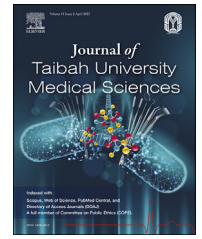




Taibah University
Journal of Taibah University Medical Sciences

www.sciencedirect.com



Educational Article

Learning organizations in Saudi universities: Implications for occupational therapy education

Muhammad O. Al-Heizan, PhD

Department of Rehabilitation Sciences, King Saud University, Riyadh, KSA

Received 15 September 2022; revised 5 October 2022; accepted 5 October 2022; Available online 19 October 2022



المخلص

في الجامعات السعودية يلاحظ عدم وجود مفهوم حديث قائم على جمع، نشر، تبني، واستعمال المعلومات لتحسين فعالية المؤسسات الأكاديمية ذات الأنظمة المفتوحة التي تربط بين الأقسام. يهدف هذا البحث لتحليل أهمية التعلم المؤسسي وأثر تطبيق مفاهيمه في مؤسسات التعليم العالي في المملكة العربية السعودية وتعليم العلاج الوظيفي. استعمل البحث بيانات ثانوية من عدة دراسات منشورة تم فيها تقييم تبني مفهوم التعلم المؤسسي في الجامعات السعودية وفي تعليم العلاج الوظيفي. البنية الأساسية تم تطويرها لتسهيل تبني مفهوم التعلم المؤسسي تحت رؤية المملكة العربية السعودية 2030، ويتضح وجود حاجة ملحة لتغيير النموذج الحالي للممارسة إلى نموذج آخر يساهم في اكتساب هذه المفاهيم من قبل أعضاء هيئة التدريس والموظفين. على الرغم من أن التعلم المؤسسي ضروري لبقاء مؤسسات التعليم العالي والنهوض بها لأنها تعمل في بيئة ديناميكية، إلا أنه نادراً ما يلاحظ أنه جزء من الأداء اليومي في هذه المؤسسات. وتشير الدراسة الحالية إلى وجود فرص ينبغي الاستفادة منها لتطبيق هذه المفاهيم في الجامعات السعودية بشكل عام وتعليم العلاج الوظيفي بشكل خاص.

الكلمات المفتاحية: التعلم المؤسسي؛ الجامعات السعودية؛ تعليم العلاج الوظيفي؛ التعليم العالي؛ تعليم العلوم الصحية

Abstract

In Saudi universities, the modern concept of acquiring, disseminating, adopting, and using information to improve organizational effectiveness through open systems of synergy among departments is hardly observed. This study aims to analyze the importance of organizational learning and the implications of applying its

concepts in institutions of higher learning in KSA and occupational therapy education. We used secondary data obtained from a few studies that have assessed the adoption of learning organizations' concept in Saudi Arabian universities and occupational therapy educational programs and departments. The infrastructure has been improved to facilitate the adoption of the learning organizational concept under KSA's Vision 2030; however, a paradigm change is intensely needed where the adoption of the practice is acquired by faculty and staff members. Although organizational learning is essential for the survival and advancement of institutions of higher education as they are operating in a dynamic environment, it is hardly observed to be a part of the daily functioning in these organizations. The current study suggests that their opportunities that should be taken advantage of to implement these concepts in Saudi universities in general and occupational therapy education in particular.

Keywords: Health sciences education; Higher education; Learning organizations; Occupational therapy education; Saudi universities

© 2022 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Corresponding address: Department of Rehabilitation Sciences, King Saud University, CAMS P.O. BOX 10219, Riyadh, 11433, KSA.

E-mail: malheizan@ksu.edu.sa

Peer review under responsibility of Taibah University.



Production and hosting by Elsevier

Introduction

In today's contemporary knowledge-based economies, where the survival of every organization depends on its increasing reliance on information, the adoption of an organizational culture that fosters learning has become essential. The advancement in information and

communication technologies has enabled comprehensive learning and is crucial for organizational development and success.

