

Shabake 2: Blended Learning Model – TFL Fellows Training Program

Pre-test and Post-test Analysis Report

November 9, 2023



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Introduction

The Lebanese economy is currently confronting what The World Bank has described as the most severe economic crisis globally since the mid-nineteenth century. This crisis has been worsened by a series of dire events, including a 90% devaluation of the Lebanese Lira since late 2019, leading to an 80% increase in poverty. Both the Lebanese and refugee populations, especially those from marginalized communities, are facing a wide range of challenges across healthcare, education, fuel, medicine, security, food, water, and frequent power outages. The education sector has also been deeply affected by the socio-economic crisis. Soaring fuel prices, electricity shortages, and low incomes have resulted in public school teachers staging protests, and learners cannot attend classes due to the closure of public schools. According to Save the Children, one million children in Lebanon are currently without access to education because of the continuous closure of public schools.

Fortunately, there is hope for educators and children through The Lebanese Alternative Learning (LAL) innovations. The Tabshoura platform and offline app offer access to digitized lessons that align with the Lebanese curriculum, serving early childhood education through grade nine. This benefits both refugee and Lebanese children with limited access to quality digital resources. However, with the ongoing conflict in the region, many educators and learners are facing significant challenges that are leading to major gaps in their learning process. Therefore, LAL has taken the initiative to address these challenges by developing a *Blended Learning Model*. This model aims not only to bridge the education gap but also to enhance the quality of education by building the capacity of educators and improving the skills of learners through motivation.

In partnership with Teach For Lebanon (TFL) and with the support of Expertise France, a Blended Learning Model based on comprehensive research conducted with key players in the education sector has been developed. The goal of this model is to address challenges and encourage schools in Lebanon to adopt the model in their teaching practices. To test this intervention, LAL in collaboration with TFL has designed a training program to train 20 TFL Fellows, who will, in turn, train 100 teachers to implement this model with 2,000 public school learners.



Report Objective

This report aims to analyze the results of the pre-test and post-test assessment to evaluate the impact of the Blended Learning Model. The assessment was conducted to measure changes in The Fellows's knowledge and skills before and after the training program was implemented. The analysis aims to determine the effectiveness of the intervention.

Methodology

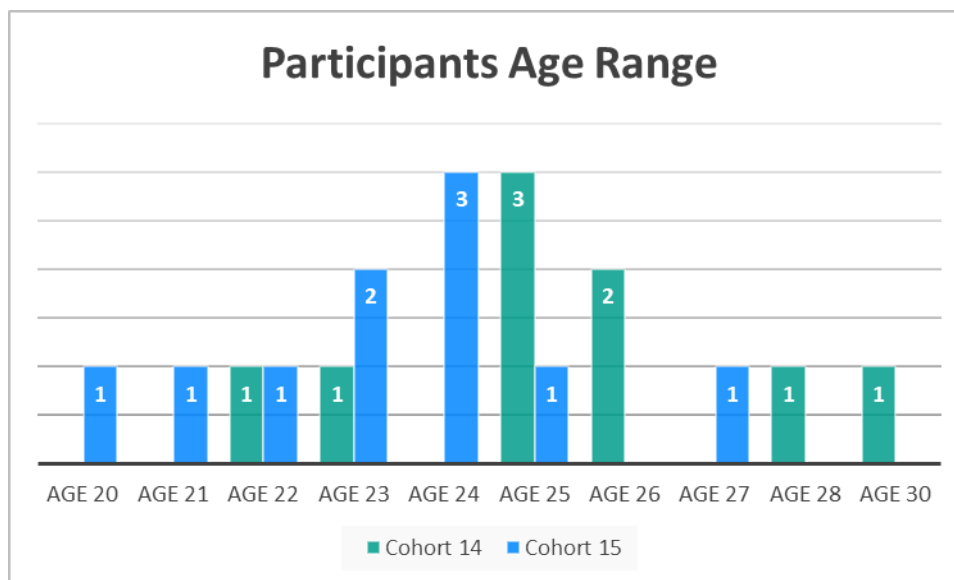
Blended Learning Model Training Program Participants

In collaboration with TFL, a total of 20 Fellows, with an equal distribution of 10 from cohort 14 and 10 from cohort 15, were chosen from TFL's Fellowship program to participate in a two-session training program for the Blended Learning Model. The first session had a turnout of 17 Fellows who completed the pre-test, while the second session was attended by 20 Fellows, with 19 of them completing the post-test.

