of the world. The effectiveness of the financial institutions of BRICS nations would hopefully impact on the global governance structure (Petropoulos 2010). The world's largest economy may rise to be China (Nations Economic Commission for Africa 2013). The BRICS nations have maintained a stable economic growth despite the global financial crisis that devastated many countries of the world. Such economic potentials of BRICS as a global political power dispose them to be relevant towards developing the Nigeria economy.

Tertiary educational institutions (universities, polytechnics, colleges of Education, etc.) in Nigeria have great roles to play in ensuring that Nigerian leaders and followers appreciate the need for the country to be part of the BRICS, thereby transforming the bloc to BRINCS so the country and its citizens could benefit from the economic growth that is expected to be spearheaded by the bloc. The institutions are expected to spearhead the awareness creation exercise for the Nigerian government to pursue the process of the country's inclusion and for the Nigerians to agitate for the quick assumption of the country and its full participation in the activities of the bloc, especially investment into the new Development Bank.

The focus of this paper is to promote the need for Nigeria's inclusion among BRICS countries, the justification for this being to create strong and efficient domestic financial structures in the country which would allow room for sustainable growth and development. Specifically, the study wants to explore how tertiary education institutions could agitate for Nigeria's membership of the bloc and the

possible benefits that will accrue to Nigeria by her inclusion. Nigeria remains a pivot to the success story of the rising powers in the areas of trade and direct investments. Most of the rising powers of BRICS are dominant players in the extractive sectors in Nigeria (www.businessinsider.com/afp Nov 2014). Unfortunately, the transaction between Nigeria and some of these nations has not transmitted into meaningful economic development and stability in the country.

Human development is not encouraging as majority of those that are in active work bracket are unemployed. There is a big infrastructure gap in the country making the cost of doing business to be so high. This has led to continuous corporate failures in the country and eventually shutting down of many private sector-owned industrial plants. Given the challenges being faced by the country in terms of lack of service delivery, inadequate infrastructure development and gross poverty (The Economist 2009), it becomes pertinent that Nigeria partners with BRICS countries.

The BRICS nations have demonstrated their interest in Nigeria mineral resources as many of them could be described as resource seekers. Presently they are the largest investors in the continent. To facilitate the success of these drivers, business should focus on enhancing the intra-BRICS business cooperation and coordination by promoting opportunities for Nigeria inclusion in BRICS groupings. Such inclusion is not only advantageous to Nigeria but also to other BRICS members especially as Nigeria is strategically important as a source of many dimensions of raw materials to them.

Tertiary educational institutions are very strategic and essential for the achievement of sustainable national development, defined by the World Commission on Environment and Development (1987) as “meeting the needs of the present generation without compromising the needs of the future generations”. They are expected to produce powerful and big minds that transform an ailing organisation/nation for the better. Again, educational development of a country is what determines the level of its political, social and economic development. It also signifies the level of human capital development attained by an economy, and the Jakarta Declaration has resolved that human capital constitutes 64 % of the wealth of a nation (Iyanda 2001). The other contributing factors to national development are natural capital, which constitutes 20 %, and physical capital, which constitutes 16 %.

The rest of the paper is as follows: the next section is a general overview of BRICS countries. Section 10.3 outlined the benefits of transiting from BRICS to BRINCS. Section 10.4 is about the specific roles to be played by tertiary educational institutions in Nigeria to ensure a successful transition from BRICS to BRINCS. We concluded the paper in Sect. 10.5.

10.2 General Overview of the BRICS

Trade and financial ties have deepened between some emerging countries. It was Jim O’Neil of Goldman Sachs that first coined the word BRIC (an acronym from the first letters of Brazil, Russia, India and China) in a 2001 paper titled “The World Needs Better Economic BRIC”. Later in December, 2010 China invited South Africa

to join the group of BRIC nations, transforming the acronym to BRICS. From inception, the BRICS countries sought out opportunities for cooperation in trade, investment and infrastructure development. This has made BRICS a trade partner and has brought a new direction in the wake of recent global crisis. The business cycle transmission of BRICS countries in recent time could be compared to that enjoyed by the United States prior to the formation of IMF (2011).

Critical analysis showed that the International Monetary Fund (IMF)'s response to the most recent global financial crisis was rather slow. Obviously, many countries were affected by the global debt crisis of the Lehman collapse (WCED 1987). A sharp decrease in export arose as a result of decreased consumption by the Americans. Such distortions in global economy require not just the attention of the developed countries but also that of regional powers (The Economist 2009). Thus, the under-representation of emerging powers became more evident during the global financial crisis of 2007/2008. According to Samaka and Yang (2011), BRICS suffered not as much as an advanced economy from the global financial crisis. BRICS has tapped the potential provided by rapid economic growth in recent times. Specifically, exploration of natural resources in sub-Saharan Africa has been a chief driver of India's and China's economy.

The existing structures of international financial governance could be described to be inefficient. Fundamentally, the distribution of IMF quotas is proposed to reflect the relative weight of all its members. However, in reality their present operational practice does not reflect current economic status of member countries. It, therefore, becomes crucial to rebalance quotas to reflect the relative weight and role of members. The debate dates back to 2006 during the IMF-World Bank Annual Meetings in Singapore, where a process to align member countries' quotas and voting power received the backing of the membership. The need to enhance the institution's governance was reached on March 28, 2008, when the executive Board of IMF endorsed a major package of such reforms. Before now, the weight of these emerging and low-income countries in the global economy was small. Again their voting powers have eroded over time. The IMF Board recommended a reform that will address the quota and votes of emerging economies, given their share of GDP to global GDP (Chorev and Babb 2009).

However, by the treaty establishing IMF, such restructuring must be approved by US Congress, which vetoed the recommendation. The inability of IMF to reform and open up to accommodate economies from the developing countries that have emerged into strong world powers has given rise to the emergence of the plan to established another development bank by the BRICS nations. The planned development bank represents a good opportunity for the BRICS nations and other emerging economies mainly in Africa, Asia and South America.

Presently, the BRICS nations maintain 40 % of the world's population and account for more than a fifth of all trade and of foreign direct investment flows (United Nations Economic Commission for Africa 2013). When it becomes BRINCS, Nigeria's population of 170 million people would raise the percentage much higher than 40 % and account for about two fifth of global trade and foreign direct investment (FDI).

A \$100 billion development bank (DB), together with a \$100 billion currency reserves pool, was launched in Brazil by leaders of the BRICS emerging market to

aid countries forestall short-term liquidity pressures (Shannon 2014). Lending by the development bank is scheduled to start in 2016 and be open to members and other countries. Nigeria, therefore, should key into this even before it is enlisted as a full-fledged member. The new DB is primarily created to lend money to developing nations for investments, in a similar vein like IMF/World Bank. Being a multi-polar world, hopefully, it will provide more funding option for developing countries. This will help other less-developed countries seeking fund not to be stocked with rules of the Western world (Shannon 2014). Essentially the funds that will be provided by this new financial institution will serve as an alternative source of capital to the fund being provided by the International Monetary Fund and the World Bank.

What can be deduced from the creation of the new development bank is the viability and strength of the BRICS nations, especially the intellectual capacities of the countries in designing and advancing well-packaged monetary and fiscal policy thrusts that guide the leaders in coming up with the idea and in concretising it to ensure that the five nations and other developing nations are redeemed from abject poverty, ignorance and diseases. Advanced education is, therefore, the key to this very welcome development, and it should be put to use in Nigeria to ensure that BRICS is transformed to BRINCS, especially with the popular change in governance that has been brought about by the Nigerian electorates, beginning from May 29, 2015.

10.3 BRICS to BRINCS

Despite some challenges that Nigeria may envisage in requesting for their inclusion to BRICS groupings, there are strong justification for such inclusions. Some of the challenges that Nigeria might face might have to do with its population. Besides South Africa, for instance, the other BRICS countries have impressive population unlike Nigeria. The key indicators and statistics of the four key players of BRICS are shown below:

BRICs development indicators

Indicator	Brazil	Russia	India	China
Population (2009)	194 million	144 million	1.15 billion	1.33 billion
GDP (US\$, 2009)	1.573 billion	1.232 billion	1.310 billion	4.985 billion
GDP per capita (PPP current Intl.\$,2009)	\$10,499	\$14, 913	\$3, 015	\$6, 778
GDP average growth rate (1990–2009)	2.5 %	0.3 %	6.3 %	10.1 %
GDP average growth rate (2011–14 as of April 2011)	4.2 %	4.5 %	8.1 %	9.5 %
Merchandise exports (US\$, 2009)	153 billion	303 billion	162 billion	1.201 billion
HDI % change (1990–2012, for Brazil only 2000–2010)	7.6 %	3.8 %	33.3 %	44.2 %

Source: World Data Bank, International Monetary Fund (IMF), UNDP Human Development Report. www.globalsherpa.org

The population of a country directly affects the potential size of its economy and in return projects the country's capacity to function as an engine of global economic growth. Some of the shortfalls, though surmountable, in Nigeria's inclusion may have to do with huge infrastructure deficit which is causing the cost of doing business in the country to be very high. Attention must be given to the country's infrastructure development so as to bridge the countries' infrastructure deficit (Okafor et al. 2008). This will enable the country get to a reasonable infrastructure threshold for possible acceptance among the BRICS blocs.

In as much as Nigeria may not measure up fully to the other BRICS members, Nigeria and the BRIC(S) countries share a common vision of striving to improve economic growth that will pilot decent and sustainable jobs which will alleviate poverty. They also share similar dream and work to realise a more equitable global political and economic system. Nigeria's ability to link with BRICS grouping will enable the country to accumulate knowledge from other developing nations and use it to her advantage. BRICS blocs being a strong force will facilitate both trade and investments for Nigeria. BRICS members already established a relationship with Nigeria. China, for instance, is already Nigeria's largest trading partner. There is already in existence a good diplomacy and recognition, which being partners can breed huge benefits to both countries.

There is a growing interest of developed economies in land acquisition for agribusinesses in African countries, Nigeria inclusive. Such land rush phenomenon has rapidly grown between 2000 and 2011 (Anseeuw 2012). Such sudden rise could be ascribed to the food price crisis of 2007–2008 and the demand for biofuels, timber, raw materials, tourism, carbon market and forest conversion (Castel and Kamara 2009; Gerlaoh and Liu 2010). The relative cheap land, hectares of uncultivated land with high agro-ecological potential, as well as cheap labour are some other factors that make Africa in general and Nigeria in particular prime targets for foreign land acquisition.

The Bretton Woods Institutes (World Bank and IMF) as lending organisations at a time came up with economic reforms to increase export and foreign exchange receipts in order to improve the reimbursements of debt by most developing countries. The consequence of this policy was the introduction of the structural adjustment programme (SAP) and the liberalisation of the mining sectors. The general notion was that despite Africa's essential mining potentials, the sector was underperforming. China with its increasing demand for raw materials established itself as an increasingly influential player across the continent.

Nigeria is presently attracting the attention of more Chinese investors in certain key sectors, the mining sector being one of them. This interest on the part of China and some other BRICS members is being shown on the countries for potentially lucrative business and joint venture opportunities. The BRICS countries desire to explore commercial opportunities and areas of future interest in Nigeria. China has signed a \$23 billion deal with Nigeria. The biggest deal China has made with Africa is this oil deal (Kerri Shannon 2010). Recently, Nigeria and China signed a \$12 billion railway deal. A state-owned Chinese firm will build a railway of 1402 km along the Nigerian coast of Lagos and oil-producing area of Calabar in the Eastern Nigeria

(www.businessinsider.com/afp Nov 2014). Essentially, China seeks more resources and new markets for its economy. Trade between China and Nigeria totalled \$13.6 billion in 2013 (www.businessnew.com 2014).

Such examples of economic cooperation and joint venture business partnerships between BRICS member countries and Nigeria are a demonstration to the potential of this powerful new grouping to generate concrete and long-lasting benefits for Nigeria and its economic growth path. Nigeria's inclusion therefore will maximise the growing influence and global standing of BRICS and successfully replicate the economic achievement stories of its fellow BRICS members.

Even if Nigeria's inclusion is not ensured to transform the name to BRINCS immediately, both trade and investments that exist between Nigeria and BRICS nations particularly China and India are bound to be enhanced, especially as the bloc's development is established. The impact of these two great emerging countries of BRICS is already being felt in the Nigeria economy predominantly in the natural resource sector. These sectors have multiplier effect in the economies. A country's economic development can be facilitated via trade which becomes an important stimulus. The proposed Nigeria's inclusion into BRICS should promote economic growth and consequently generate employment if Nigeria is able to maximise opportunities created by higher demand for available commodities in the country. Literature has demonstrated that technology cycle and efficiency gains can be achieved through trade (Freeman and Jeremy 2013; Schiere et al. 2011).

This provides a forum for Nigeria to minimise the risks associated with trading and foreign investment which a host nation may suffer. The Nigeria's export to these emerging powers is in primary commodities. Such export earnings accrue mainly to foreign partners. This transmits a negative impact on the host country and is evident in the deepening level of poverty and mass unemployment.

Extant literature on foreign direct investment (FDI) documents that FDI contributes to capital accumulation and technology transfer (Ozawa 1992; De Mello 1999). Via new skill acquisition FDI enhances employment and impact economic development. The largest FDI in Nigeria, in recent times, came from China and India.

Nigeria should benefit from foreign direct investment (FDI) that could be attracted by its membership of BRINCS. FDI is a catalyst for a country's sustainable economic stability and development. Nigeria should welcome massive FDI from the member nations and others and be more resilient to external shocks, as the country belongs to economic blocs like BRINCS.

Achieving the nation's economic stability will include strengthening linkages with BRICS, diversifying exports and encouraging private sectors of the economy by minimising the cost of doing business in the country through infrastructure development. This will drastically reduce unemployment. Nigeria's resource endowments should be properly harnessed for greater benefits.

Nigeria as part of BRICS (transformed to BRINCS) will minimise, if not eliminate, the feeling that the country is primary commodity export based, thereby eroding the needful gains to sustain high growth. Nigeria, as a BRINCS nation, would be challenged to compete with other members in terms of increasing exports, mini-

missing imports, developing higher foreign reserves and ensuring internal peace and sustainable development. These are issues that should dominate the research, teaching and community services of tertiary educational institutions in Nigeria.

10.4 Role of Tertiary Educational Institutions

Tertiary educational institutions are the third-tier educational institutions like universities, polytechnics, colleges of education, etc. They are educational institutions that are above the secondary school level of education. These institutions are expected to be involved in high-level knowledge generation (research), knowledge dissemination (teaching) and knowledge application (community services) (Ogunzuku 2012).

As these roles are played effectively, tertiary educational institutions could assist in achieving any vision, mission, goal or objective of their nations. The scholars in the tertiary educational institutions are expected to effectively discharge the three responsibilities of research, teaching and community services in all spheres of life as their contribution towards sustainable economic growth and development.

Scholars working with the tertiary educational institutions are part of the design and implementation of the idea leading to the establishing of BRIC bloc and its transformation to BRICS, and they are instrumental to all the initiatives put in place to ensure fast-tracking of the developmental processes of the member nations. Tertiary educational institutions in Nigeria are also blessed with a good number of scholars who are expected to embark on research and teaching that could lead to the transformation of BRICS to BRINCS. They are to show commitment to the three responsibilities as they produce appropriate knowledge needed to guide the Nigerian government towards buying the idea and pursuing it very vigorously.

Authorities of the Nigerian tertiary educational institutions should challenge scholars in appropriate departments and faculties to embark on researches whose outputs would make the leaders, especially the incoming new government (from 29 May 2015), embrace the agitation to seek enlistment into the BRICS bloc of nations so that the country joins its peers in ensuring sustainable economic growth and development of not only itself but other emerging nations in the African, Asian and South American continents.

10.5 Conclusion and Recommendations

1. Obviously many will be sceptical about this paper's advocacy for transforming BRICS to BRINC, but given the enormity of some BRICS members in Nigeria and their quest for the country's commodity resources, it becomes reasonable for Nigeria's inclusion. To facilitate the success of such drivers, business should focus on enhancing the intra-BRICS business cooperation and coordination by promoting the already existing opportunities in Nigeria. BRICS members'

- interest in Nigeria's soil should encourage the Nigerian government to utilise the opportunity provided and diversify the economy to catch up with other BRICS members. Tertiary educational institutions definitely have key roles to play here.
2. Nigeria – BRICS inclusion will deepen trade and investment. The concentration of FDI from BRICS (chiefly China) in Nigeria is predominantly in the natural resource sector. A great need for a reconstruction that will boost economic growth in Nigeria is advocated since FDI shifts capital resources across countries. This should be given attention due to the fact that for a country to have significant growth effects of FDI, the country needs to attain certain levels of financial and institutional development (Kose et al. 2007). FDI should ordinarily provide positive impact on host countries. So far the impact of FDI from BRICS (China and India) in Nigeria is insignificant. BRICS ties with Africa, in general, and Nigeria, in particular, is so strong and hence should generate economic stability. It is the claim of this paper that the inclusion of Nigeria as a BRIC(S) nation will likely have a significant and enduring impact on the economic development of Nigeria. Scholars in the tertiary educational institutions in Nigeria are hereby challenged to empirically expose those areas of significance and impact.
 3. NIGERIA will benefit more by being a member because the opinion of BRICS groupings in the global economy matters a lot. This was clearly demonstrated during the 2007/2008 financial crisis. Chinese and Indian presence in Nigeria could be structured in such a manner that Nigeria becomes more assertive when negotiating their presence in resource sectors. Scholars in tertiary educational institutions in Nigeria are to produce knowledge that would make it clear as to how to do the structuring.
 4. Nigerian government should use the output of researches (conducted by tertiary educational institutions) in developing the country's natural resource sectors which are drivers of some of the BRICS countries, as efforts are made to ensure that the country signs up with BRICS to become BRINCS. Nigeria's keying into this relationship could be for positive economic transformation of the country.
 5. With the full integration of tertiary educational institutions in the process of enlistment of Nigeria into BRICS, the Nigerian government would be able to work out how to remove some challenges that may go against Nigeria's inclusion. Serious improvements regarding domestic productivity must be considered, and tertiary educational institutions are to play some roles in addressing those serious issues.

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Chapter 11

Capacity Building of Educational Leaders in An Era of Change: The Role of Higher Education Providers

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Abstract The claim that inculcation of leadership practices and capacity building of educational leaders could constitute an effective response to contemporary and specific exigencies of educational organisations of the twenty-first century is strongly supported in the current literature synthesised here. The well-tested leadership development framework that Kouzes and Posner (*The leadership challenge* (5th ed.). San Francisco: Jossey-Bass, 2013) devised has the potential for facilitating leadership capacity building in all contexts, including the Pacific. In this regard, the time may be ripe for higher educational institutions to revisit their leadership programmes with an eye to adequate preparation of a new generation of educators equipped with an armoury of best leadership practices custom-built for their use. This vital input in all educational contexts would enable leaders to engage effectively in all operations and functions and fast-forward their educational organisations in the current environment of rapid change. Acquiring relevant knowledge and skills opens the way for educational leaders to address in constructive ways the ongoing march of challenges in education.

11.1 Introduction

In an era of relentless globalisation, education systems around the world are undergoing dramatic transformations that demand more flexible and effective learning systems. The simultaneous scientific and technological advancement across the world is forcing a paradigm shift in learning, teaching and assessment. In addition, the rising tide of interest in global education instruments such as Education for All

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(EFA), the Millennium Development Goals (MDG) and No Child Left Behind (NCLB) is currently pushing educational development agendas in the Pacific and beyond (Fua 2005). These changes at different levels have transformed the educational landscape the world over and had a tremendous impact on all aspects of educational organisations, notably in recognising the role of educational leadership in promoting learning and teaching of high quality (Cheng 2011). Only through effective leadership and management can the desired changes in education institutions be achieved. In light of the changes and with the advancement in scientific and communications technology in education, continuous building of leadership capacity in all areas including learning and teaching assumes even greater prominence.

With this accelerating demand for systematic development of educational leaders, attention is focusing increasingly on higher education institutions (HEIs) to provide their high-quality training, a transformational change demanded in the Pacific Island countries (PICs) no less than elsewhere. In order to survive and keep abreast of other countries internationally, the PICs must fast-forward their academic institutions so that they are in a position to institute new educational reforms befitting the requirements of the twenty-first century. To achieve this goal, Bacchus (2008) recommends that HEIs in the PICs need to develop new programmes in order to confront the changing realities and adapt to the challenges of educational reforms. With the surge in the demand for higher education for educational leaders in PICs, universities and colleges can and must, as we shall see, play a mediatory role in creating a fit between education policies and practices of educational leaders.

The structure of the chapter follows from our aim to reconsider capacity building of educational leaders in changing times. The first section briefly introduces the global education reforms and their impact on educational leadership, with relevant examples drawn from PICs. Next, we present a framework for leadership development of educational leaders in the Pacific context, before examining the role of higher education institutions in fast-tracking educational leadership programmes for building the capacity of school leaders. Finally, this chapter draws relevant literature relating to the application of various suitable strategies in the process of leadership development, highlighting their probable value for PICs.