Public and private institutions of higher learning in KSA are no exception. The nature of their services requires a strong culture that thrives on organizational learning. There is a widespread consensus that all educational organizations, including universities, must develop an educational system that creates and uses evidence to improve its effectiveness overtime.¹ Thus, an educational institution that promotes higher education must explore scientific evidence from external sources. It should develop the ability to learn from their own performance and experiences to evolve and implement practices that will increase their effectiveness and efficiency.

Consequently, continuous improvement in educational performance is required in Saudi Arabian universities, as institutions of higher learning, to build strategies for continuous learning and strengthen their capacity to become learning organizations. This calls for a paradigm change where some issues have to be tackled, including (a) building the right culture; (b) identifying systems of incentives, authority, and autonomy; (c) selecting and preparing teachers and leaders; and (d) organizing resources to generate data and evidence that can be effectively explored to create learning organizations and understand the factors impeding learning. Consequently, innovative policies and practices that promote learning within institutions are imperative.

The learning organization concept

The individual level of learning in its simplest form entails creating or acquiring new knowledge that will impact behavior. At the organizational level, although the scope of and mechanisms for learning may differ, the overall concept remains the same. Although various definitions of learning organizations have been proposed by different researchers, they all agree on their importance for survival in today's world.

Senge³ (p. 3); a pioneer in the field of learning organizations, indicated in his book "The Fifth Discipline" that learning organizations are "*organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.*" Regarding the rapidly changing world, the rationale is that only those organizations that are flexible and can adapt to changes will remain productive and thus survive. However, Senge² (p. 14) emphasized that it is not enough for a learning organization to survive through "adaptive learning," it must be joined by "generative learning," a "*learning that enhances our capacity to create.*"

Brown and Duguid³ described organizational learning as "*the bridge between working and innovating.*" This definition clearly implies useful improvement as learning takes place and links organizational learning to action. This means that learning-in-working improves an organization, as the organization gains experience over time.

According to Garvin and others,⁴ the organization, which has its place of excellence in knowledge creation, acquisition, and transfer, is a learning one and can be achieved through three fundamental building blocks¹: a supportive learning

environment²; concrete learning processes and practices; and³ a leadership behavior that provides reinforcement. These building blocks are essential for the organizational learning and adaptability that Peter Senge identified earlier in his book.²

Keeping in view of all the perspectives mentioned above, it becomes inherently clear that when organizations believe in learning, they envision and adopt a model of knowledge management,⁵ where employees are skilled at creating, acquiring, and transferring knowledge. Such organizations build an organizational climate and culture that cultivates tolerance, fosters open discussion, and thinks holistically and systemically. With such readiness, they are prepared to face any change that may arise, not only adapting to it successfully but also making it an agent for enhancing further learning.

Applying the concept of learning organizations in Saudi Arabian universities

Increasing impetus was placed on the international educational sector in developing countries, especially in institutions of higher learning.⁶ In the last two decades, governments began to realize that the main force behind economic development was a highly knowledgeable, skilled, and professional human resource. This is essential as countries move to knowledge-based economies that focus on creating and implementing knowledge to enhance growth and development.⁷ Thus, converting universities to become state-of-the-art providers of educational services that contribute to the needs of their countries increased the investment within this sector, both regarding the establishment of new universities and refurbishment and reorganization of older institutions. The educational sector in KSA, in particular, has experienced many changes. Following the directives of the Ministry of Education (established in 1951), the following changes occurred:

- A rapid expansion of universities;
- An adoption of new strategies of teaching and learning;
- A profound increase in the number of student enrollments;
- A focus on providing an improved learning environment with the right facilities and resources;
- A drive to acquire international academic accreditation to ensure quality standards.

With these changes, it became essential that universities adopt practices that help them evolve as learning organizations, focusing on continuous improvement.

AL-Qahtani and Ghoneim⁸ reported the existence of a real gap between the current set-up and practices at Saudi universities and the essential characteristics of a visionary learning organization. Additionally, Mutairi⁹ revealed a centralized structure at the university that has severe shortcomings, such as weakness in information sharing and electronic networking between university departments, within and between faculty members and students. The Kingdom of Saudi Arabian Vision 2030 facilitates the development of the learning organization concept through human resources development in the higher education field by establishing administrative systems that encourage technology utilization

to produce knowledge within them.¹⁰ However, substantial work needs to be done to convert Saudi universities into learning organizations.⁸ Elshafie⁶ highlighted that effective dialog and inquiry and improvement of team learning and communication are, among other factors, imperative for organizational improvements in a Saudi university.

