EFFECT OF TEACHER PROFESSIONAL DEVELOPMENT PRACTICES ON ENGLISH LEARNING OUTCOMES IN RWANDAN PRIMARY SCHOOLS: A CASE OF MUSANZE DISTRICT

NDUWAYO Justin Scholar, University of Kigali Sikubwabo Cyprien Lecturer, University of Kigali

ISSN 2277-7733 Volume 11 Issue 2, September 2022

Abstract

This study sought to analyze the effect of teacher's professional development practices on English learning outcomes of primary schools in Musanze district. This had focused on the following specific objectives which are: To find out how teacher in-service training affects English learning outcomes of primary schools in Musanze district, To assess how teacher peer learning platforms affects English learning outcomes of primary schools in Musanze district. The researcher use descriptive research design quantitative approaches was used in this research. Quantitative approach were used to analyses quantitative data from questionnaire. The used 3686 people as target population and 107 as simple size to represent others. Data were collected using structured questions with 5-point Likert scales. Quantitative data were analyzed using frequencies, percentages, standard deviation, means, and regression analysis. The finding from study concluded that there significant relationship teacher's professional development practices on English learning outcomes of primary schools in Musanze district. SPSS. The study outlines the recommendation which should go to the education partners and government which are: Government should provide frequent in service training to the teachers so that they should be continual update of knowledge and skills, Government should deploy sufficient instructional facilities to different primary schools because some do not have them while others have many which are packed in the stores. Because the study was not able to study everything and reach to every corner as explained in the scope of study that is the research why research left other topic which can help other writers to investigate in different areas. Further suggestions are the following: the effect of teachers' continuous professional development on learners' academic performance in secondary schools, contribution professional development to teachers' motivation.

Keywords: teacher in-service training, teacher peer learning platforms and learning outcomes. In today's world, the English language demonstrates a strong network effect: the more people use it, the more useful it becomes. Currently more than a billion people speak English as a first or second language, and hundreds of millions more as a third or fourth. For expanding businesses, young graduates, scientists and researchers, and international tourists, English proficiency broadens horizons, lowers barriers, and speeds information exchange the incentives to learn English have never been greater. However, progress in teaching basic skills to schoolchildren has been slower, in many Asian and African countries. In some countries, the problem appears to be uneven access to English education resources.

Education First English Proficiency Index (EF EPI 2011) data show that capital cities like Dubai and Tehran, for example, have much higher levels of English proficiency than their countries as a whole. Saudi Arabia's population is spread over a huge and unevenly developed territory, with varying levels of access to English instruction in schools. Hiring teachers from abroad is the solution preferred by many private schools and universities in the Middle East and China. However, the majority learners especially those from the poor, the vulnerable, marginalized and otherwise disadvantaged groups cannot afford the price of schools. Building a local professional class of English-speaking teachers would be a more sustainable solution.

In Latin America trading relations with northern America and the rest of the world, brought about a high demand for more English speakers, and, in response, a majority of the region's countries have rolled out education reforms to teach English better and more widely. In 2015, Uruguay rolled out an ambitious plan to raise English proficiency, investing in technology to enable remote English teaching at schools with no qualified English teacher on site, and the online course offering has been expanded to teachers to encourage them to upgrade skills. Unlike many countries in the region, Costa Rica has invested heavily in teacher training and recruitment. Today English is taught in every secondary school and in 87% of primary schools, and nearly every English teacher holds a tertiary degree. Testing in 2015 showed that Costa Rican English teachers have the highest level of language mastery in the region.

In Africa especially the sub-Saharan part, many countries have English as medium of instruction in their education. However, fast growing populations, scarcity of qualified teachers and low budgets allocated in public education sector by governments to mention a few, affect the effectiveness of the teaching and learning practice and hence negatively impacting the students learning outcomes. In a study conducted in 2017 by Education First (EF) on English proficiency level of countries across the world; out of 9 African countries which participated 6 scored very low proficiency. In some African countries including Ethiopia and Rwanda, British Council and other private organizations in partnership with governments have initiated teacher capacity building programs to help teachers especially those of public schools improve their English and integrate it in their teaching.

Since 2009 the government of Rwanda shifted from French to English language as medium of instruction in the education system from primary up to higher learning levels. This making it imperative to the whole teaching and learning business depend on the mastery and good use of the Shakespearean language. With pressures from regional integration and globalization Rwanda was inevitably to fit in the international standards

dress, comply and abide to all international development commitments and conventions such as the Sustainable Development Goals (SDGs).

