Sustainability of Education Reforms: An Investigation into the Professional Development Component of USAID/Egypt Education Reform Program (ERP, 2004-2009)

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Abstract: The United States Agency for International Development (USAID) started its operations in Egypt in 1975. Its work on education development included supporting access and gender equity, community participation, professional development, and also extended to policy reforms. Education Reform Program (ERP) was one of USAID's initiatives implemented between 2004 and 2009. The program intended to support the Egyptian Ministry of Education (MOE) with strategies to enhance a system-wide reform. It also piloted school-based reform in 256 schools across seven governorates. This study explores the sustainability of practices that were advocated as part of ERP's professional development (PD) component. A qualitative approach was adopted to afford a better understanding of the long-term impact of ERP's PD activities. Document analysis and semi-structured interviews were used as data collection tools with 38 participants (teachers, heads of training units, and administrators) in four selected schools. Participants were asked about the PD practices at their schools, and the sustainability of changes introduced as part of ERP. Results highlight varying degrees of continuity of practices across participating schools and individuals and offer implications for future consideration.

Sostenibilidad de las reformas educativas: Una investigación sobre el componente de desarrollo profesional del Programa de Reforma Educativa USAID/Egipto (ERP, 2004-2009)

Resumen: La Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) comenzó sus operaciones en Egipto en 1975. La agencia trabajo sobre el desarrollo de la educación incluyó el apoyo al acceso y la equidad de género, la participación comunitaria, el desarrollo profesional y también se extendió a las reformas de políticas. El Programa de Reforma Educativa (ERP) fue una de las iniciativas de USAID implementadas entre 2004 y 2009. El programa tenía por objeto apoyar al Ministerio de Educación de Egipto (MOE) con estrategias para mejorar una reforma en todo el sistema. También puso a prueba la reforma escolar en 256 escuelas en siete gobernaciones. Este estudio explora la sostenibilidad de las prácticas que se defendieron como parte del componente de desarrollo profesional (DP) de ERP. Se adoptó un enfoque cualitativo para lograr una mejor comprensión del impacto a largo plazo de las actividades de DP. El análisis de documentos y las entrevistas semiestructuradas se utilizaron como herramientas de recopilación de datos con 38 participantes (profesores, jefes de unidades de capacitación y administradores) en cuatro escuelas seleccionadas. Se preguntó a los participantes sobre las prácticas de DP en sus escuelas, y la sostenibilidad de los cambios introducidos como parte del ERP. Los resultados ponen de relieve diversos grados de continuidad de las prácticas en las escuelas e individuos participantes y ofrecen implicaciones para su consideración futura.

Palabras-clave: reforma educativa; desarrollo profesional de los profesores; asistencia internacional; sostenibilidad de la reforma educativa; USAID/Egipto; Programa de Reforma Educativa

Sustentabilidade das reformas da educação: Uma investigação sobre a componente de desenvolvimento profissional do Programa de Reforma da Educação da USAID/Egito (ERP, 2004-2009)

Resumo: A Agência dos Estados Unidos para o Desenvolvimento Internacional (USAID) iniciou as suas operações no Egito em 1975. O seu trabalho no desenvolvimento da educação incluiu o apoio ao acesso e igualdade de género, à participação da comunidade, ao desenvolvimento profissional, e estendeu-se também às reformas políticas. O Programa de Reforma da Educação (ERP) foi uma das iniciativas da USAID implementadas entre 2004 e 2009. O programa pretendia apoiar o Ministério da Educação Egípcio (MOE) com estratégias para melhorar uma reforma a nível do sistema. Também pilotou reformas escolares em 256 escolas em sete governadores. Este estudo explora a sustentabilidade das práticas que foram defendidas como parte da componente de desenvolvimento profissional (DP) da ERP. Foi adotada uma abordagem qualitativa para permitir uma melhor compreensão do impacto a longo prazo das atividades de DP da ERP. A análise documental e as entrevistas semi-estruturadas foram utilizadas como ferramentas de recolha de dados com 38 participantes (professores, chefes de unidades de formação e administradores) em quatro escolas selecionadas. Os participantes foram questionados sobre as práticas de DP nas suas escolas, e a sustentabilidade das mudanças introduzidas

no âmbito do ERP. Os resultados destacam diferentes graus de continuidade de práticas em escolas e indivíduos participantes e oferecem implicações para a futura consideração.
Palavras-chave: reforma da educação; desenvolvimento profissional dos professores; assistência internacional; sustentabilidade da reforma da educação; USAID/Egito; Programa de Reforma da Educação

Introduction

For Barber and Mourshed (2007, p. 1), what defines the most successful education system is: a) "getting the right people to become teachers," b) "developing them into effective instructors and," and c) "ensuring that the system is able to deliver the best possible instruction for every child." As one of the underperforming countries in education, Egypt faces many persisting challenges that limit its capacity to develop an effective education system that could offer high-quality education to its citizens. For decades, policies, projects and initiatives, including extensive local and international efforts, have continuously targeted education development. Although such immense work has favorably impacted access to basic education and enrollment rates, it has had little, if any, impact on the quality of education (OECD, 2015), and limited progress has been made through implementing education policy reforms over the years (Loveluck, 2012). Consequently, Egypt's basic education ranks 133 out of 137 countries in the Global Competitiveness Report putting it amongst the worst education systems in the world, according to World Economic Forum ([WEF] 2017). Clearly, such an education system fails to develop students' socio-emotional and academic skills needed to improve their life chances.

Encouraged by this reality, every year, government, non-government, intergovernmental agencies and international bodies invest tremendously in educational development, including identifying and implementing new strategies and reforms. While we do not contest the need for such reforms, their know-how, sustainability/scalability, and measured impact need to be scrutinized to draw a clearer reform landscape that includes effectiveness of the goals, efficiency of the resources, and, most importantly, sustainability of the reportedly achieved changes. Although international donor agencies, USAID in the context of this study, administer follow-up evaluations of such development projects, three issues make the current study significant. First, while these agencies usually evaluate the outcomes of their reforms, the follow-up evaluation is commonly administered right after the project is finalized. As educational changes can easily be either domesticated or abandoned (Schlechty, 2009), these agencies mostly fail to evaluate the long-term sustainable impact of the reforms and may fall short of revealing if the intended changes are either sustained or domesticated/abandoned. Second, most follow-ups are administered through the agencies – or their partners – leaving doubts regarding their objectivity. Third, to our knowledge, there is no new documented evidence on the sustainability of the outcomes achieved by Egypt's Education Reform Program (ERP). Within that context, this study attempts to understand the long-term impact of the PD component of ERP that was implemented from the year 2004 until the year 2009. Moreover, it aims to explore the sustained professional development outcomes in the schools that participated in ERP, understand the elements that were continued and/or abandoned after several years of implementation, and understand whether the reform efforts were institutionalized at the school level.

Guided by these purposes, this study seeks to address the following research questions:
1. What is the documented effectiveness of goals/objectives of the school-based PD component of ERP?

2. To what extent is the documented impact of ERP school-based PD sustained or developed, according to the views of the school-level stakeholders?

Collecting new data long after the project conclusion time may help provide new evidence on the achieved and/or failed long-term promises. Most reform efforts, particularly those focusing on PD, get highly active at the time of their initial implementation. They, later, tend to lose momentum with decreasing follow up loops and monitoring of their progress. Reform efforts, including those that take PD as the main vehicle of transforming practices, are rushed in many cases. Therefore, actions to fully capture if these reforms have transformed the culture (assumptions and underlying beliefs), which actively drive most of these practices, are either not taken at all or are not taken seriously and professionally. Ensuring that the PD reform has managed to make a meaningful change in people's knowledge, belief systems, professional behaviors and practices must be the fundamental intent of these education reforms. The discussion on whether the achieved changes were institutionalized or internalized by people represents an important step in understanding and developing action-sets to help education stakeholders and policymakers as they plan for more sustainable changes.

This study attempts to see the changes through the eyes of the actual school stakeholders, especially those of teachers. Ramberg (2014) mentions that: "teachers' voices have rarely been included in discussions about what changes are needed in education or how to implement initiatives" (p. 48). In an effort to draw a more comprehensive plan for future education interventions, it is essential to understand how these stakeholders see their current context and how they evaluate PD at their schools. The fact that this particular education project targeted institutionalized change, and that it – among other initiatives – impacted and contributed to the creation of a national education strategy in Egypt and affected some policy-level changes, makes it important to understand its long-term impact especially that of the PD component.

As the researchers of this study, we are not and were not affiliated with ERP in any capacity. Nevertheless, we are deeply concerned that many efforts made to improve education in Egypt have failed to transform teacher practices and student learning. Our observations are that creation of a robust link between resources, strategies and student learning outcomes was, in part, hindered by issues resulting from a lack of systematic monitoring of the reform, the results of which could have been more effectively used to implement, diffuse, and sustain the intended educational innovations.

Professional Development During Education Reform

Whether it comes in the form of a "hammer", when it is mandated and is high-staked, or a "hug", when it is low-stake and is rooted on collegiality and professional collaboration (Woodland & Mazur, 2015), PD with a focus on teachers is viewed as pivotal in the development of new skills and acquisition of new knowledge (Starkey, 2009). Guskey (2002) strongly confirms such a function of PD when he says: "high-quality professional development is a central component in nearly every modern proposal for improving education" (p. 381). Such a view has also led to the utilization of PD as the most common strategy to increase classroom teaching as a response to external pressure on schools to collect and analyze students' learning (Woodland & Mazur, 2015). As a matter of fact, PD and education reform concepts are so closely intertwined that the understanding of effective PD is deemed helpful in understanding the path to successful education reforms (Desimone, 2009).

