

Sustainable Leadership: Impact of an Innovative Leadership Development Program for School Principals in Palestine

Louis Cristillo¹, Nuha Iter^{2,*}, Alia Assali³

¹Teacher Education Department, AMIDEAST, Ramallah, Palestine ²Teacher Qualification Program, Palestine Technical University - Khadorie, Tulkarem, Palestine ³Faculty of Educational Sciences and Teacher Training, An-Najah National University, Nablus, Palestine *Corresponding author: nuhaiter@gmail.com

Abstract Since its establishment in 1994 following the Oslo Accords between Israel and the PLO, Palestine's Ministry of Education and Higher Education has undertaken the formidable task of developing a full-fledged educational system. From its beginnings, and with funding support from international and bilateral donors, a key pillar of the Ministry's policymaking has been the ongoing professional development of school principals. In 2008, the Ministry launched the Palestinian Education Development Strategic Plan/2008-2012 (EDSP), a comprehensive reform package aimed at shoring up gaps in the educational system, with a particular emphasis on improving the quality of school leadership and instruction. USAID, in response to the EDSP, contracted AMIDEAST, a US-based nonprofit organization with a long history of cultural exchange and educational development in the MENA region, to pilot a teacher and principal professional development program, the Model Schools Network (MSN). The program began with 17 private schools in the West Bank and then expanded in 2009 to 40 public schools, and a year later added 12 private schools in Gaza. The program ended in 2012. The centerpiece of MSN's leadership training was the Leadership Diploma Program, a 340-hour school-based professional development initiative comprised of monthly face-to-face sessions and learning circles, job-embedded assignments linked to authentic issues facing principals in their daily work, and reflective inquiry through action research. The program was framed by knowledge and competences grounded in principles of shared leadership and international standards aligned with research on effective schools. Now three years after the close-out of MSN, our study sought to find out whether MSN has had a sustainable impact on the attitudes and practices of principals as leaders of their school communities in general and as instructional leaders in particular. Results from a survey and in-depth interviews with former MSN principals offer promising evidence that the MSN model of shared leadership appears to have had a sustained impact on the attitudes and practices of principals in three key domains: technology and community building; results-based decision-making; and, instructional supervision.

Keywords: principal, school leadership, professional development, model schools network, effective school, Palestine

Cite This Article: Louis Cristillo, Nuha Iter, and Alia Assali, "Sustainable Leadership: Impact of an Innovative Leadership Development Program for School Principals in Palestine." *American Journal of Educational Research*, vol. 4, no. 2A (2016): 37-42. doi: 10.12691/education-4-2A-6.

1. Introduction

With one of the highest rates of literacy and school completion in basic education in the Middle East [1], Palestinian society has long valued education not only as the means for social and economic development, but also for preserving its national identity in the face of mass population displacement and dispossession resulting from the founding of Israel in 1948, then the Six Day War of 1967, and the ongoing occupation and settlement of the West Bank and blockade of the Gaza Strip [2].

Since its establishment in 1994 with the signing of the Oslo Accords between Israel and the PLO, the Ministry of Education and Higher Education (henceforth the Ministry) has been charged with the formidable task of developing a full-fledged educational system for the Palestinian people [3]. In 1996 the first Palestinian curriculum plan of general education provided a framework for the improvement of education quality. A key pillar of the plan was the rapid training of a cadre of school principals, as well as supervisors and other officials at the district and central ministry levels.

The framework articulated three major leadership goals:

- To strengthen the capacity of school administration to improve the relationship between teachers and principals and implement goals aimed at supporting and supervising the work of teachers.
- To firm up school-community relations by enhancing the flow of information through two-

way communication between school staff and the local community, with school counselors playing a key role to engage parents in the educational process.

• To support continuous professional development of principals and teachers by providing opportunities at both school and district levels for self-learning, workshops, action research, participation in ministry-led initiatives, and engagement with the broader academic community [4].

Following consultations at the national, district and local levels of the educational system, and taking into consideration findings from a functional audit conducted in 1998 [5], the Ministry launched the Palestinian Education Development Strategic Plan/2008-2012 (EDSP), a comprehensive reform plan in 2008 to shore up gaps in the educational system. The key thrust of the Plan was the development of school leadership and instruction, and these became the focus of international donor funding, especially from the World Bank and USAID [6].

