

Assessment of Professional development program for primary stage teachers 'in Egypt for implementing the new educational system EDU2.0 from teachers and supervisors' point of view

إعداد

د/ بسمة علي ضيف، وزارة التربية والتعليم،

Bdaif.depd@gmail.com

أ.د/ أماني محمد سعدالدين الموجي، كلية الدراسات العليا للتربية،

جامعة القاهرة

Amagd@discoveryed.com

أ. أشرف طارق مجد، مدير مؤسسة ديسكفري ايديوكيشن في

مصر

تقييم برنامج التنمية المهنية لمعلمي المرحلة الابتدائية في مصر أثناء تطبيق نظام التعليم الجديد ٢٠٢٠ من وجهة نظر المعلمين والموجهين

د/ بسمة علي ضيف *

أ.د./ أماني محمد سعدالدين الموجي **

أ.أشرف طارق مجد***

المستخلص:

تستكشف هذه الورقة معايير برنامج التنمية المهنية عالي الجودة للمعلمين، ثم تقدم برنامج التنمية المهنية المقدم من وزارة التربية والتعليم المصرية بالشراكة مع مؤسسة ديسكفري ايديوكيشن كجزء من خطة الإصلاح الوطنية لتنفيذ النظام التعليمي الجديد EDU2.0 لتحقيق هدف مصر في بناء الإنسان كجزء من رؤية مصر ٢٠٣٠. وقد نشر البنك الدولي تقريرًا بعنوان "دعم مشروع إصلاح التعليم في مصر، ٢٠١٨" ذكر أن وزارة التربية والتعليم وقد طور التعليم الفني (MOETE) نظامًا تعليميًا جديدًا شاملاً يسمى التعليم ٢٠٢٠. تتمثل الرؤية في توفير التعلم للجميع، وإنشاء نظام ذي جودة يتماشى مع المعايير الدولية، وتطوير الطلاب والمعلمين الذين يتعلمون ويفكرون وابتكرون. تم بناء برنامج التطوير المهني للمعلمين بناءً على المعايير المدرجة في أحدث الأبحاث والمؤلفات، والتي تم إدراجها سابقًا، في التدريس والتعلم. تمت الدراسة خلال السنة الثانية من التنفيذ في جميع أنحاء البلاد؛ ٢٧ محافظة، وركزت على معلمي المرحلة الابتدائية الذين حضروا وحدات التطوير المهني. قام ٤٤٢٨ معلمًا بملاء استبيان بخصوص تصنيفهم لمحتوى التطوير المهني في زيادة وعيهم بالمنهج الجديد. تم ملء أداة المراقبة الصفية من قبل مشرفي وزارة التربية والتعليم خلال الزيارات المدرسية المنتظمة.

الكلمات المفتاحية: التنمية المهنية - نظام التعليم الجديد - الملاحظة الصفية - ممارسات التدريس - سلوكيات التلاميذ أثناء التعلم.

* وزارة التربية والتعليم- مصر.

** أستاذ المناهج وطرق تدريس العلوم - كلية التربية - جامعة القاهرة.

*** مؤسسة ديسكفري ايديوكيشن - مصر

Assessment of Professional development program for primary stage teachers 'in Egypt for implementing the new educational system EDU2.0 from teachers and supervisors' point of view

Dr. Basma Ali Daif*

Prof. Amany M. Elmogy **

Mr. Ashraf T. Magd***

Abstract

This paper explores the criteria of high quality professional development pro- gram for teachers, then presenting the professional development (PD) program provided by the Egyptian Ministry of Education (MOE) in partnership with Discovery Education (DE) as part of a national reform plan to implement the new educational system EDU2.0 to achieve Egypt's goal to build human as a part of Egypt's vision 2030. The study took place during the second year of implementation across the whole country; 27 governorates, and focused on primary stage teachers' who attended the PD modules. 4428 teachers filled a questionnaire regarding their rating to the PD content in raising their awareness about the new curriculum. A classroom observation tool was filled by MOE supervisors during regular school visits.

Key words: Professional development - the new education system - classroom observation - teaching practices - students' behavior during learning.

* Ministry of education and technical education.

** Professor of Science Curriculum and Teaching Methods - College of Education - Cairo university.

*** Discovery Education

1 Introduction

we are living through changing times at the level of educational systems around the world. With the beginning of the new millennium, we can notice the change in the educational systems in many countries.

One of the most important tool governing success in implementing new educational systems is teacher professional development programs. Teachers are the main element that needs change to ensure the optimal implementation of any new educational system. They must change to be able to make a change (Villegas-Reimers et al., 2003).

This dual role of teachers during the implementation of the new educational systems makes the professional development programs for teachers very important and challenging, that's why the professional development programs for teachers have gained great attention during the past few years.

However, not all teacher PD programs are effective, especially when they are not related to the new curriculum, isolated from the classroom reality, unfamiliar with the foundations of adult learning, lack the challenges that show the uniqueness of individuals (Gibson & Brooks, 2012) and consider professional development as an event not a continuous journey of learning during teacher's career.