However, there seems to be much discussion on the role of PD in transforming instructional practices and student learning to the extent that some scholars pointed out its overrated function in education reforms. For instance, Little (1993) argued that compared with the complexity and ambiguity of the most ambitious reforms, PD is "too often substantively weak and politically marginal" (p. 148). Even when PD successfully changes the practice, this change is episodic, discursive, and not sustained, and it often leads to failure in bringing about the planned changes in

teachers' practices. Bryan (2011), for example, found in a South African education reform context that although teachers observed and acknowledged the change in their practices, the PD activities largely failed to develop "a sense of ownership and the consequent attitudinal change" (p. 139).

The nature of PD activities remains another common point of discussion that surrounds PD as a potential lever for reform. The individualized, one-off, external professional development events still seem to be a common practice (Colmer et al., 2015). As stated by Darling-Hammond et al. (2012), there is a strong need to move from drive-by, spray-and-pray, flavor-of-the-month PD activities towards a more focused, needs-based, job-embedded and more importantly, sustainable PD. In other words, rather than being confined to designated events such as workshops, courses, appraisal meetings or formal mentoring, PD must be contextualized and embedded as "part and parcel of daily (working) life and interaction with a myriad of stimuli that can spark off an idea or thought that leads (immediately or eventually) to enhanced professionalism" (Evans, 2014, p. 193). Only then PD events can truly be instrumental in education reform by not only changing the practice but also by transforming teachers' "thinking and understanding, cognitive processes that go beyond a mechanical approach to teaching and learning" (Bryan, 2011, p. 139). Guskey's (2002) definition of PD could come handy here in terms of the core function of PD: "professional development programs are systematic efforts to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of students" (p. 382). Similarly, intellectual development must be integrated with and supported by attitudinal and behavioral development (Evans, 2014).

Desimone (2009, p. 184) provides a more systematic, recursive, and interactive trajectory of changes in teachers through PD: a) "teachers experience effective professional development," b) "the professional development increases teachers' knowledge and skills and/or changes their attitudes and beliefs," c) "teachers use their new knowledge and skills, attitudes, and beliefs to improve the content of their instruction or their approach to pedagogy, or both," d) "the instructional changes foster increased student learning". Two concepts need to be amended to these conceptualizations: sustainability and agency. In order for PD efforts to bring more improved and lasting students' learning, which is the ultimate goal, components of PD need to be embraced, understood, and internalized by the teachers so it can change not only teachers' craft but also their attitudes and beliefs. In this way, it could sustain the new way of doing things in the long term. Surely, PD activities should not be only about changing and shaping teachers but should be driven by the emerging concept of agency as an essential dimension of PD, because teachers are not objects to be molded but are reflective practitioners and active learners who are expected to shape their own professional growth (Clarke & Hollingsworth, 2002). As shown by Toprak (2017), for any PD effort to get buy-in and generate high levels of commitment and minimize feelings that can range from sadness to resentment, there is a need for a view that goes beyond positioning teachers as recipients of change towards a stance that views teachers as implementers of change. Developing such a sustainable PD program with a high level of commitment from teachers is not an easy task and calls for the integration of several components: good leadership, the opportunity to practice and share expertise, appreciation for teachers' input, arrangement of new tasks and roles for the teachers as the change program continues, and allocation of further time to allow teachers to participate in new roles and tasks to broaden their professional orientation (Gaikhorst et al., 2017).

Sustainability of Education Reform

Century and Levy (2002) define sustainability as "the ability of a program to withstand shocks over time while maintaining core beliefs and values and using them to guide its adaptation to change" (p. 4). Fullan (2000) mentions that for reform efforts to last, there is a need for "strong

institutionalization" along with the strong adoption and implementation of such efforts (p. 1). Datnow (2005) also illustrates that although the lexical definitions of sustainability and institutionalization may include that the first refers more closely to longevity and the latter to the establishment of practices, they both are highly interconnected because sustainability is dependent on institutionalization. She sees institutionalization as a precursor for sustainability when she states that "[f]or a reform to be sustained, it must become institutionalized" (p. 123). She further explains that institutionalization is achieved when the reform becomes the new status quo at the school and no longer a "special project" (Datnow, 2005). In the words of Florian (2000, p. 14), "the practice would need to be continued after the reform program has formally ended in order for sustained change to be attributed to it". The successful survival of the practices over organizational changes such as successions in leadership or budget cycles is also indicative of the degree of sustainability (Florian, 2000). As such, when a practice becomes an unquestioned norm in an organization, it is institutionalized and sustained.

Such a change fits within Cuban's (1988) notion of "second-order" change, which is more fundamental as it shakes the structures and roles within the system and helps the change become an institutionalized norm. A second-order change, as stated by Leithwood (1994, p. 501), is "essential to the survival of first-order change" and "requires a form of leadership that is sensitive to organization building, developing shared vision, creating productive work cultures, distributing leadership to others." Sustainability from this perspective covers another aspect: internalization of change by stakeholders. It, then, follows that a sustainable practice is a practice that reflects changes in both behavior and belief systems. Sustainable school reform with such a perspective, therefore, does not only require changing the teaching content and teachers' practices, but entails embedding the change into how teachers perceive and think about teaching itself (Mourshed et al., 2010).

Century and Levy (2002) identified three phases for sustainability that education reform programs typically go through: (1) *the establishment phase*, in which a certain reform gets introduced with its core principles (project maintenance), (2) *the maturation phase*, in which reform implementation reaches a good level of stability and smooth functioning after being firmly established and accepted, (3) the *evolution phase*, which is distinctive by growth and continuous improvement on the reform with a deeper understanding of its core principles introduced in the establishment phase. Sanders (2012), describes these phases as "nonlinear" in the sense that each school has its own "dynamic environment", which determines the level of sustainability it is able to achieve. Necessarily, schools and even educators within schools vary in their level of sustaining reforms on high, moderate, and low levels based on the different "local conditions, experiences with reform, and capacity" (Datnow, 2005, p. 121).

To further delineate the concept of sustainability, it is useful to make a clearer distinction between program maintenance and sustainability. While program maintenance is a limiting perspective of putting a program into operation, sustainability is more about moving towards innovation and continuous improvement (Century & Levy, 2002). In that sense, program maintenance is a necessary condition for sustainability, but it does not necessarily lead to sustainability. For these scholars, sustainability is the capacity of the program to maintain core beliefs and values ingrained into the culture with an ability to adapt and evolve as needed, while maintenance is achieved when basic elements of a reform package are accepted as standard practice.

All these clarify sustainability as a phase in which assumptions and beliefs regarding teaching and learning are challenged and transformed in a way that makes the new practices commonly shared among individuals, and the assumptions and practices mutually and positively support one another over time. The practices, then, can be seen as the new pedagogy, until another new and accepted pedagogy emerges to adapt or replace the existing one.

Context of Education Reform in Egypt

Egypt's education system is largely a product of an interaction between its historical, social, and political development – including foreign educational systems transfers – as well as the more recent internal reforms (Ibrahim, 2010). The 1990s witnessed vast international discussions on education, which affected the local reform landscape. International actors and the state's international commitments have shaped the primary directives of education reform in the country. Among the main catalysts of education reform in Egypt are the global education initiatives: Jomtien World Conference on Education for All (1990) and Dakar World Education Forum (2000). The United Nations Girls Education Initiative as well as the Child Rights Treaty were also among the influencing events. The first two events have, in particular, guided Egypt's commitment to exert more efforts on achieving better education reforms, and to attract international support for Egypt's educational reform initiatives (Gillies, 2010). Following the Jomtien Education Conference, Egypt announced that the 1990s would be a decade for education, which was also followed by immense international funding, especially from the World Bank and USAID, to help achieve these goals. These goals were also advocated based on a commitment to main guidelines of education reform: decentralization, standardization, privatization and equality (Dixon, 2010, p. 41). During this education decade, Egypt made good progress in terms of enrollment and literacy rates. However, the teaching quality was negatively affected by increasing student-teacher ratios and deteriorating standards of school buildings (Dixon, 2010).

Major Challenges Facing Egypt's Education

There are various sources that continue to challenge quality education in Egypt. These include but are not limited to: little responsiveness to local needs, lack of teacher status and professionalization, and the excessive focus on standardized testing and rote learning.

The education system is quite centralized and bureaucratic, with a high emphasis on command and control. The Ministry's central control of curriculum and instruction is quite tight with strict inspection, which leaves teachers with limited space and autonomy in the course structure, pace and use of supplemental materials (Loveluck, 2012). The assumption behind the criticism of the centralized education system could also reside in its inability to be responsive to the local needs. The Ministry of Education has taken a more positive approach to "administrative" decentralization in recent years, which is evident in the 2007-2012 and 2014-2030 strategic education plans. However, school-level management's lack of strategic and operational readiness to successfully manage curriculum, materials, resources and finance seems to have obstructed the achievement of decentralization goals. Additionally, a view of decentralization as "a panacea for all our basic problems in Egypt" (El Baradie, 2015, p. 20) needs to be revisited because there is no silver bullet that could move the schools from a level of "struggling" to a level of "good" and finally to a level of "great".

In Egypt, around 30% of school teachers do not have proper professional teaching qualifications, and there are serious issues with quality in-service training that are aggravated by a weak professional development (MOE, 2014). Teacher training programs lack a comprehensive vision, with issues in programs organization and inefficiency of the required practicum (Zaalouk, 2013). Standards for Teachers' Performance were developed as part of the 2003 National Standards for Education, but their effective use at the schools was not mainstreamed (MOE, 2007). Prior to the establishment of the Professional Academy for Teachers (PAT) in the year 2008, there was no system to certify teachers in Egypt (MOE, 2007). Although the PAT was envisioned as an empowerment model for teachers' professionalization, its role has dramatically shifted into testing

and control and was eventually narrowed down to mainly accrediting professional development programs, licensing teachers, and guaranteeing their promotion paths (Zaalouk, 2013).

