Teacher-Student Ratio on Classroom Practices in Universal Secondary Schools in Wakiso District-Uganda

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Abstract
The study was hinged on evaluation of student-teacher ratio on classroom Practices in USE schools. This study used the cross-sectional research design with the population of 672 students and 643 are USE students with 29 teachers. The researcher used cluster random sampling and purposive sampling methods. The total population of the teachers and students was 4,139 and the final sample size was 206 respondents. The sample size of 206 from the teachers comprised of 52 respondents, 150 for students and 6 administrators was used for this study. The researcher used quantitative and qualitative approaches with the structured questionnaire, key informant interviews and observational protocols. Through key informant interviews and observational protocols it was found that in Wakiso district the teacher student ratio in most of the USE schools was at the average of 1: 60 students. Majority of the respondents (80.8%) agree that teacher-student ratios affect the teacher’s morale and commitment where 44.2% agree and 36.5% strongly agree against the 19.2% who disagreed. It means, teachers are committed, encouraged and able to follow up their learners when numbers are manageable than when they are very many to control. The study recommends national curriculum development center to come up with policy documents to guide the government, the curriculum development practitioners and educational institutions with educational policies on teacher student ratios of 1:45.

Keywords: teacher-student ratio, classroom learning, universal secondary schools

INTRODUCTION
The first public school opened in 1821 in Boston and high schools became more common in Massachusetts after 1827 because the law required free public high schools. Public high schools increased after the civil war of 1861-1865 as opposed to academies (Fenske, 1997). The East African region has embraced USE but one of the main challenges is ‘high teacher-student ratios’. Kenya, for instance, has had to expand the capacity of secondary schools to cope with the growing numbers of pupil population in primary schools in many ways like introducing a day wing in boarding schools, opening up more day schools, implementing double shift and distance learning through e-learning (Kenya education sector, 2006).

In Uganda, teacher student ratio has been a challenge since the colonial and missionary era where teachers were fewer due to high illiteracy rates and good educational facilities were available only to a small elite group (White Paper, 1992). It is said that the severe shortage of educational requirements of the 50’s made the Ugandan teachers and expatriates to flee the country and high student ratios, often more than 1: 25 made teaching difficult and reduced the teacher morale (University of Phoenix, 2010). Historically, Double shifts were practiced until early 2000's in schools like Kololo S.S.S, Mbale S.S.S. and Old Kampala S.S.S. successfully (Omar 2009).

Historically, in 1970 Uganda had 2,755 schools staffed by 21,471 teachers. By 1991 the schools rose to 10,000 staffed by 82,745 teachers, of these 21% were at secondary level. Secondary school teachers were 14,447, 1,022 in teacher training institutions and 766 in vocational institutions. Despite these numbers, most of the teaching positions were not filled. Hence, rapid expansions of secondary school system in part insured a chronic teacher shortage (education state university, 2009) which has become rampart in USE era. In 1980s, the education sector was the largest public sector employer but after 1986, (the defense surpassed) the ministry of education received 18% of the National budget most of which paid teacher’s salaries. Students and pupils paid fees and most schools asked learners and parents to contribute labour, food, or materials (US library Congress, 2010). This in part explains why teacher ratios have remained low due to little funds, that teachers and other educationists’ abandon the profession in favour of better paying jobs. The introduction of UPE 1997 and USE in 2007 came against this background of chronic teacher and material shortage. USE schools often have students between 80 -100 per class yet historically, inadequate teacher ratios have led to teacher’s loss of morale and poor student performance.

Contextual Perspective
The Uganda Government is conscious of the educational problems in the country where the quality of education is eroded by war, civil strife and economic decline. In that, schools are ill-equipped, short supply of instructional materials, poor teacher-renumeration, training and demoralization, high
illiteracy rates, no training of youths in productive skills, unbalanced distribution of educational facilities (Government White Paper, 1992). This is compounded by an economy that is not stable. The Education Commission pointed out educational goals through which the Government wants to restore the quality of education in Uganda. One of the recommendations of the report of the 1989 Uganda Education Policy Review Commission which was endorsed by Uganda White Paper (1992) was to achieve Universal Primary Education (UPE) by the year 2003. UPE began in 1997 but with inadequately prepared teachers, instructional materials and infrastructural facilities. Records show that in 1996, there were 2.5 million primary children and in 1999 the number had reached to 6.5 million. It is noted that the number continued increasing steadily and post-primary institutions in Uganda were not enough to absorb all primary graduates even before the introduction of UPE (Kirungi 2000).

