Teacher Professional Development Influence on Time Management in the Teaching and Learning Process in Public Secondary Schools in Mumias Sub-County, Kenya

Maende, Justus Barasa

Abstract

Time is a crucial factor that influences performance in the teaching and learning process. The purpose of this study was to establish the influence of teacher Professional Development (PD) on time management. The study adopted descriptive survey design. The population of the study was 5378 respondents and 672 responded. Questionnaire, interview schedule, document analysis and Focus Group Discussions are the methods used to collect data. A pilot study was carried out in 3 schools. Quantitative data were presented in form of percentages and means while qualitative data were analyzed as themes emerged. It was established that PD highly influenced proper use of available time, punctuality in class and lesson planning with a mean rating of over 4.0. It was concluded that PD positively influenced time management that consequently led to better students' academic performance. It was recommended that organizers of PD should focus more on time management. The findings may be useful to policy makers and educational stakeholders.

Key Words: Teacher Professional Development, Teaching and learning process, Time Management, Teacher Effectiveness.

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Introduction

Time management is critical in the teaching and learning process. Well-managed time will lead to prompt teaching, proper understanding by the students and proper assessment. The professional development (PD) leads to proper use of available time
Professional development programmes refer to designed training programmes or activities intended to enhance employees’ productivity in this case, teachers (Cohen & Hill, 2002). More productive teacher education programmes and PD programmes make a difference to the teachers’ abilities to utilize their available time in the teaching and learning process for they go for their lessons on time (Darling–Hammond, 2003). Gamoran (2006) reported that teacher professional development leads to better content delivery in the classroom that consequently enhances student achievement. In addition, Guskey (2001) noted that teacher PD contributes positively on time management, evaluation practices and feedback given on the ability of the students.

Otu (2011) said that with proper in-service training, teachers can deliver content in a better way. On the other hand, Zame, et al: (2008) indicated that for teaching and learning resources to be effectively managed, teachers required well-organized professional development programmes. In addition, Federal Government of Nigeria (2010) noted that the best way one can show that quality education is being provided and that teachers are effective is by the number of students who qualify for university education. Principals are also evaluated based on the school examination results. This leads to their promotion or demotion (Ololube, 2005). In addition, Nigerian education system being examination oriented, many teachers perceive professional development as an instrument to enhance their effectiveness in instructional duties (O’Bannon, 2002).
In management studies, professional development is an essential personnel function for managers, in case of public secondary schools, principals. Teachers’ productivity is largely contingent on personnel management practices; other factors held constant, there exists a correlation between professional development and teacher effectiveness (Towse, Kent, Osaki & Kinia, 2002). Some works on achievement have also associated student academic achievement with teachers’ effectiveness; for example, Nannyonjo (2007) and Kagumire (2009) said that teacher mismanagement practices are many in Uganda and that teachers continue to complain about management practices by principals including denying teachers the opportunity to participate in professional development programmes thus rendering them ineffective in their duties. A survey of Ghana teachers found that more than 80% of in-serviced teachers who had graduated from Ghana Colleges of Education felt well-prepared for virtually all aspects of their jobs including lesson planning in contrast to reports about teacher education (Zame et al, 2008).