2 Teachers' professional development program for implementing the new educational system in Egypt

The world bank has published a report "Supporting Egypt Education Reform Project,2018" stated that the Ministry of

Education and Technical Education (MOETE) has developed a comprehensive new education system called Education 2.0. The vision is to provide access to education for all, to create a relevant and quality system aligned with international standards, and to develop passionate and enthusiastic pupils and teachers who learn, think and innovate. A professional development program for teachers was built based on the criteria listed by the most updated researches and literature ,which was listed previously, in teaching and learning.

2.1 PD overview and approach

At the heart of Education 2.0 is the belief that the purpose of Professional Development is to transform teachers' practice. This requires high quality support programs, aimed directly at inspiring teachers to make the changes required and giving them the skills to implement and embed new approaches into their classrooms.

Transformation requires ongoing work and support from all stakeholders (Hashimoto, Pillay, & Hudson, 2008). PD delivery approach is based on constant and consistent developmental support throughout the school year aimed to build capacity within schools, idaras, and moderays. PD content has been thoughtfully developed to deepen teacher's understanding using the following approach:

Starting with Why (for understanding and belief) Educators will actively seek to connect to the "How and the What" of implementing the new learning materials in their own classrooms

Discover – Learn – Share (experiential that models the new classroom) which aligns with the curriculum. Encouraging teachers to make connections to prior understanding and discover new ideas by actively engaging with content (Ginsburg & Megahed, 2008) Exposing teachers to new concepts in active, im- mersive and collaborative ways Enabling teachers to express what this learning means to them and how it will impact their practice

Spiral Learning (regularly revisiting and deepening teacher understanding) (Zwart, Korthagen, & Attema-Noordewier, 2015) Reinforcing information, in- creasing complexity of the topic, and connecting new learning with prior learn- ing, allowing teachers to: Engage– begin to implement the approaches, techniques and content of Education 2.0 in their classrooms Embed – confidently and fluently implement Education 2.0 Enhance– make appropriate decisions about how to personalize Education 2.0 to suit the needs of the learners in their classrooms

2.2 Key objectives of teachers ‘professional development program

As a pathway to achieve EDU2.0 vision, the ministry of education structured a TPD program in the form of face to face sessions, started simultaneously in the same year of new curriculum implementation, designed to deliver 5 workshops along the school year and supportive mentoring system to the teacher face to face and online. The main objectives of the PD modules within the first year of implementation (2018/2019) are shown in the following (table 1) contains High- lighted Threads in Learning

Objectives - showing connected development across three Modules.

Table 1: *Learning objectives thread across PD modules*

Face to Face	Module 1	Module 2	Module 3
	I CAN describe what Curriculum 2.0 is and say why it is being introduced, and identify some of the key changes which have been made	I CAN explain what Curriculum 2.0 is, say why it is being introduced and present some of the key changes which have been made	I CAN fully explain what Curriculum 2.0 is and present some of the key changes which have been implemented
	I CAN recognise and explain the life skills being developed throughout the curriculum	I CAN explain the life skills being developed throughout the curriculum	I CAN explain and demonstrate how the life skills are being developed throughout the curriculum
	I CAN understand how to use the teacher materials to deliver lessons from the Themes	I CAN deepen my understanding of how to use the teacher materials to deliver lessons from the Themes	I CAN extend my understanding of how to use and adapt the teacher materials to deliver lessons from all the Themes
	I CAN describe the characteristics and purpose of the Discover> Learn> Share sequence	I CAN explain the characteristics and purpose of the Discover> Learn> Share sequence	I CAN explain how questioning, assessment, teaching strategies and techniques can be adapted within the Discover> Learn> Share sequence
	I CAN prepare for the delivery of lessons; considering differentiation and assessment opportunities	I CAN prepare for the delivery of lessons; considering: <ul style="list-style-type: none"> • Differentiation • Assessment Opportunities • Questioning Techniques • Teaching Strategies 	I CAN prepare for the delivery of lessons; considering: <ul style="list-style-type: none"> • Differentiation • Assessment Opportunities • Questioning Techniques • Teaching Strategies • Digital Technologies
	I CAN identify the key aspects of today's training to cascade to other teachers	I CAN identify the key aspects of today's training to cascade to other teachers	I CAN identify the key aspects of today's training to cascade to other teachers

2.3 PD structure and key highlights

Pd structure designed as five face to face sessions along the school year, targeting KG and primary stage teachers. The modules of the PD were built to be aligned with the new curriculum, covering scope & sequence, learning outcomes, content topics and planning activities. The key highlights of the PD sessions were announced by the ministry of education, 2019 as follows:

2.4.1 Edu 2.0 Philosophy

Teachers discovered and discussed Edu 2.0 infographic that includes Egypt's 2030 Education vision and how it is supported through the Philosophy, features of future students, Multidisciplinary concepts, Life skills and values, Global & local issues and values and Teachers PD Program. Teachers

identified the spiral approach of the embedded life skills and values.