11.2 Effects of Education Reforms on School Leadership

The global education reform initiatives are making sweeping transformations in the education systems and school restructuring movements not only in the developed countries that have been the most influential exemplars in our region – particularly Canada, the USA, the UK, Australia and New Zealand – but also in the small island developing states (Bacchus 2008; Fullan 1998; Cheng and Townsend 2000). The major trends include ensuring education of quality, standards and accountability in education in combination with EFA and MDGs. These transformations are having significant impacts on education systems not only in developed countries but also in developing countries. In contemporary times, with the progress in advanced

communications technologies, reforms cross borders very easily. Some of the most obvious effects of reforms in the education sector of the PICs entailed the revision of national curriculum and assessment systems at both primary and secondary levels and ensuring good-quality education for all. For many decades, the small island developing states (SIDS) of the Pacific have in general been characterised by low educational attainment and inequitable access to education (Puamau 2005). Since the 1990s, SIDS including the Pacific Islands have embarked on large education reforms aiming at rapidly expanding the supply of education, achieving equity in the provision of education and significantly improving the quality of education. The prevailing reform agenda in developed countries such as the USA, Canada and the UK is on tackling underachievement in disadvantaged schools (Harris 2006), and in the PICs, the pressure is to attain better-quality education and improve student achievement.

In the early years of the twenty-first century, education reform efforts have refocused the attention of education planners, policymakers and scholar practitioners around the globe on searching for tools to transform schools (Hallinger 2003; Jackson 2000). For example, the drive towards the United Nations MDGs and EFA across the SIDS, in combination with the successes in raising primary school enrolment rates and the provision of quality education as means towards alleviating poverty, has translated into considerable pressure to expand educational opportunities at higher levels. As the completion rate for children attending primary education level increases, so does the need for creating higher learning opportunities. School leadership, therefore, has become the target of successful application of these reforms. For example, Salfi (2011) drew attention to the fact that ‘Different countries and education systems have introduced educational reforms from time to time and emphasised the importance of leadership for school effectiveness and improvement’ (p. 415). From a Pacific perspective, Bacchus (2008) succinctly states, ‘Small island states of the Pacific will only be able to survive economically and culturally if their populations receive an education that helps them to perceive new opportunities and provides them with the competencies and dispositions that would equip them to adapt readily to the changing social and economic world environment’ (p. 142). Without high-quality leadership at all levels of education, this dream will remain a chimera.

In a similar vein, calls for education reforms in the Pacific jurisdictions continue to be urgent. To compete with the rest of the world, reported Puamau (2005), the countries in the PICs are implementing many reforms with an intention of improving the quality and equity of education and education systems. The reforms undertaken at national level in the PICs cannot be accomplished without effective leadership at the school level. In pursuit of this, greater emphasis has now been placed on strengthening leadership and management at all levels in the education system. In the PICs schools are now required to be more accountable to their stakeholders – district education office, school management committees, Ministry of Education, parents and even churches. In that sense, for education reforms to be effective in the Pacific Islands, the capacity to make them operational rests not only with classroom teachers but also with effective organisational processes, functioning

higher educational institutions and the existence of tools and resources to plan, implement and manage effective leadership development programmes. The consequent implication for capacity building of educational leaders to ensure quality educational provision in all PICs is a heavy burden.

11.3 Building Leadership Capacity to Cope with Change

All of the initiatives mentioned earlier call for the importance of recognising leadership capacity building as a key ingredient for any significant development in the education sector. While many stakeholders are involved in ensuring implementation of reforms in the education sector, it is the education leader who plays a central role in accomplishing success. Without strong leadership skills, the changes and innovations that are occurring in the education sector may not be possible. Hence, effective leadership is paramount to lead the change and at the same time to achieve the goals of reforms. Recent reforms in the education sector the world over have meant that education leaders' capacity to deliver and sustain fundamental change, especially in the direction of providing better-quality learning and teaching, has come under greater scrutiny. As Fullan (2002) posits, 'Only principals who are equipped to handle a complex, rapidly changing environment can implement the reforms that lead to sustained improvement in student achievement' (p. 16). Additionally, it is recognised increasingly in many of the change initiatives that education reforms now require capacity that is broadened to meet more challenging expectations of a global knowledge-based economy (Levine 2013). Leadership capacity building thus plays a major role in this paradigm shift.

Donors and academics generally use the term capacity building to mean the development of skills and knowledge in different fields such as education, health and trade. In relation to education, Guskey (2002) defines capacity as 'those processes and activities designed to enhance the professional knowledge, skills and attitudes of educators so that they might in turn improve the learning of students' (p. 16). In comparing capacity building to leadership development, Hirsh (2009) states a need for 'a comprehensive, sustained and intensive approach to improving [leadership] effectiveness in raising student achievement' (p. 12). More broadly, Salazar (2007) explains that leadership in contemporary education systems requires the ability to motivate and mobilise all the necessary constituents to do important but difficult tasks under conditions of rapid change, more workload and fragmentation. It can be argued then that planned and systematic training is desirable to improve leadership knowledge, skills and competencies that educational leaders can use in different school contexts to improve the quality of educational provision.

On the basis of these considerations, Crow et al. (2008) and Bush (2008) emphasise the significance of capacity building of emerging leaders as well as continuing professional development for practising leaders, particularly in developing contexts. Taylor and his colleagues (2002) conclude that 'global challenges now occurring, demand approaches to leadership education that are profoundly different from those

that have served well in the past' (p. 353). Reference to the twenty-first century as the knowledge-based society, which hinges on knowledge and information in order to maximise performance, underscores the truth of this statement. In a knowledge-based society, the knowledge and qualities desired in educational leaders is dramatically different from the past centuries.

Most of the countries in the Pacific region, having realised the need for training of educational leaders, have launched various capacity building initiatives. For example, Levine's (2013) recent report on education in the PICs that capacity building initiatives mainly focused on training of national ministry staff, which was generally geared towards technical assistance. This was not good enough in terms of transferring skills and knowledge to the school level. As a result, it was difficult to recognise its impact and effectiveness on the quality of education in PICs. In the history of innovative ideas and change in the Pacific region, efforts to implement education policies have often failed, because of either implementation problems or simply unsuccessful transfer of new ideas because of poor leadership of the educational leaders (Puamau 2005). More recently, Levine (2013) states that 'past attempts to [implement education reforms] has been ineffective as they do not address the core-problems undermining education service delivery' (p. 11). He cites instances where reforms have been unsuccessful and policies have been reversed. In such circumstances, the need to develop relevant knowledge and appropriate skills is a requirement for contemporary educational leaders. This calls for greater investment in leadership training and development for improvements in the quality of education in the Pacific context (Fua 2005; Lingam 2011, 2012). However, in the PICs a suitable leadership development framework does not exist and often different regions work in isolation with what they consider useful. This has implications for educational leaders' capacity building and in turn leadership practices. In this regard, higher education institutions should not be limited to generic leadership development, but provide learning opportunities that are well suited for the educational leaders of the twenty-first century.

11.4 A Framework for Contemporary Leadership Practices

In the current era of education reforms and change, school leadership issues have been debated and explored more and more in an international and comparative context. In the context of globalisation and change aligned with the MDGs, school leadership has undergone a paradigm shift from a role as traditional manager of the building to source of *forward looking* leadership. Studies such as that by Robinson and colleagues (2009) suggest that the traditional model of leadership development that focuses primarily on management skills fails to consider other dimensions of leadership that directly affect the core business of learning and teaching. Of the many models of leadership, Kouzes and Posner's (2013) Leadership Practice Model is notable for being based on extensive research on contemporary transformational leadership with associated behaviours. Through their research, the authors have

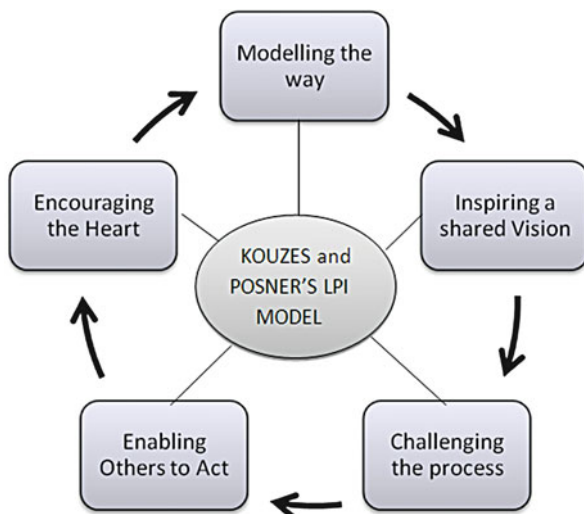


Fig. 11.1 The five practices of exemplary leadership (Adapted from Kouzes and Posner (2013))

devised a Leadership Practice Inventory (LPI) distinguishing five domains of effective leadership practices that all exemplary leaders, including school principals, demonstrate. An overview of the LPI Model is displayed in Fig. 11.1.

These five leadership dimensions are interdependent and interactive. Selecting a leadership framework serves as a foundation and provides common language for leadership learning. The authors further concluded that leadership is not inherent in the official position but is ‘a collection of practices and behaviours regardless of the profession’ (Kouzes and Posner 1997, p. 5). Their research shows that those individuals who engage in these behaviours later become effective leaders. In recent times, nearly five hundred researchers have employed the LPI as their preferred instrument for their studies in developing leadership practices. Such a wide use of LPI is suggestive of faith in the reliability and validity of the instrument as well as considerable interest and support in adopting this inventory for educational leadership development.

In the following sections, these five domains are discussed, providing insights on how leadership practices identified by Kouzes and Posner (2013) relate to educational leadership development.

11.4.1 Modelling the Way

The most important role of school principals in this era is to be good role models. Effective leaders take the opportunity to show others what they are doing through setting examples. They set the tone through their everyday actions that ‘demonstrate

that they are deeply committed to their beliefs' (Kouzes and Posner 2008, p. 2). Effective leaders work towards the goal of changing learning and teaching behaviours in the pursuit of achieving excellence. However, leaders need followers and effective leaders work with followers to create 'a shared sense of purpose and direction' (Leithwood and Riehl 2003, p. 3). Duke (2004) also identified that success of turnaround schools was likely to be associated with principals who, in their own behaviour during the school day, model good teaching practice and mentor their less experienced teachers. This is particularly important for outer island schools in the Pacific region, where principals often take the dual role of teaching and leading. As such, principals can be effective role models and guides for learning and teaching, which can act as a practical and powerful 'instructor' and motivator for their staff, particularly in the Pacific contexts.

11.4.2 Inspiring a Shared Vision

Kouzes and Posner (2007) see inspiring a shared vision as the ability of the leader to focus on the future and clearly articulate the vision, thereby gaining the followers' support and belief in the vision. Successful principals create a vision for their schools based on their personal and professional values (Bush and Glover 2003). They articulate this vision through walk and talk and influence their staff and other stakeholders to share the vision. In this way the whole school is directed towards the successful achievement of this shared vision.

Effective leaders are also visionary leaders. As a visionary leader, a school principal must develop the capacities for their staff and students to create a vision for the future (Deal and Peterson 2007). Visionary leaders have the ability to communicate effectively the goals and aspirations of the school and know how to attain successfully. The ability to communicate the vision is important for any principal, but the 'necessity for exceptional communication skills is especially important' for school principals in the PICs because the success of the vision is invariably a product of how well it is communicated to the staff, students and stakeholders.

11.4.3 Challenging the Process

Kouzes and Posner (2007) locate searching for opportunities to change the status quo as the first step towards challenging the process and making a difference. Recognising the need to change, effective school principals always look for ways for their individual staff to change, grow and improve in order to get extraordinary things done. Principals take the initiative to encourage others 'to search for opportunities to innovate, grow and improve' (Kouzes and Posner 2008, p. 2) in order to raise performance. These leaders challenge the process by experimenting with innovative systems and taking risks to bring about meaningful change. Realising

that experimenting with new ideas can produce a degree of failure, effective leaders use mistakes as an opportunity to develop themselves. In this way principals are in a unique position to challenge the core business of schools and motivate teachers to create new approaches to learning and teaching, as demanded by the education reforms. Thus principals build confidence in their staff and encourage everyone in the school community to view problems as opportunities to learn. Effective leaders acknowledge change and become agents of change. In the Pacific context, for leaders to be successful, skills and competencies in risk-taking leadership practices are a vital part of their education.

11.4.4 Enabling Others to Act

This third dimension, according to Kouzes and Posner (2013), entails concepts such as teamwork, empowerment, trust and confidence. Enabling others to act is described as a means of fostering collaboration through teamwork and individual accountability. Research indicates that ‘leadership is not a solo act, it is a team effort’ (Kouzes and Posner 2007, p. 224). Effective leaders actively facilitate teamwork as the way to reach their destination. Because good leaders do not accomplish their goals alone, it is necessary to build a team that feels capable of taking action in achieving the shared goal of the organisation. Effective leaders support and develop the leadership potential of others if they are to succeed in achieving the desired goals. However, empowering people to act like leaders themselves requires an investment in their personal development. In the Pacific context, educational leaders need to work collaboratively with their staff and community in getting extraordinary things done. In doing so they create a climate in which all staff and the community members feel they are important and valued.

11.4.5 Encouraging the Heart

Encouraging the heart encompasses ‘supporting individuals and groups to achieve the vision’ (Kouzes and Posner 2007, p. 248) which involves focusing on the organisation’s shared vision and goals and efforts made in accomplishing these shared goals. Effective leaders acknowledge the efforts of their constituents and celebrate the accomplishments. Recognising the efforts and contributions made by teachers in schools makes them feel capable and motivated to try innovative ways of achieving the shared goals. As Hargreaves (2003) discovered, teachers need acknowledgement in order to boost and motivate them. Hargreaves’s work revealed that teachers in secondary schools are highly emotional. Therefore, their efforts in making innovative contributions that improve the standard of schools need to be valued and rewarded. While rewarding small success is important in improving organisations, successful leaders of turnaround schools keep their staff focused on the long-term

goals (Duke 2006). In essence, teachers need opportunities such as positive feedback, rewards and small celebrations that can enhance their teaching and learning, which in turn can have a positive impact on the quality of education.

11.5 The Role of Higher Education Providers

The education and capacity building of educational leaders has long served as the core purpose of HEIs. Educational leadership programmes in HEIs are designed to prepare credentialed school leaders. The emphasis, however, is on preparing candidates for formal leadership positions in educational organisations. Guided by recent calls for reform, education reformers are urging educational leadership programmes to focus on innovative approaches to leadership capacity building, in addition to an increased emphasis on improving student achievement (Robinson et al. 2009). The approaches to educational leadership programmes have been a general concern for some time, which explains the need for the programmes to change (Hess and Kelley 2007; Levine 2005; Wong 2004). In recent years, critics have often called on leadership preparation programmes in American higher education institutions to reform in order to become more effective and efficient. Concerns have been raised about what skills, knowledge and dispositions are needed by school leaders. For example, the US Department of Education (2004) characterised training programmes at HEIs as lacking purpose and cohesion: participants proceeded through without any constructive connection to actual school practices. A critic of leadership preparation programmes offered by HEIs around the USA, Levine (2005) concluded that the majority of the educational administration programmes ranged from ‘inadequate to appalling, even at some of the country’s leading universities’ (p. 23). More recently, Hess and Kelly (2007) reported that principals in the USA received little training in the use of data, research, resource management, technology and monitoring teaching and learning in a systematic way. These findings suggest that effective development of leadership capacity might help to mitigate what numerous writers (Fua 2005; Lingam 2012; Puamau 2005) have identified as a lack of leadership skills and dispositions and emerging leadership crisis in the Pacific region.

In recent years, many college and university programmes for educational leadership have started to revisit their curriculum and delivery to meet their national standards of effective leadership development (Darling-Hammond et al. 2007). Efforts have now been placed on university programmes to develop leaders’ capacity to work with their school to improve student learning. Leadership capacity building can have a positive impact on schools; therefore, ‘the skills and knowledge associated with effective leadership can be taught and, indeed, their development should not be left to chance’ (Onguko et al. 2008, p. 717). Thus, the need for specific preparation for practitioners has long been recognised, and many educational leadership programmes have heeded calls for reform creating better programmes that prepare instructional leaders who can have positive impacts on student achievement. In this endeavour, HEIs have a critical and important role in developing the principles,

qualities and awareness not only needed to perpetuate the sustainable development philosophy but to improve upon its delivery. A variety of writers favour the practice of many leadership programmes that require candidates to go through the preparation experience in cohorts, enhancing meaningful and relevant learning as well as fostering a sense of community (Barnett et al. 2000; Hill 1995; Norris and Barnett 1994). Similarly, significant internship experiences, where students integrate practice with new knowledge and receive mentoring from practising administrators, are among the most highly valued programme experiences (Browne-Ferrigno and Muth 2008). Given the rapidity of reforms and the need for leadership development of school leaders, HEIs need to provide capacity building opportunities when any reform is instituted so that educational leaders implement them with conviction (Lambert 2003).

In order to produce quality leaders with the relevant knowledge, skills and competencies to undertake the mandates of education reform, Darling-Hammond and colleagues (2007) highlight a number of pedagogical features of education leadership programmes for HEIs to consider as important, including among them cohort structures, problem-based learning and internships.

11.6 Pedagogy/Delivery

11.6.1 Cohort Structures

An approach that is gaining in popularity and becoming a preferred option in leadership preparation and higher educational leadership programmes is the use of cohort groups (Barnett et al. 2000; Browne-Ferrigno and Muth 2003; Lauder 2000). Lauder (2000) defines a cohort as ‘a group of students learning together, from and with each other’ (p. 24). As early as the 1980s, cohort use was embraced by universities across the USA through Danforth Foundation’s grant to support the review of educational administration programmes (Leithwood et al. 2004). Leithwood and colleagues reported that educational leaders who were trained in cohorts were rated highly on quality leadership practices by their staff. The use of cohorts in leadership development is based on the understanding that learning is enhanced when adults create learning communities (Barnett et al. 2000). Proponents of cohort grouping strategies maintain that ‘adult learning is best accomplished when it is part of a socially cohesive activity structure that emphasises shared authority for learning, opportunities for collaboration, and teamwork in practice-oriented situations’ (Davis et al. 2005, p. 10). According to Knowles (1985), adult learning is premised on four assumptions: needs, experience, interest and relevance and problem-centredness. In the context of previous experience, adult learners learn best when they are presented with opportunities to interact, share and challenge with one other and when learning is built around their needs.

The establishment of cohorts in educational leadership programmes has gained substantial popularity and is consistent with research findings on benefits of preparation of students in cohorts (Barnett et al. 2000; Durden 2006). Evidence also suggests that the cohort structure contributes to practising collaborative problem-solving, shared learning and building teamwork skills that are increasingly expected among school faculties (Barnett et al. 2000). Durden's (2006) study on the cohort effect of a group of educational leadership students showed that students valued the wealth of their learning experiences and the advantages of working collaboratively. Durden concluded that the cohort experience was able to 'evoke an image of the type of collegiality that will serve as a model for these aspiring leaders in their future roles' (p. 124). Highly cohesive groups interact and engage in a more supportive environment. Most importantly, candidates develop better group process skills through cohort structures, and these skills are critical to leadership development (Leithwood et al. 2004).

However, it is understood from research that utilising cohort structures can also have some distinct disadvantages. For instance, the intense nature of cohort experience can cause tension among cohort members, and between them and faculty members, resulting in shifts in power relationship. Nevertheless, studies suggest that cohorts can be a powerful way of influencing collaborative learning, encouraging professionals to think creatively and to support and encourage one another mutually (Greenlea and Karanxha 2010). Importantly, educators who work interactively as a team grow both personally and professionally as they become more analytical and more willing to apply new ideas in real-life contexts. Given the significance of cohort groups, it is not surprising that cohorts have now become established features of educational leadership programmes in many institutions across the globe (Greenlea and Karanxha 2010); these findings have implications for developing leadership capacity in PIC region. Ultimately, the inclusion of cohort groups in HEIs in the PICs may contribute to high-quality programmes for the advancement of leadership career development.

11.6.2 Problem-Based Learning

An educational approach that is gaining momentum in higher education institutes is engaging students in real-world settings in which students work on problems that were brought from other organisations and work on possible solutions that can have a positive impact on their academic learning (Wiek et al. 2014). Problem-based learning (PBL) focuses on complex problems and adopts a contextual approach to find solutions. Studies on educational leadership indicate that effective leadership preparation programmes provide learning opportunities for leaders to exercise flexibility in PBL through a collaborative, reflective and critical examination of authentic problems (Darling-Hammond et al. 2007). These authentic school-based problems and activities provide learning opportunities that are often missing in regular traditional classroom-based coursework. As a result, over the past decades

the problem-based approach has become an important component of educational leadership programmes (Huber 2010; Weindling 2003). By participating in challenging simulations, educators gain new knowledge and develop new leadership skills and attitudes. In comparison to traditional lecture-based learning contexts, problem-based approaches have motivational advantages in that they allow learning by action and with interaction with colleagues who provide immediate feedback. Such an approach allows for greater teamwork, peer learning and self-direction.

Copland's (2003) work with problem-based preparation and problem-based framing ability in prospective principals indicated that greater exposure to PBL is associated with greater problem-framing ability of students. This study suggests that problem-framing and solving strategies may be used as an instructional strategy and developed during the process of preparing for leadership. This approach encourages experiential learning in which students learn from their leadership experience rather than from a superficial task they are presented with. For instance, Young and colleagues (2010, p. 15) allude to the notion of collaborative learning as illustrated in this quotation:

Before beginning this program, I believed I could accomplish great things alone. I viewed myself as a lone ranger and closing the gap on student achievement was a task I could accomplish by myself. After two years, I have discovered the power of having many like-minded individuals working together as one to achieve a common goal.

Essentially, PBL through interactive discussion facilitates the leaders' learning and stimulates their thinking. Thus, PBL provides the platform for learners to be effective and self-directed, enabling them to develop problem-solving, reasoning, communication and self-assessment skills (Hallinger and Bridges 2007).

