Authentic Learning and Assessment in Lebanon and UAE Private Schools: Implementation, Impacts, and Challenges

Nadim S. Taha and Samar Thebian

Modern University for Business and Science, Beirut, Lebanon

Abstract

In today's world, it is vital to establish an educational system that equips students with critical thinking and problem-solving abilities, rather than encouraging them to be passive learners. To achieve this aim, authentic learning and assessment are crucial. This research seeks to explore the implementation of authentic learning and assessment, their impact, and the challenges faced by teachers in private schools in Lebanon and the United Arab Emirates (UAE). The study employs a mixed-methods approach to gather data from a survey that includes closed and open-ended questions for 91 teachers in ten private schools (50 teachers from Lebanon, five private schools from Mount Lebanon, and 41 from the UAE). The findings demonstrate that authentic learning and assessment are effective in developing teaching strategies and improving learning outcomes in both countries, despite the challenges that teachers face. The research also reveals a significant positive impact on student performance in Lebanon. As a result, the study provides valuable insights into future interventions to promote education in both the Arab and global contexts.

Keywords: authentic, assessment, impacts, challenges, Lebanon, UAE

It is crucial to incorporate authentic learning and assessment in the current school curricula to meet the 21st-century themes and skills (Revington, 2018). Authentic learning happens when students apply what they have learned in the classroom to the complexities and ambiguities of real-life circumstances. This learning engagement should reflect real-world, complex problems and their solutions, using various activities such as role-playing exercises, problem-based scenarios, case studies, and participation in virtual communities. (DeVito, 2016). It is considered an effective form of education, either as a contrast to or in conjunction with traditional methods. Several researchers have studied and improved traditional education, which is still prevalent in countries such as Lebanon and the United Arab Emirates (UAE) (Lombardi, 2007; Sahera, 2022; Chaaban, 2021; Halloun, 2018). Learning in a traditional setting involves a teacher-centered approach where the instructor conducts lessons according to the study program and curriculum structure within the confines of a classroom (Rashty, 2013). Also, this form of education is based on 19th-century philosophy, executed in outdated settings, and under unfavorable conditions, leading to flawed instruction and poor learning outcomes. Therefore, authentic learning and assessment can enhance the traditional teaching approach to education and improve students' learning (Halloun, 2018).

Purpose of the Study

This study aims to investigate how teachers in the UAE and Lebanon incorporate authentic learning and assessment methods in their teaching practices. The study also seeks to determine the impact of these strategies on students' academic performance, achievement, and behavior, as well as the challenges teachers face during planning, implementing, and assessing authentic learning.

Significance of the Study

The study provides teachers with knowledge, skills, and strategies to help them effectively implement authentic assessment techniques in their classrooms. This can improve teaching methods and elevate student learning outcomes. This study intends to contribute to the existing literature on authentic learning and assessment by providing empirical evidence on its impact on student's achievement and behavior. As there is currently insufficient research on authentic learning and assessment in the UAE and Lebanon, this study is significant in urging the Ministry of Education in these countries to conduct further research studies and develop tools to evaluate teaching methods in school curricula and assess their effectiveness.

Research Questions

- 1. How do teachers in Lebanon and the UAE implement authentic learning and assessment?
- 2. What is the effect of authentic assessment on students' academic performance, behavior, and achievements in schools in Lebanon and the UAE?
- 3. What are the challenges that teachers encounter during authentic learning planning, implementation, and assessment processes?

Literature Review

The Transition to Authentic Learning

In the context of traditional education, true knowledge can be canned between the 2 covers of a textbook, unpacked, and delivered through lecture and demonstration to students sitting quietly between the 4 walls of a classroom during 6 (or 7) packed periods a day under one-size-fits-all all curricula (Halloun, 2017). Traditional practices like teaching to the test, be it school, state, or other high-stakes exams, can lead only to rote, short-term learning and never to meaningful learning sustained in long-term memory, especially not to the development of 21st-century skills and dispositions (Mourshed, 2010). People who believe in traditional learning seem also to ignore or turn a blind eye to comparative research and studies that keep showing that Lebanon lags behind most countries around the globe when it comes to students' meaningful understanding of what our curricula are supposed to cover (Halloun, 2018).

