

Facilitating Active Deep Learner eXperience, Using FIRST Framework Transforming Role of Teacher in the Classroom.

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Abstract—Teachers' Professional Development has always been an area of growing interest and constant research. Several studies, models and researchers has thoroughly explored the Teachers' development domain with the efforts to train teachers on how to understand, experience, practice and leave a sustainable impact on learners. However, the existence of a comprehensive framework that combines the efforts and findings of these studies and theories remained in need. This paper presents our own FIRST Framework, a holistic framework designed on the basis of educational psychology, neuroscience, cognitive psychology, and design thinking, to create an engaging framework that promotes Active Deep Learning and inspire a positive transformation in mindset and behaviors. Eventually enabling educational organizations to achieve the impact they aim for. FIRST Framework consists of 5 domains, 15 principles and 45 behavioral competencies. FIRST framework approach is to leave a deeper sustainable impact on learners through facilitating Active Deep Learner eXperience. As our objective is to enable teachers to facilitate a comprehensive active deep learning experience for their students, our methods rely on integrating the teachers themselves in an Active Deep Learner Experience ADLX to go through, practice and benefit from its sustainable impacts. The purpose of the paper is to: (1) Present a distinctive comprehensive framework that teachers can follow to facilitate their students' learner experience. (2) Introduce the concept of LX in Islamic schools and how to embed the Islamic values within parallel learning outcomes. (3) Present our "observations and insights", along with our research findings for our learners application from several nationalities. The population is the total number of participants, collected data consist mainly of qualitative data gathered from the applications of teachers and educators -in both formal and informal education-, who attended our program for Qualifying Teachers as Facilitators and accordingly implemented the learning outcomes with their students. The data will be gathered from the feedback and testimonies of both teachers. Major findings : (1) Teachers reported their appreciation and gratitude for having a one comprehensive framework that compiles the best trainings theories and models that they used to adopt bits and pieces from, (2) Due to the practical and active deep approach that the teachers experienced during the program they were able to apply the principles and techniques in their classrooms directly and immediately after the training days were over, (3) Student's feedback and overall experience where enhanced; experience descriptions included frequent keywords such as: Engaging, Safe Environment, Memorable Learning, unique approach . Concluding that: (1) paper validated the FIRST Framework as a scientific and research based framework developed through our experience in the learning and development field. It aims at transforming learning into performance through incorporating both active and deep learning strategies, creating engagement

and achieving a sustainable impact. It is also simple when it comes to design and facilitation; and always putting theories into action.

Keywords- Active Learning; Deep Learning; Facilitation; Student Experience; Teachers Professional Development, 21st Century Learning, Active Deep Learning, Learner eXperience Facilitation

I. INTRODUCTION

The paper is the outcome of the project jointly developed by SeGa Group and Namaa. SeGa Group is a talent development research and development (R&D) US established LLC, a team of professionals passionate and concerned with Active Deep learning and performance coaching. Our research center developed the FIRST framework that is introduced to more than 10 nationalities worldwide through our LXF (Learner eXperience Facilitation) program, beside our other LX programs, coaching programs. The project titled as 'ROOTS' is intensive training program targeting teachers and educators in 5 different Islamic countries. The main purpose of the project is to transform traditional teachers to agents of change, who are able to embed 21st century skills in addition to moral and ethical values in their students via facilitation and coaching techniques that empower and nourish their students as independent, reflective and self-aware life-long learners. NAMA Foundation, established in Malaysia in 2004, is a public company limited by guarantee, which mainly focus on education and capacity building of third sector non-governmental organizations and community based organizations. NAMA has partnered with SEGA group to achieve their aligned mission in transforming teachers to active deep facilitators/coaches and deep coaches. This paper studies one group of 'ROOTS' participants with total of 22 participants: 9 Female, 13 Male, who represents 5 countries as follows: 4 Kyrgyzstan, 8 Indonesia, 3 Lebanon, 5 Tanzania, 2 Malaysia.