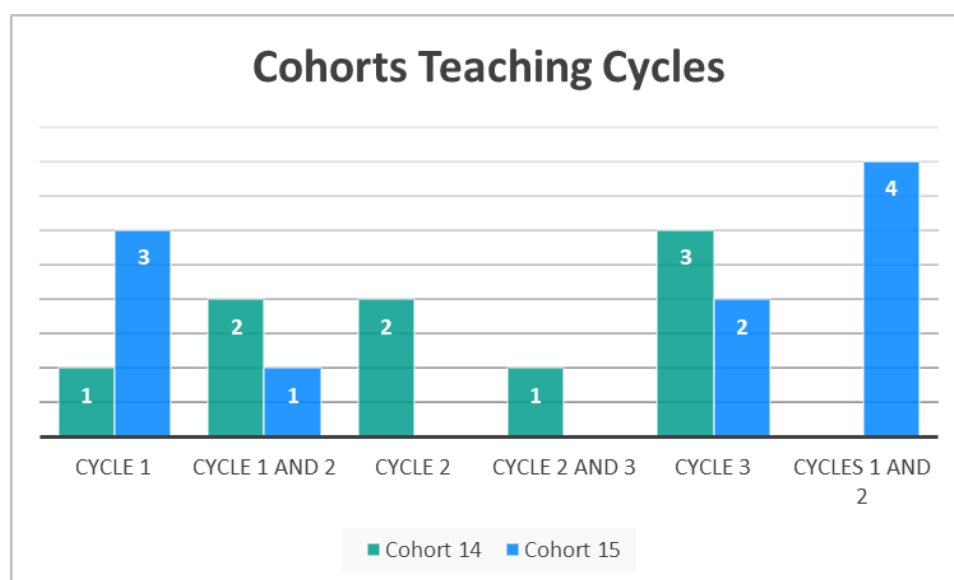
Participants Demographics:

The demographics provided below are specific to the 19 Fellows who participated in either the pre-test, post-test, or both assessments. This demographic information encompasses details regarding the cohorts to which participants belong, their age ranges, the teaching cycles they are involved in, their locations within governorates and districts, and the schools where they will actively be engaged.

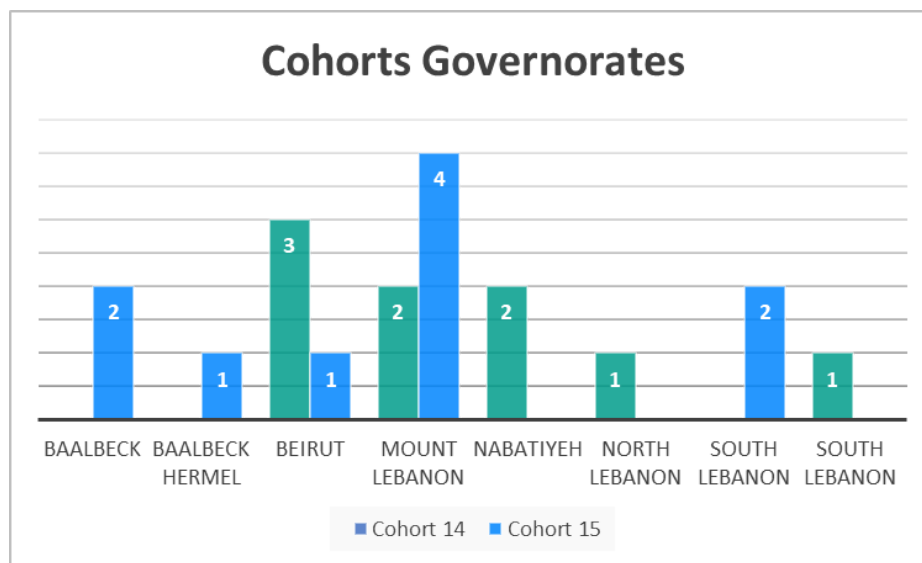
The selection process for participants involves a multi-stage approach conducted by TFL. It considers a range of criteria, including whether individuals are final-year undergraduates, graduates, or young professionals with diverse educational backgrounds. Academic records, commitment, location, language proficiency, and age limits. All participants involved in the Blended Learning Model training program are Lebanese women. Fellows are strategically assigned to schools located close to their residences whenever feasible. This approach is designed to enhance their capacity to make a more substantial impact and to maximize the benefits derived from their roles in these schools.