The socioeconomic and the work conditions for teaching have significantly deteriorated in the past few decades. Public school teachers are among the lowest-paid individuals in the country. This impacts teachers' absenteeism and boosts their motivation to invest more efforts in informal private tutoring outside the school walls. Private lessons themselves constitute another major challenge for the education system because it has turned into a factor that exacerbates the quality of the classroom instruction (Dixon, 2010).

What also limits the teachers' abilities to address students' learning needs using innovative approaches is that schooling is generally focused on summative examinations at the end of each stage on centrally administered high-stake exams that solely evaluate the academic progress needed for the transition to the next education stage. Loveluck (2012) comments on how this situation affects teaching:

> It seems that this style of teaching has largely developed in response to an intense focus on examinations, a focus that pervades the entire education system. In order to cover all the material in a fact-heavy syllabus – in accordance with the centrally devised curriculum – and not to lag behind classrooms across the country, teachers often have to rush through a great deal of content in each lesson. The same material then has to be memorized by students and reproduced in final exams that are administered simultaneously in all schools. (p. 9)

Education Reform and Policy-Making in Egypt

Education reform and policymaking in Egypt are usually advocated in negligence of their preceding reform cycles (Ibrahim & Hozayin, 2006). Reforming education is not detached from narrow political utilization, nor from either foreign obligations or imitation (Ammar, 2005). The consecutive governments usually focus on attaining quick results without spending time and effort in setting strong foundations for long-term and sustainable impact (OECD, 2015). Ibrahim and Hozayin (2006) referred to the absence of a clear reform-making cycle, which seldom includes "clear statements of policy, followed by tidy implementation, ending in evaluation and planning for the next cycle" (p. 4). There is an absence of "an institutionalized integrated system based on results for following-up and evaluation" (MOE, 2014, p. 44). Improvement plans with identical objectives, with changed phrasings, are repeatedly adopted without adequate evaluations of their actual impact, and accordingly, a gap continues to persist between policies, practices and outcomes (Ammar, 2005).

Besides, education change attempts generally lack effective/supported involvement of the public stakeholders (Ammar, 2005). Issues with education reform can also be related to how the introduced reforms are developed and how relevant they are to the local realities and needs. For example, commenting on how the process of developing the National Education Standards included the adoption of global standards with minimal public discussion, Zaalouk (2013) states that "they did not fit the local culture of standards and were not internalized by educators at the school level, even though in many schools they were stuck on the wall of the school principal's office" (p. 212).

USAID/Egypt Education Reform Program (ERP) 2004-2009

With an investment of 77 million US Dollars, USAID Egypt Education Reform Program (ERP) intended to support the national work of the Ministry of Education by experimenting with strategies of a system-wide reform including the central and the local levels of the national education system (OECD, 2015; AIR, CARE, EDC & World Ed, 2003). The program was originally planned as a pilot to promote school-based reform in 256 schools in the governments of Cairo, Alexandria,

Fayoum, Beni Suef, Minya, Qena, and Aswan (AIR et al., 2003; Megahed & Ginsburg, 2008). It also focused on several themes, such as: community participation, professional development, standards, and capacity building for decentralization (USAID, 2010).

ERP Professional Development Component

Professional development is one of the four themes identified as ERP's scope of work (USAID, 2010). ERP professional development targeted the following areas: "standards awareness; school assessment, improvement plan, and accreditation; training system reform standards, and capacity development; supervisory system reform and supervisor standards (including supervisors' network); supervisor training (including for SCOPE); administrator training (sometimes overlapping with supervisor training); teacher training (including SBTEU [School-Based Training and Evaluation Units] capacity development)" (Megahed & Ginsburg, 2008, p. 18). The main aim for the ERP PD interventions for teachers was to help them shift teacher-centered pedagogies into more student-centered pedagogies. This included developing teachers' skills to support students' critical thinking, utilize active and cooperative learning, and embrace effective classroom management (ERP, n.d.-a). One of the fundamental principles was to get the teachers to "analyze and respond to data regarding teaching methods and student learning outcomes" (ERP, n.d.-a, para. 2).

School administrators and supervisors were also targeted so their training becomes aligned with the topics of the workshops planned for teachers. ERP worked on developing instructional leaders among school principals, headteachers, and MOE supervisors who are able to provide the needed classroom level follow-up, support and feedback (Megahed et al., 2010). The main aim for the leadership development training activities (i.e., for principals, district educational administrators, and Board of Trustees (BOT) leaders) was "to empower leadership at school and district levels and to improve instruction in the school" (ERP, n.d.-b, para. 1). The program objectives were: "Build institutional capacity; Help leaders and, in turn, school staff, to focus on learning; Improve leader's knowledge to develop school and cluster level professional development programs," and "Strengthen the leadership skills of school, BOT and district staff" (ERP, n.d.-b, para. 2).

Method

This research attempts to qualitatively explore the sustainability of local and school-based PD and active learning pedagogies of school-based PD component of USAID/Egypt ERP. Our belief that individuals experience and make sense of similar phenomena differently, and that their individual professional and life orientation, prior experiences and knowledge cause them to construct different meanings and perspectives has guided us to take "constructionist" epistemology and "phenomenology" theoretical perspective (Crotty, 1998, p. 14) in this study. More specifically, the philosophical stance that "truth, or meaning, comes into existence in and out of our engagement with the realities in our world" (Crotty, 1998, p. 17) has shaped our choice of qualitative inquiry.

For qualitative interpretive investigations, individual researchers can not solely understand a certain phenomenon on their own. Because interaction with the world is what shapes people's perceptions of reality, researchers, in the interpretive point of view, need to connect with the meanings and values made by those who are immersed in the contextual reality they attempt to investigate (Lapan et al., 2011). Inquiry is "an interactive process between the researcher and the participants" (Marshall & Rossman, 1989, p. 11). Hence, interacting with relevant stakeholders at the school level provides an opportunity to engage with the participants and their experiences. This also includes giving voice to the individual participants because they are the original source of meaningful data.

Guided by this, addressing the research questions required an assessment of some of the current practices at the schools through learning about the perspectives and experiences of the school-level stakeholders. In attempting to answer the research questions, secondary data from project documents are analyzed along with data collected from both one-on-one and focus group interviews at the selected school sites.

Participants

The original USAID project was implemented in 256 schools in the governments of Cairo, Alexandria, Fayoum, Beni Suef, Minya, Qena, and Aswan (AIR et al., 2003; Megahed & Guinsburg, 2008). Due to the time and resources limitations, four schools were selected in two purposively selected governorates: Alexandria and Minya. These two governorates were originally chosen, so both upper and lower Egypt can be represented in the sample. Our sample includes representation at three levels: governorates, schools, and individual participants, which, we believe, adds to the richness of data (Table 1).

Table 1

Sampling steps

Step 1 Governorate Selection Purposive Sampling	Step 2 Schools Selection Convenience Sampling	Step 3 Individual Participants selection Purposive and Convenience Sampling
Upper Egypt: Minya Schools a and b Lower Egypt: Alexandria: Schools c and d	Two schools per governorate (Total of four)	Teachers, Training Units (TU) Heads, School Administrators

Alexandria, a metropolitan city located on the North West of Delta, is selected for this study as a representative of Lower Egypt. It witnessed the USAID Alexandria Pilot Project that preceded ERP, then was merged into ERP scope after it was launched in 2004. This governorate has, in particular, witnessed longer activities counting the preceding activities of Alexandria Pilot Project. Minya is selected for this study as a representative of Upper Egypt governorates.

Because the researchers did not have full knowledge of the locations and current status of the schools that were on the ERP list, the security officials at the educational districts (*Idaras*) were the ones who recommended and approved the schools selected for the sample. School a (a mixed gender – coeducational – basic education school that includes kindergarten, primary and preparatory stages) and School b (a girls-only preparatory school with a total of 1209 students, operating on two shifts) are located in Minya. School c (a mixed gender – coeducational – primary school that operates for only one morning period and that accommodates around 651 students in a total of 12 classes from grade 1 to grade 6) and School d (a girls-only preparatory school that runs in one morning period and that accommodates 849 female students in a number of 19 classes) are located in Alexandria. From these two governorates and four schools, 30 teachers, four training unit staff/head and four school administrators were interviewed either individually or in groups (Table 2).

Table 2

Research participants

Location		Data Collection Method		
		Focus Groups & Individual interviews	Individual interviews	Individual interviews
Governorate	School	Teachers	TU Head	School administrator
Minya	School A	8 teachers	1	0
	School B	8 teachers	1	2
Alexandria	School C	5 teachers	1	1
	School D	8 teachers	1	1
Total	4 schools	30 teachers	4 TU Heads	4

Data Collection

Data were collected through document analysis and interviews (one-on-one, focus group, phone-calls). *Document analysis* fits the purpose of this research as it is a: "a systematic procedure for reviewing or evaluating documents" and because "documents both serve as a main source for background information and the historical insights needed by researchers to make sense of the issue or context under investigation" (Bowen, 2009, p. 27). The following documents among a few other resources, including ERP website, were used for this part of the analysis:

- *Education Reform Program: Support in the Area of Professional Development: Documentation Research - Final Report* (Megahed & Ginsburg, 2008).
- *Active-Learning Pedagogies as a Reform Initiative: The Case of Egypt* (Megahed, Ginsburg, Abdellah, & Zohry, 2010).
- *Daleel wahadat al-tadreeb wal-taqweem wal-tagamoa't al-madraseya* [Guide of Training and Evaluation Units and School Clusters] (ERP, 2009).