However, USE started in 2007 against such a background. The Government of Uganda introduced in 2007 its Universal Secondary Education (USE) policy in order to increase access to quality secondary education for economically vulnerable families as elaborated in Uganda Ministry of Education And Sports (2013). Other reasons included increasing equitable access to post primary education and training; assuring the achievement of the Millennium Development Goal on Gender parity in education delivery by 2015; enhancing sustainability of the Universal Primary Education (UPE); and reducing the high costs of secondary education, (2013). While the effects of UPE have been analyzed extensively, this is not the case for USE as expounded by Filip, Stef, & Marijke (2005). USE policy was adopted with little attention to system capacity or involvement of secondary head teachers, (Nsubuga 2009) even though there is considerable research documenting the importance of school leaders in promoting or blocking education reform efforts (David, Lisa , Jessica 2010). TRS 2013 further illustrates that USE covers lower secondary education (senior one to senior four) and post primary Business, Technical, Vocational Education and Training. In support of the Universal Post Primary Education and Training Programme (UPPET) launched in February 2007, the Government of Uganda secured a US$375 million Adaptable Programme Loan (APL) from the World Bank, to be implemented in three phases over a 10-year period (2009-2018): (i) Phase One: US$ 150 million (2009-2012); (ii) Phase Two: US$ 125 million (2012-2014); (iii) Phase Three: US$ 100 million (2014-2018). The Ministry of Education & Sports is currently implementing phase I (APL1) which became effective on 4thNovember 2009 and was extended up to 31st July 2014.

Statement of the Problem
Young people want solid education, where curriculum and teaching methods are up to date. Education need to be adapted to the reality of the 21st Century and to the education needs of the Society. Therefore the most important thing is not that the Student has passed through the education system getting a universe of Knowledge fragments through Chemistry, Physics, Biology, Geography, among other subjects but what she/he has learned or acquired, such that the system will be able to provide education that will be useful to the Students for entering active life, the World of Work, and Society, (IBE 2004). With the introduction of Universal secondary education policy in 2007 in Uganda most classes have become big managed by one or few teachers. This has affected student-teacher ratios and classroom practices during teaching and learning process. This prompted this study.

Purpose of the Study
To evaluate the Teacher-Student Ratio Policy on Classroom practices in the Universal Secondary Schools in Wakiso District-Uganda so as to rethink on ways and means of preparing students for success.

The study was guided by the two objectives:
1. To assess the current teacher- student ratio on teaching and learning in Wakiso Uganda
2. To evaluate the effect of class size on the quality of teaching and classroom practices in Wakiso-Uganda.

The study was guided by two research questions
1. How does current teacher-student ratio effective to teaching and learning in USE schools in Wakiso-Uganda?
2. How does Class size influence on the quality of the teaching and classroom practices in Wakiso-Uganda?

The study intended to relate the various effects of teacher-student ratio to classroom Students practices and its end results. Figure 1 above, is the conceptual framework for teacher-student ratio and classroom practices where teacher-student ratio was the independent variable and classroom practices as the dependent variable. This framework was constructed basing on the theoretical perspective. It illustrates that teacher-student ratio greatly affects classroom practices among other factors. Teacher-student ratio is defined by teaching materials like charts and Pictures, teacher Morale and commitment, teacher-student interaction. Classroom practices (DV) include students Retention and transfer of Knowledge and students’ discipline, Classroom practices can be affected by other characteristics like learners’ age, learner’s interest, student’s background and Learners’ IQ / absorption rate. The interrelationships among the DV, IV and EV are indicated by the arrows. The
arrow from teacher-student ratio signifies the effect of teacher-student ratio on classroom practices. Classroom practices are also affected by other factors, that is; the extraneous variables and this effect is indicated by the arrow from EV to DV. Each of these variables has characteristics that define them and they are listed below each of them. The relationship among these characteristics is indicated by the arrows connecting to each other. The big arrow signifies that all characteristics that define teacher-student ratio affect classroom practices.