From a business context, Hallinger and Lu (2011) observed that the PBL courses fostered a more active engagement in a classroom environment that helped graduate management students understand how to apply theory to practice by examining the instructional effectiveness of a problem-based curriculum in a business school in Thailand. In particular, their study suggests that students perceived PBL as an effective approach to learning. Although drawn from a business perspective, these findings have important implications for the preparation of educational leaders. When compared to conventional classroom-based instruction, PBL had positive effects (Hallinger and Lu 2011). In contrast to traditional methods, which mainly focus on knowledge transmission, Weik and colleagues (2014) point out that PBL approaches 'engage students in inquiry-based research for complex problem solving' (p. 4). Applied to leadership programmes in HEIs, these programmes are being challenged for both their content and delivery (Levine 2005). In order to cope successfully with the problems associated with educational reforms and change, graduates of educational leadership programmes must be exposed to these types of problems and HEIs must find innovative ways to develop leadership capabilities (Rowe 2007).

11.6.3 Internships

Professional internships have long been practised in the fields of medicine and engineering and have recently gained some interest in educational leadership (Baugh 2003). An internship component of leadership training involves placing a leadership candidate in actual administrative settings under the guidance of a highly qualified and skilled leader. It is generally agreed that the main aim of internships is to bridge the gap between theoretical concepts and their application to 'real-world contexts'. Studies on school leadership development programmes in the USA have determined that exposure to elements of real-work practice can increase a leader's ability to contemplate, synthesise and systematically plan strategies for action (Davis et al. 2005). Similarly, Hess and Kelley (2007) assert that 'the content of instruction is one component, equally important for scholars to consider internships, programme structure and mentoring' when redesigning leadership preparation programmes (p. 22). Currently, professional expectations for school leadership require internship experiences that provide interns with opportunities to work with real-world problems under the guidance of experienced practitioners (Cunningham 2007). Such experience provides a vital opportunity for aspiring and new leaders to gain new knowledge and skills they need to address the challenges of their new responsibilities.

While real-world training through internships is central to educational leadership programmes, many internship activities still do not offer the experiences that successfully prepare future school leaders. Browne-Ferrigno and Muth (2008) argued further that internships in many leadership programmes fail to meet even the basics. Darling-Hammond and colleagues (2007) concluded that 'efforts to provide field-based practicum experiences do not consistently provide candidates with a sustained hands-on internship in which they grapple with the real demands of school leadership under the supervision of a well-qualified mentor' (p. 6). Numerous researchers conclude that internships should allow aspiring leaders to translate theory to practice and learn from consequences in real-world experiences. Emphasising the importance of internships, the Southern Regional Education Board (SREB 2007) suggested that field-based internships must be a high priority of all educational leadership programmes.

Engagement through the internship is indispensable to the socialisation process that must occur for administrative leadership capacity building and positive transformation to follow (Browne-Ferrigno and Muth 2004). To bridge the gap between theory and practice, Anast-May et al. (2011) concur that internship programmes for aspiring school leaders should provide real-work learning opportunities for tomorrow's schools. This view suggests that HEIs should consider redesigning their leadership programmes to give interns and their supervisors more flexibility in developing internship activities. Pounder and Crow (2005) opined that 'designing school internship activities that are authentic will contribute to a stronger pipeline of effective school [leaders]' (p. 57).

Orr and Barber (2007) found that supportive structures, standard-based curriculum and more intense internships led to significant gains in leadership skills and knowledge and in advancing to leadership positions. Taken together, these results suggest that the quality of internship experience is more influential and rewarding (Orr 2011). Thus, a successful leadership internship programme is dependent in part on competency of the institution and also on the attitude of the candidate. Ideally, through authentic leadership practicum, aspiring educational leaders seek to broaden their work-related experiences through challenging tasks. This has implications for HEIs, as they play a crucial role in the success of leadership internship programmes. Additionally, HEIs must keep pace with the demands of educational reforms and constantly redesign their curricula in order for the candidates to develop their leadership and management skills to meet the contemporary demands.

11.7 Conclusion

In the face of increasing globalisation, the small island states of the Pacific are affected by ongoing transformations with the ultimate aim of improving the quality of education. One of the best ways educational systems can effectively respond to these changes is by providing opportunities for ongoing capacity building of educational leaders. The chapter has highlighted the need to adopt a widely applied leadership development framework rather than any conventional model for the capacity building of leaders. Apart from a proven effective leadership development framework, leadership programmes should employ suitable pedagogies for capacity building of educational leaders so that they acquire up-to-date knowledge and skills to carry out their work competently. The chapter has advocated the leadership framework developed by Kouzes and Posner (2013) as a way forward in the process of capacity building of educational leaders. In this regard, HEIs play a critical part in the capacity building of leaders, and as such they must review their leadership programmes so that they remain current and fast-forward institutions of the twenty-first century. This would then ensure that good-quality educational leaders in the system have the capability to operate effectively in an environment of substantive educational reform and at the same time contribute towards improvement in schools' academic performance.

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Chapter 12

Caring: A Useful Tool to Embed Sustainability Concepts into Nursing Education

Jennifer C.F. Loke, Bryant K. Lee, Deborah K.H. Lim, and Mary Laurenson

Abstract Caring is discussed within this chapter as a useful tool for embedding sustainability concepts into nursing education. Many nursing schools and faculties form an important part of higher education institutions and are significant contributors to the promotion of sustainability. When pressure for universities to pursue sustainable development increased, social and political changes were inevitable consequences. However, these pertinent changes have been perceived as attributes of poor nursing care in some parts of the world. Entangled with this conception, nursing care continued to be subsumed by the driving or restraining forces of social and political changes. Consequently, nursing education may not necessarily be informed by sustainability concepts. Instead of allowing the near absence of sustainability concepts in nursing education, this chapter discusses the need for shared beliefs and values of caring in nursing to promote student nurses' awareness of the need to care beyond patients' bedsides. It does so by exploring the potentials for a reconceptualised caring concept to advance student nurses' learning of sustainable development.

Keywords Caring • Higher education • Interprofessional learning • Nursing education • Sustainable development

12.1 Introduction

The concept of sustainable development (SD) was first introduced in the Brundtland Commission Report, 'Our Common Future'. Its emphasis was on the importance of cooperation among stakeholders at regional, national and global levels as a

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precondition towards a sustainable future (WCED 1987). Simultaneous considerations of social, economic, environmental and technical factors based on multidisciplinary perspectives were highlighted as key elements for decision-making in businesses and public policies (Pappas et al. 2013). The goals to achieve SD were subsequently clarified in the Rio Declaration on Environment and Development, which highlighted the creation of new levels of cooperation among states, key sectors of societies and people (UNCED 1992). It was not until Agenda 21, released at the Rio Summit, that the potential of the scientific and technological community in making effective contributions to SD was addressed. In this way, the pivotal role of higher education for attainment of successful SD became firmly established (Zilahy and Huisingsh 2009). Around the globe, universities have demonstrated their commitment to act as catalysts for change towards sustainability (Lambrechts et al. 2013). However, policy statements based on the landmark report by the Brundtland Commission (WCED 1987) appeared to have little impact on the nursing curricula (Barna et al. 2012).

Nursing education, albeit having migrated to universities, is not necessarily informed by sustainability concepts (Goodman and East 2014). When it is, the SD elements were at best, integrated in an implicit fashion centred on a content-based teaching approach (Lambrechts et al. 2010). As in any discipline, education is inter-related with practice; social and political changes from economic developments and advancement have often been perceived as major attributing causes for the diminishing nurse caring behaviours in both (Patterson 2012). Based on this perception, any associating concepts, including that of SD, are likely to be alienated from nursing education and practice, and might influence the nursing discipline to be unlikely to join new ways of assessing and managing human impacts on the world. Generating long-lasting results through SD to benefit societies is therefore less likely to be appreciated by nursing as one of their responsibilities. Consequently, nursing could still revolve around caring about self, but their care towards the environment would not be any more than the immediate context of care delivery.

12.2 Caring in Nursing and the Sustainability Concept

Caring is regarded by nurses as the essence of nursing and is expected by society as an attribute of professional nurses. However, this caring is more than an emotive response to an individual's distress or human response exhibited by the majority of people and comprises five closely related constructs, namely, compassion, competence, confidence, conscience and commitment (Roach 1985). This professional caring is therefore meaningless without nursing competence to identify individuals' responses, which are solely recognised by professional nurses. In other words, caring in nursing practice is taken as occurring within the context of the nurse-patient relationship and interactions, in which transpersonal caring and love are integrated for a caring and healing relationship (Watson 2009). The interactions should specifically lead to ethical and evidence-based actions which address patients' physical, emotional, social and psychological well-being (Watson 2009). Hence, caring in

nursing is more than a nurse-patient relationship, but a process of nursing interventions which incorporate caring to achieve patient well-being.

This understanding of caring is based on the derivation of the Latin word ‘caritas’ as ‘Christian love’ to mean the love for humanity (Nelson and Watson 2012). Taking the etymological definition, it would mean caring, nourishing, developing and enhancing human lives – focusing on public good quality of life indicators. In this regard, caring is an important sustainability concept which coincides with the goals of Organisation for Economic Co-operation and Development (OECD 2008), in promoting sustainable decision-making about achieving human development for high standards of living in a given environment.

The concept of caring in nursing education was influenced by the view of caring as being compassionate. The Department of Health (DH) in the United Kingdom (UK) explains caring as an attitude that brings about the ability to respond with humanity and kindness to others’ pain, distress, anxiety or needs and a capability to identify ways, to give comfort and relieve suffering (DH 2012). Similarly, the American Association of Colleges of Nursing (AACN) in the United States of America has adopted caring values which included altruism, autonomy, human dignity, integrity and social justice. Caring (ANA 2011; CAN 2008; NMC 2010) is generally regarded by nurses, and society alike, as the core professional value of nurses. While caring is required in nursing, there is an increased emphasis on its importance in public health remit within various nursing roles and responsibilities (RCN 2012). Therefore, teaching caring concepts to student nurses should automatically act as a powerful impetus for developing their understanding of sustainability.

However, there is no consensus about the way caring is taught, and the approach to teaching the concept generally follows the five-step process recommended by Patey (1987) for medical education (Fig. 12.1).

In Patey’s (1987) five-step approach in learning about caring, students would first be given the opportunity to perceive the need and/or opportunity for caring. This is often through a direct one-to-one contact with either a real patient in clinical practice or a fictitious case in simulation learning based on case scenarios. Next, students would be supported to perceive patients’ needs and then helped to move into the next step, to plan, organise and prioritise an appropriate response. Based on

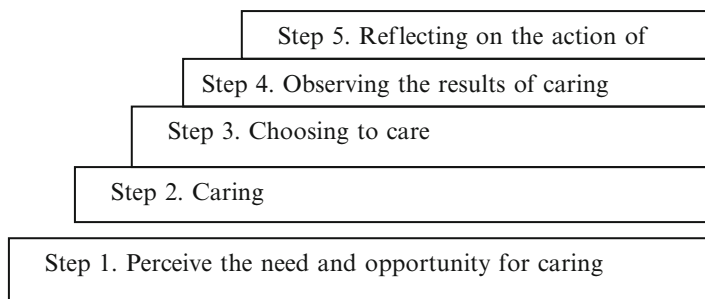


Fig. 12.1 Patey’s five-step approach in learning about caring

current caring concepts, students would be asked to treat patients as unique individuals whereby the plan of care and the actual caring process are based on individuality within a confined context. This leads to the observation of caring outcomes and reflective learning to focus on events that occurred within confined nurse-patient interactions.

In recent years, Husserl's (1978) lifeworld theory was used to introduce the concept of lifeworld of individuals to student nurses to help them appreciate the caring process. This lifeworld approach emphasised the individual's experiences which entailed recognising the world as the patient does, particularly in terms of suffering and well-being (Galvin and Todres 2013). Apparently, this concept limited caring from expanding beyond the individual's perspective to include sustainability concepts.

12.3 The Need for Reconceptualising Caring

Khun (1970) once stated that any old paradigms would gradually be displaced by a successful new paradigm and succession of the new would be a result of a new generation adopting the new paradigm along with the old generation adopting the new paradigm or leaving the paradigm due to retirement or death. Over the years, the process of caring would inevitably take a paradigmatic change in the way Khun (1970) described. However, the change was influenced by the demands in a dynamic healthcare environment where nursing is threatened by staff shortages and nurses' ability to care is simultaneously affected by increasing consumer demands (NP 2013). These inevitably led nursing to focus narrowly on an individual's current experience within the immediate context of nurse-patient interactions. Hence, caring might have evolved over time (Nelson and Watson 2012), but was based more on Newtonian and Cartesian paradigms resulting in a restricted concept as a consequential outcome. This could lend the nursing curriculum to unintentionally encourage student nurses to contribute to unsustainable ways that might accelerate the process of unsustainable development.

In the nursing discipline, society and its physical, social, technological and economic developments have long been recognised as factors impacting on health and well-being (Roper et al. 2000). Nurses are responsible for delivering health and social care and are therefore expected to deliver the care in sustainable ways through methods that take into account physical, social, technological and economic factors which affect health and well-being. For the nursing discipline to move towards SD, nursing education has an important role in helping student nurses understand the environmental impact on health and well-being by being able to see individuals living and functioning in a larger community. In the provision of an appropriate series of caring opportunities, each of these would need to be presented to students as an opportunity to care for individuals in a larger context of sustainable human existence. Without attempting to burden the already content-heavy nursing curriculum, sustainability concepts could be integrated in the learning of caring, which is traditionally

structured around objectives within the three domains of learning: cognitive, psychomotor and affective. The next few sections illustrate the usefulness of caring within the existing values and beliefs of the sustainability contexts: social, physical environment, economic and technological dimensions as a useful tool for instilling the sustainability concepts in nursing education.

12.4 Reconceptualising ‘Caring’ to Embed Sustainability Concepts in Nursing Education

12.4.1 Caring in the Social Dimension

As in many business organisations, healthcare institutions are including environmental sustainability in their corporate objectives and have devised strategies concerning sustainability (Naylor and Appleby 2012). In healthcare settings, progress in translating sustainability strategies into tangible actions ought to be reflected in nursing care of patients. Successful translation is expected, more so when nurses have not only the professional responsibility to care for patients in times of ill health but also to provide health education and health promotion as part of nurses’ daily work (Whitehead and Irvine 2009).

In this regard, nurses should be in a position to provide a significant contribution to social sustainability. Nursing education should provide individuals with opportunities to learn about individuals’ roles, behaviours and relationships with others and collective behaviours by families, social groups and established organisations. When student nurses are taught about patient care and education, they should be given a wider perspective beyond individuals’ health issues. For example, when teaching student nurses about increased activities by cardiac patients, to engage in active travelling instead of driving motor cars, we often limit student understanding by focusing on the relationship between active life and improved cardiac function. However, this limited understanding should be expanded to include sustainability concepts. It is therefore important that when students are encouraged to learn about how such social behaviours could improve public health, they should also be supported to search for evidence-based information in this area in relation to the reduction of carbon footprints. Similarly, sustainability concepts can be introduced in the teaching of caring for individuals with specific long-term health conditions. For example, when student nurses are taught how to provide patient education on balanced and healthy diets to individuals suffering from diabetes and/or hypertension, students’ learning about healthy diet could directly link to the idea of reducing meat consumption. In this way, when learning about health promotion, students are not only able to address individual’s dietary habits based on medical diagnosis but are also capable of addressing issues on lifestyle behaviours and attitudes towards environmental impact.

In any case, student nurses, who are well equipped with the necessary sustainability concepts based on an expanded version of caring, could involve the psychomotor domain of learning, in which they would actively engage patients and families in healthy living and might even end up promoting social behaviours through self-demonstration directly linked to sustainability developments. When that happens, student nurses could fulfil their responsibilities as good role models for influencing positive social behaviours and determinants. It is important to link the theory of SD to practice within the nursing curriculum so that more student nurses could become natural role models not only for peers but also for the public. As such, sustainable practices could become a norm which naturally leads to improved public health.

12.4.2 Caring for the Physical Environment

Healthcare services are delivered with a great impact on the natural environment. It is important that nursing education provides a good understanding of the ways to minimise avoidable environmental damage. Consequently, teaching needs to explicitly explain the ways in which nursing interventions respond appropriately to the health impacts, as well as the operational consequences of anticipated environmental changes. Sustainable ways in utilising resources should be threaded as an important theme in the nursing curriculum and be introduced at an early stage of the programme of study. Simulated learning of clinical caring skills would be ideal for learning sustainability.

For example, in the teaching of infection control concepts, good hand hygiene is one of the many important activities to prevent transmission of diseases, often taught to students at the start of a nursing programme. When being taught the clinical skills on proper hand hygiene, students are told that there are three types of hand hygiene procedure varying in method and complexity involving varying amounts of soap and water. All hand hygiene procedures are strongly emphasised in clinical practice as a necessity and must be performed before and after each nursing intervention and/or patient care. This tended to give the impression that handwashing, as part of maintaining good hand hygiene, ought to be performed frequently to prevent cross-contamination. While that is the case, students should be informed that this is kept to an optimal level to reduce water wastage. Also, while single use of paper towels for drying of hands is emphasised, students should be shown that drying of hands can be organised in ways to prevent excessive use of the resources (paper towels). Through the learning of a universal precaution procedure, student nurses could learn about how this nursing intervention is planned and organised between patients to keep the need for hand hygiene procedure to a minimal level. By imparting students with the required knowledge, the cognitive domain of learning is activated in which students would start to gauge an appropriate number of hand hygiene procedures and would also determine the types of hand hygiene required based on the nature of nursing interventions. They could then involve the psychomotor

domain of learning, in which they would engage in a handwashing and hand drying procedure that was based on careful consideration of the waste that would be added to the environment.

The important sustainability concept in addressing the physical environment can mostly be taught in clinical skills. These teachings can then be reinforced in the theoretical components within the curriculum. Over time, student nurses would manifest the affective domain of learning about sustainability; they would automatically assume the responsibility in making sure that they do not engage in excessive use of resources. Once students are given the opportunity to internalise the knowledge that wasteful use of resources does not further decrease the risk of contamination and, in contrast, further burdens the environment, they are more likely to engage in sustainable behaviours and are likely to be a positive influence on other healthcare professionals and individuals whom they have contact with.

12.4.3 Caring About Economic Developments

The concept on quality patient care based on interprofessional working is an expectation of all healthcare professionals, including nurses, to work collaboratively with other professional groups to achieve the best patient outcome (Barr and Low 2013). To promote interprofessional working (IPW), interprofessional education (IPE) is progressively establishing itself in nursing education especially at the pre-registration level (Barr et al. 2014). There is good evidence to suggest that nursing education is aware of the important contributions made through interprofessional working, in terms of achieving optimal utilisation of limited health resources. However, interprofessional working as an important sustainable strategy was not explicitly expressed in nursing education.

In other words, when the economic dimension of an efficient, profitable and sustainable development of a process directly relates to nursing practice, the link is not explicitly expressed in nursing education. It is therefore important that the ways interprofessional working benefits quality patient care are expanded and explained based on sustainability concepts. For example, the possibility of maximised healthcare resources and removal of unnecessary duplication through integrated care, which would otherwise not be achieved without interprofessional working, should be established in nursing education. Once the rationale for interprofessional working was made known to students as an optimal way to prevent occurrence of wasted expenditure, students would better appreciate their caring role within an interprofessional context. In this way, effective communication and information sharing between various professionals responsible for patient care could become a sustainable way for students to learn about maximising rather than duplicating usage of resources in patient care. While students appreciate the need for interprofessional learning and working, they would be committed to learn how to coordinate patient care and continue to operate in sustainable ways.

In terms of addressing sustainable development of products in healthcare, student nurses could be taught about ways to help reduce wasteful use of limited resources in patient care, which were not imposed by nurses. For example, in the area of drug therapy where nurses usually engage in educative and supportive roles, student nurses should be taught beyond the cognitive and psychomotor domain of safe administration of drugs in a caring way. Students should be helped to move into the affective domain of learning to assume greater responsibility in cutting down unnecessary wastage in this area of nursing care. When drawing any intravenous medications, student nurses should be alerted to consider the appropriate syringe size based on the volume of medications, rather than basing their choice on convenience. Also, students' concept of caring in the area of drug therapy should be taken further to include community nursing. This would allow students to increase their sophistication in learning about healthcare procurement-related CO₂ emissions and that these are largely driven by pharmaceuticals (Naylor and Appleby 2012). By doing so, nursing education on patient advocacy role could include addressing unsustainable practices such as overmedication or inappropriate prescribing, all of which according to Windle et al. (2009) are still common occurrences in care homes.

12.4.4 Caring in a Technological Dimension

Nurses have witnessed an increasing use of technologies for enhancing health and social care delivery. While nurses are not directly responsible for creating any medical equipment and health technologies, they are important end users. The advances of said technology require nurses to have an aptitude in utilising the technology to further the efficiency of it. There are many technological healthcare devices which nurses must be apt at handling, such as an infusion pump, a defibrillator and an electrocardiogram (ECG) machine, just to name a few. Within the nursing curriculum, students are taught how to use them effectively in a limited goal to ensure the safe delivery of quality patient care. There is a need for nurses' caring knowledge in this context to be expanded to include that which is about aligning sustainability with productivity. For example, in handling an ECG machine, students should not only be informed that both the placement of pads and interfacing with the technology to print an accurate representation of electrical impulses of the heart need to be done accurately for an accurate diagnosis but that the understanding of the need to ensure this was done correctly the first time, in order to aid efficient patient treatment that would have to be explained in relation to sustainability concepts as well.