The Government of Kenya (GOK) has considered the significance of teacher education not only as a pre-requisite for entry to the teaching profession, but also as a critical criterion for upward mobility for serving teachers (Government of Kenya, 2008). Noteworthy indeed is the fact that professional development programmes (PDP) in Kenyan secondary schools have been correlated to teacher effectiveness by a host of government policy documents. The chairperson, Kenya Federation of Employers aptly
put it that management should enhance the development of people and not just give directives (Government of Kenya, 2009). Some teachers have tight work schedule thus lack enough time to prepare for their duties. Due to this, principals may need to allocate more time for professional development for their teachers to enable them improve on time management, which may enhance attendance of lessons by the teachers (Ngala & Odebero, 2010). Furthermore, there is lack of effective professional development programmes for teachers that lead to time wastage; thus not completing the syllabus on time. Effective teacher professional development would enhance proper use of allocated time and completion of the syllabus in time (Atsenga, 2002). In addition, there is lack of professional development programmes for the new teachers to induct them to the new environment (the schools), which demoralized the new teachers and affected their performance thus lowers students’ performance (Wanzare & Ward, 2001). Therefore, there is need for more PD programmes for the teachers to enhance students’ performance. In the years 2006, 2007, 2008, 2009 and 2010, 5.03%, 5.84%, 3.00%, 7.18% and 9.12% of the KCSE candidates respectively were selected nationally to join public universities. It is clear that the percentage (%) of the number of candidates who were selected by Joint Admission Board (JAB, the predecessor of Kenya Universities, Campuses and Colleges Placement Service - KUCCPS) to join public universities increased from 2006 to 2007 and dropped in 2008. In 2009 and 2010, there was an increase where 7.18% and 9.12% of the candidates respectively were selected by JAB nationally to join public universities.
According to the sub-County Education Officer (2011), there were several teacher professional development programmes in Mumias sub-County, sponsors rose to the occasion and organized workshops for teachers. A good example is the Catholic Diocese of Kakamega, which organized courses for teachers that could improve subject performance. The Government of Kenya in conjunction with Japanese Government offered teachers in-service course for mathematics and sciences in secondary education. Publishers such as Macmillan, Oxford and Longhorn also organized and offered in-service courses for teachers in all subject areas especially on the difficulties that students faced in the specific subjects. In addition, a number of teachers went for Kenya Education Staff Institute (KESI) courses, which were offered during school holidays and were sponsored by the schools. Individual schools also invited Kenya National Examination Council (KNEC) officers who gave training to teachers on new examination trends and rules in specific subjects. Mumias sub-County had many teacher professional development programmes organized with the aim of improving student academic achievement. However, it is worth noting that the effort was not fruitful. In fact, two schools did not have even a single candidate who qualified for admission to the universities. In addition, the number of students who qualified for university education had dropped for three consecutive years. Despite the fact that nationally there was a rise in the number of students who were selected for admission
in Public Universities as from 2008 to 2010, this was not the case in Mumias sub-County as shown in Table 1 below.

From Table 1, it is evident that the percentage of the number of candidates who were selected by Joint Admissions Board (JAB) increased from 2006 to 2008. In 2009 and 2010, there was a drop whereby, 15.53% and 13.84% of the candidates respectively were selected by Joint Admissions Board to join public universities.

Table 1: Number of Students from Mumias Sub-County Admitted to Public Universities

<table>
<thead>
<tr>
<th>Year</th>
<th>Entry</th>
<th>Number that Qualified</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1301</td>
<td>191</td>
<td>14.68</td>
</tr>
<tr>
<td>2007</td>
<td>1474</td>
<td>233</td>
<td>15.81</td>
</tr>
<tr>
<td>2008</td>
<td>1633</td>
<td>286</td>
<td>17.51</td>
</tr>
<tr>
<td>2009</td>
<td>1739</td>
<td>270</td>
<td>15.53</td>
</tr>
<tr>
<td>2010</td>
<td>2045</td>
<td>283</td>
<td>13.84</td>
</tr>
</tbody>
</table>

Source: Sub-County Education Office (2011)

Statement of the Problem

Despite the fact that Mumias sub-County Secondary School teachers had access to all fore mentioned professional development programmes geared towards improving student academic achievement, the number of students who qualified to public
universities decreased. This was contrary to the upward national trend for the same period as shown in Table 1 where 3.0%, 7.18% and 9.12% of the candidates in 2008, 2009 and 2010 respectively were selected by JAB to join public universities. There was need to find out how teacher professional development programmes may have influenced their time management in the teaching and learning process.

**Objective of the Study**

The purpose of this study was to establish the influence of professional development on time management in the teaching and learning process in public secondary schools in Mumias sub-County, Kenya. The specific objective of the study was to establish how PD influences time management in the teaching and learning process, which in turn affects students’ academic performance in public secondary schools in Mumias Sub-County, Kenya.

It was hoped that the findings of the study could be beneficial to:

(i) Policy makers and school managers in revising the existing guidelines on professional development programmes for teachers to enhance teacher time management,

(ii) Principals and teachers in evaluating and revising guidelines on professional development programmes in their schools, and

(iii) Future research by providing baseline information.
Research Approach

Research Design: The study adopted a descriptive survey design. Its primary advantage is that one can gather a great amount of data from members of a population in order to determine the status of the population with respect to one or more variables (Mugenda & Mugenda, 2003). It was appropriate for this study because the study dealt with a large amount of data from the population regarding influence of professional development on time management in the teaching and learning process in public secondary schools in Mumias sub-County.

Area of Study: This study was conducted in Mumias sub-County. Mumias sub-County is one of the sub-counties of Kakamega County in the then Western Province of Kenya. Mumias sub-County was curved out of the then larger Butere-Mumias sub-County in August 2007. It is one of the 10 sub-counties of Kakamega County. It borders Butere Sub-County on the South, Ugenya Sub-County of Siaya County on the South West, Matungu Sub-County on the North and Kakamega North Sub-County to the East. Mumias sub-County had a population of 246,553 people (Mumias Deputy County Commissioner, 2010).