2.4.2 Multidisciplinary approach, Structure & discovering lessons from the teacher guide (TG)

Teachers analyzed the integration of the different subjects in theme one Topics Multi TG Components were discovered including the “discover, learn, share” sequence and the share projects Teachers discovered Theme 1 Chapter 1 lessons through identified the learning outcomes, activities, assessment and differentiation Teachers were introduced to the lesson planning template and prepared and modelled some lessons from the TG to practice teaching the lessons Formative VS Summative assessments were generally introduced and discussed.

2.4.3 Windows Philosophy including the Arabic Window

Teachers were introduced to the math and Arabic windows philosophy and their support to the Multi through “snow ball fight” strategy. The Arabic “communication” book structure was discovered along with The Arabic phonics way of teaching and how the Literacy skills are developed and taught in the Arabic window Teachers compared the strategies, literacy skills, learning objectives. And Structure of both the Arabic and Multi books and spotted how they support each other

2.4.5 Edu 2.0 Standards, Formative Assessments and Share Projects Assessment Rubrics

Teachers dived deeper in understanding What curriculum Standards mean and they are related to the chapters learning indicators and lessons learning Out- comes, the students through the different activities that are being done by them. Through using the TG textbooks, Teachers identified the activities that demonstrate the learning outcomes of a specific lesson and also linked these learning outcomes to the related Learning indicators that are found at the beg. Of the lesson's chapter. .Identified the Learning indicators that will be achieved through applying a specific share Project from the TG Edu 2.0 Assessment philosophy including embedded TG formative assessment features were introduced. Teachers chose some learning indicators and created Assessment opportunities using an assessment tool of their choice to collect evidence of learning and help students demonstrate the learning P2 share Projects Rubrics components and structure were explained to the teachers The teachers designed their own simple Rubrics Students Self-Assessment Rubrics were introduced along with the support to be offered by the TG and teachers in preparing students for those kinds of new practices.

2.4.6 Edu 2.0 Lesson Planning and Teachers behavior Framework, professional learning journey (PLJ)

Lesson Planning Teachers revisited the lesson planning through preparing a les- son from any of the multidisciplinary or the windows lessons with the inclusion of more options and putting in mind the formative assessment opportunities. They were trained on how to digitally prepare their lesson plans using the PLJ app Teachers objectives Framework and PLJ Teachers revisited the “teachers behavior Framework” through

a step by step live demo that explains all the enhancements that have taken place in the PLJ app including “designing your learning paths” Teachers practiced identifying the key words or actions of different professional objectives that need to be taken by the teachers to achieve these ones. They practiced analyzing different objectives to identify what they mean, what would be seen in the classroom, and the kind of the suitable evidences that may be collected.

2.5 Professional Learning Journey framework (PLJ)

PLJ is a framework designed to allow teachers to set objectives related to the new philosophy of the curriculum, aligned with teacher guide described practices to guarantee improvement in teachers professional knowledge and practice related to the new educational system. The aim of the PLJ is to create a system whereby all teachers at varying levels of experience can be supported to make further progress with their own Professional Development.

Table2: *Part of PLJ framework showing three objectives in planning and preparation topic with their progression levels*

Beginner/Engage	Intermediate/Embed	Advanced/Enhance
Uses the Teacher Guide to deliver learning activities which match the stated learning objectives and Life Skills.	Puts learning objectives into context for students, drawing attention to the Life Skills, real world and career connections, while using the Teacher Guide to deliver learning activities	Extends the learning activities in the Teacher Guide to design lessons where the stated Life Skills and learning objectives, are developed through inquiry and
1.1a Aligns all learning activities to the	1.1c Makes real world connections.	1.1e Embeds opportunities for inquiry and
1.1b Defines the learning objective clearly.	1.1d Makes connections to Careers.	
Following the suggestions in the teacher guide, prepares the resources needed to deliver the lesson effectively.	Supplements lessons with additional resources, including digital resources where these are available	Chooses appropriate digital tools and resources to supplement lessons, reflecting critically on how these add value to the

As part of this we have created an objective Framework which enables teachers to focus on the changes they are making in their classrooms. Teachers were able to record evidence for their progress on this framework using an online tool and a system of evidence-based points. These points come in three forms:

- Self points – where the teacher uploads their own evidence demonstrating the relevant objective
- Peer observation points – where a colleague records endorsement of the relevant objectives
- Mentor observation points – where an external supervisor or mentor acknowledges successful application of the objective by the teacher

The Framework is broken into a set of three ‘Major Topics’ which are:

- Planning and Preparation
- Instruction
- Connected Educator

Each Major Topic is broken into a series of statements that describe the observable objectives. These objectives are then further subdivided into developmental sub-statements which are grouped across three levels:

- Engage (beginner)
- Embed (intermediate)
- Enhance (advanced)

3 Purpose

This paper aims to shed light on teacher professional development (TPD) program carried out in Egypt with the implementation of the new educational system EDU2.0,

measuring its effectiveness in raising teachers' awareness of the new curriculum, and its impact on teaching practices within classrooms, Referring to the features of high-quality professional development programs, which have been proven effective from previous literature, and because there is no coherent infrastructure for professional development which represents a "patchwork of opportunities—formal and informal, mandatory and voluntary. planned"(Yoon et al., 2007) ,thus this paper offers a rigid model for PD that would help educational policy makers, developers of curricula and school administrations, who are in charge of planning and designing effective and productive professional development programs for teachers within Classroom, by reflecting on the teacher professional development program model, applied in Egypt during the first year of implementing the new educational system (EDU2.0),Focusing on building and delivery model to reach all teachers across Egypt.