![Diagram of variables and their relationships]

Figure 1. The relationship of variables of teacher-student ratio and classroom practices

LITERATURE REVIEW
Teacher - Student Ratio and Classroom Teaching and Learning
A good deal of research and controversy has surrounded the question of ideal size over the past 40 years and many of the rigorous studies have been based in the U.S (Gillies et al. 2008). The first meta-analysis of class-size literature by Glass, Cahen and smith in 1978 indicated that students scored 10 percentile ranks better on standardized tests in a class of 20 rather than 40, and the greatest achievement occurred among students who were taught in classes of 15 or less (HEROS, 2005). The expansion of enrolment in Africa in the midst of limited resources translated in the 1980s and 1990s into more numbers in classes and the phenomena of large classes is becoming common in Africa and the world over (Wade, 2000). Distinctions of whether classes should have 15 or 20 students are largely irrelevant in developing world because ratios of 80, 100 and even 200 have been found in countries after UPE implementation (UNESCO, 2005).

Class size has repeatedly been shown to have an important influence on student achievement and Akinsolu confirms that class size is a big factor in determining the attainment of educational goals and objectives. For Nigeria, the student pupil ratio should not exceed 1:30 or at most a minimum of 1:35 but these ratios have gone up to 1:45 which makes it hard for the government to provide adequate facilities (Akinsolu et al. 2009). Commeiras (2000) that effective teaching seems impracticable for teacher educators having large class sizes of 50, 75, 100 or more.

In Nigeria, Okoro (1985) reported that the class-size in University of Nigeria, range between 35 or 40 students. He argued that few students per class are uneconomical, as they do not make full use of space,
teachers and teaching materials. Nwadiani (2000) argued that the higher the class-size, the lower the cost of education.

For the case of Wakiso, the study intends to find out which teacher-student ratio helps in the attainment of educational goals and objectives and which facilities are available on ground. Class size studies in developing countries have shown that reduced student-teacher ratios improve achievement in cases of South Africa, Israel and Bolivia (Case & Deaton, 1998; Angrist & Lavy, 1999; Lavy, 1999; Urquiol, 2001). Statistical analysis using school level data in Uganda from over 2,000 schools indicated that completion drops off sharply when the student teacher ratio exceeds 50:1 (Moses, 2005). Lower student teacher ratios improve teacher performance, satisfaction, reduce distractions in the room and give the teacher more time to devote to each learner (Mosteller, 1995). Then 1000 teachers would be recruited the following year. The assistant commissioner said that the target was to reach a 35 to 1 ratio. Nakabugo, M. G., Byamugisha, A. & Bithaghalire, J. (2008) reported that 420 teachers had been recruited countrywide for rural and hard to reach areas and schools that would begin double shift the following year. However, till 2017, the teachers are few and the student numbers have continued to rise exponentially. The ratios in Wakiso District are as high as 90 to 1 (Field data) and even more in some schools.

**Class Size on the Quality of Teaching and Classroom Practices**

Although there is no “perfect class size” and the ideal student-teacher ratio remains open to debate, Gillies, et al. 2008 argue that 40 students per teacher as a good benchmark. In the absence of a more definitive measure, the proposed ratio seems a reasonable goal (Gillies, et al. 2008). Out of a review of 96 studies on the estimated effects of educational resources in the developing world, 30 investigated teacher-pupil ratios, with eight showing a statistically significant positive relationship and eight a significant negative one. The remaining 14 studies were not significant (Hanushek, 1995).

Nakabugo, Byamugisha and Bithaghalire (2008) say that where USE has been attained it is characterized by lack of instructional materials, overcrowding in classrooms and discomfort in their learning process and thus hard to manage discipline of the students. Nakabugo, Byamugisha and Bithaghalire (2008) say that research elsewhere like Kalangala and Karamoja has attributed poor response to schooling to lack of teachers, poor staff welfare and poor teaching environment. This implies that students are there but teachers are scarce just as it is in Wakiso USE schools. Universal Secondary Education begun in 2007 with large numbers of senior one going students but there was shortage of teachers since the programme started without adequate preparation. Also Gruzd (2006) says that educational opportunities beyond primary school are extremely limited and he cites Uganda as a typical example of countries which have shortsightedly prioritized UPE. In 2003, secondary schools could only absorb less than half of that year’s primary graduates. The shortage of teachers has also been experienced in other countries practicing free education. For instance; when USE started in America (1820-1920), there was teacher shortage such that the ‘bright student monitors’ became instructors (Ornstein, et.al 2004). Uganda could borrow a leaf from America but USE students might be less equipped academically to teach fellow learners through what is mastered and thus be able to transfer knowledge. The Ttuta (Trinidad and Tobago teachers association) in Guyana also points out many problems of USE implementation like shortage of suitable teachers, large class sizes and no training of teachers in special needs (Ttuta, 2009). In Wakiso and Uganda at large, there was no special training and the available teachers find it hard to cause learning due to unmanageable numbers thus making the classroom practices unfavorable for students.