Target Population: The population of the study consisted of one Director Quality Assurance Officer (DQASO), 33 principals, 165 head of departments, 393 teachers and
4786 Form III and IV students drawn from the 33 public secondary schools in Mumias sub-County.

**Sample and Sampling Techniques:** The study population was sampled on the basis of saturated sampling technique allowing one DQASO, 30 principals and 150 heads of departments to respond. Furthermore, 131 teachers were sampled by simple random sampling technique from 30 sampled public secondary schools in Mumias sub-County. This sample was considered appropriate based on the view of Dooley (2001), which indicates that a study that probes deeply into the characteristics of a small sample will often provide more knowledge than a study that looks at the same problem by collecting shallow information from a large sample. Additionally, Mugenda and Mugenda (2003) suggested that a sample of a third is sufficient for a small population of less than 1000. The simple random sampling was used to give each respondent an equal chance to respond and involved the use of random numbers table to select the respondents. In addition, 360 Form III and IV students were picked to respond based on Israel (n.d)’s formula of determining sample size as follows: Where,

\[ n = \frac{N}{1 + N(e)^2} \]

\[ n = \frac{4786}{1 + (0.05)^2} = \frac{4786}{1.025} = 4786 \times \frac{1}{1.025} = 4786 \times \frac{1}{1.025} = 469.91 \]

This formula was considered appropriate based on the view of Israel (n.d), that the formula could be used to determine a sample size for a larger population of over 2000.
Form III and IV students were selected because they had more experience with the teachers in their schools and could give necessary information compared to their Form I and II counterparts who had less experience.

**Data Collection Methods:** Data was collected using: questionnaires, interviews schedule, document analysis guide and Focus Group Discussion.

1. **Heads of Departments’ Questionnaire:** The head of departments’ questionnaire contained both open and closed-ended questions and was used to collect information from head of departments on the influence of teacher professional development on time management in secondary schools in Mumias sub-County.

<table>
<thead>
<tr>
<th>Table 2: Sample Frame</th>
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<tbody>
<tr>
<td>Category of Respondents</td>
</tr>
<tr>
<td>DQASO</td>
</tr>
<tr>
<td>Principals</td>
</tr>
<tr>
<td>Head of departments</td>
</tr>
<tr>
<td>Teachers</td>
</tr>
<tr>
<td>Form III and IV students</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

2. **Teachers’ Questionnaire:** The teachers’ questionnaire contained both structured and unstructured questions and was used to collect information from teachers on influence
of teacher professional development on time management in the teaching and learning process.

iii. The DQASO Interview Schedule: The DQASO interview schedule was used to get clarification of issues which needed probing as well as assess the accuracy and genuineness of responses given by principals, heads of departments and teachers on the influence of teacher professional development on time management.

iv. Principals’ Interview Schedule: The Principals’ interview schedule was used to get clarification on issues which needed probing as well as assess the accuracy and genuineness of responses given by heads of departments and teachers on influence of teacher professional development on time management.

v. Focus Group Discussion Guide: The Focus Group Discussion guide consisted of questions that had either been repeated or rephrased as they were in the questionnaire. There were 360 students from the 30 public secondary schools in Mumias sub-County who discussed in groups of 12 each drawn from Form Three and Four. There was one focus group per school. This helped the researcher to gather more information on the influence of professional development on time management.
Document Analysis Guide: The instrument was used to check records from the principals, teacher professional development and the teachers’ supervision records of the school.

Validity and Reliability of Instruments: Face validity of the questionnaire, interview schedule and Focus Group Discussion guide was determined by presenting them to research experts at the Department of Educational Management and Foundations at Maseno University. They gave comments and suggestions that were used to revise the instruments. To ensure reliability of the instruments, the questionnaire, interview schedule and Focus Group Discussion guide were piloted. This was done by administering the instruments to 3 principals, 15 Heads of Departments, 13 teachers and 36 students. Data obtained was analyzed using the Pearson’s Correlation Coefficient. A correlation of 0.89 was obtained which indicated that the instrument was deemed reliable.

Data Collection Procedures: The researcher-sought permission from the National Council of Science and Technology through the School of Graduate Studies (SGS) of Maseno University, before proceeding to the field to collect data. Letters notifying the sampled schools of intended study were dispatched to the schools to administer the questionnaires to heads of departments and teachers. I conducted the interviews with DQASO and principals. Focus Group Discussions were also conducted among students in groups of 12 each. The responses were written down in a notebook. The responses
were also tape-recorded. Records on staff development programs, teachers’ supervision for the previous 3 years were perused and relevant data recorded. The researcher involved two research assistants who were duly trained.