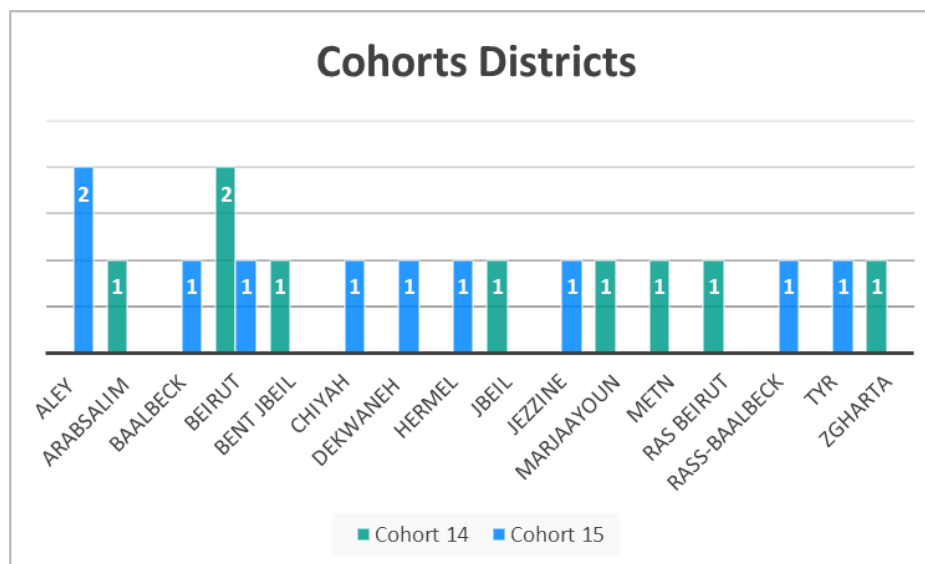
The following is an overview offering insights into the age distribution of the participating cohorts. The 17 participants are segmented into two age groups (18–24 and 25–34), both falling within the adult category. Notably, the age range of 18 to 24 years comprises a significant portion, representing 53% of the participants. Additionally, 47% of the individuals involved fall within the age bracket of 25 to 34 years.



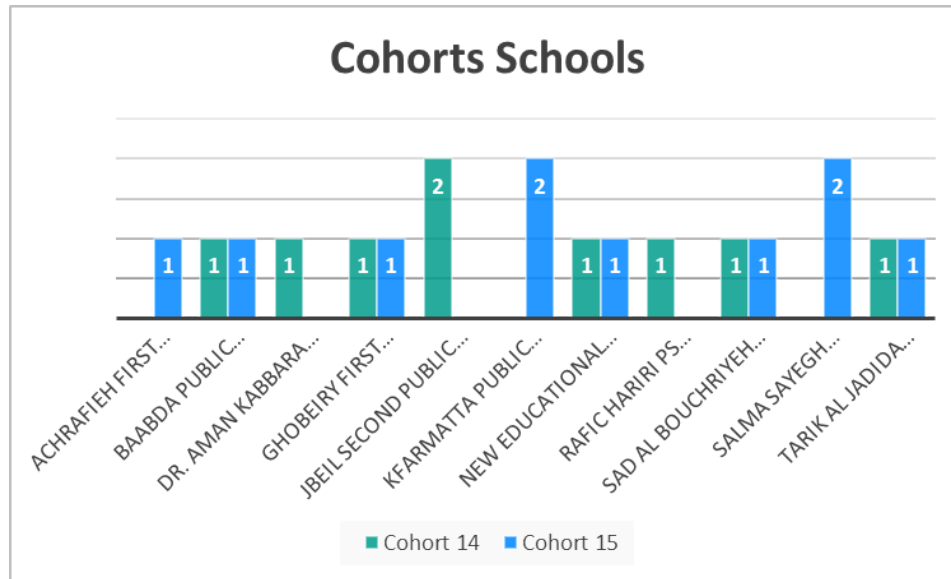
In the context of program participants, the majority primarily engage in teaching cycle 1, comprising 59% of the participants, while 53% focus on cycle 2, and 31% are involved in teaching cycle 3. Additionally, 36% of participants are responsible for both cycles 1 and 2, and 5% are engaged in teaching both cycles 2 and 3.