As far as education is concerned, SDG4 was about ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all (UNDP 2018). There was an imperative urgency of preparing teachers for the new challenge by providing them with intensive trainings on English language. In collaboration with different education partners and stakeholders the government of Rwanda also established different initiatives and mechanisms to enable the teachers' access continuing professional development to enhance their English language proficiency. Teacher capacity building also being one of the priorities of the national education sector strategic plan (ESSP) and the Rwanda teacher's management policy. However, all these efforts are far-fetched, supposedly contributing to the battle for quality education in Rwanda as English language proficiency remains a mountainous challenge to the Rwandan academic community.

In the struggle to achieving quality education, teachers are frontline actors. Teacher is the main resource in the teaching and learning process. Learners speak what they hear from the teacher, this is why teachers are required to have a good level of language proficiency so that they can model a good language use for the learners to imitate them.

Since the establishment of English language as medium of instruction in the Rwandan education system in 2009, many actions have been taken to improve the teacher's language proficiency. In 2012, the Rwanda Education Board (REB) in partnership with the United States Agency for International Development (USAID) hired around eight hundred school-based mentors (SBM) including some Ugandans to help the Rwandan teachers improve their English.

At times, REB with the support of the British Council conducted English aptis tests and intensive trainings on English language. Between 2012 and 2013, the Teacher Service Commission (TSC) working closely with district education officers facilitated the delivery of teachers' in-service trainings. Around 45,000 teachers attended intensive training on English language and 250 English teachers as school-based mentors. (Simpson J. and Muvunyi E. 2013).

In regular school time tables, continuous professional development activities are also scheduled. Continuing Professional Development (CPD) is widely acknowledged to be important in the pursuit of improvements in teaching and learning (Hargreaves, 1994; Harland and Kinder, 1997; Craft, 2000). From 2018, funded by the United Kingdom Agency for International Development (UKAID), in partnership with three British educational organizations namely the British council, Voluntary Service Overseas (VSO) and Education Development Trust (EDT), REB launched implementation of the Building Learning Foundations (BLF) a five-year

project operating country wide, aiming at improving learning outcomes of English and Mathematics in Rwandan primary schools. Differently from previous interventions in teacher professional development, teacher self-study was one of the main tools the BLF was using. Since the beginning of its implementation in September 2017.

After identifying areas of improvement of the teachers pertaining with English language proficiency and Math teaching approaches through baseline assessment and aptis test conducted by the BLF through British Council, the teachers were provided with take home learning materials developed in accordance with their developmental needs and the teachers were oriented on how to use those learning tools which included the English and mathematic toolkits given in both print and media (Video and audio) format.

Teachers were advised to go study the provided content at their own pace. Under the mentorship of a Sector learning Facilitator (SLF) the teachers could ask questions for clarifications to understand more their learned content. The learning material included some practical activities which the teacher would work on, to cover the whole content load. After studying a particular unit alone, the teacher was to meet colleagues and share ideas, best practices and challenges pertaining with the studied unit. The teachers' progress was assessed by the SLF through regular lesson observation after which constructive feedback had to be given to the teacher about their strengths and areas of improvement. In addition to that there was a quarterly progress assessment conducted countrywide in selected schools and the results of the assessment would help the program implementers reshuffle intervention practices and improve.

This study intends to assess effect of teachers' professional development practices on English learning outcomes based on the research conducted in two schools from two sectors namely Muhoza and Nyange of Musanze district.

Research questions

How does teacher in-service training affects English learning outcomes of primary schools in Musanze district? And To what extent does teacher peer learning platforms affect English learning outcomes of primary schools in Musanze district?

Research methodology

A study population is the set of individuals, objects or materials from which a sample is taken for measurement. This can also be defined as the group of people in which a researcher is interested, and from which he/she can fetch the information needed. It is even from that; a conclusion and generalization will be based (Creswell & Creswell 2017). This study will target head teachers, deputy in charge of studies and English teachers. The targeted population will be from the schools of Musanze district sectors represented by Muhoza and Nyange sectors: MUHOZA sector schools are

GS Muhoza I, GS Muhoza II, GS Kabaya, CS Mubona, CS ND Fatima, CS Gasanze, CS Bwuzuri, CS Ruhengeri, CS Kiryi CS Nyamagumba and CSSusa II. Schools of NYANGE sector are GS Nyange, GS Kabara, GS Kagano, CS Ninda and CS Gasiza, within those sectors they are sixteen schools which contain 139 English teachers, 16 Head teachers and 16 Directors of studies, making 173 people as total population from which sample will be taken from. Purposive sampling was used in this research since the researcher wanted to maximize information that can be found from and about the context pointing the places and informants that differ from each other (Mouton,1992). The purposive sampling was done by picking people who have a specific information but it was based on prejudgment of a researcher, a sample size between 10% and 30% is sufficient for analysis (Mugenda & Mugenda,1999), in this regard, the researcher will consider all 16 headteachers and 16 directors of studies.