Education must bring about well-rounded, creative, innovative value-driven citizens actively sensible to local and global causes and issues (OECD, 2016). Therefore, in today's classrooms, traditional methods commonly associated with objectivism, behaviorism, and transmission models of teaching, are being replaced with approaches that emphasize active learning and students' diverse needs (Roessingh, 2011). These non-traditional, active, or authentic learning methods of instruction have become a necessity at all levels of education to support students' acquisition of 21st-century skills (Niemi, 2002). On the other hand, if the United Arab Emirates aims to increase the student's academic performance so that they can achieve competitive levels internationally and link to the concept of the knowledge economy, then there would be cultural changes, improvements, and shifts along with the reforms in education (Tabari, 2014). In Tabari's working paper, many teachers in Ras Al Khaimah highlighted the traditional curriculum as a major contributor to the difficulties they experienced both in terms of quality and the primary method of instruction (through rote learning). Like other nations, the UAE needs to work continuously to introduce necessary reforms in education to increase the potential it has (Aleisseh, 2021).

Definition of Authentic Learning and Assessment

Authentic learning emphasizes learning by experience, problem-solving, and associating with everyday life. In authentic learning insight, students are active learners and teachers are guides and facilitators of the learning process (Koçyiğit, 2013). Authentic assessment is a more meaningful or significant form of evaluation (Wiggins, 1999). Two studies by Goodrich-Andrade (2000) and Hart (2004) suggest that assessment is authentic when it enables students to communicate their academic strengths, as well as their educational needs. Authentic assessment involves asking students to perform real-world tasks that demonstrate their essential knowledge and skills (Mueller, 2011). It is a method of evaluation that is also known as performance assessment which aims to implement creative and effective learning experiences to assess students' skills in a realistic situation (Fisher, 2019). Assessing if students can transfer learned skills and knowledge from the classroom to another context is the crux of an authentic process-centered approach (Kinay, 2018).

Authentic Learning and Assessment Tasks

Authentic learning practices and assessments involve a variety of methods that immerse students in real-world scenarios, requiring them to apply their critical thinking skills and problem-solving abilities. For example, simulation-based learning involves using environments that simulate real-life situations and role-playing to equip students with the communication, collaboration, and leadership skills required for their future professions (Chernikova, 2020). Inquiry-based learning, problem-based learning, and project-based learning are other examples of authentic performance tasks where students work together in teams to explore complex questions and resolve challenging problems to gain new

knowledge and skills (Savery, 2016; Lombardi, 2007; Hmelo-Silver, 2004). Going on field trips, writing reports, and recording videos are some further examples of how students can participate in authentic learning experiences (Craft, 2015). With the advancement of technology, authentic assessments can be conducted through the use of student blogs, electronic role-play, posters/infographics, videos, e-booklets, e-portfolios, virtual simulations, and electronic resources like apps and wikis (Chermak, 2015). Students can also create 3D virtual reconstructions using 3D model editor applications, allowing them to learn by reconstructing places from the real world (Kopcha, 2003).

Impacts of Authentic Learning and Assessment on Students' Performance, Achievement, and Behavior

Authentic learning and assessment have a positive impact on students' thinking, social skills, and behavior. According to Lombardi (2007), authentic assessment can motivate and inspire students to explore various aspects of themselves and the world that they might otherwise overlook. Olusola-Fadumiye et al. (2022) argue that authentic learning effectively enhances students' learning outcomes, assimilation of knowledge, and social skills. Academically, it encourages students to construct their knowledge, engage in problem-solving, practice higher-order thinking, and reflect on real-world contexts. Socially, it increases interaction and collaboration, empowers students' social relations, and boosts their motivation. Authentic learning also improves students' behavior, increases their sense of responsibility, and maintains a positive attitude toward learning (Gürgil, 2018).

Challenges of Authentic Learning and Assessment

Although authentic assessment has numerous benefits, it is also associated with some challenges (DeCastro & Cho, 2005). One of the main hurdles is that some teachers may not be familiar with the definition, implementation, and methods of authentic learning and assessment. Authentic learning has become increasingly popular in the past decade; however, many teachers may not have received training on it (Kopcha, 2003). Recent changes in education have led to an increased focus on standardized test scores as a measure of growth and accountability for both students and teachers (Newmann, 1988). This shift has made it difficult for educators to implement authentic learning due to the traditional curriculum, causing added stress (Abdul Aziz et al., 2020). In addition, teachers may be less motivated to implement authentic learning due to a lack of support from school administration and parents, as well as the burden of teaching hours and documentation (Archbald, 1998).

