

LINK Digital Learning- Status Quo 2023 and Lessons Learned

Lift Obstacles IN Kid's Future – Phase 1

" Mouvement Social "

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1. Context

In recent years, active learning has been gaining popularity. It has been shown to be superior to traditional lecturing due to enhancing student learning and reducing failure (Yu et al., 2019). Active learning revolves around students actively engaging in tasks and can include various activities such as gamification of content, reactions to media (such as videos), think-pair-share, team-based-learning, group quizzes, and learning by teaching (Yu et al., 2019). It has been said “Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results.” - John Dewey, Researcher of Education (Steele, 2019).

In fact, technology has been proven to facilitate the creation and adaptation of educational content, by reducing time needed and simplifying the required effort. The educators’ workload on routine tasks like test scoring and cheating screening would be decreased as well. Additional advantages of the technology use in learning are the availability of open access resources making education more accessible especially for remote and geographically challenging areas. It combines interactivity and digitization of text books which makes teaching more personalized and increase the students’ ability to practice. In fact, wide range of personalized adaptive software help teachers in identifying difficulties, track errors and point out needed support. Such a positive impact was detected in India in after-school settings and for low-performing students. This has also been applied in China where learning analytics helped predict learning trajectories and manage teacher resources. In the United States, a system (Course Signals) flagged the likelihood of a student not passing a course, which leads the educators to target them for additional support. Moreover, varied interaction and visual representation can improve student engagement. For instance, interactive whiteboards can support teaching when integrated in pedagogy and there is strong evidence that digital games enhance cognitive and behavioral outcomes in mathematics (UNESCO, 2023).

Since COVID-19 outbreak came to an end, children reverted to attending schools in person. At that point, there was a plan at Mouvement Social (MS) of equipping classrooms with technological devices such as smart boards and tablets. Given that there were many difficulties being faced in learning, and since a proposal was been prepared for the first phase of “*Lift Obstacles IN Kids’Future (LINK)*” project, Mrs RoulaTannous (project manager) suggested including in the upcoming project, a capacity building plan for MS staff related to active learning methods using technology. The suggestion was approved and supported by the project donors, namely *Agence Française de Développement (AFD)*, *Fondation de France* and *PARTAGE*.

Starting August 1st, 2022, 16 educators and social workers at “*Mouvement Social*” (MS) took part in a 6-days training facilitated by the trainer “Joelle Roumani” which was spread out over a month and addressing various teaching methods and methodologies in addition to lesson planning frameworks namely the 5Es (Engage, Explore, Explain, Extend (or Elaborate), Evaluate), the 4 SLPs (framework consisting of Introduction, Presentation, Practice and Produce/Use) , the use of

technology in learning and the Visual-Auditory Kinesthetic Model (VAK), which was the preferred model according to the educators feedback as it taught them some personalized active learning techniques in order to reach the “zone of approximate learning”, therefore providing “*children more freedom to choose their most favorable way of learning*” while making the learning “*student centered instead of subject centered, meaning that the student is more engaged in their own learning*”.

As captured in **figure 1** below, the VAK Model entails various interactive learning techniques that were covered across the training package such as games, peer teaching, reactions to videos, flipped classroom, and group work.