II. FIRST FRAMEWORK

FIRST framework includes five main domains, and 15 principles. These principles act together and integrate together; creating the Active Deep Learner eXperience. FIRST framework is a holistic one; it is based on other models and theories, such as: experiential learning by Kolb and John Dewey; cooperative learning by Kagan; Carl Rogers' facilitation skills, Roy's 6Ds and learning transfer; as well as positive psychology principles. FIRST is also inspired by the spirit of group coaching, which aims at promoting deep change and is focused on the future. It is a scientific and research based framework, developed through our experience in learning and development field; as well as measuring the impact of implementing the model via SeGa or our learners. FIRST framework is not only aiming to create active learning experience, it also targets transforming learning into performance, because incorporating both active and deep strategies creates engagement and impact. The five domains of FIRST act as layers each of them build on the previous domain and add to it, all the principles integrate with each other to form the active deep learner experience. The 5 domains are:

Focusing on learner behaviour: To observe each single learner behaviours during the session, and how the facilitator interacts with every individual, along with activities that can be done to help the learner feel the experience is unique and customized. The focus of this domain is on every learner and not the overall learners, by every learner we mean his/her learning curve, previous knowledge, feelings, and experience. This domain's principles are: Individualization, Probing/Assessing and Trust the learner.

Interacting within positive group dynamics: This domain focuses on the interaction between learners and the group dynamics, which makes for every group a unique experience. This means that the same learner can have a different experience if he/she interacts with a different group of learners. The main principles are; Social event, Positive spirit, Motivation & attention.

Reviewing activities within RAR,: main focus is the learning activities and how to review them actively according to RAR model and how this group of learners interacts together during learning activities. Activities are the main unit in experiential learning and also in the active deep learning approach, usually people gives great attention to activity itself, how to design and facilitate it. RAR model is a model developed by Segga; it

focuses on the full experience of the activity, how to increase participants' readiness and how to actively review the activity to deepen the learning. Reviewing domain principles are: Readiness increase, Activity facilitation, Reviewing actively.

Sequencing activities, is the main focus of this domain, is the full experience of the trip itself. So we combine the individual experience "F", with the participants' interactions "I" and how all participants live the experience of the activity "R", in addition to how to make the whole day engaging for the learners.

What is the full experience of the trip from the first to the last minute? What is interaction within the whole trip? And how all activities are linked and sequenced together to form the trip's full experience?

All these questions lie within S domain through 3 main principles; Structuring and sequencing, Repetition without boredom, Linking and summarizing.

Transforming learning into performance, domain deals with how to transfer this learning into action, and in the 'Active Deep' approach, we believe that the learning transfer should start from within the classroom, which will guarantee the transfer and increase its momentum. So "T" focuses on what activities and actions can be done within the training

room/learning event that would help the learner to keep an eye on the practice and the learning transfer, as well as helping in the follow up/mentoring phase (if any) that takes place after the trip. The main principles here are; Reflection on reality, Practicing and experiencing, Continuity and follow up.

A. FIRST PRINCIPLES IN EDUCATION SETTING

Since we aim to finally impact students' learning through our ROOTS training program, we were keen to explore the application of FIRST educational setting. Since FIRST was based on adult learning principles, we were careful to seek the alignment of FIRST with literature in education setting. We start first by outlining the FIRST is an active, deep learning approach, we would first refer to literature that supports the importance of active and deep learning in educational settings, and then we would align FIRST principles to pedagogical principles.

Educational theorists such as John Dewey and Vygotsky has shown the importance of learning by doing and stressed the importance of active learning. Sawyer (2018) has mentioned that "when students gain a deeper conceptual understanding, they learn facts and procedures in a much more useful and profound way that transfers to real-world settings".