The governorate with the highest number of participants, constituting 32%, is located in Mount Lebanon. Following closely, Beirut has 21% of the participants. In Baalbeck and Nabatiyeh, each governorate has 10% of the participants. Additionally, there is a 10% representation from Baalbeck Hermel and 16% from South Lebanon.



In the context of both cohorts 14 and 15, the district of Beirut boasts the highest representation, with 16% of participants. Following this, there is a 10% presence in Aley, and 5% of participants are distributed among the following districts: Arabsalim, Baalbeck, Bent Jbeil, Chiyah, Dekwaneh, Hermel, Jbeil, Jezzine, Marjaayoun, Metn, Ras Beirut, Rass-Baalbeck, Tyr, and Zgharta.



The schools with the highest cohort rates from both 14 and 15 include eight institutions: Baabda Public School, Ghobeiry First Elementary Public School, Jbeil Second Public School, Kfarmatta Public School, New Educational School, Sad Al Bouchriyeh Public School for Boys, Salma Sayegh Public School, and Tarik Al Jadida Public School, each hosting 10% of the participants. The remaining schools are Achrafieh First Public School, Dr. Aman Kabbara Secondary Public School, and Rafic Hariri PS Aramoun, with 5% of participants in each.

Blended Learning Model Training Program Technique

The training sessions have been facilitated by LAL's pedagogical and digital experts Muriel Albina and Haigo Dolmayan, who have extensive expertise in education, particularly in science. They also have demonstrated proficiency in communication, project management, digital content creation, and technology tools.

The training sessions occurred on two different occasions: the first on October 7th at Haigazian University and the second virtually on October 14, 2023. A pre-test was administered to 17 Fellows before the initial session, and a post-test was conducted with the participation of 19 Fellows at the end of the second session.

Training Content

The training sessions covered the following topics:

Day 1, October 7

- Exploration of the Tabshoura educational platform, mobile app, and Lalmoudaress platform.
- Definition of blended learning, its significance, and an exploration of various models.
- Examination of the blended learning model in conjunction with Tabshoura.

Day 2, October 14

- Creation of pedagogical storyboards.
- Identification of practical strategies for promoting a blended learning culture.
- Introduction to Project-Based Learning.

The Fellows were assigned the task of developing their pedagogical storyboards and submitting them through the Lalmoudaress platform.



Data Collection & Results

Pre-test and Post-test Development

The pre-post tests were developed in collaboration with the trainers before the commencement of the training sessions. Both tests contained identical questions to evaluate the impact on knowledge and skill enhancement.

The questions were categorized into three sections:

- Section 1: Online Learning - consisting of 7 qualitative and quantitative questions.
- Section 2: Understanding Blended Learning - featuring 7 qualitative and quantitative questions.
- Section 3: Technology Skills - containing 1 quantitative question.

Each Fellow was given a time frame of 15 to 20 minutes to complete both tests. The tests were integrated into Jotform by the TFL team and subsequently shared with the Fellows as a link and QR code. Raw data generated from the tests was shared with LAL by TFL.