Linking that to achieving the main goal of the professional development pro- gram, to develop teachers' teaching practices aligning with the new educational system and its impact on improving students' performance.(Harwell, 2003) If the main role of efficient professional development programs is to make a change in teachers' mindset and classroom practice, so this paper has to answer these questions: 1) How do primary teachers in Egypt rate the appropriateness of the PD program applied to raise their awareness of the new curriculum? 2) How was the impact of EDU 2.0 PD model on improving teaching practices inside classrooms from supervisors' point of view?

4 Method

The study reported here is based on a national survey for 4,400 Egyptian teacher across the whole country, conducted in spring 2019 to measure the effectiveness of the PD in raising the awareness of teachers about the new educational system (EDU2.0), and classroom observation form filled by the formal supervisors to measure the effectiveness of the PD in changing teaching practice inside class- rooms.

5 Data collection tools

Data of this paper were collected using two tools, a questionnaire targeting EDU2.0 teachers who attended the PD modules to collect their responses and an observation form for the supervisors to be used during class visits to record their observations about teaching practices and students' behaviors and the degree of its alignment with the new philosophy of the curriculum.

5.1 Teachers' questionnaire

Data were collected through a scale entitled "Teachers' evaluation of EDU2.0 PD program" which was revised by DECA experts intended to be used as an empirical tool to collect responses from teachers' to measure the effectiveness of the PD applied to develop their understanding and applying to the new teaching practices and their awareness about EDU2.0. The questionnaire is built as a four points Likert style scale, ranging from strongly disagree to strongly agree (for Economic Co-operation & Staff, 2009). The total number of the items were 10 to ensure teachers focus, sectioned into 4 sections, the first section including teacher information as they were asked to determine their governorate, idara and role in

educational process . The second section is about the PD experience they passed through, The third section discussing teaching practice and the last section asking about the impact on students. To achieve the research goal of determining the effectiveness of the PD in raising teachers' awareness of the new educational system, the questionnaire was sent as an electronic form to EDU2.0 teachers who were attending all the PD modules and were mentored by DE experts and MOE supervisors.

5.2 Classroom Observation tool

In the light of education 2.0 transformation, supervisors' role has shifted towards mentoring, coaching and instructional supervision. Supervisors put into practice the latest mentoring techniques they have been trained on such as, GROW model, effective listening, positive feedback, and assisting teachers' professional learning communities. During school visits, a progression plan and dialogue are arranged based on teachers' self-selected objectives from the Professional Learning Journey (PLJ) framework and the supervisors' classroom observation. During post-observation meeting supervisors' key role is to coach teachers' self- directed professional plan, positively capture teachers' best practices, build on these practices for future enhancement and share them with other teachers.

Education 2.0 supervisors' class visits value teachers' voices by listening attentively to teachers' challenges, holding them accountable for coming up with solutions, following up on their own plans to solve their challenges and empowering their strengths by crediting them points for their best

performance. In this context, supervisors' have become a pivotal component and an indispensable catalyst in teachers' continuous professional learning. Additionally, supervisors' professional development has been empowered not only due to administering the above-mentioned supervision tools or the technological skills they have mastered such as the Professional Learning Journey (PLJ) Application or the go-green initiative through which they submit class visit reports online but also owing to sharing with teachers a journey and partnership of their own professional development. EDU2.0 PD model structured to implement PD modules as face to face sessions followed by formal school visits organized between MOE super- visors and Discovery Education mentors; in order to follow up trained teachers, offer help and support during the implementation of new classroom practices.

In order to achieve the paper's goal to determine the effectiveness of PD model in changing teaching practices inside classrooms, data were collected through an observation form(Cohen, Hutt, Berlin, & Wiseman, 2020) distributed electronically among MOE supervisors and DE experts who were mentoring the primary school teachers participated in the PD program. The observation form built and revised by the experts of DECA. The observation tool constructed of a scale from 1-10 to measure student talking and active participation inside class- room, a checklist to detect what students are doing and how do they interact with each other and with materials(Yusrina & Bima, 2020), finally a checklist to detect what teachers are doing and the observed practices in classrooms. All checklist items are created according to the

expected behaviors suggested by teachers' guide aligned with the new philosophy of the curriculum.

6 Sample

The target population comprised primary teachers who attended the PD modules, the questionnaire was sent electronically via email or through formal release from educational directorates and school administration to all target teachers. 4428 teachers responded, teachers represent a broad sample through over the country from all governorates, all teachers belong to governmental schools, the role of teachers in EDU2.0 detects his level of experience in teaching.