The Bank focused on improving the competencies of new and under-qualified teachers teaching grades one to four in West Bank and Gaza schools, while USAID contracted AMIDEAST, a US-based nonprofit organization dedicated to educational and cultural exchange and educational development in the MENA region, to pilot a teacher and principal professional development program, the Model Schools Network (MSN), in 17 private schools in the West Bank. In 2009 additional USAID funding allowed MSN to expand to 40 public schools and 12 private schools in Gaza [7]. With the completion of MSN in 2012, and in recognition of its positive reception by school principals and district and Ministry leadership, USAID awarded AMIDEAST new funding to scale up the MSN model to some 300 schools throughout the West Bank; the program-the Leadership and Teacher Development (LTD) Program—runs through May 2016.

As there is no comparable school leadership program as comprehensive as MSN that we are aware of in the MENA region, the purpose of this paper is to offer a preliminary investigation into whether MSN, nearly three years since its close out, has had a sustainable impact on the attitudes and practices of principals as leaders of their school communities in general and as instructional leaders in particular.

Our paper begins by situating the conceptual framework underlying MSN's leadership diploma program in the broader discourses on transformative leadership in the literature. Next, we describe the research design, followed by a discussion of key findings that fall in three domains: technology and community building; results-based decision-making; and, instructional supervision. We conclude by drawing attention to problems that merit further research, problems that underscore gaps in knowledge about the current conditions, best practices, and challenges facing school leadership in Palestine and in the MENA region more generally.

We believe our findings will be of value to policymakers in Palestine's MoEHE, to district-level administrators responsible for supervision and support of school leadership, to experts who deliver and monitor professional development to principals and teachers, and to principals themselves.

2. MSN's Approach to Leadership Development as Reflected in the Literature

Recognizing that the tendency of principals and teachers to work in isolation is one of the biggest obstacles to improving and sustaining student learning [8,9,10], MSN adopted a school-based strategy in which professional development for principals and teachers took place in concurrent face-to-face sessions and learning circles clustered into networks of schools inside a given district. The centerpiece of professional development for MSN principals was the Leadership Diploma Program (LDP).

Developed jointly by AMIDEAST and the National Institute for Educational Training (NIET), a semiautonomous affiliate of the Ministry, the Leadership Diploma required principals to complete 320 hours of training over 18 months. Roughly half the requirements involved monthly face-to-face sessions and homework assignments, with the other half comprising an on-the-job practicum linked to authentic issues facing principals in their daily work. Competences grounded in theories of shared (and distributed) leadership were embedded in the content of training sessions and learning circles.

MSN's leadership competences were derived from the Ministry' School Improvement Guide and Standards for Effective Schools [11]. The Standards were the product of several years of international consultation and influenced by research on effective schools in the USA and Britain in the 80s and 90s [12], and were developed in tandem with the Education Development Strategic Plan (EDSP) 2008-2012. The competencies fall into seven domains:

- 1) Planning for school improvement based on a well-defined vision and mission
- 2) Engaging with internal and external stakeholders to facilitate the performance of school duties
- 3) Managing human and material resources
- 4) Sustaining high quality teaching and learning
- 5) Building a child-friendly school environment to motivate learning and build strong ties to the school community
- 6) Utilizing multiple approaches for student assessment and using results to improve the learning process
- 7) Integrating technology in teaching, learning and school administration

These domains reflect a consensus in the literature that sees principals as central to the task of transforming their schools into learning communities that promote powerful teaching and learning for all students, rather than merely maintaining the status quo as managers [13]. MSN's leadership competences for principals are reflected in what the literature points to as practices of principals that correlate with improved learning environments. These include acting as managers of school improvement; cultivating the school's mission and vision; making use of student data to support instructional practices and to provide assistance to struggling students; and building school community relationships [14,15,16].