The first two documents were prepared for USAID by ERP Monitoring and Evaluation Unit, and they document the results and include a final evaluation of the project's PD component.

Semi-structured interviews allow for better exploration of "the views, experiences, beliefs and/or motivations of individuals" (Gill et al., 2008, p. 292). The participating individuals, together with their interaction during the interviews, are considered as the main data sources for qualitative interviewing (Mason, 1996). One-on-one, focus groups, and phone call interviews were used for this study.

The interview questions listed in appendix A were prepared based on the available ERP information and documents. They were derived from the activities of the PD components, with a focus on the school-level elements and not including outcomes that need either *muderiya* or *idara* level assessment. There were 11 questions on different dimensions of school-based PD: familiarity with ERP, school-based professional development need analysis and plans, the role of training and evaluation unit, the within-school and between-school learning circles and sharing of practices, and active learning pedagogies. Interviews varied in time between 20 to 50 minutes based on the different flows of the discussions and/or time availability of participants. One researcher had a preliminary visit to each of the four schools to introduce the nature and purpose of the study. The

researcher consulted with the administrators and potential participants to plan for the interviews without interrupting the schools' workflow. The initial visits to Minya were made in January 2019 during the last week of the mid-year break in academic year 2018/2019, and the interviews were held in February 2019 during the second week of term 2. Initial visits to Alexandria were made during week 4 of term 2, and interviews were conducted during week 5 of the same term (March 2019).

One-on-one interviews were planned originally with both TU Heads and School Administrators. However, and because the interviews were done during regular teaching days, some other interviews were also held on a one-on-one basis, according to the teachers' schedules as suggested by the gatekeepers coordinating the interviews. *Focus groups* provide an even better opportunity to collect shared understanding of participants and encourage eliciting more information between them (Creswell, 2009). The focus group method was originally selected for interviewing all participating teachers, as it would have been challenging to reach an adequate number of representing participants solely on a one-on-one basis. *Phone call interviews* were conducted when face-to-face interviews were not feasible during the fieldwork. Three phone calls were made with school b TU Head, School d TU Head, and school d Principal. They were all met in person beforehand and the purpose of the study during the introductory visit prior to data collection was communicated with them.

Ethical Considerations

Qualitative research, in general, faces complex ethical challenges because it heavily depends on interaction with human subjects represented in individuals or communities (Mertens, 2011). This research is committed to showing full respect and courtesy to all participants, to avoiding giving them any kind of harm, and to ensuring careful considerations to all individuals involved. As the constructivist paradigm views reality as socially constructed, it is essential to give authentic value to the views of each individual participant in the research (Mertens, 2011), and show authentic will to understand and connect what all participants add to the investigation. Besides, from a transformative viewpoint, it is also essential for the research to remain "culturally responsive" while being aware of power structures within communities or between the researcher and participants (Mertens, 2011).

For this study, all participants were informed of the nature and purpose of the research beforehand. They were informed that their participation is anonymous, voluntary and non-obligatory. They were asked to read and sign a written consent form and an oral consent process was deliberated to the participants who were not comfortable signing the form as well as for the interviews conducted over the phone. Interviews were recorded only with participants' approval. Interviews were not recorded for participants who expressed reluctance and for those who were interviewed on the phone.

Approvals, Access and Permissions

Publicly accessible documents, papers on ERP and EQUIP publications, including ERP information, were originally used with attempts to access further details through the MOE. The full list of ERP participating schools was not accessible through currently available online documents. Initially, one researcher prepared a letter to the MOE Public Education Directorate that approved access to information and redirected the request to the MOE Department of International Relations to help locate the sample as well as to provide more information for this study. This department (as well as the MOE Information Center) reported not having the requested information. The Foreign Relations Department offered to contact the USAID Education Office on the researchers' behalf, and then this department reported that they received no response from USAID Education Office. One researcher also attempted to email USAID directly by using the contact details available on its website, and one researcher also attempted to visit USAID Cairo Office. A brief talk with an officer

from the Education Office at the security gates yielded no result: The officer referred to the difficulty of obtaining information on a relatively old project as ERP.

Later, the researcher tried to retrieve ERP website using the Internet Archive website. It was also made possible to access the project proposals after contacting Professor Mark Ginsburg, who served as a member of ERP monitoring and evaluation team (after stepping down as director of the Faculties of Educational Reform team), and who was generous enough to provide the project proposal documents. The school list was located on ERP website as part of the information that was open and available to the public during the project implementation period. Megahed and Ginsburg (2008) mention the total number of schools as 256 schools, yet the available list included only 202 schools. It did not include the schools from Cairo governorate, and some officials from Alexandria *Mudireya* later commented that this list mixes the schools from each of the two *Idaras*. Though not full, the list located through ERP website was the only available means for identifying ERP schools.

The researchers secured approvals from American University in Cairo's (AUC) Institutional Review Board (IRB), the Central Agency for Population Mobility and Statistics (CAPMAS), the educational directorates (*Mudireyas*) of Alexandria and Minya, as well as the two educational districts (*Idaras*), which include the four selected schools. Copies of CAPMAS, *Mudireyas* approvals, *Idaras* permits fully facilitated the entry to schools, and the principals of the four selected schools approved the access to their schools during the preliminary visits.

Data Analysis

Data analysis occurred in two stages; the document analysis and the analysis of the interviews. For both, we used a combination of a priori coding and open coding. Creswell (2012) explains coding as "the process of segmenting and labeling text to form descriptions and broad themes in the data" (p. 243). Codes could be used to label different topics including "setting and context", "perspectives held by participants", "participants' way of thinking about people and objects", "processes", "activities", "strategies", as well as "relationship and social structure" (Creswell, 2012, p. 244). Themes and categories then emerge from compiling and grouping the codes "to form a major idea" (Creswell, 2012, p. 245).

As discussed by Stemler (2001), using priori codes indicates determining the categories before the analysis. Following this, we first set the "documented achievement of objectives" to answer research question one. For this purpose, we mainly used the previously listed documents, including the project's final PD documentation. As stated by Bowen (2009), document analysis can give researchers an opportunity to examine periodic and final reports "to get a clear picture of how an organization or a program fared over time" (p. 30). Based on the emergent outcomes from the document analysis, we then generated other categories under the theme "documented achievement of objectives." We used these findings from the document analysis to generate the interview questions, and also used them as the main themes of data analysis for research question two. In the second phase, we filtered ERP PD components while developing the interview questions to include only the components that could be assessed at the school level making the major theme for the second question as "local and school-based professional development."

To prepare data for the second phase, we transcribed all recorded interview data into Arabic, the language used during the interviews. English translations were done during analysis only for the interview segments that needed to be quoted in the findings section. In an effort to "explore the data and to form some initial ideas about the data" (Clark & Creswell, 2015, p. 354), we read the transcribed data several times to become familiar with the data set. Notes (extensive notes taken particularly for the non-recorded interviews as requested by a few participants and for the phone-call interviews as well as notes taken during and directly after the interviews) were also used to further

interpret the data. We, later, typed and added these notes to a single word document for analysis. Each participant in the individual interviews and focus groups was assigned an interview code used in compiling the data set, and later while reporting findings (Appendix B shows details of individual participants as well as the interview codes assigned to each participant/interview).

Findings

We have organized our findings based on participants' familiarity with and perspectives on ERP, perspectives on school-based PD such as School-Based Training and Evaluation Units (SBTEU) and Learning Resources Centers, and finally changes in teachers' practices.

Familiarity with and Perspectives on the ERP Activities

Participants' familiarity with ERP varies from not being familiar at all to being very familiar with the nature and outcomes of ERP activities. There is also a range of perspectives on ERP that included: wasted resources, lack of practicality of activities, introduction of more progressive strategies, assisting in accreditation, and impact on student learning. Participants' views of the programs and their impact are mixed across the schools as well. Participants from school b are the most familiar with ERP and its activities, while those from school d are the least aware. Across the four schools, some participants expressed positive views on the introduced programs but emphasized implementation challenges and a gulf between theory and practice: "…There were good programs, and we learned …, but in practice, we collide with reality. Implementation was a bit difficult" (Teacher 2 – School a), "…Most of it is theoretical and not open for discussion. Resources are not available" (Teacher 5 – School a). Others highlighted a positive influence of ERP on teachers in terms of increasing their repertoire of instructional strategies and the effects on students with regard to improved and varied learning experiences. Teacher 18 – School b, refers to these positive effects on learning by stating the following "It impacted and supported the teacher's performance in class and helped [them] in a realistic way… This was also reflected on the students and how they better comprehend the lesson with different methods and strategies." Positive effects are not only limited to academic achievement, but ERP was perceived as a driver for developing teachers' socio-emotional skills that could help academic achievement and increase students' well-being at schools. The following statement expressed by TU head 3 – School c explain the function and capacity of ERP on nurturing relationships between teachers and students: "It was about caring for the students, respecting them, and training teachers."