Table3: Showing the number and percentage of teachers responds from each governorate across Egypt

Governorate	N	%	Governorate	N	%
Cairo	925	20.9	Loxor	23	0.5
Alexandria	122	2.8	Matrouh	2	0
Aswan	17	0.4	Menia	162	3.7
Assiout	61	1.4	Menoufeya	67	1.5
Behera	192	4.3	WadiAlgadid	36	0.8
Baniswaif	85	1.9	North Sainai	7	0.2
Dakahlya	248	5.6	Port Saied	69	1.6
Domiat	212	4.8	Kalyoubeya	182	4.1
Fayoum	10	0.2	Qena	50	1.1
Gharbya	513	11.6	Red sea	16	0.4
Giza	344	7.8	Sharkeya	80	1.8
Ismaelia	49	1.1	Sohag	100	2.3
KafrElshekh	834	18.8	South Sainai	11	0.2
			Suiz	11	0.2

7 Data analysis

Tools of this paper were distributed; questionnaire was electronically sent to teachers, classroom observation tool

delivered to MOE supervisors during school visits with Discovery education mentors, responses were collected and the following data were obtained.

7.1 Questionnaire analysis

Teachers' responses of their evaluation to the PD program in raising their awareness about EDU2.0 are presented as rating means and standard deviations. The questionnaire sectioned in 3 categories, rated in 4 points scale from strongly agree (4 points), Agree (3 points), Disagree (2 points) and strongly disagree (1 point).

Table 4: Showing teachers' evaluation to EDU2.0 PD program

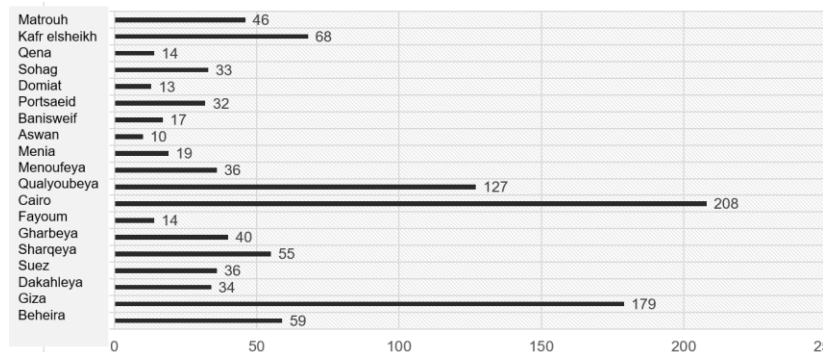
Section	Item	Mean	standard deviation
classroom instructions	raising digital resources awareness aligned with EDU 2.0	3.61	0.66
	raising awareness of using and implementing teacher guide instructions.	3.72	0.59
	raising awareness of formative assessment strategies and their proper tools	3.59	0.69
	raising awareness of proper classroom practice to implement literacy and Math windows	3.64	0.67
Impact on students	The experiences and knowledge of this PD will increase the pupils' enjoyment of the 2.0 lessons and add to their knowledge and skills	3.66	0.65
	This PD will make me more aware of the importance of explaining and developing skills and life values in the curriculum.	3.67	0.61
PD experience	All Education 2.0 PD modules have strengthened our ability to efficiently understand the philosophy and methods of teaching the curriculum	3.68	0.61
	EDU 2.0 PD sessions increased my connection to the experiences of colleagues and utilized them as a permanent source of professional development	3.61	0.65

7.2 classroom observation analysis

Classroom observation tool was used to record supervisors' observations during school visits that followed the PD modules, the form was distributed by DE mentors to MOE supervisors, responses collected and the following data were obtained. An overview on the school visits shows us that 411 school were visited.

Class visits were conducted across the whole country, as shown in table 6 total number of classes visited per each governorate. 980 supervisors were met by DE mentors, 1786 teachers were observed during the visits of 1148 EDU2.0 classroom.

Graph 1: Numbers of covered classes across governorates



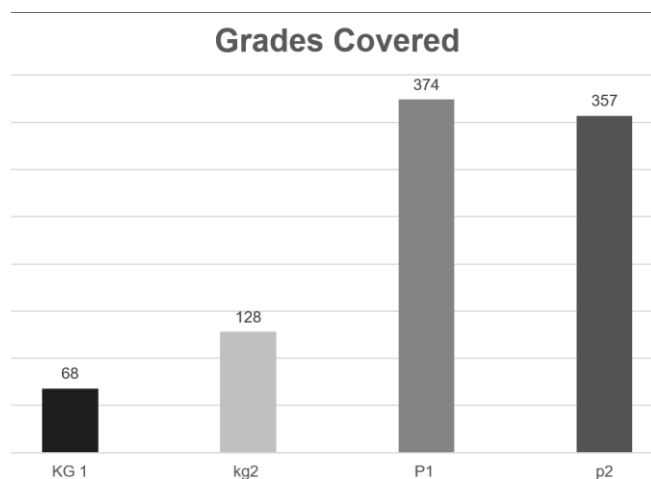
MOE supervisors have observed students' interaction inside classroom. Recording specifically what students are doing while teacher is facilitating learning, observers had a check list to tick the activities students are carrying out within the classroom, responses were represented as the following:

Table 7: School visits data

Total Number of Schools Visited	411
Total Number of Supervisors Met	980
Total Number of Teachers Met	1786
Total Number of Classrooms	1148

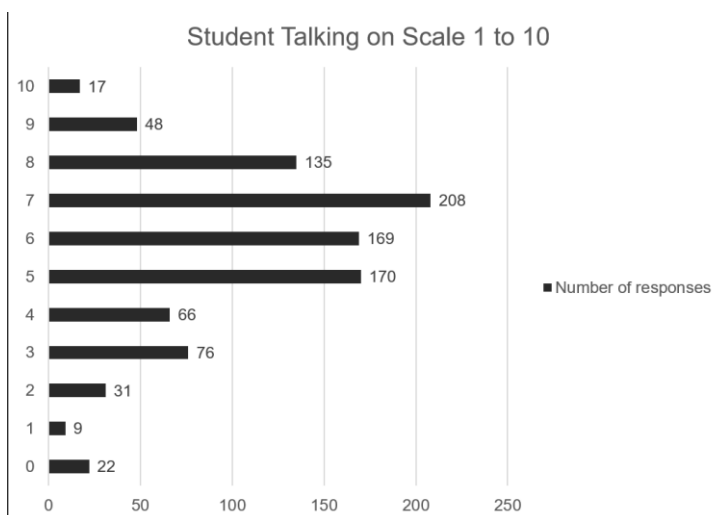
Also various grades were covered seeking for different evidence of learning that reflect both teachers and students' progression .

Graph 2: Covered grades across Egypt

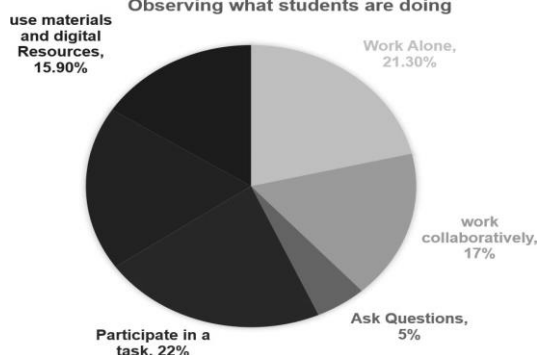


Regarding students 'interaction inside classroom, 2.0 Student's talking Rate has shown an obvious increase while Teachers facilitate their learning.

Graph 3: Student talking on a scale 1-10



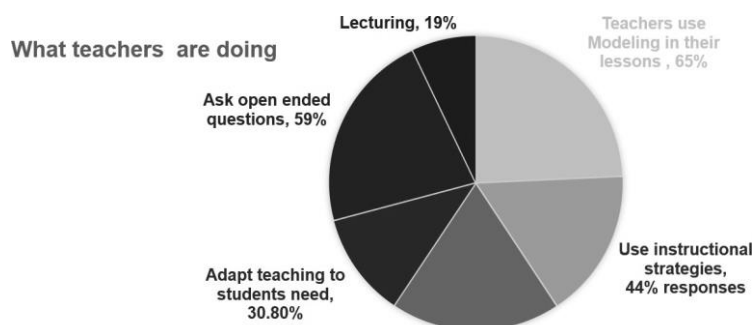
Graph 4: Observing what students are doing



MOE supervisors have observed and recorded teacher's practices in the classroom. Teachers have shown various practices that reflect their progress towards adapting new vision in their teaching that align with education 2.0 vision and philosophy. The observers had to tick observed practices from a checklist including various teaching practices aligned with

teacher guide's instructions such as using strategies , differentiating learning opportunities , supporting students learning with a minimum focus on direct instruction.

Graph 5: Teachers 'practices observation



8 results

To answer the research first question ” How do primary teachers in Egypt rate the appropriateness of the PD program applied to raise their awareness of the new curriculum?”, teachers' ratings of their PD program experiences, in raising their awareness of the new curriculum, are presented in terms of means and standard deviations. Teachers rated the effectiveness of the PD in raising their awareness in classroom instructions as ”totally agree” the means and standard deviation of each item are; awareness of digital resources aligned with EDU2.0 (M=3.61,SD=0.66), awareness in implementing teacher guide instructions (M=3.72, SD=0.59), awareness of formative assessment strategies and tools

($M=3.59$, $SD=0.69$), awareness of proper classroom practices to implement literacy and mathematics ($M=3.64$, $SD=0.67$) Teachers rated the effectiveness of the PD in raising their awareness in how to impact on students as "totally agree" the means and standard deviation of each item are; increasing pupils' enjoyment of 2.0 lessons ($M=3.66$, $SD=0.65$), awareness in explaining and developing skills and life values of the curriculum ($M=3.67$, $SD=0.61$) Teachers rated the whole PD experience as "totally agree" the means and standard deviation of each item are; PD modules have strengthened the ability to understand the philosophy and teaching methods of EDU2.0 ($M=3.68$, $SD=0.61$) , PD sessions increased connections with colleagues and utilizing them as a source of professional development ($M=3.61$, $SD= 0.65$).