Furthermore, the connection between distributed leadership and improved learning in the MSN context is seen in the principal's role in forming and leading a school improvement team comprised of teachers and parents and often other school staff and students. Team members collectively lead a school-wide needs assessment and then plan, implement and monitor strategic goals to improve the quality of teaching and learning. This shared leadership role for the principal is consistent with the literature on organizational development, where an organization—the school in this case—functions as an integrated learning system that engages all stakeholders in needs assessments and action planning to improve what works well and to address deficiencies [17].

The curriculum of the MSN Leadership Diploma Program shares a number of similarities to best practices found in school leadership programs around the world. In a study of high quality pre-service and in-service leadership programs in the United States, Darling-Hammond et al. [18] concluded that exemplary programs shared a common set of goals, content, and learning activities: all were closely aligned with state and professional standards; included clinical experiences and not just theory; and, created and maintained supportive linkages with local school districts and universities. The same was true for MSN's in-service leadership program. Its learning outcomes were closely aligned with the MoEHE's Standards for Effective Schools. Likewise, jobembedded assignments, action research, and learning circles furnished principals with extensive clinical experiences to engage them individually and collectively as reflective practitioners. Moreover, the program also forged linkages with local district leadership by creating district leadership teams (DLT) to leverage the strategic influence and resources of district education offices and to formalize their institutional support for the school improvement planning process that MSN principals were required to lead.

Extensive research in the past decade links school leadership to schools that outperform others with similar students [19]. To take just one example from the international literature, in a mixed-methods study of transformational leadership among a sample of schools in Nairobi, Kenya, Ndiga et al. [20] found a strong correlation between principals' transformational leadership and student academic achievement. This finding was corroborated by a strong, positive correlation between teachers' perceptions of principals' leadership and student achievement. There is some indication, though mainly speculative, that a similar pattern student achievement obtains among MSN schools. In 2011 when the TIMSS was last conducted in Palestine (Table 1), a 5.8% increase in scores obtained by MSN schools-relative to other schools in the national sample-elevated the performance of MSN schools over schools in six countries that had scored higher than the Palestinian national level in mathematics [21] and above five countries in science [22,23].

Table 1. TIMSS 2011 Results, Palestine National Authority

Subjects	Mean Score		
	National Sample	MSN	
Mathematics	404 (3.5)	426 (5.9)	
Science	420 (3.2)	448 (4.8)	
Science	· · · ·	448 (4.8)	

Further systematic research is needed to determine if, and to what extent, the model of the MSN leadership program contributes to gains in student achievement scores at former MSN schools.

3. Methods

The study adopted a descriptive survey design. Results of the quantitative findings were supplemented with a semi-structured interviews with four of the research subjects. The questionnaire consisted of 10 items (Table 2) framed by the core leadership competencies of MSN's leadership development training derived from the MoEHE Standards for Effective Schools.

T٤	able	2.	Survey	Iten	ns
	1	1		1	

Q1: I work with teachers to develop curricular goals for students.
Q2: I monitor the efforts of teachers to achieve the learning goals of
students.
Q3: I encourage faculty to use results of student assessment in
developing the school's annual improvement plan.
Q4: I encourage faculty to use results of student assessment to develop
teaching and learning strategies.
Q5: I engage faculty to help solve academic and administrative
problems.
Q6: I support the professional development of teachers.
Q7: I keep the faculty informed of the work they are expected to
perform.
Q8: I deploy the use of technology in teaching and learning.
Q9: I network with the local community to gain their support in
achieving the school's goals.
Q10: I make use of action research with the aim of improving teaching
and learning.
Using a five-point Likert scale with 5 indicating very

Using a five-point Likert scale with 5 indicating very high and 1 very low, the subjects were asked to rate the extent they have continued to apply each competency since the end of their MSN training nearly three years ago. The 10 items of this "School Leadership Scale" showed good inter-item reliability with a Cronbach's Alpha of .76. The semi-structured interview consisted of several openended questions based on the topics in the questionnaire.