Local and School-Based PD: SBTEU and Learning Resource Centers

Supporting local and school-based PD included the main pillars of developing the SBTEU for each school, identifying and serving teachers' needs, developing learning circles and school clusters, as well as equipping Learning Resource Centers (LRCs) (ERP, 2009; Megahed & Ginsburg, 2008). The document analyses have brought forth data relevant to all these aspects: SBTEU was assigned the task "to achieve comprehensive professional development for school staff, and occupy them with what they need to be able to perform their roles effectively and efficiently" (ERP, 2009). The unit was also responsible for preparing teacher training based on "needs assessment", and the training sessions were expected to consider the individual differences, a variety of pedagogical qualifications, the nature of each teaching specialization, as well as the different abilities and capabilities of each teacher. Development and organization of school-level learning circles was another task for the SBTEU unit. In these learning circles, five to seven teachers teaching the same

subject were expected to meet regularly to discuss their classroom teaching practices and to adapt their practices based on student performance data. The initiation of school clusters as a form of organized professional development and the establishment of Learning Resource Centers within the *Idaras* were envisioned as two tools to support teacher learning by making "instructional support and supervision" possible and to provide teachers with opportunities for self-learning and experimentation with research tools (ERP, 2009; Megahed et al., 2010).

SBTEU Functions

Fieldwork in this study highlighted that the SBTEU currently serves different roles, some of which are aligned to new and additional functions. These include "setting the schedule, school control, activities, different teaching methods and strategies, quality assurance and accreditation, [etc.]." (Teacher 2 – School a) and "…training novice teachers" (head of School a TU). Over the years, the name of the SBTEU has changed to currently become "Training and Quality Assurance Unit". This aligns with the establishment of the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) and the national advocation for school accreditation. Among the four participating schools, schools b and c have successfully met the accreditation requirements with the training co-ordination. However, schools a and d have previously applied but failed to obtain accreditation.

Views on the unit's effectiveness also differ. Some approach the unit from a positive perspective by focusing on its functionality. These same people see individuals' mental models and belief systems as the main barriers limiting the capacity of the unit. Principal in School b best encapsulates such a view: "…it has a very good role. It just needs people's mindsets to transform, believe in change, and help people in their duties." Others criticize it by blaming its activities as impractical and rhetorical, and that they fail to help teachers experiment with impactful instructional strategies. Supporters of this view also focus on the redundancy of the unit by emphasizing that rather than activities of the unit, teachers' individual efforts make a real difference. Teacher 25 in school d summarizes these views: "it is artificial. Because most of it is mere talk, no practical training that we do ourselves. How our work inside the classes is mainly based on personal diligence." Some spoke about other challenges that the units face, including the lack of resources and in some cases the absence of a physical space for the unit.

Needs Analysis

Data show that there is some level of needs analysis happening through the use of checklists and forms, towards which most participants had positive perspectives. Across the four schools, the training unit distributes forms, and the teachers are asked to select the training topics they think they need most. Teacher 17 – School b mentions that the school tends to not only analyze the training needs, but it also surveys the school-wide weaknesses and strengths: "For weaknesses, we do an intervention plan, and for strengths, we target continuity and reaching a higher indicator. For example, if we are at the third scale, we target the fourth and plan for what it takes." Teachers in the same school also mentioned using data based on the previous year's exams as well as entry exams administered to students at the beginning of the year. The school principal added that the ministry supervisors' reports, along with the administrators' class visits, might also be used to know and decide on the needs. However, participants from other schools did not appear to have a positive attitude towards the process stating their administration is not qualified to manage this. Teachers in School d, in particular, referred to the inconsistency of the criteria used for choosing teachers to attend and choose the type of training. This suggests that training needs were not always specified based on the results of surveys or forms they are asked to fill.

School-Based Teachers Learning Circles

Data on school-level learning circles reflect diverse applications with the absence of using the term itself. For example, in one school (school b), the participants agreed that a similar practice is somehow implemented through the staff meetings, which are, in their case, planned and documented for exchanging practices and receiving feedback. Administrator 1 added: "Someone could present a teaching demo, and they discuss several subject-related issues." While the frequency of subject-level meetings with the supervisor generally vary from two weeks to a month, some teachers in schools a and d indicated that there are no regular meetings and that they do not even function the same way as described by school b participants. This suggests within-schools fragmentation of learning circles practice and highlights a lack of shared understanding of concepts and practices introduced by the reform package. Put differently, despite the similarities during reform adoption phase, intended practices are differently understood, practiced and internalized, and some are even domesticated during the implementation phase.

School Clusters and Learning Resource Centers

School clusters and the district-level learning circles were meant to increase sharing the best practices among schools by increasing between-school professional collaboration. This seems to have gone through different experiences by the participants. For some, it happens irregularly; for others, it was either never materialized or was completely abandoned. Only a few participants supported the practices and experience-sharing between school and others who knew ERP's learning circles indicated that it occurs differently than how it was introduced in the package. Administrator 1 – School b principal, for instance, pointed out the abandonment of such a practice: "we do exchange visits between the schools' BOTs (Boards of Trustees) and principals, but the ERP learning circles no longer exist." Administrator 3 – School c vice-principal confirmed that such a concept was never put into practice "no, no! Between schools for school principals, this does not happen." When asked why it was stopped, school b TU head said: "maybe for time constraints. Crowded schedules give no opportunity for teachers to go to other schools. There used to be teacher exchange of visits. Now each teacher is already swamped by his schedule quota and has no time to go outside." As for the Learning Resource Centers, participants across the four schools reported that Learning Resource Centers still exist, but they indicated that they do not use them to access any resources nor for exchange of practice meetings. The Center mainly provides training, and participants had differing opinions on the effectiveness of them.

Teacher Practices

Training teachers on student-centered and assessment methods were one of ERP's objectives (AIR et al., 2003; Megahed et al., 2010). For assessing the impact of ERP, Megahed et al. (2010) and Megahed and Ginsburg (2008) combined quantitative and qualitative methods using both interviews and focus groups. They reported that "between 2005 and 2006 as well as between 2006 and 2007 there is evidence of significant average gains by stating that "on average, teachers in ERP-supported schools made somewhat greater gains on the Behavioral Dimension scale (ranging from .28 to .48) than on the Cognitive Dimension scale (ranging from .18 to .36)." However, they caution that "while recognizing the importance of this evidence of change in instructional practices, we should note that on average teachers started very close to the "traditional" style (i.e., a score of 1.0), and as of April 2007 had not moved even to the midpoint on the scale (i.e., 3.0).14" (Megahed et al., 2010, p. 15).

Field data from our study highlighted diverse opinions in these two key areas: student-centeredness, critical-thinking and problem-solving skills.

Activating Student-Centered Pedagogies

Participants' evaluation of the extent of activating student-centered pedagogies in their schools varied. Some believed it was solely the teacher-centered, some thought their classes were student-centered, while the majority referred to it as a shared process and a balanced interaction between the teacher and the student. Furthermore, some participants highlighted that it depends on the subject, the lessons presented and the students' level. There seems to be a tendency to differentiate student-centeredness according to students and their levels. For example, Administrator 3 – School c emphasizes the improvement of how teachers engage the students. He referred to the teachers' development with this: "We developed a lot. The teacher is no longer a chalk, like in the past." There is an evident belief that the extent of students' involvement can vary based on the student's level and the nature of the taught subject, which sometimes obligates the teachers to use lecturing. TU head 3 – School c provides a summary of such arguments: "Some subjects need both teachers and learners. For example, *al nahow* [Arabic grammar] cannot be student-centered nor mathematics either. Student-centered classes could work in subjects like science, for example. I need indoctrination [*talqeen*] based on the lesson and the subject." A wide range of perspectives on active-learning pedagogy is also indicative of fragmented practices and emphasizes a lack of a shared understanding and lack of a positive culture towards this pedagogy. For example, despite having similar classroom conditions, in contrast with the teacher who considered such active learning pedagogies as redundant in teaching some subjects, other teachers (like Teacher 5 – School b) experiment more with these pedagogies in "… for example, warm-up questions, managing class by dialogue and discussion, asking questions away from the lesson to raise student's curiosity, group work, etc."

Some teachers mentioned that these practices were always used long time ago (i.e., before ERP) and stated that what training programs including ERP did was just presenting a technical term for it: "We have our style that is the same whether with reform or not… We used to do active learning, collaborative learning, role play and all this without writing it … It has a name now" (Teacher 2 – School a). All these suggest a lack of ownership and that despite of the documented gains, the reform failed to develop shared beliefs, norms and values towards active-learning pedagogy on the long-term. This also confirms that behavioral change is quite unlikely without cultural change because attitudes largely shape the practice.

Problem-Solving and Critical Thinking Skills

As for teachers' practices related to the promotion of problem-solving and critical thinking skills, all participants in one of school d focus groups strongly disconfirm that these practices exist in their school. Teachers from schools a, c and d mentioned some obstacles they face as they attempt to use strategies to help students develop critical thinking and problem-solving skills. The obstacles included students' abilities, class densities, and teacher's abilities. As evident in the following quotes, teachers were blamed for not having critical thinking themselves, and such a belief is used for the improbability of nurturing these skills in students: "Critical thinking needs someone who comprehends first to be able to teach it right." (Teacher 22 – School c). Interestingly, teachers are not the only ones who were blamed, students' low-order thinking skills and their orientations to rote learning are also viewed as the culprits: "Critical thinking needs students with higher cognitive abilities, knowledge and perception, which is not the case for most of the students. It is all about memorizing as the student is not able to think, so he just memorizes what he can to pass the exam." (Teacher 2 – School a). We believe this is a vicious circle. Egyptian students may not possess critical thinking skills and be more into memorization, but that is because they are not trained to have these skills and because the current instructional practices do not enable them to develop them. Also, are

not education reforms mainly carried out to change what does not work and to move student learning to the next level? Arguments such as this, which emerged from our data, explicitly expose the underlying assumptions towards teaching that remain unchallenged and unchanged.