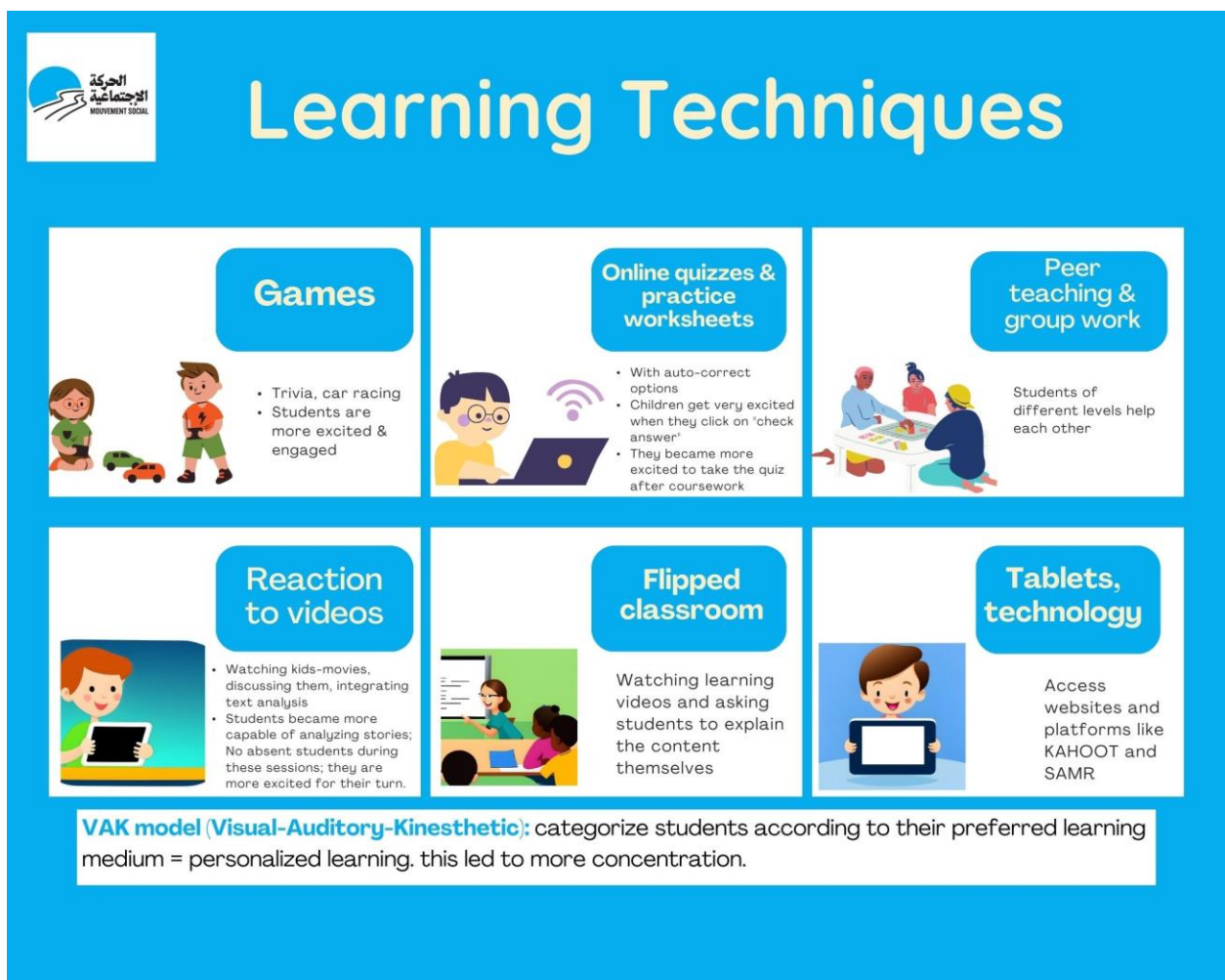


Figure 1- VAK Model and Interactive Learning Techniques

Participating educators were engaged across the training in practical application of the learning materials, performed role play of techniques and were given case studies to deal with specific students with learning difficulties. Moreover, the Technological Pedagogical Content Knowledge

(TPACK) framework, covered as well throughout the training, allowed educators acquire the merging of technological tools, using tablets, PCs, active boards, as well as websites such as KAHOOT and Google forms, where they learned how to create and fill surveys.

A comprehensive list of the learning techniques, methodologies and frameworks delivered across the training package is summarized the *Active Learning Training Content* document, annexed to this case study (**Annex 1**).

The training package was then followed by a coaching plan individualized for each of the 11 educators operating under LINK project. The coaching was extended over a period of 1 month and a half. The same trainer who provided the training sessions was visiting the three implementing centers in Jnah, Sin El Fil and Bourj Hammoud, and attending classes with various trained educators. The coaching aimed to follow up and assess the educators' implementation of the different educational strategies and techniques explained during the training, while assisting them in any practical application or further explanation. The trainer provided educators with individualized feedback to improve their tutoring/teaching approach; to optimize learners' performance; and to adapt their teaching to the children learning needs and agendas content. Through the coaching interventions, the need to recruit a speech therapist was identified to better assist children with particular difficulties, action fully supported by PARTAGE.

A year after the completion of the training and the coaching plan, a retrospective look was deemed important to understand how were the teaching methods adapted by MS educators within their classroom settings and how did the use of the technology in learning served the delivery of MS activities. The main objective of this exploratory case study¹ is to capture the educators acquired learning by reflecting on the training package, its benefits, the challenges faced in adapting the active teaching methods within their daily practices and to document educators' future recommendations.