3.1. Sampling Strategy

Selection of the subjects was limited to a purposeful sample of 23 of the 40 former MSN principals in the West Bank who had completed the Leadership Diploma Program (Table 3). Nine of the 40 principals transferred to non-MSN schools. These individuals were not included because our interest was in the question of the sustainability of the MSN leadership model in former MSN schools. That is, since MSN principals had been so closely invested in the process of developing and implementing a school improvement plan with key stakeholders in his/her school community, the experiences of principals who had transferred would have introduced a variety of confounding factors, albeit worth investigating, that we chose to avoid for our research.

3.2. Limitations of the Study

The study is modest first attempt to describe and explore a new model of leadership development for school principals in Palestinian schools. We believe the results are valuable, but we acknowledge several limitations relating to sources of data and research design. First, due to constraints of time and availability of both the researchers and the research subjects, school principals served as the sole source for data collection. Given that the MSN leadership program was framed in the context of the school as the unit of change, the inclusion of other stakeholders from the school community-teachers, parents, students, and other school staff-would have benefited our study by having generated multiple sources of quantitative and qualitative data for a more robust assessment of the efficacy of MSN in fostering a transformative style of shared leadership and supportive instructional supervision. Second, we were unable to explore whether MSN principals had any direct impact on gains in student achievement. This was due to the difficulty and time required to obtain student assessment data from schools, districts and Ministry. Third, due to time and limited resources, the use of an experimental design was not adopted, but we acknowledge that had we been able to, it would have allowed us to test the impact of MSN's intervention by dividing the sample into two groups: MSN principals (i.e., experimental) and non-MSN principals (i.e., control) [24].

Table 3. Demographics of Survey Sample	
--	--

Demographic Variables	Frequency	Percentage			
Gender					
Female	6	26			
Male	17	74			
Years as a Principal					
5 or less	2	9			
6-10	9	39			
More than 10 years	12	52			
Highest Degree					
Bachelor's	6	26			
Bachelor's + Teaching Diploma	14	61			
Master's or higher	3	13			
School District					
Jenin	2	9			
Nablus	3	13			
Ramallah	5	22			
Jerusalem Suburbs	3	13			
Jericho	2	9			
Bethlehem	3	13			
Hebron	5	22			

4. Findings

Results in Table 4 of the descriptive statistics for the 10-iem leadership scale range from a low of 3.91 to a high of 4.7, with a grand mean of 4.42 for the ten items of the Leadership Scale. Overall, these results suggest that the principals are still applying to a high degree the leadership skills obtained during their MSN training.

When ranked by importance from highest to lowest, the means for the individual competences appear to cluster into three thematic areas. The highest is comprised of items 8, 5, and 9 (from 4.70 to 4.65) and these are related to technology and community building. Next are items 6, 4, and 3 (from 4.52 to 4.43), which relate to results-based decision making. Lastly, items 7, 2, 1, and 10 (from 4.39 to 3.91) comprise the lower cluster and are closely related to competencies associated with instructional supervision. A detailed discussion of these three leadership themes is presented below.

Table 4. Results of descriptive statistics (n=23)						
	Compe	etencies	Mean	Std. Dev.		
t	Q8	I deploy the use of technology in teaching and learning.	4.70	0.47		
portan	Q5	I engage faculty to help resolve academic and administrative problems.	4.70	0.47		
Very Important	Q9	I network with the local community to gain their support in achieving the school's goals.	4.65	0.49		
	Q6	I support the professional development of teachers.	4.52	0.51		
It	Q4	I encourage faculty to use results of student assessment to develop teaching and learning strategies.	4.52	0.51		
Important	Q3	I encourage faculty to use results of student assessment in developing the school's annual improvement plan.	4.43	0.51		
nt	Q7	I keep the faculty informed of the work they are expected to perform.	4.39	0.50		
iportai	Q2	I monitor the efforts of teachers to achieve the learning goals of students	4.35	0.57		
ely Im	Q1	I work with teachers to develop curricular goals for students	4.04	0.71		
Moderately Important	Q10	I make use of action research with the aim of improving teaching and learning.	3.91	0.60		
Total Mean for Leadership Scale				0.30		

Table 4. Results of descriptive statistics (n=23)

4.1. Technology and Community Building

The first grouping reveals two areas of high priority: supporting the use of technology in teaching and learning, and using effective communication and communitybuilding strategies with faculty and the local community to support quality teaching and learning.