Methodology

Research Study Design

This research study uses a mixed-methods approach and survey to explore the implementation of authentic learning and assessment. It aims to evaluate the impact of authentic assessment on students' academic achievement and behavior while also investigating the challenges faced by teachers in Lebanon and the UAE. Mixed methods research is defined as a research design in which the researcher collects and analyzes data, integrates the findings, and draws conclusions employing both qualitative and quantitative approaches or methods in a single study (Tashakkori, 2018). In this research, the quantitative part measures teachers' implementation of authentic learning and assessment in the classroom and its impacts on students' learning and behavior in the UAE and Lebanon. On the other hand, the qualitative part of the study elaborates on the teachers' perspectives regarding the challenges they encounter during the process of authentic learning and assessment implementation. By utilizing both quantitative and qualitative methods, this research study enhances its validity and reliability. Furthermore, it enables the exploration of research questions in a more profound and meaningful manner, leading to more insightful answers.

Data Collection Tool

Surveys serve as tools for quantitatively assessing subjective information, but by incorporating open-ended questions, they enable the collection of qualitative data as well (Hammer, 2017). For this research, a survey with both close-ended questions for quantitative data and open-ended questions for qualitative data will be created and administered to teachers in the UAE and Lebanon. The survey questions are classified into the following sections:

- 1. Socio-demographic section (consisting of five closed questions).
- 2. Authentic Learning and Assessment Implementation section (consisting of ten closed questions).
- 3. Authentic Learning and Assessment Impacts on Students' Performance, Achievement, and Behavior (consisting of ten closed questions).
- 4. Teachers' Perspective on Authentic Learning and Assessment Challenges (consisting of four open-ended questions).

Population and Sampling

Our study targets teachers in private schools in Lebanon and the UAE. We aim to explore how these teachers implement authentic learning and assessment, and how it impacts their students. To achieve this, we randomly select a sample of 91 teachers from both countries across five private schools, from Mount Lebanon and the Abu Dhabi Emirate in Lebanon and the UAE respectively. By using this method of sampling, we hope to minimize the margin of error and obtain enough data to reflect the practice in the population.

Ethical Consideration

Ethical considerations are a set of rules that guide the design and procedures of a study, with a focus on truth, knowledge, and avoidance of mistakes. The potential ethical issues that may arise during the study are addressed, including informed consent, privacy and confidentiality, harm reduction, fairness, and equity. Participants are provided with a consent form that explains the purpose, procedures, risks, benefits, and their right to withdraw from the study. Deception or misleading information will not be used to recruit or carry out the study.

By examining the implementation of authentic learning and assessment practices in private schools in Lebanon and the UAE, this study aims to provide valuable insights for improving educational practices and fostering student success in the 21st century.

Data Analysis and Discussion

Section 1: Demographic information

Out of all the study participants, 50 were from Lebanon and 41 were from the UAE. The majority of the teachers were language, science, and math teachers. All teachers in both countries have a minimum of a bachelor's degree, but those in the UAE hold more advanced degrees. Lebanon has a lower percentage of teachers with more than 10 years of experience (46%) compared to the UAE (60%). Lebanon and the UAE show excellent results in professional development, with an average of 70% of teachers receiving annual training respectively. This reflects the commitment of teachers in both countries to keep up to date with genuine learning and assessment principles.

Table 1 *The Demographic Information of Teachers in Lebanon and UAE*

Key Ideas	Lebanon	UAE
Language Teachers	62%	7.30%
Science Teachers	40%	53.70%
Math Teachers	26%	36.60%
Education Level (BA/BS)	78%	19.50%
Education Level (BA/BS& TD)	62%	26.80%
Educational Level: Master/PhD	25%	44%
Teaching Experience (Less than 10 years)	54%	36.60%
Teaching Experience (Less than 5 years)	32%	22%
Training Workshop and Engagement (once or more per year)	72%	68%

Section 2: Authentic Learning and Assessment Implementation

Positive outcomes of authentic learning and assessment were recognized in Lebanon and the UAE, with over 70% practice in most areas. Teachers' professional development, education, and experience, as well as their dedication, contributed to these remarkable results. Notable practices were the use of real-world examples, designing learning activities based on real-world context, and project-based learning.