Baseline Data

To assess the prior knowledge of participating Fellows regarding blended learning and digital teaching tools, we used a quantitative question inquiring about their previous involvement in online or e-learning programs, followed by a qualitative question directed to those who had prior experience learning about their experiences and the challenges they encountered.

Results indicate that 41.2% of participants had engaged in online learning, during the COVID-19 pandemic. Their experiences varied from positive aspects, including the convenience of learning from home, engaging with peers during lockdown, flexibility, and access to a diverse range of knowledge. However, these advantages were often counterbalanced by significant challenges, such as unreliable internet connections, boredom, difficulties in receiving feedback, audio quality issues, limited participation opportunities, lack of motivation, the inability to perform practical and lab work, and challenges in seeing and connecting with educators. Conversely, 58.8% of participants had not previously engaged in online learning programs.

Pre-test and Post-test Results

The pre-test occurred on October 7 before the start of the training session, and the post-test took place after the second session on October 14. The initial session had a turnout of 17 Fellows, and the subsequent session was attended by 20 Fellows. The post-test evaluation and comparative analysis in this report will primarily focus on the 17 individuals who completed both the pre-test and post-test. The performance of the two participants who only took the post-test will be separately addressed, while the participant who did not undertake either test is excluded from this report. Despite all participating Fellows attending one or both sessions, three did not complete all required evaluations due to personal reasons.

All questions, qualitative or quantitative, were graded on a scale ranging from 0 to 5.

Pre-test Scores

The below findings and graphic depiction show the results of the pre-test, which was completed by 17 individuals.

Mean score: 1.93

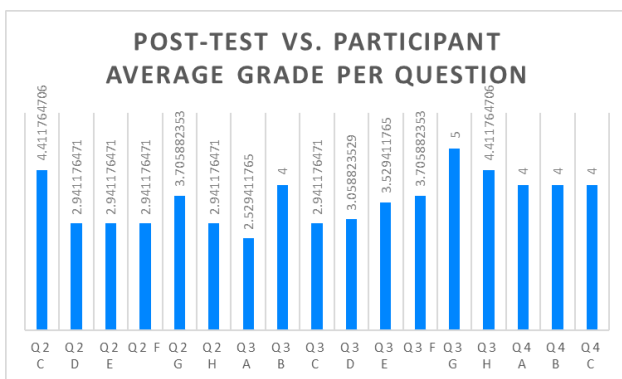
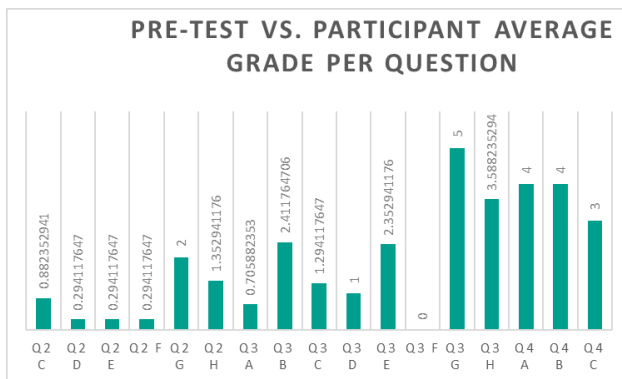
Standard deviation: 1.96

Post-test Scores

The post-test was completed by 19 participating Fellows. The subsequent sections will present the post-test results, supported by visual representations.