Findings from learning sciences has shown that "each student learns best when they are placed in a learning environment that is sensitive to their pre-existing cognitive structures" that is to say that each learner will learn best when he/she will have a customizable learning experience, which aligns with our principle of individualization (Sawyer, 2018). Burden (2014) showed that anxiety could negatively affect students' learning and result in students who are "less socially oriented, less assertive, and more withdrawn". These findings reflect on several principles in FIRST: probing & assessing using unthreatening questions; positive spirit; motivation and attention and trusting the learner. These findings are supported by evidence from neuroscience that shows the high interdependence between cognition and emotions (Sawyer 2018). That's why in FIRST we focus on this interplay by stimulating emotions by creating a positive spirit and a safe environment for learning. To do that, we constantly monitor the energy level of the environment and adjust it when needed. We adjust learners' energy by creating readiness as part of our RAR model in FIRST. RAR stands for readiness, activity facilitation, and reviewing actively. The readiness part introduces the concept and orients the learners, it acts as a warm up and it is supported by findings of the learning science that stresses the importance of "priming" the mind and orienting it before effective learning takes place. Sawyer (2018) also mentioned that "students enter the classroom with half-formed ideas and misconceptions about how the world works". Thus, it is important to probe and assess this knowledge, and trust that each learner have a valuable contribution and experience to share, which reflects on the principles of individualization, and trust the learner in FIRST.

On the importance of treating learning as a "social event" (a principle in FIRST), According to (Sawyer, 2006) research has shown that students who have worked in groups have accelerated learning when compared to individuals. Research has also shown the importance of reflection in creating a deep learning; by reflection we mean that learners "externalize and articulate their developing knowledge" by doing so, they learn more effectively" (Bransford, Brown and Cocking, 2000). To allow for this space for reflection, collaboration, and active learning, the teacher role needs to be changed from owner of knowledge to facilitator of knowledge who

“foster collaborative and authentic learning...– much like a manager of a business or the master in a workshop – rather than controlling students autocratically, as the factory bosses of old.” (Sawyer, 2008).

In FIRST, the structuring of the knowledge presented is very important. The main three principles of the (S): structuring and sequencing, repetition without boredom, and linking and summarizing are all were informed by findings from cognitive science and neuroscience. To enable students to be active learners and construct their own knowledge, they have to be well scaffolded and supported during the learning process. This scaffolding includes a well designed structure and sequence, and linking. According to Sawyer (2008), “in effective learning environments, scaffolding is gradually added, modified, and removed according to the needs of the learner, and eventually the scaffolding fades away entirely”.

The impact of FIRST does not mean stop at the classroom. It is rather extended to the learners’ world. That’s why our last letter (T) represents transformation. In transformation, the learners are asked to reflect on their reality, practice and experience, then continue and follow-up. That’s why we also work on raising students’ attention by directing their awareness to the relevance of their learning outcomes to their lives and how they could transfer it to their everyday life practices by reflecting on reality. The importance of relevance is supported by evidence from the learning science, which shows that for learning to be meaningful, students need to connect the learnt materials with their real-life applications.

III. METHODOLOGY

Kirkpatrick evaluation framework is by far the most popular approach to the evaluation of training in organizations. Kirkpatrick’s (1976) framework consists of four ‘levels’ of criteria. Level one includes assessment of training participants’ reaction to the training program. Kirkpatrick’s second level evaluates the learning of the trainees using quantifiable indicators of the learning that has taken place during the course of the training. Level three behavior outcomes address either the extent to which the knowledge and skills acquired are applied on the job or result in exceptional job-related performance. Finally, level four outcomes are intended to provide some measure of the impact that training has had on broader organizational goals and objectives. In recent practice, the typical focus of these measures has been on organizational level financial measures. (Bates, 2004)

The targeted levels in Kirkpatrick framework are shown in Fig. 1.

The study followed a qualitative embedded approach. Main qualitative instruments were used along with secondary quantitative sources of data. Qualitatively, focus group discussions were conducted with 22 trainees, who attended the 6-day workshop, to uncover their attitudinal changes; trainees were also asked to reflect on their skill-enhancement after the training through opened writing; moreover, participants graded their overall satisfaction about the training in terms of content and delivery through reflective writings on online blogs. Quantitatively, training participants filled out knowledge surveys in which they documented how they perceive the extent of knowledge gain from the training experience; also, the facilitation team recorded the level of mastery of FIRST through a 10-minute demonstration using a pre-developed observation sheet.

Research instruments aimed at examining the two levels of Kirkpatrick evaluation model, namely: reaction and learning. Reaction constitutes measuring the extent of learner’s satisfaction about the training experience. The second level, which is learning, looks at the set of knowledge, skills and attitudes after the training to indicate whether a progress has been made or not. Participants’ satisfaction, attitudinal changes, and perceptions about skill-enhancement were all probed through qualitative tools. On the other hand, quantitative methods investigated the gain of knowledge among the training participants, and their practice of learned skills (see Fig. 1).