The four principals who were interviewed indicated a variety of ways they support the use technology to enhance educational and professional development in their schools: upgrading computer and science labs; encouraging students' use of technology inside and outside the classroom—in the school library and at home; holding workshops and seminars for teachers on the latest technology and multimedia tools; and, motivating teachers to use technology and portfolios in building teaching portfolios.

The principals also said they worked hard to build participatory relationships among internal and external stakeholders of the school community--students, teachers, and local community members. They described these groups as partners in assessing school needs and in planning and monitoring the implementation of the strategic goals of their annual school improvement plans. Students, they emphasized, were their number one priority. Students were treated with fairness and respect by listening to their concerns and challenges, and by helping them resolve their problems. These attitudes and actions, they believe, have had a positive effect on student behavior and learning outcomes. They also recognized that it takes the entire school community working as a team to sustain a supportive learning atmosphere and to cooperate in achieving the mission of the school.

The principals noted, too, how hard they work to create ties between faculty and local community organizations. They explained that building community partnerships is a critical responsibility because it helps them fill some of the budget gaps resulting from the pervasive low-resource conditions facing Palestine's public school system. They acknowledged that without community support, afterschool and extracurricular activities that provide learning enrichment for students would be all but impossible.

4.2. Results-Based Decision Making

The second group of competences, which can be described as having moderately high priority, relate closely to the value that principals place on using student assessment data to inform decision making in the two areas of professional growth of faculty and the development of strategic goals and objectives for their school's annual improvement plan.

In the interviews, the principals emphasized how seriously they view their responsibility to analyze student performance data to help teachers identify students' needs and to use this information to support teachers' involvement in relevant professional development activities. They also encourage faculty to work in teams to study results of student assessments and to develop creative learner-centered strategies and share their experiences with colleagues in their own school or through exchange visits with peers from other schools in their district. The principals added that they expect teachers to use results of end-of-year student assessments to make recommendations for revising the school's annual improvement plan.

4.3. Instructional Supervision

The third group of competences, which can be described as having a relatively modest level of priority, reflect behaviors associated with instructional supervision and leadership: ensuring that teaching practices are aligned with learning goals set by the school and the MoEHE; monitoring teachers' performance and student learning; and, using action research as a tool for reflective practice.

In the interviews, the principals commented that they engage teachers, and even members of the local community, in conversations to develop clear and achievable learning goals for students. One way they do this is by asking teachers to analyze the curriculum content of their courses. These conversations help them to ensure that teachers have the skills, tools, and resources they need to help students succeed. They added that these conversations are useful for designing and integrating inclass learning content with co-curricular activities outside the classroom. They sometimes make use of action research to assess how well teachers and students are meeting their learning goals.

5. Discussion

These results paint a picture of principals whose values and behaviors about leadership reflect a transformative, shared-vision of school leadership [25,26,27,28]. These are school leaders whose values and attitudes are focused on mobilizing stakeholders of the school community to achieve their number one priority of helping all students learn. This is an explicit outcome emphasized in MSN's leadership training modules and assignments. The jobembedded approach of MSN's trainings and learning circles created professional learning communities where principals could share and exchange their clinical experiences as reflective practitioners and critical friends [29,30]. By tasking the principals to form school improvement teams of teachers and parents to collaboratively conduct a school-wide needs assessment, the MSN leadership model enabled principals to transition from a traditional model focused on the individual principal in solo command [31,32] to one where the principal acts as lead facilitator of a collaborative and interdependent team of stakeholders.

The study's results indicate that technology figured prominently in the principals' leadership toolkit and complemented their improved teambuilding skills aimed at engaging a broader spectrum of stakeholders in improvement planning. This aligns with the MoEHE Standards for Effective Schools that, among other things, expects principals to support the integration of ICT in teaching and learning. For this reason, MSN training modules emphasized the role of the principal in supporting their teachers' integration of technology in their classrooms. The trainings were more than how to manage the ICT hardware and software; on the contrary, principals experimented with strategies to support the use of these ICT resources to enhance the teachers' engagement with their students. MSN made sure this was possible by provisioning each school with Internet connectivity, WiFi access points, LCD projectors, and by putting laptops in the hands of teachers and principals.