Researcher used simple random sampling to choose respondents among English teachers which can represent others since it was not easy to reach out to each element of the target population of Muhoza and Nyange sectors. In addition, the researcher used Taro Yamane (Yamane, 1973) formula with 95% confidence level to calculate a sample size of 139 English teacher, by applying the formula n=N/1+Ne² making a sample of 116 English teachers.

Presentation of findings

The part below explain the variables statistically by utilizing mean, maximum, minimum and standard deviation

Descriptive statistics Teacher in-service training

Statements	N	Mean	Std.
School-based training improves English learning outcomes	77	3.8701	1.37984
BLF-provided training improves English learning outcomes	77	4.2468	1.10210
British Council-provided training English learning outcomes	77	4.2078	1.23903
Training incentives improve English learning outcomes	77	4.1558	1.23613
Training attendance improves English learning outcomes	77	4.2078	1.21761
Training assessments improve English learning outcomes	77	4.2338	1.11090
Post-training follow-ups improve English learning outcomes	77	4.2468	1.10210
English proficiency tests improve English learning outcomes	77	4.2078	1.16232
Training duration improves English learning outcomes	77	4.4935	.88293
Training frequency improves English learning outcomes	77	4.3636	.98554
Valid N (listwise)	77	4.2233	1.14185

Note: range between [0 and 2.5] = decision is disagree while between [2.6 and 5] decision is agree. The table 6 showed that the majority of respondents agreed that the following factors influence English learning outcome in Rwandan primary schools. They are namely: BLF-provided training improves English learning outcomes(μ =4.2468 and STD=1.10210), British Council-provided training English learning outcomes(μ =4.2078 and STD=1.23903), Training incentives improve English learning outcomes(μ =4.1558 and STD=1.23613), Training attendance improves English learning outcomes (μ =4.2078 and STD=1.21761), Training assessments improve English

learning outcomes (μ =4.2338 and STD=1.11090), Post-training follow-ups improve English learning outcomes(μ =4.2468 and STD=1.10210), Training duration improves English learning outcomes(μ =4.4935 and STD=.88293), Training frequency improves English learning outcomes(μ =4.3636 and STD=.98554). According to the table above the respondents agreed that the following factor can affect English leaning outcomes in Rwandan primary schools School-based training improves English learning outcomes (μ =3.8701 and STD=1.37984). final decision is that the majority of respondents strongly agreed that teacher in service training affect English learning outcomes in Rwandan primary schools as shown by overall mean and standard deviation (μ =4.2233and STD=1.14185).

Descriptive Statistics of Teacher peer learning platforms

Statements	N	Mean	Std.
Regular one to one peer support improves English learning outcomes	77	4.3377	1.08349
Occasional one to one peer support improves English learning outcomes	77	4.1429	1.30499
Community of Practice Meetings improve English learning outcomes	77	4.2727	1.10782
Peer lesson observation improves English learning outcomes	77	4.4156	.92268
Peer feedback improves English learning outcomes	77	4.4286	1.01862
Out-of-school study trips improves English learning outcomes	77	4.1688	1.25029
Teacher group study improves English learning outcomes	77	3.9870	1.24069
Borrowing teaching aids from a peer improves English learning outcomes	77	4.1688	1.17432
Using English with colleagues improves English learning outcomes	77	3.9351	1.34103
Peer imitation improves English learning outcomes	77	4.2078	1.24961
Valid N (listwise)	77	4.2065	1.168678