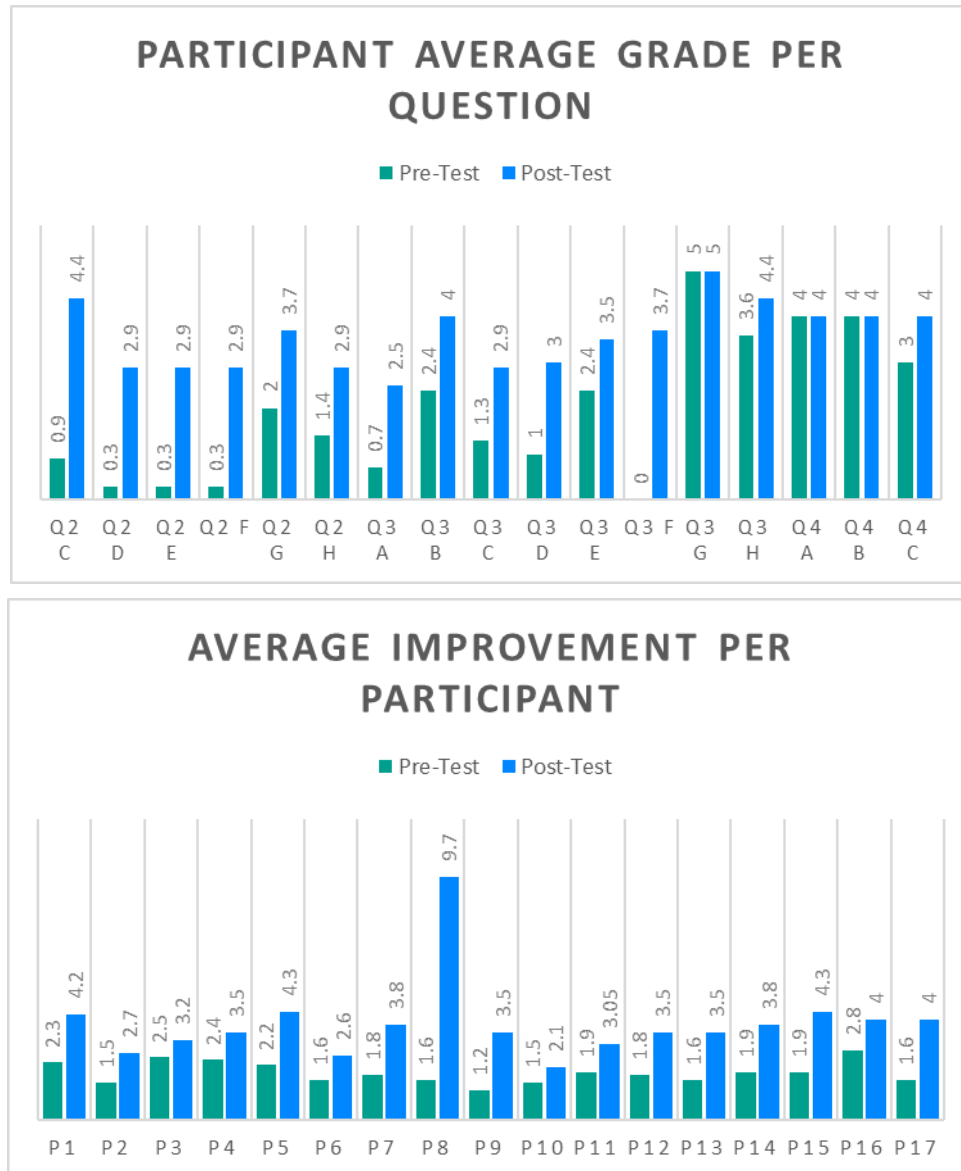
Mean score: 3.6

Standard deviation: 1.7



Pre-test and Post-test Comparison Analysis

The disparities between the pre-test and post-test results are substantial. The specifics regarding the scores are delineated below, accompanied by a visual representation.



The average score increased by 1.63 from the pre-test to the post-test, demonstrating improvement for all participants. The extent of improvement varied, with some Fellows showing minor improvements, while many displayed moderate, medium, or high enhancements.

To categorize the levels of improvement between the pre-test and post-test, we establish three intervals:

- Moderate improvement: average score increases less than 1.5
- Medium improvement: average score increases between 1.5 and 2.5
- High improvement: average score increases greater than 2.5

As a result, 5% of participants demonstrated high improvement in their scores, 53% showed medium improvement, and 41% displayed moderate improvement in their scores.

It is worth noting that the two Fellows who did not partake in the pre-test but completed the post-test demonstrated remarkable performance in response to all qualitative questions, earning high scores of 4 or 5 points for each question. Despite missing the first training session, these Fellows, including the fellow who did not take both tests effectively caught up with the training topics due to the support of the TFL team and co-participants before attending the second session. Although no baseline information is available for assessing the impact, the two Fellows' exceptional post-test results are noteworthy.