Another significant change in healthcare delivery is the migration of health to community care, and with that, health technologies such as Telehealth are increasingly used on a large scale, and this has impacted largely on how nursing care is delivered in the community. Due to the direction in which caring is evolving in a highly complex technological environment, nursing education would have to build in strategies to aid students to reconceptualise caring that renders it beyond the individuals to include their environment. Hence, in teaching students the strength of

Telehealth, they should learn how to use Telehealth efficiently to reduce carbon footprints from unnecessary home visits.

In essence, student nurses delivering technology-based care need to acquire knowledge of how to use them effectively to meet sustainability requirements. This could ensure more integrated care and prevent care duplication, improving patient experiences and outcomes (Naylor and Appleby 2012). Through implementing care based on efficient use of health technologies, the environmental impact is reduced, and the efficacy of the care can be linked directly to economic benefits. However, such sustainable practices cannot be maintained unless sustainability concepts are embedded in nursing education. Hence, the caring aspect of using the technologies for healthcare interventions would have to be reconceptualised so that the student can truly use technologies to their full potential in a sustainable way.

12.5 Conclusion

Caring in nursing practice has long been a casualty of the increasing pressures from societal and political changes due to unprecedented advances in development, industrialisation and population growth. While societal and political changes were attributed to the lack in nurse caring behaviour, it is caring for the human race and society that is needed in order to address the changes. This struggle calls for an urgent need to reconceptualise the notion of caring in nursing such that it encourages students to identify and discuss important sustainability issues. Otherwise a wider perspective which includes sustainability concepts remains unappreciated and will continue to be excluded in nursing education. It is by going beyond perspectives of individuals to include that of the broader society that sustainability can be perceived in an integrated and holistic manner in the context of nursing. Henceforth, within the constraints of the nursing discipline, any pressures from societal and political changes which were once deemed as overwhelming could be managed. While economic, environmental and societal activities are continuously causing adverse effects to the earth's environment and the human race in current and future generations, it is important for nurse academics to recognise that caring education in nursing faculties within universities has a pertinent role in empowering students to start embarking on a journey towards becoming responsible qualified nurses, who could then go beyond reacting to stimuli from society to act responsibly as critical change agents in sustainable development.

However, implementing an innovation, such as sustainable development, is not easy, especially when nurse academics are, after all, individuals from nursing faculties which form a small part of universities. When universities are expected to lead in changes towards sustainable development, new mental models are required, and certainly, any prospect of unsustainability requires fundamental change (Corcoran 2010). There is therefore a need to reconceptualise the existing caring concept to enable nurses to interpret and respond to sustainability concepts. Cross-disciplinary research efforts would also be increased and widely implemented at all levels of the

societal system, and as such, caring research could be expanded to truly engage practice colleagues as research partners. That said, this can only be achieved if the notion of caring was used to its maximum potential within nursing education and followed up with caring research work at any academic level which focuses on societies. By then, rather than feeling the undue political and social pressure, nursing faculties could influence the source of pressures into thinking about ways in which the healthcare system and its related units and individual groups as stakeholders could adopt new practices for more sustainable ways to operate the healthcare system. In essence, by reconceptualising caring, nursing education could not only transfer the related sustainable development memes to students, but more importantly, it provides the opportunity for nursing as a discipline to move beyond concepts and perspectives, to embrace the values and practices of sustainable development and to be able to work collaboratively with the industry and government to contribute as one of the important leaders in developing sustainable development mental models.

Glossary

ANA	American Nurses Association
CAN	Canadian Nurses Association
DH	Department of Health
NMC	Nursing and Midwifery Council
NP	Nursing Programmes
OECD	Organisation for Economic Co-operation and
RCN	Royal College of Nursing
UNCED	United Nations Conference on Environment and Development
WCED	World Commission on Environment and Development

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Chapter 13

Branding Higher Education Institutions: What It Takes to be Branded

Ismail Hussein Amzat

Abstract Over a long period of time, the word ‘brand’ has been used in business, marketing and advertising to distinguish the product of one unique seller from another. Today, we are living in a world of ‘customerisation’ in which customers opt for a product based on their desirability and according to their favourability and loyalty to a particular product, due, perhaps, to the unrivalled quality of the brand. Given this scenario, higher institutions share similarities with business products, as the core business and product of an educational institution are teaching and learning. Hence, this chapter explains the importance of branding in higher education institutions (HEIs). It elucidates what it takes to be branded by providing some principles in creating a brand and the various steps towards branding, as well as proposes a model for the branding of higher education institutions.

Keywords Branding • Higher education institution • Marketing • Brand image • Brand identity

13.1 Introduction

One wonders what education has to do with branding, inasmuch as, hitherto, the term has been exclusively applied to the business sector and commercial products. Branding is an old common practice in the business world and considered to be a new concept in the educational setting. Branding in the business world today is a tool to meet the demands and satisfaction of buyers. It is a mechanism to sustain the image of a product and encourage customers to stick with the product. In a nutshell, when individuals are asked about a brand, they will not think twice before answering that a brand is a quality or famous product that companies use to attract their customers. This concept has now been borrowed by higher institutions after

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realising the value and importance of branding in education. This realisation is usually ignited when other players and competitors come into the picture and provide a similar service, making the marketplace more competitive.

Looking at the world today, particularly with respect to higher education institutions and their functionality, there is not much difference between education and the business sector. The higher education institutions are service providers that provide education and maintain their image and quality in teaching and learning across the lifespan, as well as gain from the intake of students and other revenue. In addition, they compete in the market with other educational institutions and create better revenue through their reputation (Black 2008). Further, the branding of educational institutions becomes important as they are considered to be great assets for the nation. In addition, with the global challenges and technology infusion, branding universities is deemed to be a solution to remain highly competitive in the marketplace and provide the ability to face those challenges (Harsha and Shah 2011). At this juncture, this chapter shares with the global audience what is at stake when higher education institutions are not saleable and marketable. It puts forward some arguments and claims by the authors concerning the importance of branding in higher education institutions (HEIs) and factors to be considered when it comes to brand development and the branding process.

13.2 What Is Branding?

As every organisation strives to obtain an edge in the marketplace, branding tends to be used as the key to attract customers and for product or service differentiation. Basically, to understand branding, it is necessary to understand what constitutes the brand itself. Therefore, brand and branding have been described using different adjectives and are understood from different perspectives. The brand is considered to be an integration of the brand name, goodwill and reputation (Copping 2013). While some authors believed that, it is 'a perception in the mind of target audiences (Mersino 2013, p1), people's feelings about an organization, institution, person or product which in return shapes peoples' experiences with that particular organization' (Gibby 2013). Hence, it is 'a mental expression or sign or quality (Harsha and Shah 2011, p. 2), the overall impression created in the minds of the public about an organization' (Nha and LeBlanc 2001; Teh and Salleh 2011, p. 3). According to some authors, brand is seen as 'a lifetime's uniqueness experience' (Juhdni and Salleh 2009; Teh and Salleh 2011, p. 1); it is an experience and relationship that form a connection between the organisation and stakeholders (Sharma et al. 2013). Some viewed brand as an attitude and what attitude has gotten used to, which is difficult to change, while others believed that it is about positioning. It is the 'total of all associations that are made by an organization or product' (Scarborough 2007, p. 1). However, with the different types of view and understanding, brand can simply be regarded as a name, reputation, perception, experience, positioning and association.

According to these brand definitions, branding is the process of creating a unique name, distinctive image, everlasting reputation and experience for customers to remember, as well as a way to differentiate and distinguish top organisations or institutions from one another. In addition, branding can be considered to be an arranged plan to attract those people associated with that particular brand, which, eventually, will make the brand a desired brand (Scarborough 2007). In fact, branding is not about deceiving audiences or making something glamorous to be more saleable or attractive to target audiences. This goes against people's understanding and belief of branding. In an educational setting, despite the different studies conducted on branding in higher education institutions, there is no specific definition of a brand, what it should be and its components in the context of higher education (Bosch et al. 2006; Nha and LeBlanc 2001; Palacio et al. 2002 cited by Teh and Salleh 2011). However, the branding of an educational institution is believed to make the programmes offered by the school, college or university unique and appealing (Mersino 2013).

13.3 The Need for Branding in Higher Education Institutions

Do not be surprised about branding in education; it has been argued that HEIs serve a similar purpose as the private sector. As there is 'nothing new under the sun', the business sector builds long-lasting relationships with their target customers; similarly, colleges and universities do this with their graduates and alumni. On the issue of branding in higher education, we can say that only a few articles have been written concerning the importance of branding in education, although all those articles strongly agreed that the branding of HEIs should be seriously considered for obtaining more revenue and to distinguish themselves to secure customer loyalty.

The articles of Arenson (2004), Chapleo (2006), Holmes (2003), Gifford (2004) and Reader (2003) supported the idea that branding is crucial in education as it helps universities to differentiate themselves, especially in creating a brand through the strong relationship between their educational product and the students (Heaney et al. 2010). It is an effective way to gauge how a university is perceived, thought of or felt about by stakeholders (Chapleo 2013) and an asset or possible way of contributing to the financial system of the university through the attraction of associates and constituencies (Copping 2013).

Additionally, branding HEIs cannot be complacent or have second thoughts as they depend on the revenue raised from students' tuition fees. With this dependency, the dynamism of the global economy and rapid changes in the students' demographic or population have forced universities and colleges to identify their uniqueness and the benefits that the students will receive after their enrolment and graduation. At this juncture and in the pursuit of achieving a better rate in student registration, research is needed to identify and understand what the customers want and need. This will help with market strategy and in the process of branding. However,

although the brand should remain, it is important to be aware of unexpected changes in the marketplace, as it can change according to the needs of the time. When a university is branded, it is very crucial for it to maintain its brand, and it is advised that the brand strategy used in the process should be consistent over a long period (Scarborough 2007).

Considering all the above essentials and constant changes, for HEIs to stay competitive, it is critical for universities around the world to create effective brands that will be irresistible to consumers. In the process, there might be some challenges that require universities or colleges to persevere with one brand and survey the market concerning whether the brand is relevant and in demand.

13.4 The Importance of Brand Image and Identity

Having a brand image or identity for a product or service is what is required in today's business and educational industries. The creation of a successful or effective brand image or identity might take every bit of an organisation's effort, and, sometimes, it can be a daunting task. For this reason, it is a prerequisite to have total comprehension of what image or identity is all about. In explaining this, brand is an association of identity, as it differentiates one from the other through its mark, symbol, slogan, tagline, specific design, colourful pattern or the combination thereof (Schiffman et al. 2005; Abbas 2014). According to Aaker (1996), brand identity is how people perceive the brand, while brand image is actually how the brand is perceived by the customers (Abbas 2014). In addition, brand image is considered to be a promise to customers, while brand identity is the output experiences of the customers in the form of trust enhancement (Ghodeswar 2008; Abbas 2014).

Nevertheless, in respect of educational institutions, their previous record and reputation play a big role in the persistence of customers with a brand. For example, an educational institution that provides low-quality education or one that has had a poor image in the past may face difficulties or challenges in transforming its image in the future, even if it has started providing quality education. Despite the institution changing its old image, students and others might find it hard to trust or believe that it has started offering quality services (Aaker 1996; Abbas 2014). Through the passage of time, the brand image or identity of an institution should be secured and protected. In doing so, it is suggested that four areas be considered: awareness, brand familiarity, image and strength of preference (loyalty). For awareness, the perceptions of the constituents or students towards their alma mater are discussed. The area of familiarity is about the connection and promotion that the university has made through word of mouth or knowledge. Image deals with the university representing what it is supposed to represent or in meeting the expectations of the people that attended. Strength of preference explains to what extent the prospective students, current students and alumni are loyal to their institutions (Gibby 2013).

13.5 Branding Principles

Understanding the branding principals is an initial step in creating a successful brand. It is the means for adhering to the rules of marketing and supply according to the customers' demands. These principles should be used as a guide during the planning process, which, eventually, is supposed to help in creating effective strategies to attract clients and penetrate the market. These principles might, in some way, reduce the chances of failure or setbacks in the process of branding.

In general, according to Scarborough (2007), there are two solid and unavoidable key principles of branding in higher education institutions – differentiation and integration. Differentiation indicates that the sustainability of an organisation in the market depends on its ability to produce a product that is uniquely different and better than its competitors. However, those differentiations or separators must be developed gradually based on the association of the existing brand and should be genuinely imbued in the educational experiences (Scarborough 2007).

For integration, it involves the connection of the market with the differentiators. Hence, it is about what is communicated in the marketing that corresponds with the uniqueness of the organisation. Thus, it is about the implementation of marketing activities without exception across all university units. However, when an institution is branded, this brand is expected to drive and lead the institutional strategies. In addition, the institution itself must know how to manage the brand. As a repercussion, a brand that deviates from what the organisation is doing or market strategy will not survive for very long (Scarborough 2007). Therefore, since branding seems to be the only choice for universities and colleges to be one of the key players, four alternative or comprehensive effective principles are proposed for marketers by Barbara Apple Sullivan (2012), a founder of the Sullivan brand engagement firm, New York:

1. People's views and opinions about your college or university.

Be a good listener to know what people are saying about your institution and where you stand. This is the first principle as you need to know what the media and other communication networks say about you. Conduct a survey with students and outsiders to know what they think about your institution.

2. It goes beyond ranking.

Know your rival in the market and other institutions that compete with you with the same brand, value and services. Hence, if there are missing points or leakages in your strategy, be vigilant to know what is missing and what makes you less competitive with the others. Approach students to explore what makes them choose that particular institution. For your information, those colleges or universities that dominated the market might sometimes not be as highly world ranked or reputed as yours, but, perhaps, they knew what it takes to attract students. Therefore, this is where to use a comparison or benchmarking as an evaluation to identify your strengths and weaknesses, which, ultimately, will lead to the main differentiation between you and the institutions that are competing with you. Sometimes, an institution's brand could be its academic programmes or the

duration of the programmes. For example, a short duration of the study or fast programme completion could be the main differentiation, as, nowadays, students love to see themselves graduating quickly and getting employed. Some universities or colleges offer a 3-year bachelor programme instead of 4 years and master's programme of 1 or 9 months instead of one and a half years or two years. In such a case, students might enrol into those institutions. In addition, traditional or face-to-face learning could be tedious or hard for some working students or for students who live far from the campus. Preferably, they may choose an institution that provides distance learning or online courses. A perfect example is the emergence of MOOCs, which has recently penetrated the market and is paving the way for global learning accessibility, flexibility, opportunity and innovation and is being used by top universities in the world, such as Harvard, Massachusetts Institute of Technology (MIT) and Stanford (Chen et al. 2013).

3. Value proposition above all.

Display what you stand for and how you want to be, and determine what constitutes your brand uniqueness, both tangibly and intangibly. Nowadays and particularly during the time when students are visiting their future institutions, the internal and external appearance of the university or college is important in swaying the students decision to choose that institution.

4. Brand honesty.

Try to admit who you are and make sure that all the points in your brand are truly delivered. Be aware that the brand is not about the beauty or how colourful your logo is and that the brand is not just for your marketing materials or your well-technologised websites, but, rather, it is the joint effort, honour and credibility in the university community as a whole.

Adherence to these basic principles before embarking on a branding mission in higher education institution is advised. Although the principles are not expected to answer all your questions or solve all your problems, it will at least provide general and basic principles that the majority of the authors agree upon and which other authors might build upon and extend.

13.6 Steps Towards Branding

Since branding is seen as an important tool worldwide in any kind of organisation to improve its product or service and mainly to entice customers, it is absolutely crucial, especially in the educational setting, to know the steps and techniques before creating a brand. In addition, it is also necessary to be aware that whatever brand tactics or plans you have, it should relate to the mission and value of the institution. Harsha and Shah (2011) identified five universal plans or what can be considered as tactics:

1. Understand what people want.

In the case of HEIs, there should be empirical studies to determine the tastes of the constituents and identify what they want from the institution.

2. Identify market segments or, as I prefer to term it, ‘market weaknesses exploration’ that an institution should exploit.

This calls for defining the features of each segment by exploring the motivation factors and challenges that might stand in the way of the institution achieving its objectives.

3. Determine brand attributes that are lesson barriers.

Doing this helps to penetrate the market to determine what students want or what type of institution the prospective students are looking for. This is where an institution’s reputation, experience, programmes and tuition are crucial.

4. Utilise brand attributes for positioning.

This is where an institution has to differentiate itself from its competitors by exploring its strengths to exploit the weaknesses of its competitors in the marketplace. In addition, it is about utilising the niche area and seizing the opportunity with a strong defence against any competitors in the market.

5. Differentiate your institution with unique campaigns, promotions and communication. This leads to the corporate branding message for the purposes of marketing in that all communications and voices should be united in conveying one message and value to distinguish your institution from the others.

To some extent, the branding of higher education institutions might go beyond marketing and advertising as the understanding of branding in universities has to be attained by the staff across all the units and should be generally welcomed and receive positive acceptance.

13.7 The Role of Marketing

The universities and colleges of today and tomorrow are advised to take a stance by creating their brands and market differentiation. When these brands are created, it should be tightly integrated with the business strategies of the university or college, as it will help in establishing an operational model (Dwyer 2014).

As the battle and competition between organisations intensify in enticing customers, marketing becomes a platform to communicate brand uniqueness and differentiation. In addition, marketing could be used as a tool to display or explain what you have in stock for your clients, where you can promote your brand and how you can convince your customers concerning the factors that make your brand better than those of your competitors. Without doubt, marketing helps to explain what the organisation is offering to meet the market needs and demands using communication and distribution to attract customers (Beneke 2011).

As is well known, especially in the context of education, the main purpose and function of marketing in higher education is to help promote the institution’s brand

(Beneke 2011). Marketing in higher education refers to the analysis, planning, implementation and control of programmes for the sake of the market target exchange to achieve the institutional objectives (Kotler and Fox 1995; Beneke 2011). In keeping with the market demands or segment, students are considered to be the main consumers (Kantanen 2007; Abbas 2014), which adds to the struggle of universities and colleges to compete for students, faculty research funds and donors using strong marketing strategies.

According to the Michigan State University brand standard (2013), great or consistent brands create strong relationships with their audience or customers. Notwithstanding, these brands are always recognised by their customers who know what they represent the moment they are displayed in the market. An effective brand communicates the same value despite it communicating with different types of audience on different occasions. In addition, since marketing is perceived to be the way to reach customers and meeting their needs and demands, the same marketing has often been used worldwide by some top universities, such as Northwestern University and the University of Cambridge, as promotional tools to market themselves using advertisements as a promotional tactic (Schwartz 1993; Rogers 1998; Beneke 2011). Furthermore, the role of marketing in education not only connects the brand with the customers, it also paves the way for higher education to be marketed and provides the means for exchange as well as accessibility. In addition, it provides revenue and funds to facilitate teaching, learning and research (Bhayan 2010; Heaney et al. 2010).

13.8 The Benefit of Brand and Branding

Building a brand might not be an easy task; in addition, branding an organisation may require a long process and strategic planning. However, in return, it pays well as there are numerous opportunities and benefits. When the quality of a brand, image and identity are consistent and sustainable, it gives credibility and provides benefits to the organisation as well as consumers, especially in the educational arena. As when a university or college is unable to maintain its teaching quality, research, service and ability to stay on top in the world university ranking, it not only benefits the institution but also the staff, students, stakeholders, society and nation. According to Keller (2008), brand benefits customers in different ways, such as:

- (a) Customers benefit as brand determines the source of the product.
- (b) Brand benefits, as a brand reduces risk and assists in reducing cost.
- (c) Brand benefits, as a brand is the promise made by the maker to keep their promise in the product and a sign of quality.
- (d) Brand benefits, as producers or manufacturers take the responsibility for the brand. It benefits the producers and manufacturers as a brand protects and legalises the unique features of the brand.

- (e) In addition, it benefits these two parts as brand infuses quality to satisfy customers' tastes, endows products with unique association, provides competitive advantage and could be used as a source of income and return (Beneke 2011).

Furthermore, brand goes beyond the logo and it is the customers that define the brand not an organisation. Thus, it is the students' experiences that give the brand its reputation (Gibby 2013). Consequently, the university will start gaining and benefiting from the brand once students start sharing their brand experiences in public and the media. This makes the brand a powerful marketing strategy and helps the university penetrate the market to find their audience and niche market, especially during the recruitment and admission period (Gibby 2013).

13.9 Challenges in Branding Higher Education

In an era of competition and comparison, higher education institutions or universities are compelled to distinguish themselves from other universities by creating brands and identities. However, the question to ask is, to what extent is this brand suited to the customers' tastes and able to compete with the existing brands in the market (Higher Education Network 2012)? It was made clear in the European CASE conference on the distinctiveness of higher education that universities are in a tight situation and that they have to distinguish themselves in the marketplace and 'stand out' among the institutions that provide the same services.

Moreover, universities have to pursue excellence that can be used to persuade or influence students during their intakes to make the right choice through comparison. As branding is about distinctiveness, a research of two years by Oxford Brookes University, funded by the Higher Education Funding (HEFCE), defined distinction as 'the vehicle which enables an organization to achieve many of its strategic goals through being memorable, authentic, and clearly articulating what it has to offer to the people that are important to it' (p. 1). However, moving towards distinction helps internally to increase the sense of belongingness and loyalty among the students and staff (Higher Education Network 2012, p. 1). Below are some of the challenges that are being faced or lie ahead for higher education institutions across the globe:

13.9.1 Privatisation, Decentralisation and Internationalisation

The issues of privatisation, decentralisation and internationalisation have come into the picture and added to the challenges of HEIs. These issues have gained momentum and popularity and led to the establishment of private universities around the world. Since the concept of branding has been applied in HEIs, it has impacted on people's choices, especially for students to vigilantly select their universities or

colleges by looking at the courses offered by these institutions before enrolment (Harsha and Shah 2011). This has led to the universities and colleges vying and competing with each other to promote their brand and monopolise the market in terms of student enrolment.