 Table 2

 Authentic Learning and Assessment Implementation - Practices

Key Ideas	Lebanon	UAE
Definition of Authentic Learning and Assessment	84%	73.20%
Use of Real-life Examples in Teaching	82%	87.70%
Design of Learning Activities Based on Real-life Context	72%	68.30%
Student Assessment Knowledge through Real-World Tasks or Simulations	90%	84.50%
Metacognition and Self-system	48%	36.60%
Project-Based Learning	94%	92.60%
Role Playing	92%	78%
Problem-Based Learning	62%	51.20%
Inquiry-Based learning	66%	51.20%
Use of Technology Tools	92%	90.20%
Incorporation of Students Reflection on Authentic Learning	78%	58.50%
Students Presentation to Authentic Audience	74%	75.30%
Classroom Connection to Current Events	74%	56.10%
Integration of Real-world Challenges into Assessment	40%	31.70%
Experts' Involvement in the Teaching Process	36%	19.50%
Assessment Feedback (Oral Comments)	48%	43.90%
Assessment Feedback (Written Comments)	36%	58.50%
Assessment Feedback (Rubrics)	44%	61%
Assessment Feedback (Scores)	28%	36.60%

Section 3: Impact of Authentic Assessment on Students' Academic Performance, Behavior, and Achievements

Lebanese teachers were more confident than their counterparts in the UAE about the impact of authentic learning and assessment on students. Lebanese teachers showed higher confidence in various categories, including motivation, student application, retention of knowledge, and satisfaction. This difference can be attributed to the

socioeconomic conditions and environment which these students come from. However, teachers in both countries agreed on the positive impact of authentic learning and assessment on students, overall improvement in academic achievement, improvement in positive behavior, and preparing students for the real world.

 Table 3

 Impact of Authentic Learning on Students Behavior, Performance, and Achievements

Key Ideas	Lebanon	UAE
Significant Effect of Authentic Assessment on Academic Performance	58%	51.20%
Significant Students Motivation Enhancement	76%	48.80%
Significant Students Knowledge/Application & Retention	70%	39%
Significant Enhancement of Problem Solving and Critical Thinking	70%	43.90%
Significant Students Collaboration and Communication Enhancement	70%	53.70%
Significant Self-Directing Learning Enhancement	62%	53.70%
Significant Self-Confidence Increase	68%	36.60%
Significant Students Satisfaction Increase in Education	60%	36.60%
Promotes Positive Behavior and Engagement in Class	80%	65.90%
Fosters Positive Attitude towards Learning	84%	70.70%
Prepares Students for the Real World	72%	61%
Increases Ownership and Responsibility	74%	48.80%
Improves Overall Academic Achievement	60%	53.70%
Improves Students' Overall School Performance	70%	43.90%

Section 4 - Internal Challenges and External Barriers

The following responses are divided into four categories. The first three categories address the personal challenges teachers encounter while planning, implementing, and evaluating authentic learning. These challenges are referred to as internal challenges. The fourth and final category deals with external barriers, such as policies implemented by schools or ministries.

Internal Challenges Teachers Encounter During Authentic Learning Planning

Teachers from Lebanon and the UAE faced similar challenges when planning authentic learning and assessment. Their confidence in the strategies they used to align the content

of their lessons with authentic learning and assessment is limited. Time constraints and limitations were also common challenges in addition to less frequently listed challenges such as resource limitations, professional development, and appropriate methods used for authentic learning. Differentiation was more of an issue in the UAE due to the need to accommodate all types of learners from different cultural and educational backgrounds. Lebanon faced technological issues, while the UAE had to deal with student attitude challenges.

Table 4The challenges during planning authentic learning in Lebanon and UAE

Similar Challenges	Frequency in Lebanon	Frequency in UAE	Different Challenges	Frequency in Lebanon	Frequency in UAE
Content Alignment with Real World	26	13	Technological Issues	1	
Time Constraints & Limitations	11	9	Student Attitude		1
Differentiation	2	10			
Resource Limitations	1	3			
Professional Development	1	1			
Appropriate Methods Used in Authentic Learning Assessment	2	1			

Internal Challenges Teachers Encounter During Authentic Learning Implementation

Teachers from Lebanon and the UAE encountered challenges in implementing authentic learning and assessment. The biggest challenges were classroom management and student engagement, followed by time constraints. Issues such as preparation, content, student abilities, differentiation, assessment, and technological and financial issues were also noted. Lebanese teachers faced more financial constraints than their counterparts in the UAE.