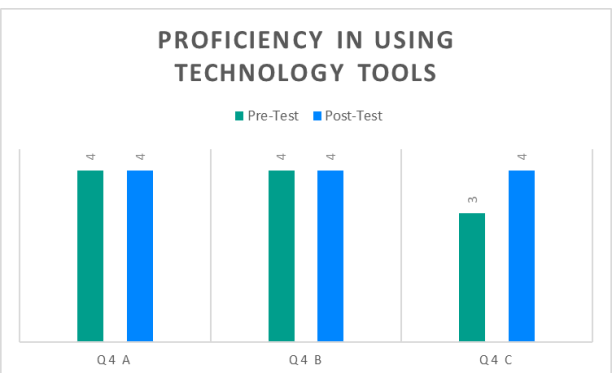
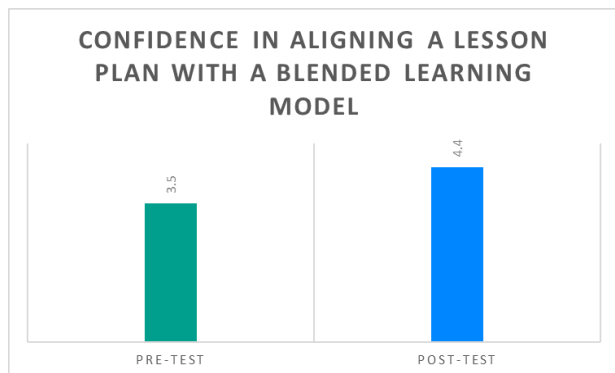
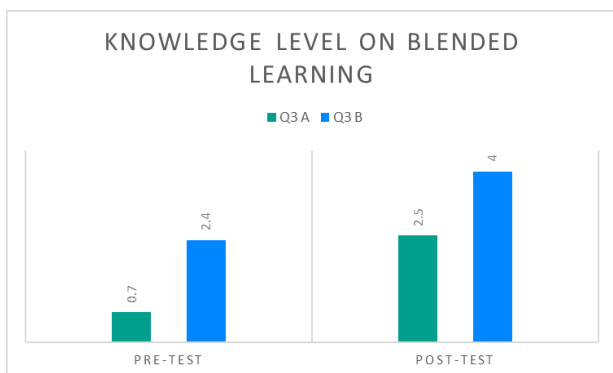
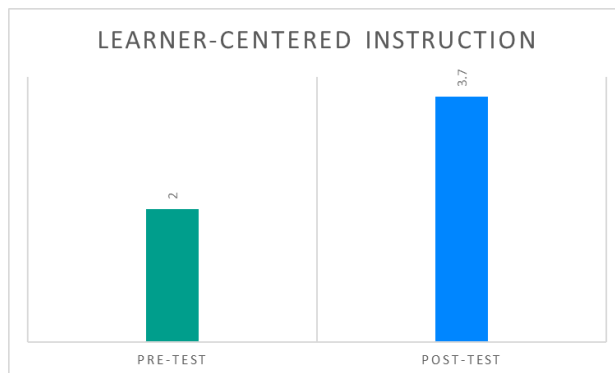
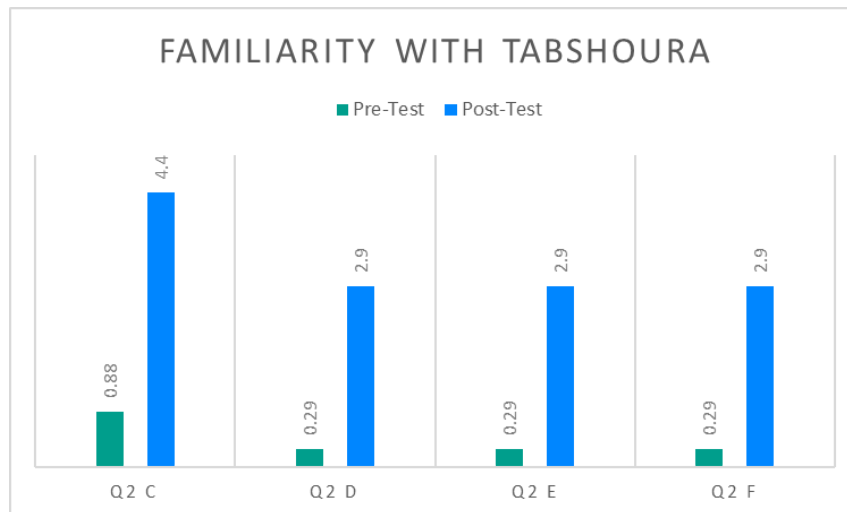
Consequential Questions