13.9.2 Challenge Within

External associates can pose a serious challenge for the universities, such as major donors and sponsors becoming too demanding or tending to misuse the brand or the name of the brand. In addition, within the universities themselves, it could be difficult to have one unified brand management, especially with faculties, centres or departments that are decentralised or autonomous inasmuch as they tend to have their own separate brand identity. Therefore, when a university practises good management, its brand can be protected as an asset and promotional tool for sustainability (Copping 2013).

13.9.3 Competition Between Sectors

Although business and educational services seem to be similar, their challenges might vary, as educational institutions are non-commercial providers that might need to be smarter and more observant in terms of marketing and branding. Again, the challenges for educational institutions may take a different form as educational brands rely on long-term consumption compared with noneducational organisations (Vijander 2007; Abbas 2014).

13.9.4 Supply and Demand

The supply and demand between students and HEIs have moved to a higher level as the current trend is for universities and colleges around the world to apply marketing theories and principles to attract their customers and gain competitive advantage (Hemsley-Brown and Oplatka 2007; Abbas 2014). These theories and principles were further applied due to the demand from populous continents, such as Asia and Africa. Furthermore, these demands have gained momentum in that the USA and other Western countries, as suppliers, have to find leverage to accommodate these demands (Abbas 2014).

In addition, these theories and principles are applied as countries around the world are competing to reduce the rate of illiteracy, and students who have newly completed their college or secondary school education are moving to the cities and

capitals to enrol in their desired or dream universities. As a result of these changes, universities are endeavouring to create a winning or super-brand to woo students to choose their universities with the help of their strong marketing strategies and brand management (Abbas 2014).

13.9.5 Modernisation

The backlash against tuition fees, the war against traditional learning posed by online or distance learning and the increment in student mobility are some of the reasons why universities and colleges need to be branded to differentiate and communicate with prospective students. In addition, branding not only helps in terms of students' fees and differentiation but also in terms of universities achieving their vision through their mission statement (McKee and O'Malley 2008).

13.9.6 Coping with Students' Choices

Nowadays, students from top universities and modern schools value branding to some extent. Hence, Abbas (2014) found that students want their universities to be branded and to see their university's management using various sources to promote their universities. Yet again, students believe in marketing principles and strategies as they want the name of their universities to be heard in the social media.

Furthermore, the history, establishment and reputation of a university are factors that have a major influence on the choices of the students. It is very likely that prior to enrolling, students will check the profile of the university and the students who have graduated from that university. Sometimes, even the physical aspects of the university are taken into consideration as students these days give great value to the location, environment and spaciousness of the institution, as well as the beautiful architectural designs of the buildings, well-kept gardens and modern facilities (Heaney et al. 2010).

13.9.7 Sustainability

In an era of dramatic changes, the biggest problem or challenge facing colleges and universities is the maintenance of their brand or position among constituencies (Herr 1996). Conversely, branding should stay intact with stakeholders in terms of the sense of protecting the core value and mission of an organisation as well as maintaining this value through visual identity that will withstand all types of modern changes and circumstances throughout the lifetime (Rosen 2012).

13.10 Branding Model

Figure 13.1 presents a model of branding higher education institutions. The model was created based on the collective suggestions of the authors and ideas from the literature. The model takes into consideration that for an educational institution to be branded, three steps need to be followed – brand principles, image and identity and branding of the institution. This model suggests that knowing the brand principles is the first step to building a brand and helps in determining the ‘do’s and don’ts’ in the process of creating a brand. The second step is about creating a brand image and identity as brand identity comes from the institution about the meaning of the brand and how the institution wants the brand to be identified. Brand image pertains to how the brand is perceived by the people (students, stakeholders, consumers and society). Therefore, it is essential to create a brand image and identity for these purposes. The third step is the process of branding the institution to make it a global trademark. This part provides some steps and emphasises the importance of having a unique marketing strategy as marketing plays a big role in executing the plan. In addition, it stresses considering the challenges during the branding process.

13.11 Conclusion

This chapter attempted to shed light on the new trends in fast-forwarding higher education institutions through branding. It discussed the new paradigm shift in education in that the reputation of the university or college stands as a brand in

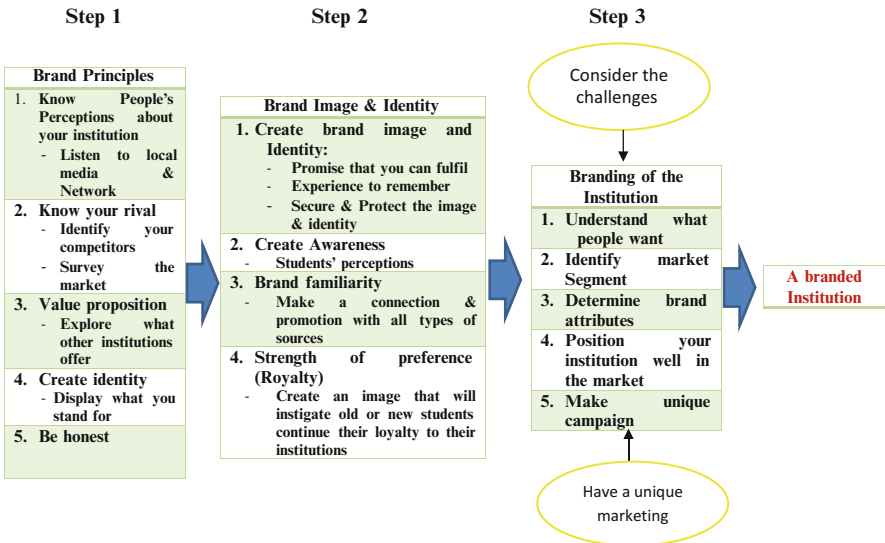


Fig. 13.1 Model for branding higher education institution

promoting the institution and attracting customers. It shared the concept of branding in the industrial sector and its application in education. It discussed the ideas of the experts and scholars concerning why branding in education is needed. The chapter provided some brand principles and discussed the importance of creating a brand image and identity as well as some steps in branding. In addition, it highlighted some benefits of branding HEIs and argued the role of marketing and the challenges ahead. Last, but not least, this chapter summed up what has been stated and argued in the literature by creating a model for HEIs to follow in designing a brand and branding an institution.

Furthermore, this chapter argued that as far as quality education, reputation and experience are concerned, branding of higher institutions is inevitable. Indeed, students today live sophisticated lifestyles, with expensive tastes, uniqueness and choosiness, have high expectations and are technology savvy. They are sensible in making the right choices, together with their parents in choosing a brand university or college. In addition, they are able to research the educational markets and are well informed concerning leading institutions around the world. These days, branding higher education is not simply about supplying quality education, it is also about the institution's reputation in the global marketplace and its achievements in terms of the employability of its alumni, the productivity of the alumni in the workplace, the irrefutable standing that the institution has among its customers, its experience and enduring global image. Therefore, to compete globally and sustain internationally, universities or colleges should strive to create an identity through branding that is distinct and that will distinguish them from the other brands in the marketplace.

The important role that marketing plays in branding higher education institutions is undeniable, especially in identifying students' needs, positioning and promotion. Marketing can also be used as a mechanism to explore what the market is demanding, such as knowing the competitors and the kinds of service or educational programme they are offering and providing and examining what attracts students to a particular university or college, and what makes their logo captivating and their brand identity irresistible. This journey of exploration will help the institutions identify their strengths and weaknesses and then capitalise on the strengths and improve on the weaknesses.

Since educational institutions depend heavily on students' fees as their primary revenue with support from the consumers and stakeholders as the second revenue, higher education institutions need to create a unique brand to entice their associates or clients. Although the process of becoming a brand as an educational institution might take a while compared to a business setting, however, with the help of consistency in and continuity of excellent performance, sooner or later, what you sow will be reaped, and the performance will gain recognition worldwide. Ultimately, the reaping of benefits not only belongs to the institution but also to the students, employers, parents, government and society.

In summation, as long as universities and colleges depend on students' tuition and registration for their revenue, as long as the customers (students and parents) have choices and there are a variety of products or brands on the market and all the time as long as university ranking is used to benchmark the research results of a

university and its productivity, universities and colleges should create brands to attract their customers to enable them to survive in the global market and outdo the competitors. Indeed, to be a branded institution, one must be able to answer the following questions:

1. What is your brand?
2. What type of brand do you want to create?
3. What is your brand identity?
4. Who are your target audiences, clients or customers?
5. What makes you different?
6. What are your marketing strategies?
7. Does your marketing strategy align with your brand identity, mission and value of your institution?

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Chapter 14

Knowledge Development, ICT Management, and Education Policy: Global Issues Local Challenges

Hussein Ahmad

Abstract In general, at the beginning of the present twenty-first century, almost all nations of the international community had undergone the process of social change and will continue to be changing more rapidly in the decades to come. The factor of information and communication not only plays a significant role in their cultural, social, economic, and political development of the nation states but also has been perceived as one of the most critical determining variables toward the improvement of status and living conditions of the general community. At present, the rapid and exact distribution of information at the global level across continents, regions, cities, and villages and between individuals far and near can be difficult or impossible to stop. In respect to the online communication highways, the application of the computer system and the Internet processing facilities electronically from the simplest to the most sophisticated techniques has contributed to the knowledge and information distribution most rapidly through the computer system. This paper attempts to highlight various issues and challenges of the information and communication technology particularly in terms of its development and growth, utilizations, benefits, and unanticipated consequences.

Keywords Knowledge management • ICT management • Education policy • Malaysia

14.1 Introduction

In general, at the beginning of the present twenty-first century, almost all nations of the international community had undergone the process of social change and will continue to be changing more rapidly in the decades to come. The factor of information and communication not only plays a significant role in their cultural, social, economic, and political development of the nation states but also has been perceived

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as one of the most critical determining variables toward the improvement of status and living conditions of the general community.

In effect, as stated by Federico Mayor, the then Director-General of UNESCO, “Globalization together with information technology revolution offer untold opportunities to enable all those unreached by conventional educational systems to have access to basic education; to turn the principle of education into reality; to ensure the circulation of scientific knowledge and link up universities and research centers the world over, North and South; to allow us our service and consultancy work for Member States, whether in terms of policy making or in the provision of information and best practices.”

At present the rapid and exact distribution of information at the global level across continents, regions, cities, and villages and between individuals far and near can be difficult or impossible to stop. In respect to the online communication highways, the application of the computer systems and the Internet processing facilities electronically from the simplest to the most sophisticated techniques has contributed to the tremendous amount of knowledge explosion and information distribution most rapidly and precisely.

14.2 Global Investment in the ICT: Growth Disparity

It is observed that the technical development of the memory capacity of chips, in terms of the Component Density (GB) of the information and communication technology (ICT), has been increasingly rapid since the year 2001. In fact, as suggested in Hwang’s Law, from 2004 to 2007, the increment has been doubled every 12 months. To illustrate, chronologically, in 2004, it was “8 GB”; in 2005, “16 GB”; in 2006, “32 GB”; and in 2007, “64 GB” (Kim 2011).

On the contrary, with respect to investment in the information and communication technology, the expenditure among countries around the globe seemed to indicate a clear model of “growth disparity.” According to a UNESCO report, the expenditures range between 2½% and 11% in terms of the percentage of their Gross Domestic Product (GDP). Globally, between the years 2006 and 2010, particular countries like the USA, South Africa, Morocco, and Senegal have invested more than others, up to 11% of their budget. Their individual percentage of expenditure in the ICT is much higher than most of the other advanced or middle-range developing countries. As a matter of fact, most countries in Africa and central Asia seemed to invest the least, or meagerly, in the GDP budget for information and communication technology.

A similar pattern of gross disparity seemed to occur in the ICT investments in the countries of Asia, with the exception of South Korea, Singapore, Malaysia, and Bangladesh. The GDP budget for information and communication expenditure of these countries is close to 11%, higher than that of China, India, Japan, the Philippines, Thailand, Indonesia, Vietnam, and Sri Lanka. Several other countries, for example, Myanmar, Nepal, Cambodia, Laos, and Timor-Leste, seem to invest even less than 2½% of the GDP.

Correspondingly, according to the database estimates of the 2010 International Telecommunication Union (ITU) – World Telecommunication/ICT Indicators, the broadband penetration by region also indicated gross disparities between regions and countries. For instance, in terms of fixed broadband subscriptions per 100 inhabitants, the progress in the developed countries is most profound; in the year 2000, the subscription was less than 5 per 100 inhabitants, but the figure rose to 25 per 100, in 2010. The disparity was also more observable by continental regions, whereby Asia and the Pacific countries were at fourth place after Europe, followed by the Americas and the CIS countries, respectively. The Arab States and almost all of the African countries have the lowest subscriptions per 100 inhabitants.

However, a generally different pattern could be discerned from the 2010 ITU database in relation to the increasing use of technologies. The growth rates of “Internet users” are much higher in the middle- and high-income countries than the low-income countries of the Asia-Pacific region, in comparison to the growth rates of the “mobile cellular subscribers,” wherein the low-income countries seemed to surge much higher. On the basis of this analysis, globally, there seemed to be a close relationship between the Digital Opportunity Index (DOI) and the Gross Domestic Product (GDP); whereby, the more advanced a country is, in terms of GDP, the higher is its score on the DOI.

Hence, at the global level, countries like Denmark, Japan, South Korea, and Singapore are high on the DOI than many countries in the African continent, for example, Burundi, Niger, Rwanda, Chad, and the like. A similar pattern seemed to also reflect the relationship in countries of the Asia-Pacific region, in which Japan, South Korea, Hong Kong, Macau, Singapore, Australia, and New Zealand are much higher on the DOI compared to all of the other countries in the region.

The pertinent question to ask at this juncture is: What does the comparative global analysis above tell us? In general, based on the cursory analysis as outlined above, the “digital divide” by national income levels is apparently persistent across continents, regions, and countries. As a consequence, the high-income nation states have higher percentages of fixed “broadband subscribers, Internet users, main (fixed) telephone lines, and mobile subscribers” than their counterparts that are classified in the upper-middle-income, lower-middle-income, and the low-income countries (Ref: ITU 2010, Report on the World Summit on the Information Society Stocktaking).

14.3 Information Society and the New Knowledge Poor: Global Paradox

It must be recognized that technological advances in cyberspace, in the computer systems, and in related technological fields have vastly increased our ability to communicate with one another. With hundreds of millions of computers that are now networked into the Internet systems globally, the cyber technologies have extended the communication range to the remotest corners of human populations around the

whole world. There is no doubt that in fulfilling the ideal goal of connecting world citizens everywhere in the vast universe of cyberspace, it appears that the continents (and countries) are coming closer to being truly “a global village.”

However, in reality, the scenario is far from the anticipated “utopia.” The new communication technologies that seem to connect citizens, within and between countries and regions, across the globe also bring “wealth and power” to those who possess the professional knowledge, technological skills, and technical ability and know-how to understand and control them. Herein lie the potential roots of “societal divisions” in many strata of the world community, particularly with respect to “communication exclusion” and “information marginalization” that could lead to greater social distance and cleavages, be it at national, regional, or global levels.

The situation is perfectly clear. Many hundreds of millions of the world’s peoples are still too poor, too underprivileged, or too far from major information and communication culture to enjoy the benefits of the cyberspace technology. It is also apparently clear that without access to the computer systems of high-speed communication links, they can be classified as the deprived new “have-nots,” new “know-not,” new “information-poor,” or “knowledge-poor” vis-à-vis the growing class of information “nouveau-riche” citizens, that is, the new information- and knowledge-rich societies, especially within and between countries of the North and the South.

The central issue is: While the new technologies in the telecommunication systems have vastly improved the means to disseminate and exchange new knowledge through the ICT, there is also the greater need to struggle toward building a more equitable and information-rich global community. Such an approach is highly relevant to the strategic global policy of access to information to be made available to all around the globe.

In this regard, governments, leaders, and educators need to ensure that the information and knowledge moving up and down the information communication superhighways is accessible to all, regardless of their locations in the social strata. On the contrary, the paradox is that the new technological and electronic advances seem to breed even greater disparities between rich and poor communities, within and across countries and regions. All over the globe, many hundreds of millions of the world populations still do not have access to something as basic as a “home telephone,” a personal “mobile phone,” and, much less so, a “personal computer” (mobile, desktop, iPad, portals, etc.) with Internet facilities.

As emphasized by an analyst, in an era where production systems are becoming less and less dependent on physical labor and the compartmentalization of tasks is now increasingly replaced by innovative production technologies, such as computing, robotics, and genetics, it is essential for the future workforce to master the new techniques in order to adapt more easily to the profound changes taking place in the labor market.

Nevertheless, the optimistic outlook is also significant. The information and communication technology will provide a means or platform of placing the industrialized and developing societies on an equal footing. The ICT could enable the less-developed countries to leap the “development gap” and to move directly from an agrarian society to the information and knowledge society, skipping the industrial

stage entirely. Developing societies will then be spared from the “birth pangs” of a classical industrial revolution and avoid the problems that have beset the industrialized countries in implementing technology, particularly with regard to regulatory legislation and policy making.

On the pessimistic side, however, developing countries, particularly those that have not been able to face up to the challenge of the application of ICTs in management and education, for various reasons within or beyond their control, will further lag behind the technologically advanced countries. Indeed, the “information-communication-development gap” is growing wider. Their relevance in the highly competitive world of the future globalization era is predictable.

14.4 ICT Management and Education Policy: Malaysia’s Experience

Education systems in developing countries will encounter great difficulties in effectively teaching the newly generated required skills. Political leaders, policy technocrats, and educators must not only press for educational reforms, program renewal, and revitalization but more importantly demonstrate their determination to ensure that there are adequate provisions for the technology-based infrastructure and facilities in their school systems.

If Malaysia’s experience is of any significance, a Strategic ICT Roadmap for the country was mooted by the IT Council in the Sixth Malaysia Plan (1990–1995) and the National ICT Agenda (NITC) agenda formulated in the Seventh Malaysia Plan (1996–2000). In response to the two agendas, the Ministry of Education, in collaboration with the Malaysian Modernization and Management Unit (MAMPU), organized with the leading industry ICT players to form smart partnerships as a national strategy to accelerate the application of information and communication technology in the Malaysian school system (Hawa 2010a, b).

As an outcome of the initiative, in 2004, the Public Sector Open Source Software (OSS) master plan was created to articulate the strategic position of the ICT in the education policy of the country. The main principles that were adopted relate to the role and function of the ICT in the development of student-learning experience. They are as follows: firstly, the ICT will be used as an enabler to reduce the phenomenon of the digital divide between the varying school of different environmental settings – metropolitan, big towns, small towns, and rural and remote areas; secondly, it will be used as a teaching and learning tool in the educational process, in that it would be taught as an independent subject and integrated into others; and thirdly, it will be used to enhance efficiency, effectiveness, and productivity of the management of the Malaysian education system.

The operationalization of the OSS plan was duly focused on several major initiatives of ICT in education policy, including the Smart School Project, computer laboratories, School Net, EduWeb TV, School Access Centers (SAC), and gradual transformation of all schools to the smart school concept.

With the introduction of the latest Malaysia Education Blueprint (2013–2025), the challenge faced by the Malaysian Education Ministry has become more formidable, in particular in three major issues, namely, meeting user demands between user requirements and efficiency of the software Learning Management System (LMS); cost of bandwidth which is prohibitively high, such that a central server solution is not currently financially viable; and lastly “change management” issue with respect to changing mindsets of educational managers and particularly teachers, moving from the traditional methodology of pedagogy to the computer-based and digital approach of teaching-learning environment. Nevertheless, the continuous on-site evaluation and monitoring system that is currently being conducted by the Education Ministry in order to assess the strengths, weaknesses, and shortfalls of the initiative will enable the key policy players and implementers to undertake corrective measures and remedies.

14.5 Ironies of Cyberspace Education

For human resource development, management and education in particular, the use of information and communication technologies (ICTs) is very critical. It has opened up new strategies, avenues, and possibilities of learning. On the one hand, leaders and educators want students to master the generic skills and competencies required to ensure that they become computer-based information literate. On the other hand, they want learning through computer technology to become partly, if not fully integrated, into the total cognitive, affective, and psychomotor learning experiences of students.

Herein rests the critical paradox. Though many developing countries have often claimed it is important for students to acquire at least basic generic skills to initiate them to move into the futuristic virtual learning environment, their financial investments in terms of budget allocations reflect more of a token amount than that of total commitment for the information and communication modalities of the futuristic global environment.

Hence, it can be seen that the development of strategies and policies for the use of the ICTs in education seems to vary considerably between the industrialized and the developing societies and even more with the least developed societies. The variations manifest themselves not only in terms of investments, infrastructure, curriculum design, and implementation strategies but also with respect to technological expertise, diversified resources, experience, and management.

As a consequence, while the industrialized countries have moved beyond the exploratory or introductory stage of incorporating ICTs into the educational curriculum of their schools, the developing countries are just at the “takeoff” stage, while the least developing countries are only at the stage trying to teach their students to learn or pronounce the basic parts and elements of the computer systems. Therein lies the transformation challenge.