Across Saudi universities, the physical systems are well in place; what is lacking now is the willingness and ability of the leaders and faculty members to consciously adopt the practice of acquiring, transferring, and using the information for improving organizational effectiveness. This requires an organizational structure and climate that facilitates the free flow of information between departments, faculty, and students.

The role of the university administrators is perhaps the most important. They can become the main drivers of change by working on the seven dimensions of building a learning organization proposed by Watkins and Marsick¹¹: create continuous learning opportunities, promote inquiry and dialog, encourage collaboration and team learning, establish systems to capture and share learning, empower people toward a collective vision, connect the organization to its environment, and use leaders who model and support learning at the individual, team, and organizational levels. More recently, a model of learning organization has been suggested for leaders of Saudi universities using the seven dimensions proposed by Watkins and Marsick.¹² This returns us to putting the three building blocks in place:

A Supportive Learning Environment: University administration ensures that all its employees (leaders, faculty members, staff, administrators, and students) do not fear disagreements with peers or authority figures and are comfortable expressing their thoughts about work and the task at hand. Faculty should be encouraged to test new ideas and practices to improve teaching and learning without fear of failure, as more learning may occur due to the outcome, and build effective learning environments that allow staff to pause and reflect on organizational processes. This encourages a collaborative environment where people across departments talk about and change behavior, policies and systems. In fact, university environments that foster belonging and shared vision and goals are more equipped to flourish and develop.¹³ This certainly may involve the establishment of communities of practice for special interests, which encourages innovation and communication between people from different backgrounds with a common passion and/or interest.¹⁴

Concrete Learning Processes and Practices: Implementation of learning processes that allow the generation, collection, interpretation, and dissemination of information using research methodologies and conducting of studies. This includes experimentation to develop and test new strategies; keeping track of educational trends; disciplined analysis and interpretation to identify and solve problems; and education and training to develop both new and established leaders and faculty members. Moreover, improving the capacities and skills of those in higher education is an important factor that may facilitate the implementation of learning within a university.¹⁵

Leadership that Reinforces Learning: Leaders strongly influence organizational learning. Only when leaders

encourage dialog and debate will the faculty members feel encouraged to learn. Leaders must ensure an organizational culture of enquiry and reflection. What did we set out to do? What actually happened? Why did it happen? What do we do next time? (Which learning strategies do we sustain, and which do we improve?). This also includes formative monitoring and rewarding behaviors that facilitate and guide the development of a learning organizational culture.¹⁶

Implications for occupational therapy educational programs and departments

Encouragement of Innovation: As new developments and advances in rehabilitation increase, occupational therapy education should enable its students to spearhead these developments. Adapting components from the learning organization concept would encourage innovation by both occupational therapy students and faculty to be users and developers within the evolving domains of occupational therapy practices. This may also involve establishing communities of practice for special and/or emerging areas of practice within occupational therapy. This includes but is not limited to areas such as virtual therapy, 3D printing, robotics, and other technology-based therapeutic interventions/assessments. Recent evidence suggests promising results within these areas. Boone et al.¹⁷ and Lee et al.¹⁸ have both found positive outcomes of virtual reality occupational therapy interventions. Furthermore, the applications and possibility of using 3D printing by occupational therapists have been explored and are gaining popularity.^{19,20}

Building Effective Learning Environments: Using learning organization concepts will also help occupational therapy educators enhance the quality and efficiency of the educational process. Regarding the COVID-19 pandemic, most educational programs switched to an online format, thereby opening many doors and opportunities for educators. For occupational therapy education, this may include the plan of switching some courses or lectures to an online format to provide more time for practical or clinical education. Recent research suggests positive feedback from occupational therapy students to an online teaching course.²¹