Table 5Challenges during the Implementation of Authentic Learning in Lebanon and UAE

Similarities in the Challenges during Implementation	Frequency in Lebanon	Frequency in UAE	Differences in the Challenges during Implementation	Frequency in Lebanon	Frequency in UAE
Student Engagement and Classroom Management	15	12	Technology		3

Time Constraints	15	10	Adaptation to Education Trends	1	
Preparation and Content	7	5	Financial Issues	7	
Students' Abilities	5	7			
Differentiation	3	6			
Assessment	2	6			

Internal Challenges Teachers Encounter During Authentic Learning Assessment Processes

Teachers in Lebanon and the UAE face similar challenges when it comes to assessing authentic learning. The limited experience in using proper assessment instruments is a common issue in both countries. Aligning assessments with curriculum standards and meeting students' needs are the other challenges. Lebanese teachers expressed more confidence in meeting students' needs. In the UAE, the challenge of formally assessing authentic learning is more common due to a strict summative assessment policy in most schools. The use of AI to cheat is also a concern in UAE classrooms.

Table 6Challenges during the Assessment Process in Lebanon and UAE

Chailenges during the Assessment Frocess in Lebanon and OAE						
Similarities in the Challenges during the Assessment Process	Frequency in Lebanon	Frequency in UAE	Differences in the Challenges during the Assessment Process	Frequency in Lebanon	Frequency in UAE	
Limited Experience in Using Proper Assessment Instruments	10	10	Class Size	1		
Authentic Assessment Alignment with the Curriculum Standards	5	4	Policies	2		
Validity and Measurability of the Assessment	2	2	Resource Limitations	1		
Meeting Students Needs and Levels	2	5	Using AI and Cheating		2	
Formal Authentic Assessment	1	6	Language Barrier	2		
Creating Rubrics	2	2				
Time Consuming	2	5				

External Barriers to Successful Implementation of Authentic Learning and Assessment

Teachers in Lebanon and the UAE face similar challenges in incorporating authentic learning and assessment into their curriculum. Lack of curriculum accommodation, limited

resources, professional development, and student abilities are among the barriers mentioned in both countries. Resistance to change is a particular concern in the UAE as many curricula are followed in different schools to meet the needs and interests of all students, while Lebanese teachers are more adaptable due to circumstances they encounter daily due to the socioeconomic conditions in Lebanon. Other issues include parental acceptance, stakeholder cooperation, funding, and limited access to real-world context in the UAE.

Table 7External Barriers while Implementing Authentic Learning in Lebanon and UAE

Similarities of External Barriers	Frequency in Lebanon	Frequency in UAE	Difference s of External Barriers	Frequency in Lebanon	Frequency in UAE
Curriculum Accommodation	15	4	Funding		1
Limited Time and Resources	5	9	Limited access to Real-world Context		2
Professional Development	5	5			
Taking Different Student Abilities into Account	5	6			
Resistance to Change	2	11			
Parents Acceptance	1	5			
Cooperation and Support amongst All Stakeholders	1	5			
Class size	1	2			

Findings Discussion

Despite facing internal and external challenges in the UAE and Lebanon, the study found significant similarities and differences among teachers. Factors such as limited ICT and lab resources, low-quality professional development, lack of time for lesson preparation, and difficulties in classroom management make the process of implementing authentic learning in classrooms complicated in both countries (Helder, 2021). However, the teachers in the UAE and Lebanon were able to shift from traditional teaching practices and implement authentic learning and assessment significantly using different strategies

such as integrating real-life examples and activities into teaching and learning, applying project-based learning, inquiry-based learning, and giving constructive feedback using oral comments and rubrics.

Teachers in both countries also showed similarities in the challenges and barriers that they faced, especially in areas such as time constraints, limited targeted professional development, differentiating instructions, and little curriculum accommodation for authentic learning and assessment. This highlights the need for an advanced continuous professional development program.

Other areas that need further improvement were found to be written feedback, expert involvement in the teaching process, time management, and the policies created by schools and ministries. Due to time constraints, teachers often give oral feedback instead of written feedback. Additionally, teachers are restricted by policies that govern the school environment, including inviting guest speakers to the schools, due to the bureaucratic system of obtaining security clearance. Therefore, it is essential to build room for flexibility and manage time effectively. Changing policies to allow for authentic teaching and assessment should also be done at the school and ministry levels.