**Methods of Data Analysis:** The quantitative data obtained from close-ended parts of the questionnaire were analyzed using descriptive statistics and a one-way Analysis of Variance (ANOVA) technique. The ANOVA technique was used to compare the means of the responses of the heads of departments and teachers so as to establish their statistical significance. Qualitative data obtained from open-ended parts of the questionnaire, interview schedule and Focus Group Discussions were analyzed on an on-going basis as themes and sub-themes emerged. Data from interviews and Focus Group Discussions were transcribed. Open-ended parts of the questionnaire and transcripts of interviews and Focus Group Discussions were read through then connections were drawn between discrete pieces of data to developed themes and subthemes. The qualitative data was then categorized into the themes and subthemes. The dependent variable was time management, while the independent variables were the various professional development programs available for teachers.
Findings and Discussion

The study was guided by the following research questions: What is the influence of teacher professional development on time management in the teaching and learning process? To address this research question, the study sought to establish the rating of influence of teacher professional development on aspects of time management. The responses were as shown in Table 3.

From Table 3 (below), it is evident that the heads of departments and the teachers indicated that professional development influenced punctuality of the teachers in class at mean ratings of 4.71 and 4.54 respectively. During the interview, 4 principals affirmed that professional development improved punctuality of the teachers to class.

Similarly, the DQASO indicated, “We have received reports from principals that teachers’ punctuality to class was enhanced by professional development.” During Focus Group Discussions, one student, Wycliffe Wamukoya (pseudonym) indicated:

Our teachers have really improved on their punctuality to class due to frequent attendance of professional development programs. Some of them used to come to class very late but nowadays they come very early, in fact when you delay outside you can find a teacher already in class.

The high mean ratings reported on Table 3 may be attributed to many lesson activities that were emphasized by professional development programs. These findings imply
that professional development had a very high influence on teachers’ punctuality to class for lessons. The findings agree with those of Darling–Hammond (2003) who found out that more productive teacher education programs and professional development programs make a difference to the teachers’ abilities to utilize their available time in the teaching and learning process for they go for their lessons on time. Atsenga (2002) indicated that effective professional development programs for teachers led to proper use of allocated lesson time.

Table 3: Influence of Teacher Professional Development on Time Management

<table>
<thead>
<tr>
<th>Aspects of Time Management</th>
<th>Mean Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Head of Departments</td>
</tr>
<tr>
<td></td>
<td>n=150</td>
</tr>
<tr>
<td>Punctuality to Class</td>
<td>4.71</td>
</tr>
<tr>
<td>Lesson Planning</td>
<td>3.96</td>
</tr>
<tr>
<td>Proper use of Available Time</td>
<td>3.75</td>
</tr>
<tr>
<td>Prompt Syllabus Coverage</td>
<td>3.21</td>
</tr>
<tr>
<td>Prompt Marking and Feedback</td>
<td>3.16</td>
</tr>
<tr>
<td>Missing of Lessons</td>
<td>1.00</td>
</tr>
</tbody>
</table>
With regard to lesson planning, the heads of departments and the teachers indicated that professional development influenced lesson planning at mean ratings of 3.96 and 3.78 respectively. During interview, the DQASO indicated, “The SMASSE training emphasized on the PDSI and ASEI lesson plans which were to be followed strictly as a teacher prepares his or her lesson plan.” During Focus Group Discussions, a Form 4 student reported, “My Chemistry teacher became very organized especially after attending professional development programs.” The findings imply that professional development had a high influence on lesson planning. These findings concur with those of a study by Zame et al (2008), which discovered that 80% of in-serviced teachers who graduated from Ghana colleges of Education felt well-prepared for virtually all aspects of their jobs including lesson planning.

Concerning proper use of available time, the heads of departments and the teachers indicated that professional development influenced proper use of available time by the teachers at mean ratings of 3.75 and 3.60 respectively. During Focus Group Discussions,
a student indicated, “Professional development made teachers value the available time and punished students who wasted time meant for learning.” During interview, similar sentiments were echoed by the DQASO, who indicated:

Professional development has a great positive effect on how available time was utilized by teachers in the schools. Some teachers were seen wandering here in town, but that has since stopped. We have achieved this through professional development. I feel like teachers’ problems can only be solved through in-service training and not discipline.