Note: range between [0 and 2.5] = decision is disagree while between [2.6 and 5] decision is agree. The results from the table 7 shows that most of the respondents agreed that the following variables affect English learning outcomes: they are namely: Regular one to one peer support improves English learning outcomes (μ=4.3377and STD=1.08349), Occasional one to one peer support improves English learning outcomes (μ=4.1429and STD=1.30499), Community of Practice Meetings improve English learning outcomes (μ=4.2727 and STD=1.10782), Peer lesson observation improves English learning outcomes(µ=4.4156and STD=.92268), Peer feedback improves English learning outcomes(µ=4.4286and STD=1.01862), Out-of-school study trips improves English learning outcomes(µ=4.1688 STD=1.25029), Borrowing teaching aids from a peer improves English learning outcomes(µ=4.1688and STD=1.17432), Peer imitation improves English learning outcomes(μ =4.2078 and STD=1.24961), Teacher group study improves English learning outcomes(µ=3.9870and STD=1.24069), colleagues improves English with English outcomes(µ=3.9351 and STD=1.34103). Overall decision indicated the majority of respondents agreed that Teacher peer learning platforms affect English learning outcomes (u=4.2065and STD=1.168678)

Table 1: Descriptive English learning outcomes

8			
Statements	N	Mean	Std.
The number of learners who succeeded English in the national	77	4.2597	.89447
exam increased in this school for the last five years			
the percentage of pupils who got letters to go to secondary school	77	4.2208	.91225
increased in the last five years			
Learners' performance in other subjects delivered in English	77	4.0909	1.01543
increased in the last five years			
The use of English language among learners has increased	77	4.2597	.89447
significantly for the last five years			
A good percentage of parents' feedback on their children's	77	4.1429	1.04773
progress in English registered in the last five years was positive			
Testimonials of secondary teachers from the schools which host	77	4.2987	.93281
former graduates of this school are positive			
Most of former graduates of this school succeeded well in	77	4.3636	.82572
ordinary level national exams			
The reputation of the school among the community has positively	77	4.1948	.85899
increased for the last five years			
The enrollment rate has drastically increased for the last five years	77	4.364	.9446
The dropout rate has significantly decreased for the last five years	77	4.4026	.79901
Valid N (listwise)	77	4.2597	.91254

Note: range between [0 and 2.5] = decision is disagree while between [2.6 and 5] decision is agree. The table 9 showed that most of respondents agreed that English learning outcome increased in last five years as it indicated by the following variables: The number of learners who succeeded English in the national exam increased in this school for the last five years(µ=4.2597and STD=.89447), the percentage of pupils who got letters to go to secondary school increased in the last five years(µ=4.2208and STD=.91225), Learners' performance in other subjects delivered in English increased in the last five years(µ=4.0909and STD=1.01543), The use of English language among learners has increased significantly for the last five years(μ=4.2597and STD=.89447), A good percentage of parents' feedback on their children's progress in English registered in the last five years was positive(μ =4.1429and STD=1.04773), Testimonials of secondary teachers from the schools which host former graduates of this school are positive(µ=4.2987and STD=.93281), Most of former graduates of this school succeeded well in ordinary level national exams(µ=4.3636and STD=.82572), The reputation of the school among the community has positively increased for the last five years (µ=4.1948 and STD=.85899), The enrollment rate has drastically increased for the last five years (μ =4.364 and STD=.9446), The dropout rate has significantly decreased for the last five years(μ =4.4026 and STD=.79901). the overall decision is that majority of respondents strongly agreed that English learning outcome increase in last years since the time teachers continuous professional development were established as shown by (μ =4.2597and STD=.91254).

Discussion

The objective number one which was To find out how teacher in-service training affects English learning outcomes of primary schools in Musanze

district, the research indicated that there is significant effect of teachers in service training and English learning outcomes as shown by overall mean and standard deviation (µ=4.2233and STD=1.14185) and regression analysis which was (F=27.016, p value <0.05). This noted that teachers in service training contribute to the English learning outcome in primary school basing on the information taken from the first implementers. In addition to that there was others authors like Ashrafuzzaman (2018) asserted that in teachers in service training affect significantly improve teachers practice in primary level. Means that training have an important role to the teachers who attend it because after that activities they return home with good package which enhance them to conduct teaching and learning activities. Continuous professional development for English teacher is very important because in Rwanda primary and secondary school take the lesson in English as an instructional language, this means that when English teachers are weak in English academic achievement can be affected negatively. Rwandan government together with different stakeholders are providing training to the teachers so that they can improve the academic achievement.