The main significant difference between Lebanon and the UAE was evident in the impact of authentic learning and assessment on the students. More teachers in Lebanon recognize that authentic learning and assessment have a greater impact on students due to the need to generate critical thinkers and problem solvers to overcome the continuous economic, social, and environmental crises in Lebanon.

Recommendations and Conclusion

After analyzing the evidence provided in this research, several recommendations can be suggested. Firstly, it is recommended that the ministries of education worldwide, especially in Lebanon and the UAE, should incorporate authentic learning and assessment in their curriculum plan and design standards. This would allow the teachers to integrate authentic learning and assessment into their regular classroom practices. Secondly, teachers should be empowered by giving them the opportunity to participate in the decision-making process and allowing their voices to be heard. Thirdly, more professional development programs should be targeted towards authentic learning and assessment, the various tools implemented, and the methods of integrating them into everyday classroom practice. Fourthly, there should be an increase in resources and funding for the application of real-world tasks and activities through the reconstruction of structures that enable better authentic learning and assessment. Fifthly, the teacher's role in designing the curriculum and implementation should be enhanced to incorporate realworld issues and engage experts in the field in the teaching process. Sixthly, school stakeholders should be made aware of authentic learning and assessment, which would encourage policymakers to invest more funding into schools, reshape the curriculum, and

encourage parents to demand authentic learning and assessment for their children. These recommendations can be implemented across the globe, particularly in less stable countries where authentic learning and assessment can prepare students to become better problem solvers and critical thinkers. Finally, further longitudinal research should be conducted on authentic learning and assessment to measure its long-term impact on the students.

In conclusion, the research emphasizes the transformative potential of authentic learning and assessment in education, advocating for a shift from traditional methods to foster skills in authentic and realistic situations worldwide including Lebanon and UAE. Although educators face difficulties in designing authentic tasks, assessing student work holistically, and managing diverse classrooms, with targeted professional development, support from parents, schools, and stakeholders, and curriculum integration, authentic learning can be successfully implemented. Despite the obstacles, authentic learning offers great benefits like deeper understanding, motivation, positive behavior, better performance, and skill development in students' lives and workplaces. Involving teachers in curriculum design and planning is crucial to enhancing better learning experiences and efficient implementation of authentic learning and assessment, and future research should focus on effective integration strategies without relying solely on standardized testing for assessment.

References

Aleisseh, S. A. (2021). Exploring Factors Affecting the Implementation of Reforms in Higher Education in the UAE. Dubai: The British University in Dubai. Retrieved from https://bspace.buid.ac.ae/buid_server/api/core/bitstreams/68132685-9bf7-411d-a12d-81c908f3a2c1/content

Al-Sabbah Sahera, A. M. (2022). Traditional Versus Authentic Assessments in Higher Education. Pegem Journal of Education and Instruction, 12, 283-291. Retrieved from https://files.eric.ed.gov/fulltext/EJ1329835.pdf

Archbald, D. A. (1998). Beyond standardized testing: assessing authentic academic achievement in the secondary school. National Association of Secondary School Principals. Retrieved from https://files.eric.ed.gov/fulltext/ED301587.pdf

Brown, J. S., Collins, A., & Duguid, P. (1988-1989). Situated cognition and the culture of learning. Institute for Research on Learning. Palo Alto, CA: Lawrence Erlbaum Associates, Inc. Retrieved from https://www.johnseelybrown.com/Situated%20Cognition%20and%20the%20culture%20 of%20learning.pdf

Chaaban, Y. (2021). Exploring quality teacher education programmes in Lebanon, Qatar, and China. Mentoring & Tutoring: Partnership in Learning. Retrieved from

https://discovery.ucl.ac.uk/id/eprint/10151789/1/Yamak Exploring%20Quality%20Teacher%20Education%20Programs%20in%20Lebanon%20Qatar%20and%20China.pdf

Chermak, J. (2015). Authentic assessment of student learning in large classrooms: Oxymoron or opportunity? Baltimore: Geological Society of America Annual Meeting. Retrieved from https://gsa.confex.com/gsa/2015AM/webprogram/Paper267643.html

Chernikova, O. H. (2020). Simulation-Based Learning in Higher Education: A Meta-Analysis. Review of Educational Research, 19(4), 499-541. Retrieved from https://journals.sagepub.com/doi/full/10.3102/0034654320933544