Occupational therapy education, as with other medical clinical practices, should continue to adjust to emphasizing interdisciplinary practice. This has been referred to as interprofessional education (IPE). The importance of the inclusion of IPE opportunities within educational programs is evident, as it is considered the main standard for many accrediting bodies.²² Hence, IPE is also included in the Accreditation Council for Occupational Therapy Education (ACOTE) Standards.²³ Lucas Molitor and Naber²⁴ reported that students from occupational therapy, physical therapy, and physician assistant programs were better prepared to incorporate interprofessional skills in clinical practice after completing an IPE module. Furthermore, using interprofessional case-based learning activities with occupational therapy and speech language pathology students has also yielded positive outcomes.²⁵ More recently, positive results were reported following the application of simulation-based learning activities for preparing allied health students for working in interprofessional teams.²⁶

The use of simulation as a supplement or replacement for clinical placements has also been explored. Chu and colleagues²⁷ provided a conceptual framework for a simulated clinical placement in occupational therapy education, which is based on¹ considerations of the practical education of the learner;² criteria for the quality of simulated education; and³ learning theory perspectives. There is also increasing evidence supporting the use of case-based or video-case-based simulated learning to facilitate clinical reasoning in occupational therapy students and help them transition smoothly into clinical practice.^{28,29} For Saudi occupational therapy educational programs, this could be an exploration of the possibility of switching some components of courses requiring clinical placements to a simulated clinical placement. This is particularly important, as there is currently a dearth of clinical opportunities for occupational therapy students and increased pressure on clinical settings to accommodate educational program needs alongside the needs of their clients.

Encouragement of Inquiry and Reflection: With current advancements and developments in healthcare and healthcare education being on the rise, occupational therapy educational programs will need to consider using learning organization principles to inquire about and reflect on the current status of occupational therapy education. This includes the structure, content, and process of current programs. Many healthcare disciplines within Saudi educational institutions have decided to transfer to a clinical doctorate degree, and occupational therapy educators will also need to consider this transition. In the United States, many occupational therapy programs have moved to a doctoral entry level, which has been adapted in the standards of accreditation by the Accreditation Council for Occupational Therapy Education.²³ Transitioning to a doctorate occupational therapy degree and the facilitators and barriers of such a transition should be considered in Saudi universities.³⁰

Another important aspect of occupational therapy education that needs serious consideration is the inclusion of emerging areas of practice within current curriculums. This gap has been highlighted recently by occupational therapy students.³¹ Overcoming this gap could be achieved by including more emerging topics within curriculums or practical/clinical placements within emerging areas.³² Hence, as an example of an emerging area of practice, occupational therapists exposed to educational content on low vision rehabilitation were more equipped to treat clients with low vision in clinical practices.³³ Another example of an emerging area of practice in KSA is occupational therapy in oncology; Funk and Lackie³⁴ recently proposed an educational guide for occupational therapy in oncology. Occupational therapy programs in KSA should reflect on emerging areas that need more emphasis within occupational therapy practice and education, considering local contexts and societal needs. Also, alternative methods to assess students' clinical competency require consideration, and this could be achieved by establishing clinical competency standards that are met throughout a program or using established methods such as objective structured clinical examinations (OSCEs). Recently, scores of occupational therapy students on the OSCE predicted performance in subsequent fieldwork placement.³⁵

Conclusion

By putting these building blocks in place, universities in KSA in general and occupational therapy programs in particular can lay a strong foundation for adopting the climate of a learning organization. With increasing emphasis on education and its pivotal role in the future of KSA, a culture supporting the adoption of the learning organization concept is vital. This paper provides preliminary guidelines that support the implementation of the learning organization concept in Saudi Arabian universities and the implications for occupational therapy education. Further research and exploration of the concepts presented in this paper are warranted.

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest

The author has no conflict of interest to declare.

Ethical approval

Ethical Approval is not applicable, as this was a review and synthesis of literature and its application.

Acknowledgment

The author wishes to acknowledge Dr. Alaa Arafah and Dr. Abdulaziz Al-Sehibani for their valuable comments and feedback on the paper.

