



Learning Styles

Background

The summary below presents the research evidence on learning styles in the Arab World.

The Teaching & Learning Toolkit focuses on impact on outcomes for learners; it presents an estimate of the average impact of learning styles on learning progress, based on the synthesis of a large number of quantitative studies from around the world.

This page offers a summary and analysis of individual studies on learning styles in the Arab world. In contrast to the Toolkit it includes studies which do not estimate impact, but instead investigate the implementation of interventions and how they are perceived by school leaders, teachers and students using a range of research methods. This information is valuable for school leaders and teachers interested in finding out more about particular examples of learning styles that have been delivered in the Arab world.



Summary of the research in the Arab World

The idea underpinning learning styles is that individuals all have a particular approach to or style of learning. The theory is that learning will therefore be more effective or more efficient if students are taught using the specific style or approach that has been identified as their learning style. For example, students categorised as having a 'listening' learning style, could be taught more through storytelling and discussion and less through traditional written exercises.

Despite being popular in education, there is little reliable empirical evidence to support the concept of learning styles. There is even some evidence suggesting that instructional approaches based on learning styles can be harmful to students. However, knowing students' preferred learning styles will somehow assist the teacher in helping them motivate students to overcome some difficulties and satisfy some of their academic requirements. In a correlational study, it was concluded that learning styles can be predicted based on students' playing style. Hamdaoui, Idrissi, and Bennani (2018) surveyed one hundred high school students in Morocco based on four learning styles (accommodative, divergent, convergent, and assimilators) and found out that the majority of these students adopted the converging and the assimilating learning styles. Additionally, a positive correlation was found between these two learning styles with the explorer and killer types respectively when playing educational video games. Identifying learners' preferred learning styles tended to support teachers to adapt their teaching strategies and curriculum in ways that help students learn better.

In a mixed method study, a sample of 400 male and female students at the second grade in Saudi secondary schools in Riyadh city reported that their learning needs are not taken into consideration when learning English language (Al-Hamlan & Baniabdelrahman, 2015). Despite the high need of students to be speak fluently, communicate with others, and to get a job, their speaking and listening skills, however, were unacceptable. Additionally, teachers did not consider their learners differences and did not accommodate resources/educational activities in ways that could meet their needs. That is why, findings of this study recommended for ESL teachers to use additional resources to the school textbook in order to provide students with various opportunities to select exercises, perform activities in pairs, learn grammar through examples, integrate technology in teacher's instruction and use short stories in the curriculum. Students reported also



that they need a bilingual teacher to help the teacher to translate unknown words for them.

In science, drama was found to be an effective strategy in exploring students' individual differences and accommodating their learning styles and multiple intelligences. Through an experimental study, Abed (2016) found that students who were taught the scientific concepts through drama-based approach (n= 46) performed better than the control group (n=41). Eighty-seven students of 7th grade from a public male school in Amman-Jordan participated in this study. The results indicated that not only students learning and understanding of scientific concepts increased but that their attitudes towards science became more positive as well. This is because drama has made the science class livelier and more entertaining and provided students with authentic artistic and aesthetic experiences. Students became more engaged when given the chance to combine their emotions, intellect, and practice together. As a result, students were more motivated to learn and their anxiety levels towards science were reduced. Similarly, in science classroom, teachers for grade eight and their students in eight public schools in Beirut, Lebanon who used cooperative learning and ICT-based activities helped struggling students by targeting their different needs (Awada & Faour, 2018). Group work, video making, hands on activities, using tiered assignments, scaffolding and flexible grouping were among the strategies that teachers used in class to meet the needs of their students with different learners styles.

Teachers who adapt different teaching strategies to meet their students learning needs create a more engaging and inclusive environment in their classroom. In an action research study conducted over three months with 26 fifth grader students in a private primary school in Iraq, qualitative and quantitative data provided evidence that whenever teachers adopted differentiated instruction, they established a positive learning environment. Adopting differentiated instruction in her English classroom, the teacher engaged students, developed their cognitive skills, and improved inclusiveness. The teacher used a range of resources such as texts or novels at more than one reading level, computer programs, videos and other media as a way of conveying key concepts to varied learners. The teacher also provided various types of support for student learning such as using study



buddies, note-taking organizers or highlighted printed materials. The teacher gave students choices about how to express what they have learned in a project (e.g. create a newspaper article or report, display key issues in some type of graphic organizer) and allowed students to help design products around essential learning goals. The teacher provided assignments of varying degrees of difficulty to match student readiness and used a wide variety of assessment types. Additionally, the teacher had the advanced students work on special, in-depth projects, while the other students work on the general lessons. The curriculum and teaching methods used by the teacher supported students inclusion and development and provided them a relaxed environment in which they felt appreciated.

In order to meet students diverse learning styles, Fahim et al. (2019) used Virtual Reality (VR) and the Internet of Things (IoT) as an alternative to create a virtual environment where students can perform practical activities in science like in the real world. In such an educational space, learners interact with both virtual and physical objects. Thirty students in the final year of one high school in Morocco used this virtual environment to measure ultrasonic velocity in the air through virtual 3D objects. Randomly separating students into experimental (n= 15) and control group (n=15) showed that students who used the VR and IOT achieved better in the post test in comparison with their peers who had the theoretical course. This approach not only provided a link to the real context but made learning more engaging, motivating, and relevant for learners.

In summary, studies presented above tended to agree that whenever teachers recognize students' diverse learning styles, they succeed in adapting their teaching instruction and curriculum to meet students' needs. Low achieving students benefit the most from this approach since that activities and learning context are adjusted to their academic abilities (Abed, 2016; Celik, 2019). Despite these benefits researchers argue that teachers are already overwhelmed, and such approach could impose more workload on them (Awada & Faour, 2018; Celik, 2019). That is why, Celik (2019) invited the whole community (i.e, parents, school staff, curriculum designers etc.) to support this approach. Furthermore, teachers should be given more authority in making decisions relevant to the curriculum and instructional materials (Awada & Faour, 2018). Lastly, ICT resources (i.e, projector



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and PC) should made available for teachers to ensure differentiated instruction in their classroom (Awada & Faour, 2018).



Summary paragraph:

While there is no evidence that learners have a distinct “learning style” (such as being a “visual learner”, research in the Arab world showed that differentiated instruction techniques can lead to positive gains on the teaching and learning process. Studies in Saudi Arabia, Morocco, Lebanon, and Iraq reported that whenever teachers adopt differentiated instructional methods using various resources succeed on meeting learners’ needs and help them achieve the learning objectives.

However, researchers have highlighted some potential barriers for teachers’ implementation of differentiated instruction in their classroom. Examples include lack of ICT resources, limited autonomy and decision making allowed for teachers, and rigidity of the curriculum.

To date, there is little reliable empirical evidence to support the concept of learning styles around the globe and particularly in the Arab world.



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Search terms

Learning styles; learning preferences; learning theories; cognitive styles; cognitive preferences; thinking styles; individual differences; multiple intelligences; approaches to learning.

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