Craft, J. A. (2015). Development of an electronic role-play assessment initiative in bioscience for nursing students. Innovations in Education and Teaching, pp. 172-184. Retrieved from https://eric.ed.gov/?id=EJ1050734

DeCastro & Cho, G. (2005). Synergism in learning: A critical reflection of authentic assessment. The High School Journal, 89(1), pp. 57-62. Retrieved from https://eric.ed.gov/?id=EJ729000

Dede, C. K. (2007, April 24). Transforming learning for the 21st century: An economic imperative. Learning Point Associates. Retrieved from http://www.learningpt.org/tech/transforming.pdf

DeVito, M. (2016). Factors Influencing Student Engagement. Certificate of Advanced Study Thesis, Sacred Heart University., (pp. 1-91). Retrieved from http://digitalcommons.sacredheart.edu/edl/11

Fisher, M. R. (2019). Assessing Student Learning. Vanderbilt University Center for Teaching. Retrieved from https://cft.vanderbilt.edu/assessing-student-learning/

Goodrich-Andrade, H. (2000). Using rubrics to promote thinking and learning. Educational Leadership, 57(5), 1-8. Retrieved from https://www.researchgate.net/publication/285750862 Using rubrics to promote thinking and learning

Gürgil, F. (2018). The Effect of Authentic Learning Approach in Social Studies Teaching on the Academic Success. Universal Journal of Educational Research, 2061-2068. Retrieved from https://eric.ed.gov/?id=EJ1192719

Halloun. (2017). Mind, Brain, and Education: A Systemic Perspective. Working Paper. Retrieved from www.halloun.net

Halloun. (2018). Toward authentic reform of education in Lebanon. H Institute. Retrieved from https://www.hinstitute.org/Site/wp-content/uploads/2018/12/Toward-authentic-reform-of-education Halloun-2018.pdf

Hammer, J. M. (2017). Ethical Considerations for Data Collection Using Surveys. RESEARCH ETHICS, 44(2), 1. Retrieved from https://pubmed.ncbi.nlm.nih.gov/28222089/

Hart, D. (2004). Authentic assessment: A handbook for educators. Menlo Park, CA: Addison-Wesley Publishing Company. Retrieved from https://eric.ed.gov/?id=ED447179

Helder, S. B. (2021). Behind the scenes: teachers' perspectives on factors affecting the implementation of inquiry-based science instruction. Research in Science and Technological Education, 39(1), 68-69. Retrieved August 6, 2019, from https://www.researchgate.net/publication/335018642 Behind the scenes teachers' perspectives on factors affecting the implementation of inquiry-based science instruction

Hmelo-Silver, C. E. (2004). Problem-Based Learning: What and How Do Students Learn? Educational Psychology Review, 16, 235-266. Retrieved from https://link.springer.com/article/10.1023/B:EDPR.0000034022.16470.f3

Kinay, I. (2018). Investigation of Prospective Teachers' Beliefs Towards Authentic Assessment. World Journal of Education. Retrieved from https://files.eric.ed.gov/fulltext/EJ1173978.pdf

Koçyiğit, R. Z. (2013). Otantik görevlerin öğretmen adaylarının başarılarına etkisi. Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 291-303. Retrieved from https://dergipark.org.tr/tr/download/article-file/87216

Kopcha, T. J. (2003). Authentic Learning in the Schools: Teacher Practices, Attitudes, and Challenges. Arizona State University, the Research and Theory Division. Retrieved from https://files.eric.ed.gov/fulltext/ED496305.pdf#page=268

Lombardi, M. (2007). Authentic Learning for the 21st Century: An Overview. EDU Cause Learning Initiative, p. 9-10. Retrieved from https://alicechristie.org/classes/530/EduCause.pdf

Lombardi, M. (2008). Making the grade: The role of assessment in authentic learning. EDUCAUSE Learning. Retrieved from https://phongdbcl.ntu.edu.vn/uploads/47/files/old/Tu%20lieu%20tham%20khao/Phuong%20phap%20danh%20gia/authentic%20assessment%203.pdf

Mourshed, M. C. (2010). How the world's most improved school systems keep getting better. New York: McKinsey & Company. Retrieved from https://www.scirp.org/reference/referencespapers?referenceid=465302