2. Methodology

We conducted a focus group discussion (FGD) with eight educators from several MS centers, who were previously engaged in the training. They were 8 female and 3 male educators in charge of classes ranged from grade 1 to 9, with 2 preschool teachers. Subjects include French, English, Arabic conjugation, Math, and Sciences, divided into Biology, Physics and Chemistry for older classes.

Guided questions (**Annex 2**) were prepared to facilitate the discussion with the educators; they aimed to cover the description and content of the training, educators' confidence and ease of use of the teaching methods on which they got trained, their perception of the benefits on their teaching

¹ An exploratory case study is an inductive research process used to gain an in-depth understanding of a complex issue, event, or phenomenon, within its real-life context. It is used to generate ideas, identify key issues, develop hypotheses for further study and to gain an understanding of a situation ("Exploratory case study," n.d.).

approaches as well as on their students, along with the challenges or obstacles they faced while adapting the teaching methods within their classroom setting. It helped them as well reflect on potential recommendations.

3. Results and Discussion

3.1. Ease and Context of Use

Educators used to perform some techniques before the training, but at the time, they didn't know about their consideration as active learning techniques. ***“Given that we have been teaching for quite some time, we used to apply these techniques, but we didn't know they were titled; now they are framed”***. For others, many techniques and tools were new, such as VAK model, how to create a survey, KAHOOT and SAMR.

Educators reported adopting these techniques more during summer camps and catch-up collective sessions, than at daily retention support sessions. In fact, although easy to understand and to use, they found it difficult to adopt the methods taught within the retention support sessions as they were not applicable. And then proceed directly with the next section providing some examples. Some educators organized weekly collective sessions where they were able to integrate some of the learned techniques. Nevertheless, it was possible to apply two techniques during school retention support: group work and peer teaching. Whatever the context, educators noted a flexibility in dealing with the taught methods' ***“We adapted the techniques according to what we can use”***.

3.2. Perception of Benefits & Usage Examples

In general, as per the techniques that the educators always knew about, the training was a refresher. Moreover, it provided a chance for a practical application to the theoretical knowledge. Regardless, the training was perceived as beneficial. Special attention was paid to technology; in fact, the use of tablets and PCs for worksheets, websites, videos and quizzes was very beneficial. Tablets were considered lifesaving in many cases where the only way to explain something was to show it through a projection; ***“now they can try it themselves with hands-on using tablets”***. Several examples of practical applications were given, they are mapped in the **table 1** below with summarized feedback related to the impact of their application on the children engagement.

3.3. Change in Children Engagement

One important benefit that educators noticed was the increase in students' motivation to attend the sessions as well as their enhanced school grades. ***“Children learned faster, were happier and***

more excited, and participated more in learning activities”. “They also assimilated the deliverables better and were more attentive”.

Besides, educators reflected back on their previous teaching methods and confirmed that the interactive ones affected positively the students understanding *“Prior, I used to deliver a seminar and leave; I used to wonder why some students didn’t understand a concept”.*

It was noticed as well that the enjoyment during learning enhanced the children feeling of safety and belonging, and strengthened the bonding they have with MS educators and staff in general. *“Children get to refer more to us rather than their school teachers for any misunderstood subject or lesson; “My student told his teacher that MS explained this concept to me, and I understood it better. Teachers therefore tell the students don’t participate in class; we know your MS teacher explained it to you”.* Moreover, children became more critical of teaching methods, and were able to distinguish the interactive techniques from the traditional passive ones. The offered interaction boosted as well the children autonomy and their capacity to study alone, which is the core purpose of MS services.