The objective number two which was To assess how teacher peer learning platforms affects English learning outcomes of primary schools in Musanze district, the overall, descriptive statistics showed that majority of respondents agree that teacher peer learning platforms affects English learning outcomes of primary schools in Musanze district as shown by using mean and standard deviation (µ=4.2065and STD=1.168678) while regression analysis confirmed that the is significant relationship between Teacher peer learning platforms had a significant relationship (F=242.401, p value <0.05) with English learning outcomes in Rwandan primary schools. Other authors such Odov (2018) indicated that teachers peer learning is the best predictor that contribute to the students' academic performance. This means that peer learning increase the capacity of teachers in teaching and learning process once teachers get the opportunities to study from one another, English learning outcome can be achievable in Rwandan primary schools. Most of the teachers have not attended the same schools because some attended Anglophone schools while Others Attended Francophone schools which was purely French teaching school. It means that they have all to take for sharing ideas on how they can lesson plan English lesson. Other hands they are people who studied in Rwanda while Rwanda were using French as an instructional language while others learned country used English as an instructional language, when those people need continuous professional development which can be peer learning to update or harmonize their knowledge and skills in teaching once they do these English learning outcome can be increased at school.

Recommendation

This was intended to investigate the effect of teacher's professional development practices on English learning outcomes in Rwandan primary schools. As this study is academic there some gaps that the researcher found which need to be mitigated so that English learning outcomes can be more effective. That is the reason why government, UNCEF, UNESCO, stakeholders and parents have to know the following recommendation:

Government should provide frequent in service training to the teachers so that they should be continual update of knowledge and skills; Government should deploy sufficient instructional facilities to different primary schools because some do not have them while others have many which are packed in the stores; Government should deploy sufficient mentors to the schools who must have regular tasks to help leaners; Stakeholders have to work hands in hands with government so that they reveal where there is weakness which need to be mitigated.

Suggestions

This study was not able to study everything and reach to every corner as explained in the scope of study that is the research why research left other topic which can help other writers to investigate in different areas. Further suggestions are the following: the effect of teachers' continuous professional development on learners' academic performance in secondary schools, contribution professional development to teachers' motivation.

References

- Cohen, L., Manion, L., & Morrison, K. (2013). Research methods in education. Routledge.
- Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.
- Omari, I. M. (2011). Concepts and methods in educational research. *Dar es Salaam: Oxford University Press (T) Limited.*
- Orodho, J. A. (2004). Techniques of writing research proposals and reports in education and social sciences. *Nairobi: Masola Publishers*.
- Oso, W. Y., &Onen, D. (2005). A general guide to writing research proposal and report: A handbook for beginning researchers. *Kisumu, Kenya: Option Press and Publishers*.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. SAGE Publications, inc.
- Topping, K., &Ehly, S. (1998). *Peer-assisted learning*. Mahwah: Lawrence Erlbaum Associates. Google Scholar.
- Nakpodia, E. D. (2010). Human Resource Management in School Administration in Delta State, Nigeria. Journal of Social Sciences, 23(3), 179-187.
- Ministry of Education. (2006). Education Sector Strategic Plan 2006 2010. Kigali: MINEDUC.

- Ministry of Education. (2010). Education Sector Strategic Plan 2010 2015. Kigali: MINEDUC.
- Ministry of Education. (2007). Teacher development and management policy in Rwanda 2007 2015. Kigali: MINEDUC.
- Thomas, O.O., & Olugbenga, A.J. (2012). Effect of Teacher's Qualification on the Performance of Senior Secondary School Physics Students: Implication on Technology in Nigeria. Canadian Center of Science and Education: English Language teaching, 5(6),72. Retrieved May 19, 2020, from http://www.ccsenet.org/elt.
- The World Bank. (2004). A World Bank Country study: Education in Rwanda Rebalancing Resources to Accelerate Post-Conflict Development and Poverty Reduction. Washington, D.C.: The International Bank for Reconstruction and Development / The World Bank.
- Wong, K., & Nicotera, A. (2003). Enhancing Teacher Quality: Peer Coaching as a Professional Development Strategy, Publication Series No. 5. Vanderbilt University.
- Taylor, C., & Francis, G. (2011). Mentoring & Tutoring: Partnership in Learning, 19(3), 347–364. Retrieved June 21, 2020, from http://www.informaworld.com.
- Vanassche, E., & Kelchtermans, G. (2016). Facilitating self-study of teacher education practices: toward a pedagogy of teacher educator professional development. *Professional Development in Education* 42 (1):100-122.
- Adeyemo, S.A. (2012). The Influence of Teachers' Supply and the Provision of Laboratory Facilities on Students' Achievement in Physics. European Journal of Educational Studies, 4(3), 397.
- Agharuwhe, A. A., & Ugborugbo, M.N. (2009). Teachers' Effectiveness and Students' Academic Performance in Public Secondary Schools in Delta State, Nigeria. Study Home Communication Science, 3(2), 107-113.
- Ajayi, I.A., & Yusuf, M.A. (2009). Instructional Space Planning and Students' Academic Performance in South West Nigeria Secondary Schools. International Journal of Education and Science, 1(2), 73-77.
- Akinfe, E., Olofinniyi, O.E., & Fashiku, C.O. (2012). Teachers' Quality as Correlates of Students Academic Performance in Biology in Senior Secondary Schools of Ondo State, Nigeria. Online Journal of Education Research, 1(6), 108-114. Retrieved December 27, 2012, from http://www.onlineresearchjournals.org/IJER.
- Akinsolu, A.O. (2010). Performance in Nigerian Secondary Schools: Implications for Planning. Florida Journal of Educational Administration & Policy Summer, 3(2), 86.
- Al Jishi, H.A. (2009). Motivation and its Effect on Performance on Nurses in Aramco Health Center. (Master of Business Administration and Human Resources, Open University Malaysia, 2009).