The principals during interview reported improvement on utilization of available time for the teaching and learning process. The findings imply that teacher professional development had a high influence on proper use of available time. These findings are in agreement with those of a study by the Federal Government of Nigeria (2010) which found out large gains on utilization of time since the early 1990’s in proportion to teachers receiving in-service training and National Commission on Teaching and America’s Future (2001), which indicated that well managed teacher professional development programs led to proper use of available time.

On prompt syllabus coverage, the heads of departments and the teachers indicated that professional development influenced syllabus coverage at mean ratings of 3.21 and 3.41 respectively. One principal during interview indicated, “Professional development
made it easier for the teachers to cover the syllabus on time because they used new approaches in teaching.” On the other hand, Focus Group Discussions yielded different results, one student reported, “A few teachers are generally lazy even after attending professional development programs; they still remain behind in syllabus coverage.” These findings from students may be due to negative attitude by a number of teachers towards a few professional development programs. However, the findings from heads of departments and teachers imply that professional development had a high influence on prompt syllabus coverage. These findings concur with Atsenga (2002) who revealed that effective professional development programs for teachers led to completion of the syllabus on time.

Regarding prompt marking and feedback, the heads of departments and the teachers indicated that professional development influenced prompt marking and provision of feedback at mean ratings of 3.16 and 3.48 respectively. During interviews, many principals consented that professional development made teachers able to mark students’ work and hand in results on time. The DQASO during interview also indicated, “Professional development especially in the area of examination management had enhanced teachers’ ability to assess students and submit feedback to stakeholders on time.” Students made similar sentiments during Focus Group Discussions; one student said, “Teachers who attended professional development programs were able to mark our work on time and with minimal mistakes.” These
means from the heads of departments and teachers imply that professional development had a high influence on prompt marking and feedback. These findings are in agreement with those of a study by National Commission on Teaching and America’s Future (2001), which indicated that well managed teacher professional development programs will lead to prompt assessment of the students and improvement on academic performance by the students.

On missing of lessons, the heads of departments and the teachers indicated mean ratings of 1.00. During interviews, principals indicated that professional development did not enhance missing of lessons instead it made teachers attend all classes. In another interview, the DQASO reported, “We recently handled one case where a teacher who had missed several lessons claimed that he was attending a workshop during the period.” On the other hand, during Focus Group Discussions, a student indicated, “Teachers used to miss lessons while attending seminars.” The students’ sentiments can be attributed to the fact that a few teachers lacked a plan on how to cover missed lessons. The findings from the heads of departments and the teachers imply that professional development had least influence on missing of lessons. The findings agree with those of Ngala and Odebero (2010) that teachers who attended staff development programs reported high attendance of lessons.
A one-way Analysis of Variance (ANOVA) was done at a level of significance of 0.05 to compare means of responses given by the heads of departments and the teachers about influence of teacher professional development on time management and the results are summarized in Table 5. The F-ratio (between groups mean square) was 0.721 while the p-value was 0.237. The probability of F-ratio (p-value) of 0.237 was higher than the significance level (critical value) of 0.05. Using this analysis therefore, the difference in the means of the responses of the heads of departments and the teachers was statistically insignificant. This indicates that there was no significant difference between the mean of heads of departments and the mean of teachers as far as the responses they had about the influence of teacher professional development on time management and for any differences that existed, may have occurred by chance.

**Summary:** This study established that teacher professional development influenced the following aspects of time management in the teaching and learning process in public secondary schools in Mumias sub-County:

i. Punctuality in class, lesson planning and proper use of available time were rated at mean ratings of over 4.00 by the heads of departments and the teachers.

ii. Prompt syllabus coverage and prompt marking and feedback were rated at mean ratings of slightly above 3.00 by both the heads of departments and the teachers.
There was a significant difference in the responses of the heads of departments and the teachers about the influence of teacher professional development on time management with a p-value of 2.37 at the level of significance of 0.05.

Conclusions and Recommendations

In light of the findings, I concluded that teacher professional development had high influence on time management.

Based on the results and conclusion of the study, I recommended that:

i. Principals should provide enabling environment and encourage all teachers to attend professional development seminars so as to enhance time management in the teaching and learning process, also focus on prompt marking, provision of feedback as well as prompt syllabus coverage.

ii. Organizers of SMASSE training, workshops and seminars should focus more on prompt marking, feedback and prompt syllabus coverage. This would make teachers appreciate time management in the teaching and learning process.

References


About the Author

Justus Barasa Maende: The author is an educationist with BEd (Science.) and MEd (Administration) from Maseno University. He has taught in several institutions that include Lake Institute of Tropical Medicine-Kisumu and Bukura Agricultural College. He is currently a Senior Editor at The Jomo Kenyatta Foundation.