On the other hand, others seem to favor such an approach, use it in their classes, and mostly as a lead-in to their lessons: "We create a problem, and this helps us catch the students' attention" (TU head 3 – School c). However, some responses reflected a limited level of comprehension of what problem-solving and critical thinking are really about. It seems the real issue that comes forth through the data is that individuals involved in the change were expected to change their practices without needed interventions to help change their assumptions. That appeared to have created a school and classroom environment in which some individuals continue "doing the things they always do" at schools.

Discussion and Conclusion

This study explored the sustainability of practices, i.e., school-based PD and active learning pedagogies, that were part of the PD component of USAID/ERP, after around ten years of the completion of the program. ERP follow-up reports on the outcomes of the PD component highlight that most goals of the PD program, especially those of active learning pedagogies, were largely achieved. However, the achievement of goals does not inevitably provide clues on whether the practices are sustained in the long run. Also, based on our findings, it is fair to say that the reform program largely failed in maturation and evolution phases identified by Century and Levy (2002). These two phases are marked by a high level of acceptance and ownership of reform after achieving stability and attaching deeper meanings to the core principles and practices. Our data highlights fragmented understandings towards the principles and practices projected by the reform package and it also shows a moderate to high level of abandonment of certain practices. Instead, the majority of outcomes seem to fall under the establishment phase. For example, findings showed that several practices were initiated in supporting local professional development programs even though progress with PD system decentralization through the training units was still marginal.

Although participants' familiarity with the PD reform varies substantially within and between schools, participants seem to have an overall positive perception towards ERP. It seems that, despite within and between-school variance, schools are able to sustain the existence of the training units that were introduced as part of ERP, along with some concepts of the school-level learning circles. However, there is a tendency to completely abandon similar learning circles within school clusters (on account of time constraints, heavy schedules, and overcrowded classes), and partially abandon active learning pedagogies due to various reasons such as students' lack of skills, preparedness, and the overcrowded classes. There appears to be a high level of within and between-school variation that is indicative of a lack of productive work culture and shared vision. Thus, by and large, although the PD reform has managed to achieve a first-order change, it has mostly failed in its mission to develop to a lasting second-order change (Cuban, 1988; Leithwood, 1994).

Findings clearly show that the participating teachers and schools sustained the elements of ERP PD in varying levels. Although the SBTEU (currently named: Training and Quality Assurance Unit) still exists, its role in three of the four investigated schools seems to have stagnated in the establishment phase. The sustainability of the impact and role of these units, as a basis for school-based PD, seems to change from school to school. For instance, in school b, the practices of the training unit are more mature than the three other schools and are more closely aligned with the originally identified roles and intended goals. Participants in the other three schools mentioned that teacher training is mostly less school-based, and that training is not planned based on teachers'

specific needs despite the usage of a "training needs questionnaire". It is not uncommon to observe such variance across schools. Datnow (2005) similarly states that reform outcomes do vary across different contexts. Findings show that the variations were not limited to the geographical contexts, but to the specific school contexts under which variations also exist among teachers. Gillies (2010) also highlighted how internalizing change has to happen on an individual-by-individual and case-by-case basis (p. 137). Such a variance can further be explained by Fullan's (2007) argument: what decides the success of reforms comes from the interaction between the individual and the collective meaning-making. Although unity/oneness in practice is not quite realistic and it is a commonly observed phenomenon in local capacity building, as stated by Smith (2005), planning and implementing reforms is a big challenge for reform sustainability. In other words, high level of variance across participants of an education reform should not be normalized because substantial variance across constituencies can be detrimental to the sustainability of reforms and can obscure the purposes of reform.

School b seems to have more sustained elements. The training unit head and school principal were trained for the same roles for ERP. The school sustained some reform elements, especially that of the training unit role, which could mean that some intended reforms were institutionalized. However, it is not clear if this is because the reform model was internalized across the school, or sustained because the same leadership, which was trained by ERP, remained. This case is dissimilar to the other three schools, where leadership and TU heads were relatively newer to their positions and were originally trained by ERP as class teachers. Hence, in a relatively confident manner, we can argue that the presence of a trained school principal who is highly aware and is committed to the principles of education reform appears to add to the level of sustainability of reform in the long term.

Although the training unit exists as an obligatory structure within all governmental schools by a ministerial decree encouraged by ERP outcomes, the effectiveness of these units (as well as those of the Learning Resource Centers) is not solely determined by its physical and legal presence. Differentiation can be made between the four participating schools in light of Fullan's (2000) dichotomy of restructuring and re-culturing. Schools a, c, and d seem to have been guided by assumptions of restructuring while school b seems to have drawn a different model by working towards re-culturing, which is evident in the general language used, the understandings developed, and more transformed practices observed. A more general analysis of ERP, however, shows that its PD component has managed to sustain the "structure" it created through enhancing and mainstreaming the existence of the training units. However, except for school b, the culture of the other three schools seems to be largely intact, and the underlying assumptions and beliefs towards school-based PD and active learning pedagogies seem to be less transformed.

Although some teachers appeared critical about the status quo, most of the interview narratives (except for very few) are related to the technical aspects of their teaching practices or the technical process of PD. At least from what appeared in the interviews, most teachers did not clearly and explicitly refer to any practice that indicates an organized, collegial and/or personal reflective time as part of their PD. It also emerged that some teachers might have abandoned active learning pedagogies due to several factors such as students' lack of skills, lack of preparedness and crowded classes. This raises doubts about whether teachers developed a deep and meaningful understanding of these pedagogies, because students' lack of skills, lack of preparedness are not quite valid excuses, and because these perceived barriers may not be considered as essential prerequisites for implementing active learning pedagogies. In fact, the factors justified by some teachers as inhibitive for active-learning pedagogies must be viewed by these teachers as skills to be improved rather than as restricting obstacles. In addition to abandonment, domestication of active-learning pedagogy is

also evident in some teachers' quotes. Some seem to have narrowed down these pedagogies to practices such as preparing warm-up questions and asking questions not relevant to the lesson to raise student's curiosity, whereas such a pedagogy entails a more comprehensive transformation in instructional practices. When, for example, asked about a set of active learning strategies they implement in their classes, most teachers focused more on technical aspects, which is an indicator that they themselves relate to the concept technically and lack a comprehensive understanding of the pedagogy.

It should be noted that the lack of a common mental model towards active learning pedagogies seems to have been exacerbated by schools' conditions, including class facilities, class densities, and all these factors should also be viewed as constraining factors. What is more important is that different conceptualizations and approaches toward active learning pedagogies exist, and many participants see the preparedness level of students as a precondition to using these pedagogies. It also appeared from what they mentioned about the inspectors that they provide guidance and support from one direction. These same teachers also raised points that they are not appreciated, and that they are asked to rigidly follow the plans set for them by others. Such a role assigned to teachers during education reform calls to mind what Batra (2009) named the "implementing agency" (p. 132). Put differently, teachers view that reforms are done to them, not with them.

Although ERP documentation described an improvement in teachers' practices towards being more student-centered, it seems (at least to an external observer) that this was advocated in a way that would fit into Zaalouk's (2013) explanation of the output-based education (OBE). This generally depends on fitting into standardized requirements in a neo-liberal teacher professionalism model. Even the original PD goal statements are written with a strong focus on improving the outcomes, which is highly desired in all cases. For example, a big focus was placed on how active learning pedagogies were supported through the program, with fewer highlights on the teachers' roles as reflective practitioners. The project's PD final documentation itself highlighted that teachers cognitive gains were less evident than their behavioral gains.

One possible reason for the lack of a consistent level of reform sustainability could be the fact that some ideas might not have been suitable for the level of the education system performance described by Mourshed et al. (2010). According to them, the performance of any education system falls in a continuum between poor and excellent (poor to fair, fair to good, good to great, and great excellent) in terms of the student outcomes. In this view, education interventions should consider the conditions and needs of each school and follow a more differentiated approach. Education reform, in other words, should consider schools' "growth state and the culture of a particular school" (Hopkins, 2001, p. 162). Improving an education system needs to be guided by three dimensions of: assessing the stage or the performance level in which the education system falls, choosing the interventions that match the system needs, and adapting it to suit the context of the education system including policies, culture and structure. Including ideas such as "school-based decision making", "collaborative practice", and "decentralizing pedagogical rights to schools and teachers" (Mourshed et al., 2010, p. 36) are interventions that proved to be more suitable for education systems at the stages of moving from "good to great" or "great to excellent". According to the model, other interventions that include more direct and strong external professional support and expertise may have been more appropriate for systems at lower performance stages, such as schools in Egypt in 2004.

Our results could also be analyzed in light of Florian's (2000, p. 12), five sustainability factors of reform changes: "a) ongoing engagement and development of human capacities, b) schools and district cultures that value learning, innovation, and collaboration; c) district and school structures, policies, and resource allocations that support reform goals; d) leadership of schools and district that

maintains a consistent vision, a well-designed strategic plan, and positive relationships with members of the education system; and e) political context demands, pressures, and supportive activities." The first four elements were clearly present at school b. The training unit is still apparently able to continuously work on an ongoing development at the school level. It was clear from some responses from the same school that a culture of continuous improvement is, to an extent, present. The school apparently seems to operate in a relatively well-funded environment, because, in contrast with the other three schools, not a single participant of school b raised any resources-related issue. They also spoke quite highly of their school leadership. What appears to be true is that the other three schools are under a different political context, which is Florian's (2000) fifth factor, because it seems that school b was for any reason supported differently by the *idara* or *mudireya*. If the context affected the case, how and why the school was supported differently could be another area of exploration of the presence of more successful reform elements at this school.