In order to create an effective learning situation in class, the atmosphere should facilitate exploration of meaning. It should provide for involvement, interaction, socialization along with a business-like approach of getting the job done (Combs, 1976). Combs, 1976 says learners must be given opportunity to confront new information and challenges rather than just receive information. New meaning should be acquired through personal discovery which is individualized and adapted to learner’s own style and pace for learning. In line with Gagne’s 5th process of learning where a teacher provides guidance, this is true. When the process or experience of learning and problem solving is to be emphasized, teachers may provide minimal guidance, rather discovery leaning is stressed (Driscoll 2000). The effects of pupil-teacher ratios in developing areas conclude that pupil-teacher ratio is the most important factor in education production (ismail & Cheng, 2005; Hungi & Thuku, 2010).

But this may not be applicable in USE classes where student numbers overwhelm the teacher and impairs learning environment and students’ discipline. Lamdin (1996) found no significant relationship between class size and student success. For Bhorata and Oosthuizen (2009) found that while pupil-teacher ratios and educational resources did not contribute to secondary school pass rates, proxy indicators for teacher characteristics were strong predictors of improvements in African students’ performance.
METHODOLOGY
The study was hinged on evaluation of student-teacher ratio policy on classroom learning in USE schools. This study used the cross-sectional research design with the population of 672 students and 643 are USE students with 29 teachers. School B had a total of 2,445 students and 2,118 students under USE programme with 68 teachers. School C had 873 students and 814 are USE with 24 teachers. All students together were 4,018 and 121 teachers. The study sample was selected from this population because the effects of teacher-student ratio affect them directly. The researcher used cluster random sampling and purposive sampling methods (Kisilu, et.al 2006 and Amin 2005). The researcher studied only one stream from a given class and all teachers who were present at the time of study. The study also employed purposive sampling techniques for the administrators who gave informed data basing on their position and knowledge of the school running (Mary Ann Wallace 1998). The total population of the teachers and students was 4,139 and the final sample size was 206 respondents; determined basing on the sample size table provided by Amin (2005:454). The sample from the teachers comprised of 52 respondents and 150 for students. The researcher used quantitative and qualitative approaches with the use of structured questionnaire, key informant interviews and observational protocols.

Table 1 . Sample size and selection

<table>
<thead>
<tr>
<th>Name of School</th>
<th>Teachers</th>
<th>Students</th>
<th>Administrators</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>11</td>
<td>35</td>
<td>2</td>
<td>50</td>
<td>24.3</td>
</tr>
<tr>
<td>School B</td>
<td>28</td>
<td>48</td>
<td>2</td>
<td>78</td>
<td>37.9</td>
</tr>
<tr>
<td>School C</td>
<td>13</td>
<td>65</td>
<td>2</td>
<td>80</td>
<td>38.8</td>
</tr>
<tr>
<td>Grand total</td>
<td>52</td>
<td>150</td>
<td>6</td>
<td>208</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data

Table 1 indicates that 52 teachers participated in the study, 150 students, and 6 key informants. The inconsistency of the sample size from each school was due to the sampling technique which took one stream from each school.

Gender
Data on the sex of the respondents indicates that more males than females took part in this study as presented in Table 2.

Table 2. Gender of respondents

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>Male</td>
<td>39</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Administrators</td>
<td>Male</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Students</td>
<td>Male</td>
<td>84</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>66</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Field data

Table 2 indicates that 56% of the respondents were males as compared to 44% representation for females. The reason was that in many of the schools visited, males outnumbered females but the researcher ensured representativeness as far as sex was concerned.