However, it is well noted that there appears to be greater concern and initiative for promoting the use of ICTs as part of overall national education plans in the more

advanced developing nations of Latin America and Southeast Asia. Particularly for Malaysia, the recent development of the Government Transformation Plan (GTP) includes the goal of transforming the education system and learning process in schools and institutions under the Malaysia Education Blueprint 2013–2025. The policy goal of the Blueprint, among others, is to ensure strategically that there is full integration of the new information technologies in the educational process in the attempt to make the quantum leap toward educational excellence at par with international standards of advanced countries. The outputs and outcomes have yet to be studied and analyzed in the years to come, before the year 2025.

Nonetheless, there is also another irony. While the limited availability of the ICTs means that the emphasis has been placed more on their use in the administration at the level of the education ministry or the higher-level educational institutions, the computers that reach the classroom level in most developing countries have often through “sporadic” initiatives of a pilot nature often focusing on selected schools. In this regard many developing countries have yet to equip schools and institutions with computer machines and connect them to the Internet both through public and private investments. Even though it is a costly initiative, the education system cannot do without.

Regardless of the exceptions, herein lies the contradiction. Many developing countries do not understand that the number of computers for the educational use in their school systems must correspond to the percentage of schools and student enrollments. They also are unable to see to it that all teachers are professionally trained with the support of technicians in order to develop quality educational softwares. More importantly, qualified teachers have to continually attend in-service courses. Even more so, those trainee teachers in education training institutes have to be given the futuristic technology-based educational curriculum.

As strongly noted by the Education International (EI of the World Teacher Federation), if the education sector keeps pace with modern technology, it could have tremendous positive effects, both on the sector itself and on society in general. On the contrary, if the education sector is technologically marginalized or given lesser significance in respect to financial allocations for computer education, it is in danger of not only losing in status compared to other sectors, but output of the education system will be computer illiterate. The consequence is a foregone conclusion.

It should be emphasized that in the highly globalized communication and knowledge environment, the ICTs are the key elements that the education sector cannot do without. Despite warnings by researchers, educationists, and philosophers about the risks of producing the new faceless “cybercrats” following the “dehumanizing” impact of the technological advances, the ICTs are an indispensable tool for learning in the new century. Hence, it is no longer a question of taking sides “for” or “against” the role of, say, the Internet in educational development and progress.

Those graduating from the educational systems, whether from public or private institutions, and who have mastered the tool, will have an advantage over those who have not. Nations and societies on the “cutting edge” of the revolution ranging from the activities of production to those of wise application will chart the educational and knowledge globalization of the current century.

It is often said that rapid technological advances are not only linked to growing economic exclusion but also exacerbate further the growing educational inequalities, both within and among countries and between regions. Apparently, although the number of Internet users and the quantity of information exchanged via the World Wide Web have tremendously grown exponentially in the last decade, the Internet is still far from being a truly global and multilingual information environment. Indeed, new information technologies, including the Internet, simultaneously threaten to create a wider disparity between nation states in the North and that of the South.

However, if the leadership of the countries seizes the challenge of globalization phenomenon through concerted efforts of strategic educational reform, revitalization, and transformation, it would provide increasing opportunities for developing countries of particularly the South to advance rapidly.

14.6 Policy Pledge and Reality: Irony

In respect to policy, political leaders and the technocrats in developing societies must not only pledge for renewal, revitalization, and transformation of their education systems but must direct their commitment toward its implementation, particularly in terms of more and greater allocation of funds and related quality service. With the creation of multimedia flagships and super corridors of the knowledge and information highway systems, the technology and conditions of learning and teaching process are also rapidly changing from using the “chalkboard” to using the “mouse,” the “finger,” and lately the “touch screen.”

Thus, just as there is the pressing need for political leaders and technocrats to create a multitude of smart partnerships between the governments and corporate moguls of the ICT industries to ensure the rightful place of cyberspace education, there is also an urgent need to expand the knowledge and understanding of the impact of modern communication technologies on student learning.

However, it is well noted that there appears to be greater concerns and initiatives for promoting the use of ICTs as part of overall national education plans and for the full integration of the new technologies in the educational process in the more advanced developing nations of Latin America and Southeast Asia, with Singapore and Malaysia trying to make the quantum leap.

It should be emphasized that in the highly globalized communication and knowledge environment, the ICTs are the key elements that the education sector cannot do without. But the effects and influence of information and technological revolution must be examined from two broad seemingly opposite perspectives. On the one hand, the effects and influence have been very positive to humankind all over the world. All processes of communication between countries, societies, and individuals have tremendously improved due to information and technology of the ICT. All forms of communication processes in the conduct of life activities in the fields of economics, politics, social, and culture as a whole have voluminously increased, both in terms of the quantitative and the qualitative dimensions. It cannot be argued

that the benefits that have been derived for individuals, societies, and nations are in consonance with human development as a whole.

On the other hand, it also cannot be denied that there are possibilities of risks and unanticipated consequences that can come about as the effects of the information and communication revolution. In this respect, the risks to children are as important to be examined. As users of the ICT, they are faced with irrelevant materials, such as illegal content, harmful content, harmful advice, cyber grooming, online harassment, cyberbullying, cyber stalking, illegal interaction, and problematic content sharing, for child inappropriate or unsuitable products and for illegal and age restricted products, online fraud, online scams, identity theft, personal data collected from children, oversharing, malicious code, commercial spyware, online scams, and so on. Such are risks that societies over the world must face in the application of the ICT systems. The risks are issues at the global level and the challenges that have to be addressed are at the local level.

To conclude, Kenichi Ohmae, in his book entitled *The End of the Nation States: The Rise of Regional Economics* (1995), stated that there are four principal factors that can determine the process and direction of global development in the twenty-first century. From the four factors of “industry,” “investment,” “individual,” and “information,” the latter two factors are the most critical that will determine communications and relationships among people. In this regard, the question is focused on one important issue: Can the factor of information play the principal role in determining positive and negative aspects of communication in the lives of human society? The answer to this question will be left to the reader to respond.

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Chapter 15

Moral Sensitivity Practice in Academic Deanship: Does It Really Matter?

Maria Rosario G. Catacutan and Allan B. de Guzman

Abstract The chapter reports on the findings of a grounded theory study on the moral sensitivity practice of Filipino college deans. It centers on the exposition of a conceptual model which expands the construct of moral sensitivity beyond the initial stage of moral problem recognition and depicts three processes of knowing facts, understanding people, and understanding oneself as fundamental processes to moral sensitivity. A set of seven distinct practices were also identified as subcomponents of moral sensitivity. The chapter concludes by highlighting the level of complexity involved in moral problem identification in real-life settings and the consequent need for developing administrators' moral sensitivity skills through formal courses in ethics as part of school administrator preparation programs.

15.1 From West to East

Recent studies on ethical decision-making in school administration have increasingly emphasized the challenges educational leaders face in dealing with ethical dilemmas that arise from a more complex environment in which schools operate and the consequent need for school administrators to acquire increased professional training and formation in ethics in order to be effective decision-makers (Dempster and Berry 2003; Cranston et al. 2006; Begley 2010). These studies highlight the need for school administrators to acquire knowledge of the normative theories, frameworks, and principles of ethics they can apply in solving ethical dilemmas in school practice. Implicit in this thrust is the focus these studies have on developing administrators' competence in moral reasoning, or the ability to correctly apply knowledge of ethical principles as key to effective decision-making. Notably, initial

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research has presumed that individual ability for advanced levels of moral reasoning is the central process or component of ethical decision-making. Subsequent studies, however, have increasingly shown the importance of another component, moral sensitivity, distinct from and indispensable to moral reasoning. Broadly understood as the process of moral issue identification, moral sensitivity is considered to be as important as moral judgment itself. As all decision-making begins with the identification of a problem, individuals' inability or failure to identify and recognize an issue as ethically significant evidently precludes the entire decision-making process (Clarkeburn 2002).

To date, most studies on moral sensitivity as a component of the ethical decision-making process involve administrators working in secondary schools operating in the Western world, while few research has been done in the context of higher education much less in Asian setting. To better understand how the deans practice moral sensitivity in their ethical decision-making process, we endeavored to come up with an empirically based discourse capitalizing on the power of grounded theory design investigation with 18 college deans, representing 13 private higher education institutions in the Philippines. The deans selected have a minimum of 2 years experience in their current position; most are females who have been in the academe for more than 25 years. This chapter is highlighted by an exposition of a conceptual model which expands the construct of moral sensitivity beyond the initial stage of moral problem recognition and depicts three processes of moral sensitivity: knowing facts, understanding people, and understanding oneself. A set of seven distinct practices were also identified and described as subcomponents of moral sensitivity.

15.2 Moral Sensitivity Research

Moral sensitivity was first introduced in the *Four Component Model*, a theory of moral development advanced by James Rest (1984). Central to this theory is the idea that moral judgment or individuals' ability for higher levels of moral reasoning does not necessarily translate to moral action. The model posits that moral development is a multifaceted phenomenon consisting of four components: sensitivity, judgment, motivation, and character. The first component, moral sensitivity, entails the ability to interpret the context or situation surrounding an action and awareness of the consequences that are likely to arise from one's actions. Moral judgment, the second component, relates to the act of judging and choosing as to which course of action among the alternatives is the morally right thing to do. The next component, moral motivation, involves the ability to prioritize moral values over other personal values. Finally, moral character, the last component, refers to the ability to have courage and persistence in carrying out a good action. The model proposes that all four components are necessary for ethical behavior and that moral failure can occur because of deficiency in any of these processes. Of these four components, moral judgment or moral reasoning has been the focus of most research (Morton et al. 2006; Jordan 2007). More recently, however, moral sensitivity is increasingly recognized as an equally important process in ethical decision-making and has gained

considerable attention in empirical research literature. Pioneer research in moral sensitivity was conducted in the field of dentistry with the development of an instrument, the Dental Ethical Sensitivity Test (Bebeau et al. 1985). The test measured moral sensitivity in terms of students' ability to recognize ethical issues contained in dental professional codes embedded in situations related to dental practice. Similar instruments were later developed and applied to measure moral sensitivity in other domains such as media, marketing, accounting, nursing, science education, and social work (Jordan 2007; Trevino et al. 2006). From these studies the definition of moral sensitivity was expanded to include dimensions such as interpreting others' reactions and feelings, having empathy and role-taking ability, making inferences from others' behavior, and responding appropriately to others' reactions (Jordan 2007).

In the context of educational administration, the role of moral sensitivity in the ethical decision-making processes has also been recognized in several studies. For one, the concept of moral sensitivity has been advanced – albeit implicitly – in studies on moral leadership in school administration. Schrag (cited in Greenfield 2004, p. 178) alludes to moral sensitivity as capacity for moral recognition and context interpretation. He maintains that school leaders ought to act as moral actors in decision-making. They should thus base their decisions on universal principles, consider the welfare and interest of parties affected by their decisions, and obtain the most complete information about the decisions they are going to make. Similarly, Willower (cited in Greenfield 2004, p. 184) refers to moral sensitivity as the ability of an administrator to consider decision alternatives and their potential side effects and unintended consequences as critical dimensions of ethical judgment.

The notion of moral sensitivity has also been advanced in another set of studies that focuses on providing school leaders with well-documented processes for the analysis of dilemma situations as well as guides for the development of ethical responses to such dilemmas (Begley 2010). In his work, Langlois (2004) presents an eight-stage problem-solving approach which depicts moral sensitivity as the stage in which a decision-maker becomes ethically aware of a dilemma and of the value conflicts he experiences as a consequence of that dilemma. Situated in the model as a stage prior to moral judgment, this phase is also characterized as a process in which the decision-maker ponders on his possible options and seeks friends or colleagues to freely discuss or get a second opinion about the situation. Similarly, Begley (2006) considers moral sensitivity as a deliberative process that guides decision-makers in the use of ethical frameworks when responding to dilemmas of administrative practice. It entails a twofold process of acquiring self-knowledge and knowledge of others. In the first process, the decision-maker strives to acquire self-knowledge by reflecting on his own set of values and ethical predispositions and by understanding how these values and predispositions could influence his response to people and situations. After this initial process of personal reflection, the decision-maker embarks on the second process of understanding the individual circumstances and value orientations of other people as well as the cultural context in which they are situated in order to give meaning to their actions. These two processes of self-knowledge and sensitivity are considered to be integral prerequisites of ethically sound decision-making processes.

15.3 A Model of Moral Sensitivity Practice in Academic Deanship

The phases of moral sensitivity practice (see Fig. 15.1) represent the academic deans' attempts to acquire an in-depth and accurate knowledge of the morally problematic situations they encounter as a basis for their ethical judgments or decisions. The deans' understanding of facts, people, and their own selves emerged as fundamental processes in this stage of decision-making. The model also portrays moral sensitivity as a skill predominantly exercised in situations where the deans were confronted with behavioral dilemmas. It also depicts the influence of factors such as culture, personal experiences, and life roles on the moral sensitivity practices of decision-makers. Seven processes of moral sensitivity were identified: looking at facts, bracketing, listening, anticipating people's response, hearing both sides, empathizing, and managing one's emotions.

Gathering evidence about a morally problematic situation characterizes the first phase in moral sensitivity practice. This is called the *Lens of Clarity*. For most deans, gathering factual evidence was an initial step taken to establish sufficient grounds to warrant further investigation of the cases brought to their attention. In this phase, the deans exercise moral sensitivity by looking at facts before making judgments. They also conveyed their awareness of possible distortions in the way information may have been transmitted or relayed to them and emphasized the need of filtering information to discern factual evidence from unfounded accusations or false allegations. In many cases, the deans mentioned the need for using factual

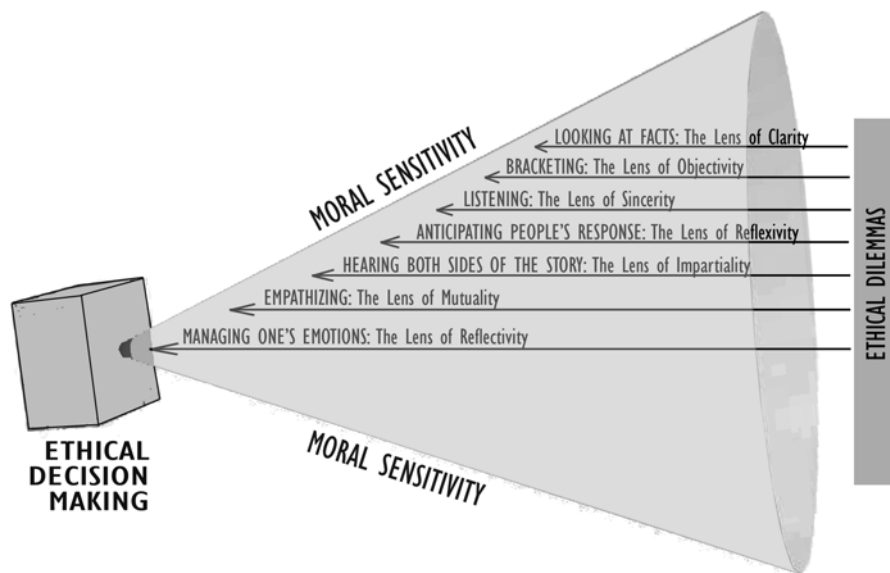


Fig. 15.1 Catacutan and De Guzman phases of moral sensitivity practice

information to make fair and accurate decisions. Bracketing, or the process of suspending one's beliefs while deliberating over a moral dilemma, is the second phase in moral sensitivity practice. Called the *Lens of Objectivity*, it is during this phase when deans practice moral sensitivity by being cautious and not making hasty decisions. In many instances, the deans consciously suspended judgments and avoided jumping to conclusions while listening to complaints about teachers with behavioral problems. It was also common among the deans to practice moral sensitivity by giving immediate notice to affected parties about complaints while maintaining a neutral position about the issues raised.

Another phase in moral sensitivity practice is the *Lens of Sincerity*. It depicts listening as a process that entails being aware of people's need to open up, communicate, and express themselves. In many cases, deans said they spent time listening to students or faculty with behavioral problems because the deans felt these persons' need to confide with somebody. Apart from listening, deans also practiced sensitivity by communicating their readiness to listen. This readiness was evident when they encouraged dialogue, fostered a welcoming attitude, and maintained an open-door policy in the workplace. Being sensitive to people's response to a given situation is another facet of moral sensitivity practice. Labeled as the *Lens of Reflexivity*, this phase describes the process of anticipating the consequences one's actions may have on other people. In this phase, deans described practicing moral sensitivity when they had to break communication barriers, elicit response, and motivate people. The deans conveyed sensitivity by being aware of actions that could be intimidating to others, removing tension and using humor to make people feel at ease in their presence, and avoiding actions that could cause embarrassment to others.

Understanding a problem from different perspectives characterizes the next phase in moral sensitivity practice, designated as the *Lens of Impartiality*. During this phase, the deans describe practicing moral sensitivity by taking into account the views of others in the decision-making process. They showed sensitivity by providing opportunities for people to express their perspectives, being open to the views of others even if these are contrary and in conflict with their own, letting people freely express dissenting opinions, and being patient in explaining their own position to make themselves understood. The *Lens of Mutuality* is the next phase in moral sensitivity. It deals with empathizing, the process of understanding people's predicament by placing oneself in their position. The deans practiced moral sensitivity by understanding how persons would feel in a situation by recalling and applying past experiences in similar context, visualizing the situations that people might be going through, and identifying oneself with experiences of people in difficult circumstances. The last phase in moral sensitivity practice is the *Lens of Reflectivity*, the process of reflecting on one's emotions and considering their consequences on one's own decision-making process. During this phase, deans practiced moral sensitivity by weighing a situation before giving an emotional response, rationalizing their emotional reactions, and refraining from making decisions when they are emotionally affected. They also conveyed moral sensitivity by acknowledging mistakes in the way they had emotionally responded to situations or events in the past and by recognizing the need to incorporate these learning experiences in their current practice.

15.4 When Moral Sensitivity Matters

The practice of moral sensitivity is a deliberative process in which a decision-maker acquires an in-depth knowledge of a morally problematic situation by engaging in three fundamental processes. These are knowing facts, understanding people, and understanding themselves. Interestingly, the emerged phases of moral sensitivity practice presented in this discourse are in line with prior studies which conceptualize moral sensitivity as a stage in decision-making that deals with moral problem recognition and identification (Jordan 2007). In most of these studies, moral sensitivity is depicted as a straightforward and linear process that ends with the identification of the moral components of an ethical dilemma. The empirical evidence presented in this paper, however, suggests that moral sensitivity is a complex and multifaceted process not limited to the initial phase of problem identification but extends as Blum (1991) suggests toward acquiring a fully adequate comprehension of a moral situation.

15.4.1 *Moral Sensitivity as Knowing Facts*

The first phase in the moral sensitivity practice involves an investigative process in which the deans gathered factual evidence and filtered information before making judgments. Underlying this process is deans' recognition of the need to gather sufficient evidence to clearly understand specific moral incidents. Implicit also are the deans' ethical concerns to obtain reliable information as they recognized the biases people may have in interpreting information. Overall, these realities are in line with prior research in decision sciences that establish the need for relevant and reliable information in decision-making as a dimension of decision quality (Howard 2007). These studies establish that decision failures are more likely to arise in situations where individuals make decisions under uncertain conditions characterized by incomplete or inadequate information. In the case of ethical dilemmas, however, the need for decision-makers to gather relevant and adequate information acquires heightened moral significance. For one, real-life ethical dilemmas are characterized by high levels of ambiguity and complexity. This makes the process of moral problem identification inherently more difficult and suggests the need for decision-makers to be more discerning in their data gathering. Further, moral problem recognition could pose significant challenges to decision-makers when faced by morally ambiguous situations with consequences that can potentially cause serious harm to individuals. In such instances, individuals' decisions to either stop or conduct further investigation that could lead to a better comprehension of an ethical dilemma could become morally significant.

The deans' concerns toward potential bias, albeit in reference to their own decision-making processes, are also reflected in the moral sensitivity practice termed as *bracketing* and *hearing both sides of the story*. Underlying these pro-

cesses is the deans' awareness of the likely bias that may emerge in their decisions because other people's views or their own perspectives may distort the way they perceive and understand moral incidents. The importance accorded to these moral sensitivity practices finds support in previous studies which maintain that the prevalence of biases in the decision-making process is a major source of concern for effective problem-solving (Korte 2003). Confirmation biases arise from an individual's tendencies to focus on information that confirms their initial explanation of events (Perrin, Barnett, Walrath, and Grossman cited in Schraagen and van de Ven 2008, p. 315). Other biases arising from moral myopia or narrowing of perspectives make people unable to perceive certain important issues as part of a larger context (Drumwright and Murphy 2004). In general, these studies lend support to the empirical evidence of this paper in advancing the need for decision-makers to continuously uncover their biases and challenge their assumptions throughout the decision-making process by engaging in critical thinking, being open to other people's viewpoints, and accepting criticism (Schraagen and van de Ven 2008).

15.4.2 Moral Sensitivity as Understanding People

Besides knowing facts, this paper underscores moral sensitivity as a set of practices decision-makers use to acquire a deeper understanding of the moral dimensions of an ethical dilemma by focusing on the people who are principally involved in these situations. Notably, moral sensitivity practices that relate to understanding people emerged as more complex processes which enabled deans to gain access into other peoples' inner realms where their deeper motives, intentions, and beliefs are disclosed and made explicit and hence understood. Among the phases of moral sensitivity practice, three stand out as particularly significant in understanding people: listening, empathizing, and anticipating people's response. Underlying these processes is the deans' awareness of the importance of communication and dialogue as a means of understanding people. Implicit also are the deans' concerns of the influence people's emotions may have on their readiness to communicate and the consequent need to find ways of reaching out to people and being sensitive to their need for understanding and care. Overall, the foregoing evidence are consistent with studies which suggest that an atmosphere of trust conducive to dialogue is based on human relationships characterized by empathy, genuineness, and unconditional acceptance of others (Rogers 2007). They underscore the significance of the practice of moral sensitivity in ethical decision-making processes where considerable degree of trust and confidentiality is required, given the often highly sensitive nature of information that are disclosed to decision-makers.