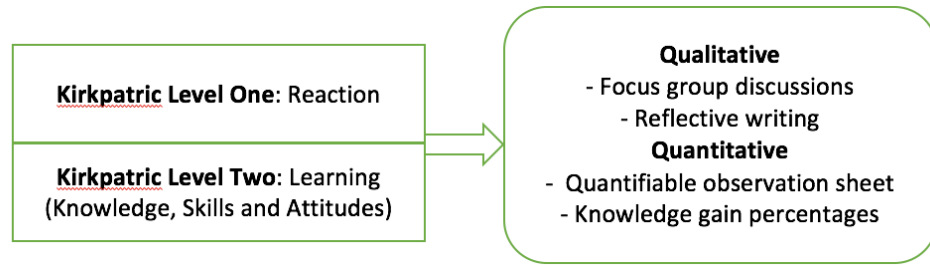


Fig. 1

This paper examines the participants’ progress after using the FIRST framework, using Kirkpatrick level 1 and level 2 only, insuring and testing participants Reaction and Learning. The following table represents the concluded steps used as methodology to capture the level of reaction/satisfaction of participants, and the level of learning as well, based on Kirkpatrick evaluation framework.

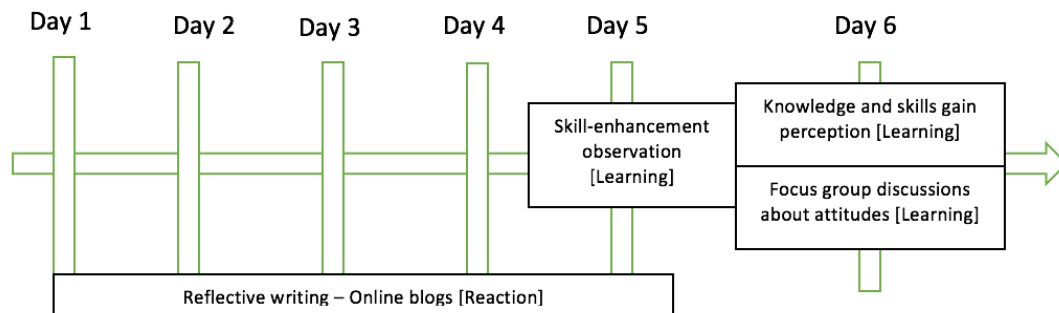


Fig (2) Linking our data collection method with Kirkpatrick evaluation framework

The figure shows what and when we collected data, relating our method of data collection and training day, associated to the targeted evaluation level of Kirkpatrick framework.

The study followed a qualitative embedded approach. Main qualitative instruments were used along with secondary quantitative sources of data. Qualitatively, focus group discussions were conducted with 22 trainees, who attended the 6-day workshop, to uncover their attitudinal changes. Trainees were also asked to declare their own perceptions about their skill-enhancement after the training. Moreover, participants graded their overall satisfaction about the training in terms of content and delivery through online blogs. Quantitatively, training participants filled out knowledge surveys in which they documented how they perceive the extent of knowledge gain from the training experience; also, the facilitation team evaluated the level of mastery of FIRST through a 10-minute demonstration using a pre-developed observation sheet.

IV. DATA ANALYSIS

Participants demographics can be summarized as follows: Gender: 9 females, 13 male. Nationality: 8 Indonesia, 4 Kyrgyzstan, 3 Lebanon, 2 Malaysia, 5 Tanzania. Age range: 27 - 52. Most of the participants either work as teachers, trainers, or managers in education-oriented organizations such as schools and training centers. Only two participants came from a different career background that is not directly related to the world of education. Five participants are Master’s degree holders in education-related areas.

A. Knowledge gain perceptions

Following the evaluation model of Kirkpatrick, the first tool used to probe the extent of knowledge increase was a survey; it was design from a scale of five in which participants decide whether the training contributed to their

knowledge about certain topics or not. The statements that participants were rating their knowledge gain about were incorporated from the learning objectives of the 6-day workshop. The scale was as follows:

Zero, which means that no knowledge gain happened because the participant already knows about the concept.