Now almost three years on, our findings indicate that former MSN principals continue to provide teachers with professional development opportunities to build their capacity in using technology in the classroom, a big accomplishment considering that many of the principals were "technology challenged" before the start of the MSN leadership training—some didn't even have email accounts. Since then, principals have come to view themselves not only as champions of ICT policies in their schools, but also as leaders of innovative instruction and learning, of which ICT plays a central role and is highly valued by the school community.

Results-based management continues to be a priority for improving student learning. The principals remain committed to using student assessment data to inform the process of school improvement planning and implementation. These principals are not content on merely collecting and reporting student assessment results to the school district. On the contrary, their MSN training appears to have enhanced their "assessment literacy" [33,34], whereby they look to multiple sources of data from teachers, students and parents to inform their monitoring of the annual school improvement process. They also encourage their teaching staff to use results of student assessments to inform their teaching practices and to share best practices with other teachers.

Finally, the results of the study point to the principals' changed attitudes about their role in instructional supervision. They eschew the control-and-surveillance approach [35] that prevails in most schools, and instead favor a developmental strategy in which they monitor teachers' performances and provide support for professional growth aimed at enhancing student learning. As previously noted, these principals accomplish this in a variety of ways: by asking teachers to use assessment data to diagnose students' needs; by ensuring that teachers align curricular goals with student assessment data and teaching practices; and by encouraging teachers to offer

learning enrichment through co-curricular activities outside the classroom. And it is noteworthy that the principals continue to use action research, which figured prominently in their MSN training, to explore ways to hone their practices in instructional leadership for the benefit of improved student learning.

6. Conclusions and Future Research

Leadership Diploma Program was designed with both sustainability and scalability in mind by the MoEHE and AMIDEAST. This paper has sought to investigate whether there is evidence of continued impact of the training on the values, attitudes, and practices of principals as leaders of their school communities in general and as instructional leaders in particular. The results of this modest study offer promising evidence that three years later the MSN model of shared leadership appears to be having a sustainable impact on the attitudes and practices of principals as leaders of their school communities in general and as instructional leaders in particular. Further research with a more representative sample of stakeholders—teachers, parents, students, and other school staff—is needed, however.

Future research should explore teachers' perceptions of their principals' practices. It is not enough to rely on principals' self-reported survey results. Only by examining both quantitative and qualitative data from other stakeholders can one judge the efficacy of the MSN model in fostering a transformative, shared leadership style of school management and supportive instructional supervision.

A second line of research should also explore whether the MSN model of instructional supervision and collaborative planning of school improvement is reflected in gains in student achievement. A longitudinal study of student achievement on standardized tests at the district, national, and international levels between MSN and non-MSN schools could yield more evidence in this regard.

References

- Shinn, C. (2012). Teacher Education Reform in Palestine: Policy Challenges amid Donor Expectations. *Comparative Education Review*, 56(4), 608-633.
- [2] Cristillo, L. (2010). Struggling for the center: Teacher-centered vs. learner-centered practices in Palestinian higher education. *Higher Education and the Middle East*, 2, 37-40.
- [3] Mahshi, K. (2001). Developing education in Palestine: a continuing challenge. *International Institute for Educational Planning Newsletter*, XIX(3), 3-4.
- [4] MOEHE. (1996). *First Palestinian Curriculum Plan*. Ramallah: Ministry of Education and Higher Education.
- [5] Mahshi, K. (2001). Developing education in Palestine: a continuing challenge. *International Institute for Educational Planning Newsletter*, XIX(3), 3-4.
- [6] Shinn, C. (2012). Teacher Education Reform in Palestine: Policy Challenges amid Donor Expectations. *Comparative Education Review*, 56(4), 608-633.
- [7] Shinn, C. (2012). Teacher Education Reform in Palestine: Policy Challenges amid Donor Expectations. *Comparative Education Review*, 56(4), 608-633.
- [8] Leithwood, K., Jantzi, D., & Steinbach, R. (1999). Changing leadership for changing times: McGraw-Hill International.
- [9] Fullan, M. (2000). *The three stories of education reform*. Phi Delta Kappan, 81(8), 581-584.
- [10] Hargreaves, A., & Fink, D. (2004). The Seven Principles of Sustainable Leadership. *Educational leadership*, 61(7), 8.