- Ary, D., Cheser, L. J., & Sorensen, C.K. (2010). Introduction to Research in Education (8th ed.). Wadsworth: Cengage Learning Bailey, D.K. (1978). Methods of Social Research. New York: Macmillan.
- Ball, D. L., & Cohen, D. K. (1999). Developing Practices, Developing Practitioners: Toward a Practice-based Theory of Professional Development. In G. Sykes & L. Darling-Hammonds (Eds.). Teaching as the learning profession: Handbook of policy and practice (pp. 30–32). San Francisco CA: Jossey-Bass.
- Bullock, C.C. (2007). The Relationship between School Building Conditions and Student Achievement at the Middle School Level in the Commonwealth of Virginia. (Docotral Dissertation, the Virginia Polytechnic Institute and State University ,2007).
- Byrne, J., Brown, H., & Challen, D. (2000). Peer Development as an Alternative to Peer Observation: a Tool to Enhance Professional Development. International Journal for academic development, 10 (10), 1.
- Carter, S., & Shelton, M. (2009). The Performance Equation What makes truly great, Sustainable Performance. Apter Development LLP. Retrieved December 27, 2012, from http://www.apterinternational.com/articles/PerformanceEquationArticle060.pdf.
- Casteel, C.J., & Ballantyne, K.G. (Eds.). (2010). Professional Development in Action: Improving Teaching for English Learners. Washington, DC: National Clearinghouse for English Language Acquisition. Retrieved December 28, 2012, from http://www.ncela.gwu.edu/files/uploads/3/PD_in_Action.pdf.
- Cohen, D. K., & Hill, H. C. (2000). Instructional Policy and Classroom Performance: The Mathematics Reform in California. Teachers College Record, 102(2), 294–343.
- Colbert, J.A., Brown, R.S., Choi, S.H., & Thomas, S. (2008). An Investigation of the Impacts of Teacher-Driven Professional Development on Pedagogy and Student Learning. Teacher education quarterly, spring 2008.
- Collis, J., & Hussey, R. (2003). Business Research (2nd ed. Palgrave). New York: Macmillan.
- Cowie, D. (2010). Coaching for Improving Teacher Practice within a Professional Development Initiative. (Master of Educational Leadership and Management, United Institute of Technology, New Zealand, 2010).
- Dahar, M.A. (2011). Effect of the Availability and the Use of Science Laboratories on Academic Achievement of Students in Punjab (Pakistan). European Journal of Scientific Research, 51(2), 193-202. Retrieved December 24, 2012, from http://www.eurojournals.com/ejsr.htm.

- Dahar, M.A., Dahar, R.A., Dahar, R.T., &Faize, F.A. (2011). Impact of Teacher Quality on the Academic Achievement of Students at Secondary Stage in Punjab (Pakistan). European Journal of Social Sciences, 19(1), 98, 99.
- Davys, D., McKenna, J., & Tickle, E. (2008). Peer Observation in Professional Development: Occupational Therapists' Perceptions. International Journal of Therapy and Rehabilitation, 15(6), 246.
- Dilworth, M.E., &Imig, D.G. (1995). Reconceptualizing Professional Teacher Development. The ERIC Review, 3(3), 5-11.
- Fakeye, D.O. (2012). Teachers' Qualification and Subject Mastery as Predictors of Achievement in English Language in Ibarapapa Division of Oyo State. Global Journal of Human Social Science, 12 (3), 1.