Less than 25%, which implies that the participant had some knowledge gain

25 – 50%, shows that there was a significant knowledge gain

75-100%, which means that there was an extraordinary increase in the participant’s knowledge

Findings showed that participants who reported that an extraordinary increase in knowledge has happened in the four learning objectives regarding FIRST framework were relatively high: 41%, 23%, 62% and 64%.

Furthermore, none of the trainees mentioned that they previously knew about the below topics. Some of them rated a significant knowledge gain has happened while less amount chose the 25-50 % . (See Fig. 3)

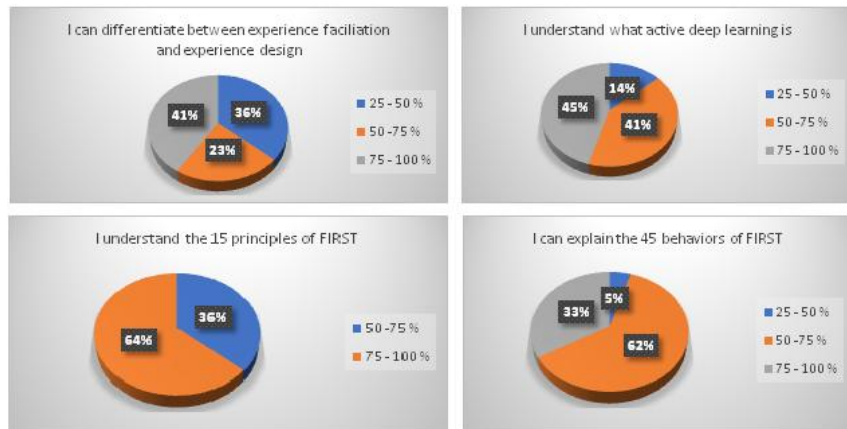


Fig. 3

B. Skill-enhancement perceptions

As previous literature emphasized, learning is reflected on three main domains: knowledge, skills and attitudes. That is why participants were asked to name the set of skills that they have learned from the training. Trainees openly wrote the skills on a piece of paper that was then collected. Interestingly, 12 participants reported that they have learned the skill of linking, summarizing and reviewing. What came in the second place is the skill of doing energizers to activate learners and have them ready for learning. Also, about 7 trainees named “designing learning experiences” as a skill that they have learned from the workshop, while the Pull and Push technique was named 7 times. Other skills were written by less number of participants, such as: evaluating the learner, mind mapping, readiness techniques, and facilitating group-work activities. Recalling the 15 principles of the FIRST framework, it can be noted that participants referred to many techniques that are among the skill-component of FIRST. To give an example, trainees mentioned the skill of linking, summarizing and reviewing which constitutes two main principles of FIRST. (see Fig 4)

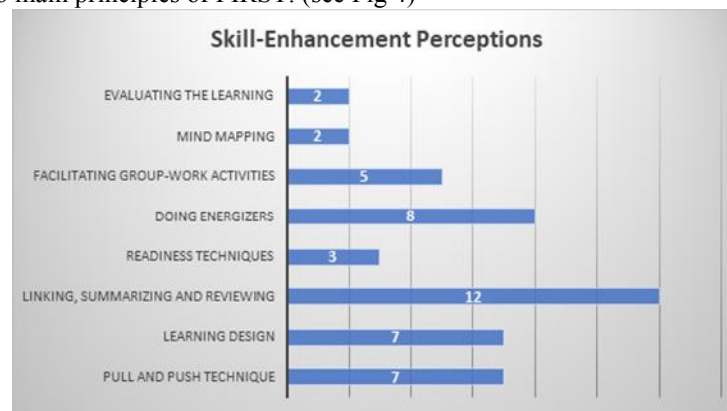


Fig. 4

C. *FIRST level of mastery*

Research instruments did not only explore the perceptions about skill-enhancement, but also an observation tool was used to inform the study about how the participants are able to practice FIRST skills. Trainees were asked to conduct a 10-minute demonstration as facilitators of a learning experience. The observation was during the last training day. As they started doing this activity, participants were graded according to the 15 principles of FIRST. The scoring system was coded as follows:

- 80 or above: excellent FIRST practitioner
- 50 – 80: very good FIRST practitioner
- 30 – 50: good FIRST practitioner
- Less than 30: needs further work

Out of the 22 trainees, no one scored less than 30 points. 20 participants were rated as very good FIRST practitioners scoring between 50 and 80 points. Only one participant was a good FIRST practitioner, and only one was an excellent FIRST practitioner.(see Fig. 5)

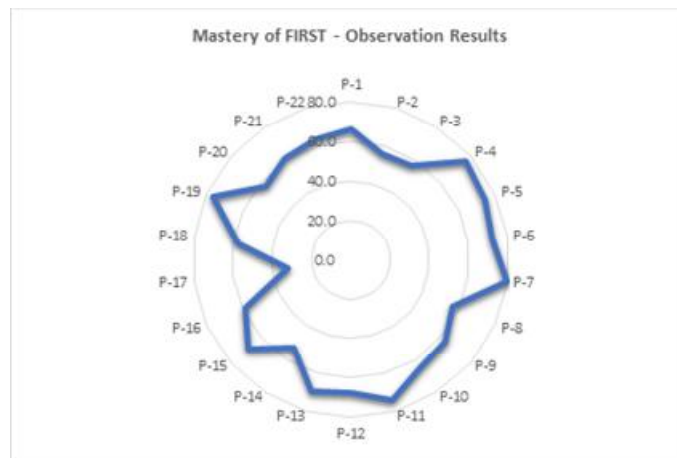


Fig. 5

D. *Attitudinal changes*

Focus group discussions with the training participants focused on unfolding their perceptions regarding three main areas: importance of the teacher’s role, appreciation of FIRST, and willingness to apply it. All trainees evidently reported that a notable positive change has happened to their attitudes in relation to the three domains. Participants repeatedly mentioned that they have a more in-depth understanding of the teacher’s role. Also, they appreciated how FIRST framework will help them to make the learning experience of their students more impactful and life-changing. Participant I in group B said: “It’s the best way ever to do facilitation”, while another participant added an important dimension to the value of the framework when he said: “FIRST gives me the opportunity to operate the active learning model properly”. In relation to the third domain, none of the trainees indicated that they are not willing to apply FIRST. On the contrary, the training participants expressed a strong desire to apply FIRST and incorporate it into their daily lessons. Interestingly, participant III in group C said: “I’ll apply FIRST with my students, friends and my family”.

E. Learner reactions

According to the Kirkpatrick evaluation model, the first level is about the extent of customers' satisfaction. To that end, participants expressed to what extent they are satisfied by the training experience. Through an online learning platform, the 22 participants demonstrated high levels of satisfaction about the training in terms of content, delivery and relevance to their jobs. Reflective writings were without limits to allow training participants to disclose their deep reactions spontaneously. One of the participants wrote about the training experience: "It's an extraordinary opportunity, which I have never imagined in my life". Another 45-year old educator titled one of his blogs: "My learning journey starts here". Furthermore, one theme has strongly emerged in many of the blogs that were written by participants, which is Islamic education. For example, one participant wrote: "A tremendous opportunity to build an Islamic education".

V. CONCLUSION

In order to prepare teachers for success in a rapidly changing environment in the education sector, teacher development programs must provide teachers with research-based approaches that are evolving. Teachers themselves can contribute significantly to the process of learning by facilitating the learning process for students, as evidenced here in this report of our study of FIRST. This work with teachers and consultants supports the position that our research based model FIRST facilitates the transfer of knowledge and skills and develops within teachers a growth mindset. Teacher professional development with FIRST pave the way for the teachers to transform learning into performance through incorporating both active and deep learning strategies, creating engagement and achieving a sustainable impact for their students.

Based on Kirkpatrick model level 1 and 2, all teachers who participated in the FIRST program reported that a notable positive change has happened to their attitudes in relation to the three domains which are : importance of the teacher's role, appreciation of FIRST, and willingness to apply it. Participants appreciated how FIRST framework will help them to make the learning experience of their students more impactful, sustainable and life-changing.

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