Several questions in the pre-test and post-test were designed to assess concrete knowledge improvement and learning objective outcomes. These questions were focused on the following aspects:

- Familiarity with Tabshoura, followed by knowledge of how to use it, and whether participants believe that integrating it into their teaching can help address their challenges. Questions 2C, 2D, 2E, and 2F.
- Providing a brief explanation of “Learner-centered instruction,” a topic discussed during the training. Question 2G.
- Assessing the knowledge level regarding blended learning. Questions 3A, and 3B.
- Measuring confidence in aligning a lesson plan with a blended learning model. Question 3H.
- Rating proficiency in using technology tools, employing technology in education, and utilizing learning management systems like Moodle. Questions 4A, 4B, and 4C.

These questions were instrumental in determining the impact of the training program on participants' knowledge of the Blended Learning Model and digital skills.

The full list of questions is available on this [link](#). Here are visual aids to illustrate the impact:



Conclusion

The primary objective of the Shabake 2 project is to promote the adoption of an effective Blended Learning Model in Lebanese public schools. This model will be implemented through the capacity building of educators, which will, in turn, benefit all learners, including both refugees and host communities, encompassing girls and boys in grades 4 to 9, focusing on developing their skills in Math, Languages, and Digital literacy.

Drawing upon LAL's expertise in digital education and TFL's operational knowledge, the Blended Learning Model is designed to make a significant impact on the Lebanese curriculum and bridge the existing skills gap among teachers. To accomplish this objective, we have identified two crucial components: First, we will enhance teachers' knowledge and skills through the development of a teacher training program centered around an innovative Blended Learning Model that leverages LAL's digital platforms. Second, we will expand the reach of this model by training TFL fellows to facilitate regional capacity-building sessions and provide coaching. This approach is tailored to address challenges related to mobility and connectivity, ultimately benefiting all learners.

These regional sessions will focus on instilling essential learning skills, particularly in Math, Languages, and Digital literacy, for students in grades 4 to 9. Through this comprehensive approach, we aspire to bring about a substantial and positive transformation in Lebanon's educational landscape.

Having successfully concluded the initial training sessions and observed the significant outcomes, we can affirm that the 20 Fellows have demonstrated enhanced knowledge of best practices in the Blended Learning Model and have improved their digital skills. Before commencing the training of public school teachers, a follow-up coaching session with the Fellows is planned to take place in November.

In addition to the assessment and training process, a feedback survey has been administered by the TFL Monitoring and Evaluation (M&E) team, and the detailed report is accessible through this [link](#).

Recommendations

Ensuring the achievement of the desired number of participants' attendance during the training sessions and their active engagement in all essential activities related to the Blended Learning Model implementation is crucial for the intervention's success. This approach allows for immediate adjustments and modifications as needed.

After the completion of the training program and its subsequent implementation, a follow-up pre-test and post-test will be administered to assess the impact of the training on all participants. Certificates of completion will be awarded to the individuals upon successfully finishing the program.

The upcoming pre-test and post-test will include fewer questions, with an emphasis on incorporating more quantitative questions into the assessment to prevent overwhelming the participating Fellows.

The Blended Learning Model training program represents a significant stride in improving the quality of education in Lebanon. By implementing these recommendations and building upon the successes observed in the initial training sessions, the project holds the potential to bring about substantial and enduring transformation within the Lebanese education sector. We eagerly anticipate the positive influence this initiative will have on educators, learners, and the broader community.