References

1. Noaman AY, Ragab AHM, Madbouly AI, Khedra AM, Fayoumi AG. Higher education quality assessment model: towards achieving educational quality standard. *Stud High Educ* 2017 Jan 2; 42(1): 23–46.
2. Senge PM. *The fifth discipline: the art and practice of the learning organization*. Broadway Business; 1990.
3. Brown JS, Duguid P. Organizational learning and communities-of-practice: toward a unified view of working, learning, and innovation. *Organ Sci* 1991 Feb 1; 2(1): 40–57.
4. Garvin DA, Edmondson AC, Gino F. Is yours a learning organization? *Harv Bus Rev* 2008 Mar; 86(3) [Internet]. Available from: <https://hbr.org/2008/03/is-yours-a-learning-organization>.
5. Botha A, Kourie D, Snyman R. Knowledge management perspectives and concepts. In: *Coping with continuous change in the business environment: knowledge management and knowledge management technology*. Oxford, UK: Chandos Publishing; 2008. pp. 39–62.
6. Elshafie EM. Towards a learning organization: case study of King Saud university. In: *International conference on intellectual capital and knowledge management and organisational learning*. United Kingdom: Kidmore End: Academic Conferences International Limited; 2016. pp. 89–97.
7. Ahmed A, Alfaki IMA. Transforming the United Arab Emirates into a knowledge-based economy: the role of science,