- [11] MOEHE. (2010). Improvement School Guide Based on Effective School Standards. Ramallah: Ministry of Education and Higher Education.
- [12] Cortez-Rucker, V., Adams, N., & Cortez-Rucker, S. (2013). Effective Schools: A Brief Review after Forty Years. *International Journal of Arts and Commerce*, 2(5).
- [13] Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly*, 38(2), 213-232.
- [14] Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). How leadership influences student learning: A review of research for the Learning from Leadership project. New York: The Wallace Foundation.
- [15] Lezotte, L. W. (1991). Correlates of effective schools: The first and second generation. Okemos, MI: Effective Schools Products, Ltd.
- [16] Williams, T., Kirst, M., & Haertel, E. (2005). Similar Students, Different Results: Why Do Some Schools Do Better? A Large-Scale Survey of California Elementary Schools Serving Low-Income Students. Initial Report of Findings. *EdSource*.
- [17] Leskiw, S.-L., & Singh, P. (2007). Leadership development: learning from best practices. *Leadership & Organization Development Journal*, 28(5), 444-464.
- [18] Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). *Preparing school leaders for a changing world: Lessons from exemplary leadership development programs* (Vol. 6): Stanford Educational Leadership Institute Stanford, CA.
- [19] Leithwood, K., & Seashore-Louis, K. (2011). Linking leadership to student learning: John Wiley & Sons.
- [20] Ndiga, B., Mumuikha, C., Flora, F., & Ngugi, M. (2014). Principals' Transformational Leadership Skills in Public Secondary Schools: A Case of Teachers' and Students' Perceptions and Academic Achievement in Nairobi County, Kenya. American Journal of Educational Research, 2(9), 801-810.
- [21] Mullis, I. V., Martin, M. O., Foy, P., & Arora, A. (2012). TIMSS 2011 international results in mathematics. International Association for the Evaluation of Educational Achievement. Herengracht 487, Amsterdam, 1017 BT, The Netherlands.
- [22] Martin, M. O., Mullis, I. V., Foy, P., & Stanco, G. M. (2012). *TIMSS 2011 International Results in Science*. International Association for the Evaluation of Educational Achievement. Herengracht 487, Amsterdam, 1017 BT, The Netherlands.
- [23] The authors wish to thank Dr. Mohammed Matar, Director, Assessment & Evaluation Department of the Ministry of Education, Ramallah, Palestine, and Mr. Robert Davidson of the USAID West Bank and Gaza (WBG) Mission for bringing this information to our attention.
- [24] Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches: Sage publications.
- [25] Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423-451.
- [26] Hargreaves, A. (1997). Cultures of teaching and educational change. *International handbook of teachers and teaching* (pp. 1297-1319): Springer.
- [27] Leithwood, K., Jantzi, D., & Steinbach, R. (1999). Changing leadership for changing times: McGraw-Hill International.
- [28] Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly*, 38(2), 213-232.
- [29] DuFour, R. (2003). Building a professional learning community. School Administrator, 60(5), 13-18.
- [30] Hargreaves, A., & Fink, D. (2000). The Three Dimensions of Reform. *Educational leadership*, 57(7), 30-33.
- [31] Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423-451.
- [32] Schlechty, P. C. (2001). Shaking up the schoolhouse: How to support and sustain educational innovation: Jossey-Bass San Francisco, CA.
- [33] Earl, L., & Fullan, M. (2003). Using data in leadership for learning. *Cambridge Journal of Education*, 33(3), 383-394.
- [34] Fullan, M. (2000). The three stories of education reform. *Phi* Delta Kappan, 81(8), 581-584.
- [35] Blase, J., & Blase, J. (2000). Effective instructional leadership Teachers' perspectives on how principals promote teaching and learning in schools. *Journal of Educational Administration*, 38(2), 130-141.