Mueller, J. (2011). Authentic assessment toolbox. North Central College. Retrieved from http://jfmueller.faculty.noctrl.edu/toolbox/

Muhammad Noor Abdul Aziz, Nurahimah Mohd Yusoff, Mohd Faiz Mohd Yaakob. (2020, September). Challenges in using authentic assessment in 21st-century ESL. International Journal of Evaluation and Research in Education (IJERE), Vol. 9(No.3), 763-764. Retrieved from https://eric.ed.gov/?id=EJ1274845

Newmann, D. A. (1988). Beyond Standardized Testing: Assessing Academic Achievements in the Secondary Level. Madison: National Association of Secondary School Principals. Retrieved from https://eric.ed.gov/?id=ED301587

Niemi, H. (2002). Active learning—A cultural change needed in teacher education and schools. Teaching and Teacher Education, 18(7), 763-780. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0742051X02000422

OECD. (2016). PISA 2015 Results. 5. Retrieved from https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf

Rashty, D. (2013). Traditional Learning vs. E-learning. International Conference on Mobile Learning, E-Society and E-Learning. Singapore. Retrieved from http://www.researchtrail.com/articles/

Revington, S. (2018). The Remarkable, Impactful Journey of Authentic Learning. Canadian Teacher Magazine. Retrieved from https://canadianteachermagazine.com/2018/04/15/the-remarkable-impactful-journey-of-authentic-learning/

Roessingh, H. &. (2011). Project-based learning and pedagogy in teacher preparation: Staking out the theoretical mid-ground. International Journal of Teaching and Learning in Higher Education, 23(1), 60-71. Retrieved from https://files.eric.ed.gov/fulltext/EJ938579.pdf

Savery, J. R. (2016). Overview of problem-based learning: Definitions and Distinctions. Interdisciplinary Journal of Problem-Based Learning. Retrieved from https://docs.lib.purdue.edu/ijpbl/vol1/iss1/3/

T. O. Olusola-Fadumiye, J. B. (2022, August 12). The Benefits of Implementing Authentic-Based Multimedia Learning in Higher Education. (U. T. School of Education, Ed.) Journal of Social Sciences, 6-8. Retrieved from https://www.scirp.org/journal/jss

Tabari, R. (2014). Education Reform in the UAE: An Investigation of Teachers' Views of Change and Factors Impeding Reforms in Ras Al Khaimah Schools. Ras Al Khaimah: Sheikh Saud Bin Saqr Al Qasimi: Foundation for Policy Research. Retrieved from https://publications.algasimifoundation.com/en/education-reform-in-the-uae-0

Tashakkori, A. &. (2018). Editorial: The New Era of Mixed Methods. Journal of Mixed Methods Research. Retrieved from https://journals.sagepub.com/doi/10.1177/2345678906293042

Wiggins, G. (1999). A true test: Toward more authentic and equitable assessment. Phi Delta Kappan, 703-713. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/003172171109200721

Mr. Nadim Taha

I currently work as the group B subjects coordinator and business teacher at Ali Bin Abi Taleb School, a public school in the United Arab Emirates under the management of Emirates Schools Establishment. I earned a Bachelor's degree in business management from the Lebanese International University and an Advanced Diploma in Business Administration with a specialization in accounting from Algonquin College. I am also in the process of completing my teaching diploma from the Modern University of Business and Science.

My initial professional research was on "Authentic Learning and Assessment in Lebanon and UAE Private Schools: Implementation, Impacts, and Challenges". I am particularly interested in further research in the field of authentic learning and its application. I have also worked on a curriculum design that was presented to AL Qassimi Foundation of Ras Al Khaimah and I am currently working towards implementing this curriculum.

As an educator, I am deeply passionate about engaging in educational research and staying updated with the latest methods and practices, as it helps me understand their efficiency and effectiveness.

Mrs. Samar Thebian

I am currently a physics and biology teacher at Al Najah School, a private institution in the United Arab Emirates. With eight years of experience in teaching math and science across various levels and curricula in Lebanon and Saudi Arabia, I am dedicated to fostering student success. I hold a Bachelor's degree in Biology from Notre Dame University in Lebanon and a teaching diploma from the Modern University of Business and Science. I am committed to staying current with educational trends and actively seek professional development opportunities through workshops and webinars. My participation in research on authentic learning and assessment has significantly

enhanced my understanding of effective teaching strategies, ultimately improving my students' learning outcomes.