Further, the importance of the moral sensitivity practices that relate to understanding people highlighted in this paper finds support in prior research on empathic accuracy (Ickes 1993) and its relation to decision-making (Blum 1991). Studies on ethical decision-making processes have increasingly emphasized the inadequacy of rule-based decision-making processes where decision-makers are expected to

solve moral dilemmas by knowing and applying a set of rules or principles as a guide in resolving moral issues (Blum 1991). In line with classical philosophy's view of moral judgments, these studies argue that real-life decision-making in the field of ethics rests on the premise that the process of moral judgment entails making evaluations of human actions and that all human actions which take place in real-life situations are always concrete and singular in nature (Melé 2010). Hence, decision-making in the realm of ethics requires decision-makers to know not only the general principles or rules of morality but also the particular characteristics of the action to which these abstract universal moral rules will have to be applied. What Blum (1991) describes as the *particularity* of moral situations therefore requires empathic accuracy (Ickes 1993), or decision-makers' ability to have an accurate perception and detailed understanding of the thoughts and feelings of persons involved in concrete moral situations. This paper therefore maintains that moral sensitivity practices are key in ethical decision-making because individuals' capacity for making sound judgments depends to a great extent on their having accurate knowledge of particular situations. How these situations are perceived in turn depends on decision-makers' ability to acquire personal and detailed knowledge of people through this study's emerged practices of listening, empathizing, and anticipating people's response to one's actions. As Undung and de Guzman (2009, p. 26) claim, "the dynamic and caring nature of empathy adds flavor to the leaders' ability to go beyond the usual human knowing and prompts them to see in a more illumined way the human side of their subordinates and the humane side of leadership practice."

Finally, the empirical evidence presented in this paper underscores the relevance of the moral sensitivity practices of leaders in a cultural environment where individual behavior is primarily influenced by the need for social acceptance and where sensitivity is exhibited as a dominant trait, which some studies suggest are specific to the Philippine context (Lynch cited in Teehankee 2004, p. 218). Linked to the concept of *amor propio* (a Filipino term for self-esteem) which expresses the need to be treated with respect and aversion to lose face, the value of social acceptance underlies the importance accorded to smooth interpersonal relations by Filipinos in the workplace. Avoiding outward signs of conflict and being agreeable even under difficult circumstances are therefore considered essential attributes of a good leader in the Philippine setting.

15.4.3 Moral Sensitivity as Understanding Self

Lastly, this paper describes moral sensitivity not only as a process of knowing facts and understanding people but also as a process of understanding oneself. These facets surfaced moral sensitivity as a process in which the decision-maker acquires knowledge of his or her emotions, his or her ability to manage them, and how these emotions influence his or her moral judgments of ethical dilemmas. The emerged moral sensitivity practices that relate to understanding and managing one's

emotions are consistent with previous research which underscores the need for understanding oneself as a component of emotional intelligence, a key competency for understanding people (Goleman 1998). Though widely associated with empathy as its most important dimension, studies on emotional intelligence nevertheless have also stressed the need for self-awareness and self-regulation as foundational processes toward understanding people, lending support to the role of self-knowledge in decision-making processes. Through self-awareness people acquire a deep understanding of their emotions, and how those emotions could affect them personally and their interactions with others. Self-awareness in turn leads to self-regulation or the ability to control and redirect one's disruptive moods and impulses. It develops one's capacity to listen, empathize, and get along with people in what could otherwise be emotionally draining situations. Emotional resilience toward adverse and difficult situations is therefore key to decision-making as one's ability to make pondered judgments depend to a great extent on a person's level of emotional stability. This is suggested by studies which claim how affective states can significantly interfere with people's ability to process information and result in biases in their judgments (Krishnakumar and Rymph 2012).

The need for moral sensitivity practices that relate to understanding and managing one's emotions is perhaps more evident in the context of school administration as ethical dilemmas emerge within the teaching and learning process. As Hargreaves (2001) suggests, these processes are *emotional practices* due to increased levels of emotional engagement that arise from the intimate and close relationships between teachers, administrators, and students. This intimacy and closeness characterize interactions inherent in the teaching and learning process. For instance, in his portrayal of an uncaring administrator, Starratt (1991) points out the need for administrators to recognize and acknowledge what he termed as the "underside" of school administration. He is referring to the veiled motives of domination and control that may lie beneath an administrator's emotional exchange with teachers or students and the harm that their practices may cause on others. Such would be the case of an administrator who is unduly aggressive in his or her attempts to put a teacher in his or her place. He may in fact be driven unconsciously by his or her feelings of fear and insecurity in the face of a strong and assertive teacher who feels unjustly denied of a promotion. Another example would be an administrator who may seem unperturbed and cold toward a teacher who rightfully claims to be given recognition. The administrator's indifference may stem from his or her unacknowledged sense of inadequacy and unexplored feelings of insecurity in the presence of somebody who is more capable than he or she is. In both instances, a school administrator's failure to reflect on his or her emotional practices could be morally significant due to the harmful consequences that this could cause on the emotional lives of teachers as indicated in some studies (Hargreaves 2001).

Unlike other forms of social relationships, relationships in schools are influential relationships formed with a purpose of achieving an intended change, growth, or learning in one or both parties in the relationship (Bennis cited in Deiro 2005, p. 10). Hence, influential relationships presume an asymmetrical distribution of powers where the change agent holds more power than the change target. This therefore

requires that those in authority such as administrators and teachers use that power responsibly; otherwise students and teachers could become vulnerable targets to any misuse of that power as recent studies on principal mistreatment have shown (Blase and Blase 2002). Interestingly, these studies identify majority of principal abusive behavior to be typically emotional in nature such as explosive behavior, verbal beating, and use of threats to intimidate people. It is also perhaps in these instances when the need for administrators to reflect on their emotions becomes more compelling as experiences of negative emotions like anger, jealousy, or shame often act as triggers in the recognition of ethical dilemmas (Gaudine and Thorne 2001). Under these circumstances, the dilemmas are plausibly caused by the administrators themselves as indicated by studies on school leadership which suggest that leaders who are less collaborative and are oriented toward controlling others eventually suffer feelings of isolation, insecurity, and anxiety (Beatty 2000).

Finally this paper recognizes yet another facet of moral sensitivity: understanding and dealing with one's emotions. This contributes to decision-makers' better understanding of their potential for growth and emotional development. As they experience the difficulties inherent in managing negative tendencies, accepting mistakes, and channeling potentially limiting tendencies in useful ways, decision-makers, through habitual reflection, learn not to take things personally and become open to feedback from trusted colleagues (Beatty 2000). This gives support to studies which maintain the influence of the character of the decision-maker himself or herself in ethical decision-making (Melé 2010).

15.5 Postscript

This paper has established moral sensitivity as a complex and multifaceted process not limited to the initial phase of moral problem recognition but extends toward decision-makers acquiring a fully adequate knowledge of morally problematic situations. It therefore suggests the level of complexity involved in moral problem identification and comprehension carried out in real-life settings and the expertise in the practice of moral sensitivity expected of school administrators to be competent and effective decision-makers and leaders. It also underscored the harmful consequences that could arise from ethical decision-making processes carried out on the basis of inaccurate, incomplete, and biased information. Moral sensitivity practices therefore become a moral imperative which require decision-makers to exercise due diligence not only in knowing the universal norms of morality but also in acquiring an accurate and detailed understanding of the circumstances and people involved in concrete moral situations prior to making moral judgments. This moral imperative is further emphasized in relation to processes that relate to understanding people. This entails decision-makers to gain access to highly sensitive information about people's deeper motives and intentions, the disclosure of which requires high levels of trust and confidentiality. Finally, this paper also emphasized the role of emotions in ethical decision-making and maintains how experiences of negative emotions are

often indicative of the existence of ethical dilemmas which could be caused by the administrators themselves. Thus, the moral significance of moral sensitivity practices that relate to decision-makers' efforts to understand and manage their emotions cannot be overly emphasized.

Born out of a grounded theory attempt, this paper advances current literature on ethical decision-making processes of school leaders and on the conceptualization of moral sensitivity as a process prior to and distinct from moral judgment. As a novel research, it also aims to contribute to the growing body of research on the ethical dimensions of school administration in the context of Philippine higher education. At a practical level, the model presented in this paper can be used to design educational interventions to develop potential and practicing deans moral sensitivity skills. This can be done through professional ethics courses in educational management programs and mentoring programs in school leadership courses. Moreover, the real-life moral sensitivity practices documented in this paper provide a record of tacit knowledge of participants that can be used to develop measures that assess ethical sensitivity in the context of school administration practice analogous to current available tests used in different professions.

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Chapter 16

Improving the Quality of Technical Education Through International Standardization: The Case of Coast Institute of Technology, Kenya

Genevieve Wanjala and Joseph M. Malechwanzu

Abstract The quest for quality technical education is today inextricably bound up with the processes and impact of globalization. Therefore, technical institutions need to improve the quality of instruction if they are to be significant players in the world's economic arena. Although the debate on the attributes of quality education is still in progress, quality teaching and learning can best be described by performance outcomes in the classroom environment and a persisting change in performance that results from experience and interaction with the world. Nevertheless, the ISO 9001:2008 concept of quality, where quality is evaluated in terms of customer satisfaction, has been adopted by many learning institutions with a general feeling that ISO 9001:2008 is more applicable to institutions offering service-oriented training, as opposed to subject-oriented teaching. This chapter argues that when ISO 9001:2008 standards documented on curriculum implementation policy manual are followed by teachers, they may cause a positive change to student academic performance. It examines the efforts that have been undertaken to improve the quality of teaching and learning in technical education and focuses on the Coast Institute of Technology (CIT) as one of the educational institutions that have embraced and included ISO 9001 implementation in their programs of instruction and thus provides empirical evidence of the causal relationship between ISO standardization and improved academic performance through the following research questions: What is the level of awareness of students and teachers at CIT on ISO 9001:2008 standards? To what extent are ISO 9001:2008 standards on curriculum implementation procedures followed by CIT teachers? In what ways have ISO 9001:2008 standards influenced students' academic performance in Coast Institute of Technology?

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Abbreviations and Acronyms

CIT	Coast Institute of Technology
ISO	International Organization for Standardization
KNEC	Kenya National Examinations Council
QMS	Quality Management System
UK	United Kingdom

16.1 Introduction

ISO (International Organization for Standardization) is a network of national standards bodies which gives state-of-the-art specifications for products, services, and good practices, helping to make industry more efficient and effective. It began in 1946 when delegates from 25 countries met at the Institution of Civil Engineers in London and decided to create a new international organization to facilitate international coordination and unification of industrial standards. ISO has published more than 18,000 standards, but for this study, we have focused on the requirements of the Quality Management System. ISO 9001 Standard last revised in 2008. The ISO 9001:2008 is an international standard for quality management systems that specify the quality management system requirement and provides a framework to establish, document, and maintain an effective quality management system in order to meet client requirements (ISO 2008).

Education is one of the basic services offered by governments and other stakeholders to society. Bray (1986: 40) posits that “education is a tool for economic development.” In much of Africa and especially in Kenya, technical education is slowly but surely gaining credence as a key driver to industrialization. If technical education is to meet this goal, it must be of high quality. It is also important to note that the debate on the attributes of quality of education – technical or otherwise – is still in progress. Thus, with no conclusive position as to what makes quality of technical education, it is critical that as many views as possible are analyzed to have a comprehensive grasp of the key tenets of the quality of technical education. When a wider view of the quality of technical education is achieved, a fair attempt can be made in analyzing the internal efficiency of an education and training system, which is a key dimension of the quality of education.

Globalization is yet another feature that exerts pressure to intensify the debate on quality of education. Ross (2002: 7) gives an apt summary of this when he says, “The quest for quality education is today inextricably bound up with the processes and impact of globalization.” Therefore, technical and other educational institutions need to improve the quality of education if they are to be significant players in the world’s economic arena. Chin et al. (2000) suggest the need for organizational factors such as teamwork, commitment, and recognition in ISO 9000 maintenance. In the UK, as in many other countries using QMS, there is a national drive for

“improved” teaching and learning (Woods 2002). The British Education Ministry recognizes the urgent need for national competitiveness and an improved standard of education and training. Since the education system in Kenya currently competes for resources and students even beyond the national boundaries, most institutions both private and public have adopted ISO standards as a strategy for effectiveness in evaluating their ability to meet all of their goals, subject to environmental uncertainty and internal politics and constraints.

Many researchers have studied the ability of ISO 9001 in achieving its main objectives of adding value to organizations implementing it in different economies in general or by different sectors in particular. For example, Pan (2003) discussed ISO 9001 implementation in Far East countries, namely, in Taiwan, Japan, Hong Kong, and Korea. The study involved investigating firms’ motivation for certification, their implementation experiences, and the benefits received. A similar research study was conducted by Nasser et al. (2004) to determine the performance of companies in Egypt. The main conclusion for implementing ISO 9001 in these countries was positive in general with some differences in motivation for and benefits gained after implementing ISO 9001. He concluded that there are common factors between these countries to go for ISO 9001 certification, namely, external pressure, gaining competitive edge, internal and external portions, and improvement of public relations.

This chapter examines the studies that have been carried out in Kenya to establish the efforts that have been undertaken by the Directorate of Technical Education to improve the quality of teaching and learning in that sub-sector. The chapter actually focuses on the Coast Institute of Technology as one of the educational institutions that have embraced and included ISO 9001 implementation in their programs of instruction.

16.2 The Research Problems

In recent years, ISO standards have been implemented in many organizations especially public institutions established by the government of Kenya. This has been largely due to the fact that the Vision 2030 goals include improved performance and quality service delivery and promotion of transformative leadership in the government of Kenya which meets expectations of the citizens, among other clients (Ministry of Planning and National Development of Kenya Vision 2030:2008). Despite most organizations in the public sector in Kenya embracing ISO certification as a way of contributing to customer satisfaction and staff motivation as well as having an international standard on which they operate, minimal research has been done to evaluate the success of QMS after ISO certification in these organizations. If such evaluation studies are not conducted, quality performance will decline and customers will not be satisfied with service delivery.

Coast Institute of Technology (CIT) is an example of the public institutions which adopted the QMS in July 2010 and received the ISO 9001:2008 certification in April 2012. Since then, there has not been a detailed independent assessment to

gather facts for showing if the institution is keeping to the ISO requirements as documented in the institutional quality management systems and the response of the teachers and students as regards ISO procedures. Indeed, there has been an outcry recently of the poor academic performance of students in Coast region. So it is expected that implementation of ISO standards should help the institution toward attaining the core business of education. Thus, the research study sought to analyze whether ISO standards are followed and how they affect students' performance in academics. The knowledge obtained from the study will help in maintaining the targets documented in the institution's QMS and ensuring continuous improvement.

16.3 Purpose and Objectives of the Research

The purpose of the research was to determine whether international standardization can improve the quality of technical education using the Coast Institute of Technology as an illustrative case. The objectives of the research were to:

- (a) Establish the level of awareness of students and teachers at CIT about the ISO 9001:2008 standards
- (b) Assess the extent to which ISO 9001:2008 standards on curriculum implementation procedures are followed by teachers in CIT
- (c) Determine the influence of ISO 9001:2008 standards on students' academic performance at CIT

From these objectives, the following research questions were formulated:

- (a) What is the level of awareness of students and teachers at CIT on ISO 9001:2008 standards?
- (b) To what extent are ISO 9001:2008 standards on curriculum implementation procedures followed by CIT teachers?
- (c) In what ways have ISO 9001:2008 standards influenced students' academic performance at CIT?

16.4 The ISO 9001 Basic Principles

The ISO 9001 mainly focuses on eight basic principles that guide its implementation. These include *customer-focused organization*. According to this principle, organizations depend on their customers, and therefore, they must understand current and future customer needs, should meet customer requirements, and strive to

exceed customer expectations. The second principle focuses on *leadership*. Leaders establish unity of purpose and direction. Thus, they have to create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives. This brings us to the third principle which advocates *involvement of people*. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit. In practical terms, this means that a *process approach* is a more viable option for organizations to adopt rather than a product approach. In this fourth principle, it is implied that a desired result is achieved more efficiently when activities and related resources are managed as a process. The fifth principle argues for a *system approach to management*.

Systems are constructed by connecting interrelated processes together to deliver the system objective which in the case of quality management systems is the satisfaction of the interested parties. The sixth principle, which in essence is the *raison d'être* of ISO, is *continual improvement*. Actually, continual improvement of its overall performance should be a permanent objective of an organization. This in effect calls for *factual approach to decision-making* which is the seventh principle. Making effective decisions is based on the analysis of data and information. The eighth and final principle focuses on *mutually beneficial suppliers*. Relationships between an organization and its suppliers are interdependent, and a mutually beneficial relationship enhances the ability of both to create value.

16.5 Process-Based Quality Management Systems

As explained already, ISO 9000 standards give organizations an opportunity to increase value to their activities and to improve their performance continually, by focusing on their major processes (Kenya Bureau of Standards 2007). The standards place great emphasis on making quality management systems closer to the processes of organizations and on continual improvement. As a result, they direct users to the achievement of results, including the satisfaction of customers and other interested parties. ISO 9001:2008 aims at guaranteeing the effectiveness (but not necessarily the efficiency) of the organization. The guiding quality management principles are intended to assist an organization in continual improvement, which should lead to efficiencies throughout the organization. However, for quality improvement to be continuous, senior management must encourage and motivate staff to implement their recommendations. To achieve quality objectives, top management ought to establish a quality system and involve those who will be involved in implementation so that they own the process. The illustration given in Fig. 16.1 is an example of such a continual process.

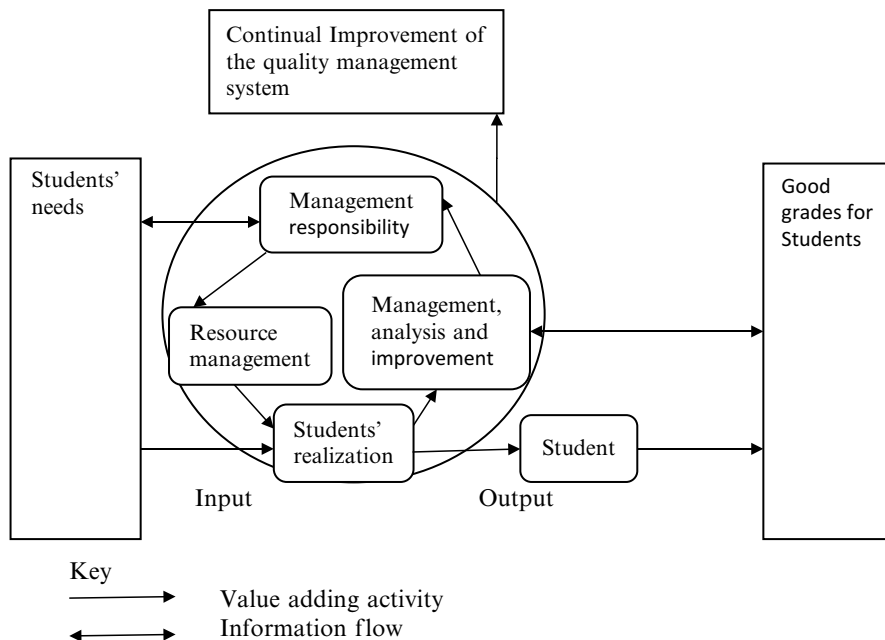


Fig. 16.1 Continual improvement of the QMS

16.6 Quality in Teaching and Learning

Quality teaching and learning can best be described by performance outcomes in a classroom environment. Indeed, according to Karimi (2008), performance is observed by the direct outcome of learning and it is the main indicator that learning has occurred. In addition, learning has often been described as a “persisting change in performance or performance potential that results from experience and interaction with the world.” Therefore, for learning to be observed, there must be demonstration through performance on related tasks. Nevertheless, the ISO 9001:2008 concept of quality, where quality is evaluated in terms of customer satisfaction, has been adopted by many learning institutions with a general feeling that ISO 9001:2008 is more applicable to institutions offering service-oriented training, as opposed to subject-oriented teaching. Cullen, Joyce, Hassall, and Broadbent (2003) and Kaplan and Norton (1996) maintain that “The progression from the monitoring of service providers like schools and colleges to manage quality in education, requires the adoption of QMS.” According to Woods (2002: 2), “Quality is what is good for the school and its students.”

In the UK, as in many other countries using QMS, there is a national drive for improved teaching and learning. In developing countries, there is also a renewed focus on learning outcomes to prepare graduates for employment and higher education. A Kenyan version of QMS can easily be compared to the UK where the

quality assurance practices are implemented holistically from the Ministry of Education to classroom teaching and learning. Thus, at the Coast Institute of Technology, ISO 9001:2008 was implemented to guide strategic operations in relation to customer relations.

16.7 Theoretical and Conceptual Frameworks

One theory that was applied to this study is the systems theory, which is an interdisciplinary study of systems in science and sociology, offering frameworks to describe and analyze groups of objects. It was proposed by biologist Ludwig Von Bertalanffy in 1928 (Cole 1997). It emphasizes the need to consider customer satisfaction and the totality of the organization to value every part or every section within it in order to achieve its objectives. Similar to the systems theory, one may do well to remember that organizations are made up of many administrative and management sections, functions, products, services, and groups as well as individuals. This is well in line with the ISO 9001:2008 standard adopted by CIT and which emphasizes the commitment to attain the required international standard in quality service delivery. The study discussed in this chapter examined how the adoption of this requirement has so far been applied and how it has improved students' academic performance in the institution.