Implications

The study emphasizes that variations do exist between schools in terms of professional capacity, needs, resources, facilities as well as class densities, among other factors. There might be significant performance gaps between government schools of the same type and even those located only a few minutes apart. Understanding why school conditions are different and what impacts their culture and performance help in understanding why some schools are more adept to sustain and make better use of reforms. Such understanding is essential for providing a better view of what constitutes a successful model of reform. Besides, teachers' and schools' social, physical, financial and professional conditions must be closely studied when planning and implementing education reforms. Rather than following a nationwide one-size-fits-all approach, PD reforms need to consider each individual school's internal and external contexts and realities. School-based professional development, as was initially targeted by ERP, seems to have been a very promising model, yet implementation needed to establish stronger roots. Adequate investment in capacity building, especially at the Training Units, might mean that more teachers could be reached for ongoing support and continuous professional development. Yet, besides capacity building, the roles and responsibilities of those responsible for the Training Units should focus more on real instructional leadership instead of just doing clerical work. To increase their buy-in and commitment, teachers also need to be involved not only in the implementation but in the planning phase of education reform initiatives.

A culture of documentation, cyclical monitoring, evaluation and follow up needs to be advocated. There is either a problem with reform documentation or at least a problem of accessing such documentation at the MOE level and USAID website as well. The search for data on ERP at the MOE did not end up with sufficient information and there was only limited information on USAID publicly accessible database. People at MOE were very welcoming and showed a genuine willingness to help out. However, they were not able to locate something as basic as the schools that participated in the project pilot, not to mention other documents. ERP and other initiatives worked on the development of an Information System, but apparently, such a system still needs some elements to be added. Further research needs to be done on the other elements of the system targeted by either ERP and/or other initiatives that followed or preceded ERP.

On a more general note, past education reforms should not be ignored. A real understanding of their impact and a deeper scrutiny into lessons learned during past reforms is essential, as it can form a basis to develop new models. Education policies need to be developed with conscious awareness of all past efforts, either through learning from the process or through understanding the

ongoing impact and/or struggles. Comprehensive reform making cycles that consist of "clear statements of policy, followed by tidy implementation, ending in evaluation and planning for the next cycle" (Ibrahim & Hozayin, 2016, p. 4) should be followed. MOE documents, including the 2014 strategic plan did acknowledge this, but current policy-making and implementation practices indicate that the problem persists.

References

AIR, CARE, EDC & World Ed. (2004). *EQUIP 1 program proposal 2004-2009*. AIR.

Ammar, H. (2005). *Al-seyaq al-tareekhy le-tatweer al-ta'leem fee mesr: mashahed men al-mady wal-hader wal-mostaqbal* [the historical context of education development in Egypt: Scenes from the past, present and future]. Al-Dar Al-Arabeya Lel-Ketab.

Barber, M., & Mourshed, M. (2007). *How the world's best-performing schools systems come out on top*. McKinsey & Company.

Batra, P. (2009). Teacher empowerment: The education entitlement-social transformation traverse. *Contemporary Education Dialogue*, *6*(2), 121-156. https://doi.org/10.1177/0973184913411184

Bryan, C. (2011). Professional development during a period of change: A small-scale case study exploring the effect of context on practice in a South African rural school. *Professional Development in Education*, *37*(1), 131-141. https://doi.org/10.1080/19415257.2010.499302

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27-40. https://doi.org/10.3316/QRJ0902027

Century, J. R., & Levy, A. J. (2002, April). *Sustaining change: A study of nine school districts with enduring programs*. Paper presented at the Annual Meeting of the American Educational Research Association. https://sustainability2003.terc.edu/media/data/media_000000000207.pdf

Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, *18*(8), 947-967. https://doi.org/10.1016/S0742-051X(02)00053-7

Clark, V.L.P, & Creswell, J.W. (2015). *Understanding research: A consumer's guide*. Pearson.

Colmer, K., Waniganayake, M., & Field, L. (2015). Implementing curriculum reform: Insights into how Australian early childhood directors view professional development and learning. *Professional Development in Education*, *41*(2), 203-221. https://doi.org/10.1080/19415257.2014.986815

Covaleskie, J. F. (1994). The educational system and resistance to reform: The limits of policy. *Education Policy Analysis Archives, 2*(4). https://doi.org/10.14507/epaa.v2n4.1994

Creswell, J. W. (2012). *Educational research. Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage.

Cuban, L. (1988). A fundamental puzzle of school reform. *The Phi Delta Kappan*, *69*(5), 340-344.

Darling-Hammond, L., Jaquith, A., & Hamilton, M. (2012). *Creating a comprehensive system for evaluating and supporting effective teaching*. Stanford Center for Opportunity Policy in Education. https://edpolicy.stanford.edu/sites/default/files/publications/creating-comprehensive-system-evaluating-and-supporting-effective-teaching.pdf

Datnow, A. (2005). The sustainability of comprehensive school reform models in changing district and state contexts. *Educational administration quarterly*, *41*(1), 121-153. https://doi.org/10.1177/0013161X04269578

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, *38*(3), 181-199. https://doi.org/10.3102/0013189X08331140

Dixon, M. (2010). Investing in inequality: Education reform in Egypt. *Middle East Report*, *255*, 40-47.

Education Reform Program [ERP]. (n.d.-a). Improving teacher practice. *Education Reform Program website.*
    https://web.archive.org/web/20090504162928/http://www.erpequip.org:80/teacherpractice.html

ERP. (n.d.-b). Developing school leadership. *Education Reform Program website*.
    https://web.archive.org/web/20090505193814/http://www.erpequip.org:80/leadership.html

ERP. (2009). *Daleel wahadat al-tadreeb wal-taqweem wal-tagamoa't al-madraseya* [Guide of training and evaluation units and school clusters]. Education Reform Program.

Evans, L. (2014). Leadership for professional development and learning: Enhancing our understanding of how teachers develop. *Cambridge Journal of Education*, *44*(2), 179–198. https://doi.org/10.1080/0305764X.2013.860083

Florian, J. (2000). *Sustaining education reform: Influential factors*.
    https://files.eric.ed.gov/fulltext/ED453583.pdf

Friedman, I. C. (2011). *Education reform*. Facts on File.

Fullan, M. (2007). *The new meaning of educational change: Causes and processes of implementation and continuation.* Teachers College Press.

Fullan, M. (2000). The three stories of education reform. *Phi Delta Kappan, 81*(8), 581-584.
    http://michaelfullan.ca/wp-content/uploads/2016/06/13396051100.pdf

Gaikhorst, L., Beishuizen, J. J., Zijlstra, B. J., & Volman, M. L. (2017). The sustainability of a teacher professional development programme for beginning urban teachers, *Cambridge Journal of Education*, *47*(1), 135-154. https://doi.org/10.1080/0305764X.2015.1125449

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, *204*(6), 291-295. https://doi.org/10.1038/bdj.2008.192

Gillies, J. (2010). *The power of persistence: Education system reform and aid effectiveness: Case studies in long-term education reform.* USAID, EQUIP2.
    https://www.fhi360.org/sites/default/files/media/documents/Power%20of%20Persistence.pdf

Hopkins, D. (2003). *School improvement for real.* Routledge. https://doi.org/10.4324/9780203165799

Ibrahim, A. & Hozayin, R. (2006). *Historical roots of decentralization in modern Egyptian education: Implications for education reform planning.* Education Reform Program.

Ibrahim, A. S. (2010). The politics of educational transfer and policymaking in Egypt. *Prospects, 40*(4), 499-515. https://doi.org/10.1007/s11125-010-9173-3

Lapan, S., Quartaroli, M. & Riemer, F. (Eds.). (2011). *Qualitative research: An introduction to methods and designs*, *37*. John Wiley & Sons.

Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly*, *30*(4), 498-518. https://doi.org/10.1177/0013161X94030004006

Loveluck, L. (2012). *Education in Egypt: Key challenges* (background paper). Chatham House.
    https://www.chathamhouse.org/sites/default/files/public/Research/Middle%20East/0312egyptedu_background.pdf

Marshall, C., & Rossman, G. B. (1989). *Designing qualitative research*. Sage Publications.

Mason, J. (1996). *Qualitative researching*. Sage.

Megahed, N., & Ginsburg, M. (2008). *Education reform program: Support in the area of professional development: Documentation research – Final Report.*
    https://pdf.usaid.gov/pdf_docs/PNAEA004.pdf

Megahed, N., Ginsburg, M., Abdellah, A., & Zohry, A. (2010). *Active-learning pedagogies as a reform initiative: The case of Egypt.* American Institute for Research. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.176.6059&rep=rep1&type=pdf

Mertens, D. M. (2011). Ethics in qualitative research in education and the social sciences. In S. Lapan, M. Quartaroli, & F. Riemer (Eds.), *Qualitative research: An introduction to methods and designs* (pp.19-39). John Willey & Sons.

Ministry of Education (MOE). (2014). *Strategic plan for pre-university education 2014-2030: Education Egypt national project.* https://planipolis.iiep.unesco.org/en/2014/strategic-plan-pre-university-education-2014-2030-5881.

Mourshed, M., Chijioke, C., & Barber, M. (2010). *How the world's most improved school systems keep getting better.* McKinsey & Company. https://doi.org/10.17323/1814-9545-2011-2-5-122

OECD. (2015). *Schools for skills: A new learning agenda for Egypt.* OECD Publishing. http://www.oecd.org/countries/egypt/Schools-for-skills-anew-learning-agenda-for-Egypt.pdf

Sanders, M. G. (2012). Sustaining programs of school, family, and community partnerships: A qualitative longitudinal study of two districts. *Educational Policy, 26*(6), 845-869. https://doi.org/10.1177/0895904811417591

Sarason, S. (1996). *Revisiting the culture of the school and the problem of change.* Teachers College Press.