- technology and innovation. *World J Sci Technol Sustain Dev* 2013 Jan 1; 10(2): 84–102.
8. AL-Qahtani FMS, Ghoneim SA. Organizational learning: as an approach for transforming to the learning organization concept in Saudi universities. *Mediterr J Soc Sci* 2013 May 1; 4(2): 513.
 9. Mutairi M. *Organizational learning at King Saud University from the workers at the university point of view* [Unpublished Master's Thesis]. Riyadh, KSA: Department of Public Administration, College of Business Administration, King Saud University; 2010.
 10. *Kingdom of Saudi Arabia, Vision, 2030*; 2020 [Internet]. Available from: <http://vision2030.gov.sa/en>.
 11. Watkins K, Marsick V, editors. *Action: creating the learning organization*. Alexandria, VA: American Society for Training and Development; 1996.
 12. Al-Zahrani A. A model of learning organization in Saudi public universities: leadership role. In: *The WEI international academic conference proceedings, Spain*; 2015 [Internet]. Available from: <https://pdfs.semanticscholar.org/cb0e/e6667f11ad15b54d54f828da2d205fa4b009.pdf>.
 13. Bak O. Universities: can they be considered as learning organizations?: a preliminary micro-level perspective. *Learn Organ* 2012 Mar 2; 19(2): 163–172.
 14. Watkins KE. What would be different if higher educational institutions were learning organizations? *Adv Dev Hum Resour* 2005 Aug; 7(3): 414–421.
 15. Al Shobaki MJ, Abu Naser SS, Abu Amuna YM, Al hila A. Learning organizations and their role in achieving organizational excellence in the Palestinian universities. *Int J Digit Publ Technol* 2017; 1(2): 40–85.
 16. Gentle P, Clifton L. How does leadership development help universities become learning organisations? *Learn Organ* 2017 Jul 10; 24(5): 278–285.
 17. Boone AE, Wolf TJ, Engsborg JR. Combining virtual reality motor rehabilitation with cognitive strategy use in chronic stroke. *Am J Occup Ther* 2019 Jul 1; 73(4): 7304345020p1–9.
 18. Lee HS, Lim JH, Jeon BH, Song CS. Non-immersive virtual reality rehabilitation applied to a task-oriented approach for stroke patients: a randomized controlled trial. *Restor Neurol Neurosci* 2020 Jan 1; 38(2): 165–172.
 19. Hofmann M, Williams K, Kaplan T, Valencia S, Hann G, Hudson SE, et al. Occupational therapy is making”: clinical rapid prototyping and digital fabrication. In: *Proceedings of the 2019 CHI conference on human factors in computing systems – CHI’19*. Glasgow, Scotland Uk: ACM Press; 2019. pp. 1–13 [Internet] [cited 2020 May 30]. Available from: <http://dl.acm.org/citation.cfm?doid=3290605.3300544>.
 20. Willett AK. *3D printing and occupational therapy: the process of 3D printing adaptive devices*. Eastern Kentucky University; 2019.
 21. Leeman MB, Kupczynski L, Aguilar S, Groff SL. The validity of online learning in occupational therapy curriculum. *Manag J Educ Technol* 2019; 16(1): 10.
 22. Schreiber JL, Goreczny A. Instructional insight into interprofessional education (IPE). *Occup Ther Health Care* 2013 Apr 1; 27(2): 180–185.
 23. ACOTE. *Accreditation Council for Occupational Therapy Education (ACOTE®) Standards*; 2018 [Internet]. [cited 2020 Jun 1]. Available from: <https://acoteonline.org/wp-content/uploads/2020/04/2018-ACOTE-Standards.pdf>.
 24. Lucas Molitor W, Naber A. Designing interprofessional education curriculum to maximize collaborative competency. *J Occup Ther Educ* 2020 Jan 1 [Internet]. [cited 2020 May 31];4(1). Available from: <https://encompass.eku.edu/jote/vol4/iss1/6>.
 25. Wallace SE, Benson JD. Bringing interprofessional case-based learning into the classroom for occupational therapy and speech-language pathology students. *Occup Ther Health Care* 2018 Jan 2; 32(1): 79–90.
 26. O'Shea MC, Reeves NE, Bialocerkowski A, Cardell E. Using simulation-based learning to provide interprofessional education in diabetes to nutrition and dietetics and exercise physiology students through telehealth. *Adv Simul* 2019 Dec; 4(S1) [Internet] [cited 2020 Jun 1]. Available from: <https://advancesinsimulation.biomedcentral.com/articles/10.1186/s41077-019-0116-7>.
 27. Chu EMY, Sheppard L, Guinea S, Imms C. Placement replacement: a conceptual framework for designing simulated clinical placement in occupational therapy. *Nurs Health Sci* 2019 Mar; 21(1): 4–13.
 28. Murphy LF, Radloff JC. Using case-based learning to facilitate clinical reasoning across practice courses in an occupational therapy curriculum. *J Occup Ther Educ* 2019 Jan 1; 3(4) [Internet] [cited 2020 Jun 1]. Available from: <https://encompass.eku.edu/jote/vol3/iss4/3>.
 29. Murphy LF, Stav WB. The impact of online video cases on clinical reasoning in occupational therapy education: a quantitative analysis. *Open J Occup Ther* 2018 Jul 1; 6(3) [Internet] [cited 2020 Jun 1]. Available from: <https://scholarworks.wmich.edu/ojot/vol6/iss3/4>.
 30. Brown T, Crabtree JL, Mu K, Wells J. The next paradigm shift in occupational therapy education: the move to the entry-level clinical doctorate. *Am J Occup Ther* 2015 Oct 12; 69(Suppl. 2): 6912360020p1.
 31. Lau M, Ravenek M. The student perspective on role-emerging fieldwork placements in occupational therapy: a review of the literature. *Open J Occup Ther* 2019 Jul 15; 7(3): 1–21.
 32. Clarke C, de Visser R, Martin M, Sadlo G. Role-emerging placements: a useful model for occupational therapy practice education? A review of the literature. *Int J Pract Based Learn Health Soc Care* 2014 Jul; 2(2): 14–26.
 33. Nipp CM, Vogtle LK, Warren M. Clinical application of low vision rehabilitation strategies after completion of a computer-based training module. *Occup Ther Health Care* 2014 Jul 1; 28(3): 296–305.
 34. Funk C, Lackie J. *Expanding the role of occupational therapy in oncology: an introduction to the oncology occupational therapy screening tool and occupational therapy & cancer education guide* [Master's Scholarly Project]. University of North Dakota; 2017 [Internet] [cited 2020 Jun 5]. Available from: <https://commons.und.edu/ot-grad/352/>.
 35. Roberts MR, Alves CB, Werther K. Examining the associations between objective structured clinical examination (OSCE) scores and fieldwork performance: results from an occupational therapy program. *J Allied Health* 2019 Sep 6; 48(3): 194–200.

How to cite this article: Al-Heizan MO. Learning organizations in Saudi universities: Implications for occupational therapy education. *J Taibah Univ Med Sc* 2023;18(2):366–370.