The Kaizen philosophy of continuous improvement also guided the study. Kaizen is a Japanese philosophy of continuous improvement of all employees in an organization so that they perform their tasks a little better each day. It is a never-ending journey centered on the concept of starting anew each day with the principle that methods can always be improved (Oakland 2000). The theory was propounded by a Japanese scholar, Masaaki Imai, who defined it as ongoing improvement involving everyone from top management, managers, and workers. The Kaizen strategy recognizes that management must seek to satisfy the customer and his or her needs if it is to survive and grow in business. It is important to note that Kaizen is to be performed at all levels from top management to lower-level employees (Chary 2004). This philosophy was relevant to this research since it provided an insight of the need to continuously improve the way CIT carries out their implementation of curriculum in line with ISO 9001:2008 standards and the extent to which the institution would improve the students' academic performance. This theoretical framework is conceptualized in Fig. 16.2.

This framework shows that the research study contained three independent variables which may have their effects on the quality of academic performance in CIT, which is the dependent variable. This research study acknowledged that when ISO 9001:2008 standards documented on curriculum implementation policy manual are followed by teachers, they may cause a positive change to student academic performance. The research study also noted that moderating factors like government policies on education may affect the outcome of students' performance. For instance, abrupt changes in opening and closing dates of institutions, election

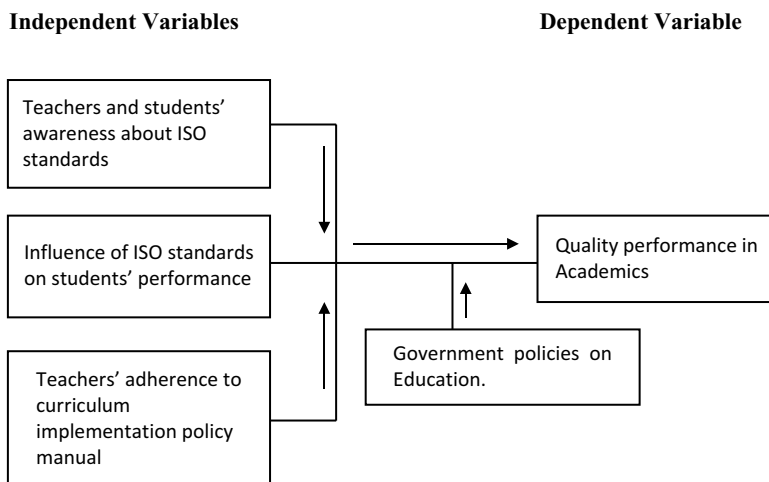


Fig. 16.2 Conceptual model showing the interrelationship between independent and dependent variables

period, and minimum entry requirements for students are just a few factors controlled by the government through the Ministry of Education. Such factors are normally not included in the school term's program of activities, but they might result to nonconformity which is an indication of poor performance in line with ISO implementation.

16.8 Research Methodology

16.8.1 Research Design

Research design is a general plan of how one goes about answering the research questions (Saunders et al. 2007). In this research study, we thought it is wise to adopt a correlational design to establish relationships between the dependent and independent variables. A correlation research is a design conducted when one wants to explore the extent to which two or more quantifiable variables covary, that is, where changes in one variable are reflected in changes in the other (Creswell 2008). Such a degree of relationships is normally expressed as a coefficient of correlation. Our aim in carrying out this research was to establish that awareness of ISO 9001:2008 standards, implementation of ISO 9001:2008 standards, and the extent to which teachers adhere to the curriculum implementation procedure manual are the main contributors to academic performance at CIT. We wanted to find out whether variations in these independent variables significantly contribute to changes in students' academic performance.

In terms of population, the research study was carried out at the Coast Institute of Technology which has a student population of 601, 72 teachers, and 10 administrators. The target population was divided proportionally into the ten divisions/departments of CIT. The departments included were administration/management, electrical, mechanical, applied science, tourism, institutional management, business, building, entrepreneurship, and information technology. The same department may comprise students of any level of study (first year, second year, and third year). For the sample size, the sampling frame for any probability sample is a complete list of all the cases in the population from which a sample is drawn (Saunders et al. 2007). The following formula for determining sample size was used:

$$n = \frac{(Z^2 pq)}{d^2}$$

Where

n = desired sample size for a target population greater than 10,000

Z = standard normal deviation (1.96) corresponding to 95 % confidence level

P = expected prevalence of proportion

$q = 1 - p$ and d = level of statistical significance set

$$n = \frac{(1.96^2 \times 0.1 \times 0.9)}{0.05^2} = 138$$

Since our target population was less than 10,000, the sample size was found using the formula

$$n_f = \frac{n}{(1 + n / N)}$$

Where

n_f = desired sample size for target population less than 10,000

N = the estimate of the population size

Therefore,

Sample size for students = $138 / (1 + 138 / 601) = 112$

Sample size for teachers = $138 / (1 + 138 / 72) = 47$

Sample size for administrators = $138 / (1 + 138 / 10) = 9$

To arrive at an appropriate sample size, we did adopt stratified random sampling. This is because the study population was not homogeneous as it comprised of teachers in different disciplines and working in different departments/sections. In addi-

tion, the students undertake different courses. The goal of this sampling technique was to ensure that teachers and students in the ten different departments and sections in CIT were adequately represented in the sample. A further random sample of staff and students from these departments was done using the list of students and teachers before reaching the total number of respondents. For instance, in each department, the research study used a random sample of the teachers and students in that department.

In relation to the research instrument, both primary and secondary data were used. Primary data collection instruments were in the form of questionnaires and interviews; the questionnaires consisted of structured and unstructured questions which gave the respondents the freedom of response and were administered to school administrators, teachers, and students. They all had four (4) parts aimed at eliciting specific information. Part "A" was on personal data of the respondent and general data. Part "B" had information about the awareness level of ISO 9001:2008 standards. Part "C" elicited information on influence of ISO standards on academic performance in CIT. Part "D" sought information on the extent to which ISO 9001:2008 standards on curriculum implementation procedures were followed by teachers at CIT.

Twenty interviews were conducted with teachers representing the various departments at CIT. The information sought included roles played by teachers, value added in academic performance after ISO standards were implemented, and the way forward for CIT after the implementation of ISO standards. In addition, we used secondary data sources and literature such as the Kenya National Examination Council results for the years 2010, 2011, and 2013 as well as the curriculum implementation procedure manual as documented in the institution's quality management system.

Validation has to do with the extent to which data collection methods accurately measure what they were intended to measure (Saunders et al. 2007). To enhance validity of the instrument, a pilot study was conducted using a sample of five teachers, one administrator, and ten students who were randomly selected from one department. The respondents for the pilot study were not included in the main study. Necessary rephrasing of questions, re-sequencing, and adding questions where applicable were done. Finally, the opinion of experts in the various disciplines helped remove any questions that did not have face value. Reliability on the other hand is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. In addition to the pilot study, we used the split-half technique to ensure reliability of the instruments. This involved splitting the instruments into two: one half of even-numbered items and the other half of odd-numbered items. The scores of all the odd- and even-numbered items for each of the respondents in the study were computed separately. Pearson product moment correlation coefficient was used to correlate the scores from the two groups of items.

16.9 Report of Research Findings

In terms of questionnaire return rate, the study involved nine (9) administrators, forty seven (47) teachers, and one hundred and twelve (112) students in Coast Institute of Technology, out of which nine (9) questionnaires from administrators, forty (40) questionnaires from teachers, and one hundred and one (101) questionnaires from students were completed and collected. These respondents were stratified into nine departments found in Coast Institute of Technology. The departments included were administration/management, electrical, mechanical, applied science, tourism, institutional management, business, building, entrepreneur, and information technology. This ensured a fair representation of teachers and students in the sample. This translated to 100 % for administrators, 85 % for teachers, and 90 % for students. In total, the response rate was 150 out of 168 representing a response rate of 89 % which was considered sufficient for use in our analysis.

16.9.1 Data Analysis Techniques

Data collected were checked for any errors and edited before actual data analysis in order to increase the level of accuracy and to make analysis of the data easier. Qualitative data were then analyzed and presented in a way that was simple and easy to understand. Statistical Package for the Social Sciences (SPSS) software was used in processing data from the questions. The processed data were used to generate frequencies, percentage tables, and graphs for comparison purposes. The results were then presented in form of pie charts and tables which became part of the narrative describing the research's objectives and then presented in textual form. Descriptive analysis enabled us to summarize and organize data in an effective and meaningful way. We also developed and employed multiple regressions to analyze the data at a level of statistical significance test of 0.01 two tailed.

The research sought to establish the demographics of respondents in terms of age, gender, level of education, year of study, and experience. This being a sample study, the views of all respondents were merged and analyzed.

Out of the 150 respondents, 36.7 % were aged below 20 years, 62.0 % were aged between 21 and 30 years, 13.3 % were aged between 31 and 40 years, 7.3 % were aged between 41 and 50 years, and only 1.3 % was above 50 years. This gave an indication that more than 98.7 % of the respondents were below 30 years of age. This was due to the fact that most respondents were students who were below 25 years and yet were mature enough to give reliable information in the study.

A large number of the respondents (54) were in second year followed by first year (31) and lastly third year (16). The high number of second years was attributed

to repeaters and those students returning from field attachment in all the three categories, namely, artisan, certificate, and diploma. The lowest number was in third year because it is only composed of diploma students waiting for their final year examinations. The large number of continuing students was considered well suited to provide relevant information on influence of ISO standards on academic performance in CIT.

16.9.2 Student Level of Study

A large number of the respondents, 43 (42 %), were enrolled in certificate courses followed by those enrolled in diploma courses, 35 (35 %), and lastly those enrolled in artisan courses at 23 (23 %). Most courses in CIT were designed for certificate level and this gave the highest number of respondents, while at artisan level, some departments such as business do not offer artisan courses making the number of respondents in artisan level lowest. The high number of students taking certificate and diploma courses was considered well suited to provide good and accurate information because of their entry behavior.

16.9.3 Teacher Educational Qualifications and Their Teaching Experience

The data on teachers' highest professional qualification were also received and analyzed to reflect the quality of teachers in the institution. Results from the findings showed that out of the 49 respondents, 21 teachers were diploma holders, 20 were first degree holders, 2 were certificate holders, and 6 had a masters degree. This implies that many institutions prefer employing more middle-level employees who are diploma holders, since they are capable of handling sophisticated roles while at the same time being paid a lower remuneration compared to those in the same rank who have degrees and postgraduate qualifications, hence the large number of respondents being diploma holders. For this research, a diploma level of education was considered a sufficient qualification for one to provide the required information since most students were taking diploma certificates.

Teachers were also asked to indicate their teaching experience. The results showed that out of the 49 respondents, 70 % had a teaching experience of less than 10 years, while 30 % had an experience of more than 10 years. The low percentage of teachers with teaching experience of more than 10 years was due to the fact that most teachers quit the teaching profession in search of greener pastures. However, in this study 30 % of experienced work force was enough to induct the less experienced work force in curriculum implementation especially on areas such as moni-

toring of standards, evaluation, and teaching/learning process to attain good academic achievements which this study investigated.

16.10 Data Analysis

16.10.1 The Relationship Between Level of Awareness of ISO Standards and Academic Performance

Teachers and students were asked questions on the objectives of ISO standards and whether CIT has been certified, with the aim of establishing the mandate of ISO 9001 in CIT. Four descriptive analysis techniques were used to analyze data, namely, mean, frequency, graphs, and standard deviation. Mean was used to indicate the central tendency of the data by measuring the location of the distribution, while standard deviation which is usually used to measure the dispersion of the data was used to show the variation of data within the normal distribution.

The study found that 69 % of teachers and students were aware of ISO 9001:2008 standards as was evident from the answers they gave. However, there were those who responded negatively as to whether they knew the procedures and requirements and even the role of ISO-9001:2008. The negative response to awareness of ISO-9001:2008 standards represented a 31 % rate which was attributed to lack of continuous awareness training and motivation. The study further established that 100 respondents (representing 67 %) of the total number and who were aware of ISO standards also felt that the academic performance of CIT was good.

The results further indicated a mean of 3.55 and standard deviation of 1.218 for ISO awareness. It means that in the normal distribution, ISO awareness has a variation or spread of 1.218 from the mean. This suggests that majority of the respondents was in agreement that enough awareness was given on ISO standards. In fact the response on ISO awareness was skewed toward 4.00 (representing “agree” on the Likert scale), an indication that teachers and students were given enough awareness on ISO standards.

16.10.1.1 Regression Analysis of the Variable

The linear regression revealed that there is a strong positive relationship between ISO awareness and academic performance with an R-square value of 0.810, which is way above 0.7. Therefore, it implies that when teachers and students are aware of ISO standards, they will be able to implement such standards freely: a practice that will inevitably lead to improved academic performance and hopefully fast-forward educational leadership in the technical fields in Kenya.

16.10.2 The Relationship Between ISO 9001:2008 Standards on Curriculum Implementation Procedures and Academic Performance

Teachers were asked questions on curriculum implementation procedures in line with ISO standards as documented in academic policy. Four descriptive analysis techniques that were used to analyze data are mean, frequency, histogram, and standard deviation. The study found that 88 % of teachers followed ISO 9001:2008 standards on curriculum implementation. Only 12 % gave a negative response on curriculum implementation in line with ISO 9001:2008 standard procedures which according to this study was very minimal. The study further established that 100 teachers (representing 67 %) of the respondents who adhered to ISO standards on curriculum implementation also felt that the academic performance of CIT was good.

In terms of teachers' adherence to procedure on curriculum implementation in ISO standards, the findings indicated a mean of 3.92 and a spread of 0.932 for curriculum implementation, meaning that majority of teachers in Coast Institute of Technology adhered to procedures on curriculum implementation in line with ISO standards. The implication is that curriculum implementation has been embraced by teachers, although some teachers were either undecided or they disagreed. This was very minimal, and it was attributed to lack of continuous awareness training and motivation, to keep the standard operating procedures and requirements at CIT as high as possible. Actually, the response on curriculum implementation was skewed toward 4.00 (representing "agree" on the Likert scale), an indication that teachers agreed that they follow procedures on curriculum implementation of ISO standards. It was noted that from the time ISO standards were implemented, teachers evaluated and monitored the curriculum. Hence, most students were quick to point out that standards are followed by teachers thereby leading to good academic achievements.

16.10.2.1 Regression Analysis of the Variable

The linear regression revealed that there is a moderate positive relationship between curriculum implementation and academic performance with an R-square value of 0.477, which lies between 0.3 and 0.69. Therefore, it implies that when teachers adhere to procedure on curriculum implementation in ISO standards, it results to improved academic performance. However, the low R-square value is an indication that other than curriculum implementation, other factors which were not the focus of this study also affected academic performance at the Coast Institute of Technology.

16.10.3 The Influence of ISO 9001:2008 Standards on Academic Performance

Teachers and students were asked questions on the influence of ISO 9001:2008 standards on academic performance in CIT. The study found that 68 % of teachers and students agreed that implementation of ISO 9001:2008 standards affects academic performance positively. 9 % of respondents gave a negative response while 23 % were undecided. The large number of undecided respondents was attributed to the fact that some of the respondents were first year students and newly recruited teachers who needed more time to familiarize themselves with the ISO standards. The study also established that 67 % of the respondents felt that the academic performance of Coast Institute of Technology was good after ISO standards were implemented. In fact, the responses were skewed toward 4.00 (representing “agree” on the Likert scale), an indication that majority of the respondents agreed that ISO standards have effects on the academic performance. The findings further revealed a mean of 3.65 and a standard deviation of 0.777 for the influence of ISO standards on academic performance, implying that majority of teachers and students in CIT are of the opinion that implementation of ISO standards has an effect on academic performance.

16.10.3.1 Regression Analysis of the Variable

The linear regression revealed that there is a strong positive relationship between ISO standards implementation and academic performance with an R-square value of 0.871 which is above 0.7. It implies that when ISO standards are implemented in an institution, they improve academic performance. Concerning whether the implementation of ISO standards has improved the academic performance in Coast Institute of Technology, 67 % of respondents agreed to the statement. Indeed, this statement is further supported by the fact that CIT has been continuously improving in KNEC examination for the last 3 years.

The analysis of KNEC results for the years 2010, 2011, and 2012 that is before and after the implementation of ISO 9001:2008 standards shows that Coast Institute of Technology mean score has constantly been improving. This implies that CIT has constantly been improving in students’ academic performance as compared to previous years since ISO 9001:2008 standards were implemented in July 2010. Since ISO standards were implemented in CIT, the syllabi were covered within the stipulated timeframe, an indication of academic achievement. In addition, the heads of department constantly monitored standards and the entire teaching learning process.

16.10.4 Summary of Regression Analysis for All Variables

The summary of regression analysis for all variables revealed that there is a strong positive relationship between the three variables at play with an R-square value of 0.885 which is high above 0.7. This implies that when teachers and students are aware of ISO standards, teachers who implement ISO standards and adhere to the curriculum implementation policy as documented in the institution's quality management system service delivery will considerably improve and result to good academic performance in Coast Institute of Technology. The analysis given here represents the explanatory variables used in the regression analysis. The relationship is given by the following equation:

$$R = \beta_0 \pm \beta_1 (P_1) \pm \beta_2 (P_2) \pm \beta_3 (P_3) \pm e$$

where P_1 is level of awareness, P_2 is ISO implementation, P_3 is curriculum implementation, R is academic performance, e is the error term, and β_0 , β_1 , and β_3 are the coefficients of regression. From this the multiple regression equation was represented as:

$$R = 0.9 P_1 + 0.933 P_2 + 0.691 P_3 + 0.25007$$

It is important to note that the R-square value is less than one (1) since other factors which were not mentioned in this study also play a role in academic performance at CIT. Such factors may include school environment, learners' entry behavior, and government policies on education among others.

16.11 Conclusions

Quality assurance and standards is a fundamental activity of instructional supervision and therefore should be part of school improvement (Wanjala 2015). Such standards can be viewed as a benchmarking tool to which good practices are encouraged. When instructional standards are put in place throughout the education system, academic performance will improve. Implementing curriculum in line with ISO standards among other challenges may impede more growth or retard the gains made on academic performance. However, in this era where learning institutions compete for students globally, one major market drive is good performance. This chapter describes a research study that set out to examine the awareness, influence, and extent to which the ISO 9001:2008 implementation has impacted on academic performance at Coast Institute of Technology. The study assessed the level of awareness, influence, and adherence of curriculum implementation policy among CIT teachers and students to ISO 9001:2008 implementation. Relying on the systems theories, the three explanatory variables

of academic performance together with the moderating variable of government policies on education were included in the study.

First, descriptive analysis showed that the majority of respondents were in agreement that the three explanatory variables caused significant contribution to academic performance. Secondly, a multiple linear regression analysis showed that the predictors, ISO awareness and ISO implementation, were statistically significant variables of academic performance at 99 % confidence level. Further, the coefficient of determination R-squared had a high explanatory efficacy of 0.885. These findings on statistical significance of ISO implementation in organizations were consistent with several other researches as indicated in the introduction. However, the study went ahead to establish the success of ISO implementation in academic performance at Coast Institute of Technology. Expectedly, ISO awareness, ISO implementation, and adherence to curriculum policy were directly related to academic performance. The results revealed that the importance of ISO standards is well known by teachers and students, although there may be several factors that affect academic performance in an educational institution such as the CIT, namely, students' entry behavior, financing challenges, low labor productivity, and acts of God, among others. This research has established that the key contributor to academic performance is the curriculum implementation policy as documented in the institution's QMS manual.

16.12 Future of ISO Accreditation and Academic Performance in Kenya

Very low standards of students' academic performance in technical institutions have been and still are a source of great concern and research interest to the higher education managers, government, and parents in Kenya. Educational institutions are increasingly interested in monitoring the performance of their students, which gives rise to the need to research, collect, analyze, and interpret data, in order to have evidence to inform academic policies that are formulated to improve student performance, quality teaching, and support resources or create intervention strategies to mitigate factors that will positively affect student performance at large. This research tried to establish how ISO 9001 certification has influenced academic performance in CIT. Quality academic performance was measured by various indicators such as teacher and student level of awareness on ISO 9001 standards, teachers' adherence to curriculum implementation policy manual, and good students' academic performance.

The drive for ISO registration may be categorized into external and internal motives. The external motive means technical institutions gain ISO certification out of external pressure, such as pressures from customers and competitors. The internal motive means the said institutions want to become certified because they feel the need to do so in order to improve their performance. Scholars such as

Fuentes et al. (2000), Williams (2004), and Gotzamani and Tsiotras (2002) claim that those institutions which put emphasis on external reasons have failed to gain benefits due to their narrow focus on the short-term advantages of certification. In comparison, institutions which focus on the development of the standard to improve quality and increase customer satisfaction have significantly improved their performance. However, there is less research performed within certified organizations than in those seeking certification (Berggren et al. 2001). To support this sentiment, Wahid and Corner (2009) point out that not much literature can be found on the maintenance of ISO 9001 and the post-certification period, hence the need for doing research to identify the critical issues in certified organizations. It is important to note that although an institution might have successfully renewed their ISO 9001 certification, it does not mean that ISO 9001 standards are maintained effectively. The ISO standard is effectively maintained if there is quality improvement and enhancement of clients' satisfaction (Low and Omar 1997), thus the importance for institutions to create a culture for effectively maintaining quality management systems and the subsequent fast tracking of technology integration in vocational education.

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