Sayed, F. (2006). *Transforming education in Egypt: Western influence and domestic policy reform.* American University in Cairo Press.

Schlechty, P. C. (2009). *Leading for learning: How to transform schools into learning organizations.* John Wiley & Sons. https://doi.org/10.1002/9781118269497

Starkey, L., Yates, A., Meyer, L. H., Hall, C., Taylor, M., Stevens, S., & Toia, R. (2009). Professional development design: Embedding educational reform in New Zealand. *Teaching and Teacher Education, 25*(1), 181-189. https://doi.org/10.1016/j.tate.2008.08.007

Stemler, S. (2000). An overview of content analysis. *Practical Assessment, Research, and Evaluation, 7*(1), 17.

Toprak, M. (2017). Mismatch between teachers' need for change and change in practice: What if what they see is not what they want? *International Journal of Leadership in Education, 21*(6), 669-689. https://doi.org/10.1080/13603124.2016.1272720

United States Agency for International Development [USAID]. (2010). *USAID/Egypt education portfolio evaluation – April 2010.* USAID. https://pdf.usaid.gov/pdf_docs/PDACU550.pdf

Woodland, R. H., & Mazur, R. (2015). Beyond hammers versus hugs: Leveraging educator evaluation and professional learning communities into job-embedded professional development. *NASSP Bulletin, 99*(1), 5-25. https://doi.org/10.1177/0192636515571934

World Economic Forum [WEF]. (2017). *The global competitiveness report, 2017-2018.* WEF. http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf.

Zaalouk, M. (2013). Globalization and educational reform: What choices for teachers? In T. Seldon, & J. Levin (Eds.), *Educators, professionalism and politics: Global transitions, national Spaces and professional projects* (pp. 201-209). Routledge World Yearbook of Education 2013.

Appendix A: Interview Questions

Investigating the Long-Term Impact of ERP Professional Development Component

Interview Questions

Participants in each school:
Individual Interviews: 1 School Administrator, 1 Training Unit Staff
Focus group interviews: 1 group of 5 to 7 Teachers
Expected duration per interview: 40 to 60 minutes each

A) Familiarity with ERP

1. Are you familiar with the work done by USAID/ERP? Were you directly involved in any of its activities?

[If yes: how did you engage with it? What do you think were the main takeaways of this program? What specific policies/activities do you know are still active? What is not?]

B) School Professional Development Plan & Role of Training and Evaluation Unit

2. How does your school assess its professional development needs and set PD plans?

[Probe: What tools do you use to assess/develop improvement plans? / To what extent are professional development plans data driven?]

3. What role does the Training and Evaluation Unit play at your school? To what extent do you think it is effective?

C) Standards Awareness & ERP Tools Utilization

4. To what extent are you familiar with:
   a) The Standards-Based Classroom Observation Protocol for Egypt (SCOPE)?
   b) The Classroom Observation Form (COF)?
   c) The Critical-Thinking, Achievement and Problem-Solving test (CAPS)?

 [Are any of them being currently used at your school?]

D) Learning Circles & Practices Sharing

5. How are best PD practices shared between schools/ principals/ teachers in your Idara?

[Probe: For example, do you participate in any professional learning network (Principal Learning Circles or Teacher Learning Circles"?]

[If yes: how frequently do you meet? / what activities are being done? / how effective do you think it is?), (for principals: In what way is teachers' professional development part of such networks activities?]

6. Is there a nearby learning resource center for your school to use?

[If yes: how do you & teachers at your school use it?]

E) Instructional Support

7. What kind of instructional support/follow up do teachers receive from the: school principal, departments heads, ministry supervisors?

[Probe: what happens when a teacher is not fully competent in his instruction and/or subject knowledge? / Are you satisfied with the support you receive/give? / How did it change over the years?]

8. What support do you receive from either the Idara/ or Mudireya on PD issues?

F) Classroom Practices

9. To what extent do you think classes in your school are:
    a) student-centered / teacher-centered?
    b) focused on developing students critical thinking and problem-solving skills?
    c) utilizing active learning strategies?
    d) using sound classroom management strategies?

[Can you give examples please elaborating on why do you think so? / what specific strategies are being used most for each element?]

10. How did your teaching/ classroom instructional leadership practices change/develop over the past 10 years (if applicable)?

G) Perception on PD programs sustainability

11. What conditions do you think are needed for sustaining professional teaching practices after a certain training or reform initiative?

Appendix B: Information of Individual Participants

	School	Participant	Gender	Title	Role	Total Teaching years	Years at school	Participated in ERP	Type of interview	Interview code
1	A	TU head 1	Male	Senior Teacher	Math teacher – TU Head	31	16	Yes	Individual	II: A1
2	A	Teacher 1	Female	Senior Teacher	Science teacher - supervisor	33	29	Yes	Individual	II: A2
3	A	Teacher 2	Male	Senior Teacher	Social studies teacher - supervisor	31	29	Yes	Individual	II: A3
4	A	Teacher 3	Female	Senior Teacher	Arabic teacher - supervisor	32	30	Yes	Individual	II: A4
5	A	Teacher 4	Male	Senior Teacher	English teacher	33	9	No	Focus Group	FGI: A1
6	A	Teacher 5	Male	Expert Teacher	English teacher	32	30 (8 abroad)	No	Focus Group	FGI: A1
7	A	Teacher 6	Male	First Teacher	English teacher	12	6	No	Focus Group	FGI: A1
8	A	Teacher 7	Male	First Teacher	Social studies teacher	10	2	No	Focus Group	FGI: A1
9	A	Teacher 8	Male	Expert Teacher	Arabic teacher	30	12	No	Focus Group	FGI: A1
10	B	Teacher 9	Female	Senior Teacher	Social studies teacher	35	32	Yes	Focus Group	FGI: B1
11	B	Teacher 10	Female	Expert Teacher	English teacher	24	8	No	Focus Group	FGI: B1

	School	Participant	Gender	Title	Role	Total Teaching years	Years at school	Participated in ERP	Type of interview	Interview code
12	B	Teacher 11	Female	Expert Teacher	Arabic teacher	20	5	No	Focus Group	FGI: B1
13	B	Teacher 12	Female	Expert Teacher	Arabic teacher	23	8	No	Focus Group	FGI: B1
14	B	Teacher 13	Female	Expert Teacher	English teacher	22	missing	Not Sure	Focus Group	FGI: B1
15	B	Teacher 14	Female	Expert Teacher	English teacher	24	9	Not Sure	Focus Group	FGI: B1
16	B	Admin 2	Female	First Teacher – A	School Deputy	18	16	Yes	mini-focus group	MFGI: B1
17	B	Admin 1	Male	Senior Teacher	School Principal	33	10	Yes	mini-focus group	MFGI: B1
18	B	Teacher 15	Male	Senior Teacher	Arabic teacher	34	20	Yes	mini-focus group	MFGI: B2
19	B	Teacher 16	Male	Expert Teacher	Arabic teacher	24	18	Yes	mini-focus group	MFGI: B2
20	B	Teacher 17	Male	Senior Teacher	Science teacher	34	21	Yes	mini-focus group	MFGI: B2
21	B	TU head 2	Female	Senior teacher	School deputy – TU Head	37	19	Yes	Phone Interview	PI: B1
22	C	Teacher 18	Female	First Teacher	PE teacher	14	10	Not sure	Focus Group	FGI: C1
23	C	Teacher 19	Male	First Teacher – A	Social studies teacher	16	7	No	Focus Group	FGI: C1

	School	Participant	Gender	Title	Role	Total Teaching years	Years at school	Participated in ERP	Type of interview	Interview code
24	C	Teacher 20	Female	Expert Teacher	Arabic teacher	32	32	Not sure	Focus Group	FGI: C1
25	C	Teacher 21	Female	First Teacher – A	Social Studies teacher	17	12	Not sure	Focus Group	FGI: C1
26	C	TU head 3	Female	Expert Teacher	Arabic teacher / TU head	31	26	Yes	Individual	II: C1
27	C	Teacher 22	Female	First Teacher – A	Class teacher	27	27	Yes	Individual	II: C2
28	C	Admin 3	Male	First Teacher – A	School vice-principal – computer teacher	28	28	Yes	Individual	II: C3
29	D	Teacher 23	Male	Expert Teacher	Arabic teacher	26	15	Not sure	Focus Group	FGI: D1
30	D	Teacher 24	Female	First Teacher – A	Arabic teacher	20	19	Not sure	Focus Group	FGI: D1
31	D	Teacher 25	Female	First Teacher – A	Arabic teacher	20	20	Not sure	Focus Group	FGI: D1
32	D	Teacher 26	Female	First Teacher – A	Arabic teacher	12	4	No	Focus Group	FGI: D1
33	D	Teacher 27	Female	Expert Teacher	Arabic teacher	25	19	Not sure	Focus Group	FGI: D1
34	D	Teacher 28	Female	First Teacher	Social studies teacher	13	7	No	Focus Group	FGI: D1

	School	Participant	Gender	Title	Role	Total Teaching years	Years at school	Participated in ERP	Type of interview	Interview code
35	D	Teacher 29	Female	Senior Teacher	Science teacher	30	30	Yes	mini-focus group	MFGI: D1
36	D	Teacher 30	Female	Senior Teacher	Science teacher	30	30	Yes	mini-focus group	MFGI: D1
37	D	TU head 4	Female	Expert teacher	Math teacher – TU head	27	27	Yes	Phone Interview	PI: D1
38	D	Admin 4	Female	Senior Teacher	School principal	34	34	Yes	Phone Interview	PI: D2

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