Table 1- Examples of the Major Learning Techniques Applied with the Impact on Children

Technique	Example	Impact
Games	These included team division and were conducted for various subjects, namely math teaching for the multiplication table, or using a car racing game for solving equations.	When merging games, group work, with learning, students are more engaged and excited, and the time needed to solve a problem gradually decreased.
Online quizzes and practice worksheets with auto-correct option	These were provided in several subjects at the end of different sessions using tablets.	<i>“Children get very excited when they click on check answer”.</i> In a more specific context, many worksheets that the students used contained exercises like what the students faced at exams. Moreover, students were more prone to complete their course work by themselves. <i>“We often conduct worksheets after class. Prior, they used to stall in course work so they don’t do the worksheet; now with tablets they hurry up and finish the work so they can participate in</i>

		<i>the online competition or quiz”.</i>
Peer teaching and Group work	Classes were sometimes divided into groups; educators distribute the students mixing stronger and weaker levels together.	Students of stronger level help those with lower one.
Flipped classrooms	These were used after watching learning videos and asking students to explain the content themselves.	
Reaction to videos	Watching kids-movies and discussing them while integrating text analysis was performed in Arabic classes; similarly, each week one student performed flipped classroom with watching cartoons and preparing content analysis questions about the story in the French class.	Integrating watching movies with text analysis enhanced the children critical attention during the movies and increased their attention to details. <i>“Afterwards, they became more capable of analyzing stories whatever they are watching. They also became more aware of geographical places changing in stories”.</i> This technique also increased their excitement to learn <i>“I don’t have any absent students during these sessions. They are requesting for more movies”.</i> <i>“Sometimes a debate occurs in class regarding the plot twist”.</i> <i>“They were more excited to let it be their turn the coming week”.</i>
Differentiated learning	It was applied in some math classes to facilitate the calculus techniques for students facing certain difficulties.	
Videos and songs	Preschool age: the main applications were using videos and songs to memorize numbers, seasons and colors. Here, using technology was helpful.	
VAK model	Aiming at identifying the preferred way of learning for students and	Educators perceived a special benefit for the VAK model that helped them categorize students

	<p>therefore personalizing the educational content.</p>	<p>according to their preferred learning medium. This was helpful for students who were not able to concentrate prior to this application. <i>“The student probably didn’t know before that he only understands in a particular medium”.</i> <i>“If a student is more auditory, it’s ok if he gets up and walks around, he’s still carefully listening to me”.</i></p>
<p>Tablets</p>	<p>Use of tablets and PCs to access worksheets, websites, videos and quizzes. Tablets permitted access to platforms such as KAHOOT and SAMR.</p>	<p>Tablets were considered lifesaving in many cases where the only way to explain something was to show it through a projection; now they can try it themselves with hands-on using tablets.</p>
	<p>Content from governmental national educational platform <i>“kitabi”</i> was presented using active learning techniques.</p>	
	<p>One educator used tablets to cultivate general culture among children in several topics related to health and life. <i>“We started showing them what is happening abroad outside of their usual world. We conducted once a comparison between their lives and that of teenagers in Europe and US to broaden their perspective beyond their environment.”</i></p>	<p>Using technology to spread culture and widen children’s perspectives also helped improve their behavior. They started noticing when a particular action defies what they have been taught, even if it was drinking an unhealthy drink. They are remembering the messages. <i>“Here there is usually full attention and zero boredom”.</i></p>

4. Challenges

The main challenges that educators encountered were **i)** inability to apply techniques to retention support sessions which consists of a major service provided by MS, **ii)** the lack of time and **iii)** the huge load in schools agendas refraining them from dedicating time to interactive learning; this is aligned with the expectation of the parents for the children to come back home from MS with a completed agenda and no school homework pending, which makes it harder to apply active learning techniques. Another challenge is **iv)** the presence of various unequal levels among students which makes it harder for educators to apply active learning techniques; this latter difficulty was overcome by dividing the classes according to levels. The remaining challenges have always been discussed but are bound to recurring problems in Lebanon, namely electricity cuts and the quality of internet connection. Educators at MS are used to these kinds of difficulties and showed an agility in overcoming them by solutions like moving the class to an outdoor court during the good weather periods. *“I took the class out to the court because there was no electricity; there, I applied the active learning techniques”*. *“We have always faced electricity cuts, we know how to adapt to it”*.

5. Recommendations

The top recommendations raised by the consulted educators were:

- To receive additional training and hands-on coaching allowing them to better adapt the active learning methods and techniques to the school retention support program which is the major service provided by MS educators.
- To better engage parents in the active learning methods in order to increase their understanding of their children’s educational path at MS.
- To support educators in preparing some educational capsules using the different digital tools and standardize their spreading among children benefitting from MS services.

6. Annexes

Annex 1- Active Learning Training Content



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Annex 2- FGD Questionnaire



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