To answer the research second question "How was the impact of EDU2.0 PD model on implementing new teaching practices inside classrooms?", a protocol of classroom visits and observation tool applied by MOE supervisors; where all instructional practices, students responses and interaction were detected. Students' talking rate on a scale from 1-10 shows an obvious increase, as observers recorded 204 points (26.5%) from (1-4), 682 points (88.5%) from (5-8) and 65 points (8.4%) from (9-10) on students' talking scale, this distribution shows that the majority of observers' responses goes to the middle range of the scale from (5-8) as students are changing their behavior simultaneously with the change in teaching practices aligned with the new curriculum implementation and talking in the class to add ideas, thoughts, and ask questions is one of the most obvious behavior that can be detected (Kostadinovska-Stojchevska & Popovikj, 2019). For observing

what students are doing, the results show "Participate in a task 22 % , for "Work Alone 21.3 %", " Share what they have learned and applied 18.8" , "% work collaboratively 17 %" , "use materials and digital Resources 15.9 %" , "Ask Questions 5 %". For teachers' observed practice in classroom, the results show that 65% of responses observed that Teachers use Modeling in their lessons, 59% ask open ended questions, 50% support students during learning, 44% use instructional strategies, 30.8% of the responses shows that teachers adapt teaching to student needs, 19% for lecturing during classroom time.

9 Discussion

A preeminent feature of the educational change and reforms has been the call for heightened attention to professional development of teachers. Teacher professional development programs support reforms through two main paths: First is teaching practices change on classroom level, second is a change on an organizational level (Badran & Toprak, 2020).

How well professional development programs activate the implementation of new instructional models, how much they are responsive to the philosophy of the new curriculum, and to what extent they build on and enhance teachers' pre- existing knowledge and skills are major focuses of nation-wide reform initiatives Since the start of the implementation of the new education system EDU2.0, the focus has been to train teachers in an in-depth manner that allows them to gain familiarity with all the resources related to the curriculum and research, to think within the teacher's guide, to practice the proposed

teaching strategies within the classes, and to activate the new roles of the teacher as a supporter and guide students to lead their own learning process. Teachers' training was based on scheduled workshops during the school year, which allowed them to build effective communities of practice to support each other, and all the strategies, modeling and teaching methods described within the teacher's guide were applied in the training rooms, and here was the role of the following-up, mentoring and guidance, as a protocol was established; with regular school visits and meetings between experts and teachers in classes, attending classes and holding sessions Support on ground, on a regular basis, so the teachers were competing to implement new classroom practices and flaunting their positive impact on their students, which increased the enthusiasm and motivation of the rest of the members of the community of practice. Of course, some teachers stand still adhering to traditional teaching practices. This could be due to many factors that educational researches refers (Leung, 2008); Such as years of experience, gender and other factors. However, the findings of this study indicate a high satisfaction by teachers, regarding the content of the PD program in raising their awareness about the new educational system, the nature of the activities which was applied in the workshops promoting active hands-on participation and how it was aligned and related to the new educational system resources mainly teachers' guide, also regarding the impact on students as the PD activities helped them shifting to student centered classroom influencing student's motivation, learning responsibility and attitudes (Fischer et al., 2018). According to educational researches; the enrollment of teachers from the

same subject area and having similar position, identified as effective professional development program characteristics (Bayar, 2014). Regarding the impact of the PD program on teaching practices inside classroom, results show that teachers had crossed long way in shifting their traditional teaching practices into new ones aligned with the philosophy of the new curriculum, as they observed to do new practices in classroom such as asking open ended questions, adapt teaching to students' needs, apply instructional strategies and modelling lessons, and lecturing which was one of the master practices in traditional teaching models in Egypt is retreated so much with respect to new practices from the PD sessions. Results also show that students' behavior inside classroom were shifted towards more positive participation by increasing their talking space while learning, doing activities by themselves, helping each other, use materials and digital resources and working collaboratively (Sims & Fletcher-Wood, 2021). accordingly it is concluded that PD sessions had an impact on implementing new teaching techniques inside classrooms and raising the awareness of teachers towards the new educational system EDU2.0. Despite all the agreements from teachers and supervisors on the effectiveness of the PD program, many teachers were claim- ing inappropriateness of the content for assessing students knowledge and the need for summative assessment for concepts not only for skills. The present study presents a prescription of ways in which large scale, compulsory, reform- driven in-service PD programs can be made more effective (e.g., aligning PD content with the new curriculum, use the curriculum resources and materials in- side workshops, observe the impact of new instructional practices

on students). These findings help educational policy makers to understand from participants' ratings teachers evaluation for the new educational system EDU2.0 in Egypt PD programs. Therefore, results about teachers' experiences gained from this study can provide useful guidance to others designing effective and appropriate in-service teacher professional development program models that are intended to support large-scale national reforms.

10 Conclusion

To sum up, this is the first time for Egypt since decades to implement a new educational system in partnership with a global educational institute such as Discovery education, using teachers as a key element for change on the level of classroom practices and students' role in learning process, throughout a professional development program linked to curriculum renewal presented in this paper, implemented across the whole country, engage teachers in professional development activities and opportunities, allowing teachers to experience the new materials and resources of the curriculum, apply new strategies as if they are inside classroom, supporting teachers during implementation through school visits and mentor ship for more successful implementation. Most teachers rated the PD program as strongly agree for its benefit in raising their awareness with the new curriculum and helping them to adapt teaching strategies and measure its impact on students. While no PD is perfect (Ferrer Ariza & Poole, 2018) and can cover everything, through the careful combination and integration of key aspects of various models of teacher and professional development, institutions and programs can design and implement models that best meet their local and contextual

needs to generate positive change among schools, students, curricula, and even the institution.

References

- Badran, A., & Toprak, M. (2020). Sustainability of education reforms: An investigation into the professional development component of usaid/egypt education reform program (erp, 2004-2009). *education policy analysis archives*, 28 , 129.
- Bayar, A. (2014). The components of effective professional development activities in terms of teachers' perspective. *Online Submission*, 6 (2), 319–327.
- Cochran, J. (2012). *Education in egypt (rle egypt) (Vol. 1)*. Routledge.
- Cohen, J., Hutt, E., Berlin, R., & Wiseman, E. (2020). The change we cannot see: Instructional quality and classroom observation in the era of common core. *Educational Policy*, 0895904820951114.
- Cordingley, P. (2015). The contribution of research to teachers' professional learning and development. *Oxford review of education*, 41 (2), 234–252.
- Desimone, L. M. (2011). A primer on effective professional development. *Phi delta kappan*, 92 (6), 68–71.
- El-Bilawi, N. H., & Nasser, I. (2017). Teachers' professional development as a pathway for educational reform in egypt. *Reflective Practice*, 18 (2), 147–160.
- Ferrer Ariza, E., & Poole, P. M. (2018). Creating a teacher development program linked to curriculum renewal. *Profile Issues in Teachers Professional Development* , 20 (2), 249–266.
- Fischer, C., Fishman, B., Dede, C., Eisenkraft, A., Frumin, K., Foster, B . . ., McCoy, A. (2018). Investigating relationships between school context, teacher professional development, teaching practices, and student achievement in response to a nationwide science reform. *Teaching and Teacher Education*, 72 , 107–121.

- for Economic Co-operation, O., & Staff, D. (2009). *Oecd teaching and learning international survey (talís): Initial report*. OECD.
- Gibson, S. E., & Brooks, C. (2012). Teachers' perspectives on the effectiveness of a locally planned professional development program for implementing new curriculum. *Teacher Development* , 16 (1), 1–23.
- Ginsburg, M. B., & Megahed, N. M. (2008). Global discourses and educational reform in Egypt: The case of active-learning pedagogies.
- Harwell, S. H. (2003). *Teacher professional development: It's not an event, it's a process*.
- Hashimoto, K., Pillay, H., & Hudson, P. (2008). *Journal of learning*.
- Kostadinovska-Stojchevska, B., & Popovikj, I. (2019). Teacher talking time vs. student talking time: Moving from teacher-centered classroom to learner- centered classroom. *The International Journal of Applied Language Studies and Culture*, 2 (2), 25–31.
- Leung, W. L. A. (2008). Teacher concerns about curriculum reform. *The Asia-Pacific Education Researcher* , 17 (1), 75–97.
- Loveluck, L. (2012). *Education in egypt: Key challenges*. Universit`ats-und Landesbibliothek Sachsen-Anhalt.
- Sims, S., & Fletcher-Wood, H. (2020). Identifying the characteristics of effective teacher professional development: a critical review. *School Effectiveness and School Improvement*
- Sims, S., & Fletcher-Wood, H. (2021). Identifying the characteristics of effective teacher professional development: a critical review. *School effectiveness and school improvement* , 32 (1), 47–63.
- Villegas-Reimers, E., et al. (2003). *Teacher professional development: an inter- national review of the literature*. International Institute for Educational Planning Paris.

Walter, C., & Briggs, J. (2012). What professional development makes the most difference to teachers. A report sponsored by Oxford University Press. Retrieved on July, 20 , 2015.

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. L. (2007). Reviewing the evidence on how teacher professional development affects student achievement. Issues & answers. REL, 33.

Yusrina, A., & Bima, L. (2020). Classroom observation tool for assessing the dimensions of teaching practices (cerdas).

Zaalouk, M. (2013). 12 globalization and educational reform. Educators, Professionalism and Politics: Global Transitions, National Spaces and Professional Projects, 201.

Zwart, R. C., Korthagen, F. A., & Attema-Noordewier, S. (2015). A strength-based approach to teacher professional development. Professional Development in Education, 41 (3), 579–596.