Validity
The researcher conducted a pre-test/ pilot study and using the results of the pilot study, the content validity index (CVI) was computed using the formula as follows.

\[
CVI = \frac{\text{Items rated relevant / very relevant by both rates (3 or 4)}}{\text{Total number of items in the instrument}}
\]

The instruments were confirmed valid as their corresponding CVIs calculated were within the accepted range of 0 to 1. The CVI for the key informants’ interview guide was established at 0.85, teachers’ questionnaire at 0.87, and for students at 0.91

Reliability
To determine the reliability, the researcher carried out a pre-test study whose results were calculated using Cronbach’s Alpha Coefficient Alpha (α) (Amin 2005) using the formula below.

\[
a = \frac{K}{K - 1} \left(1 - \frac{\sum SD^2}{SD^2_t}\right)
\]

Where \( K = \) Number of items in the questionnaire, \( SD^2 = \) Standard deviation squared (Variance) for each individual item, and \( SD^2_t = \) Variance for the total items in the questionnaire

The reliability of instruments teachers was established at 77% and of students at 97%. This qualified the instruments to be used efficiently as highly reliable. The questionnaire was calculated at 87%.

RESEARCH FINDINGS
Research question 1 stated that: “how does current teacher-student ratio effective to teaching and learning in USE schools?”

To answer this question, respondents were asked questions relating to their knowledge and experience of teacher-student ratios in the various backgrounds of their respective schools. The questions enlisted responses on how teacher-student ratios affected their teaching and learning.
Through key informant interviews and observational protocols it was found that in Wakiso district the teacher student ratio in most of the USE schools was at the average of 1: 60 students.

Table 3: Teachers use of pictures and charts in teaching

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Strongly Disagree</td>
<td>63</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>49</td>
<td>32.6</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>26</td>
<td>17.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>11</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Findings in table 3 above show that 112 respondents disagreed that is 2.6% strongly disagreed and 42% disagreed against 37 who agreed at 7=24.6% and one student who remained neutral. This shows that teachers hardly use teaching materials which is further confirmed by the researcher’s observations of lesson progress. Through observation protocol, no single class was found with charts on the wall or teacher used the chart during the lesson. Not only do the teachers not use teaching materials, but students too have no chance to use them.

Teacher-student ratio affects the teacher’s morale and commitment

As ratios are determinant to effective teaching, so also do they affect the teacher’s morale and commitment which in turn impact on classroom learning as shown below;

Table 4. The effect of teacher student-ratio on teacher’s morale and commitment

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>23</td>
<td>44.2</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>19</td>
<td>36.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to table 4, majority of the respondents (80.8%) agree that teacher-student ratios affect the teacher’s morale and commitment where 44.2% agree and 36.5% strongly agree against the 19.2% who disagreed. It means, teachers are committed, encouraged and able to follow up their learners when numbers are manageable than when they are very many to control.

A big teacher-student ratio reduces teacher-student interaction

The respondents agreed that not only does a big class affect the quality of instructional environment and methods, but it also affects teacher student interaction the teachers not use teaching materials, but students too have no chance to use them.

The chart 1 indicates that teacher student interaction is minimal when ratios are high. This is indicated by the responses of (43) teacher respondents with a percentage of 82.7 of those who agreed. However, 9 respondents, that is at 17.3% disagreed. This matches with the student respondent answers. When asked if their teachers know their names and they in turn
know the names of all their colleagues, they disagreed as illustrated below.

Chart 2. Students’ knowledge about their classmates

In this chart 2, students were asked to state if they know their classmates and 80.3% disagreed, that is, 74.3% disagreed and against the 25.7% who claimed to know all their colleagues. This means that there is some interaction to both teachers and fellow students but not all students are known because the numbers are enormous.

Class size affects teacher’s use of instructional materials

Just as class size affects the quality of instructional environment and methods, so too does it impact on the use of instructional materials. The bigger the class, the more materials are required and, varied are the learning styles of learners. The table below shows the responses on whether class size affects the use of instructional materials or not.

Table 5. Class size affects the teacher's use of instructional materials

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>Strongly Disagree</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>25</td>
<td>48.1</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>26</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In table 5, Most of the respondents that is 51 participants, agreed against one participant that class size affects teacher’s use of materials. Responses of “Disagree” registered 1.9% while those for Agree were at 98.1%. Besides this, the interviews and lesson observation also revealed that when classes are big the use of instructional materials becomes a big hurdle. The researcher observed a scenario where students scrambled for a text book on their desk because they are few. Even after a desk of five students is given a text book, one student struggles to put it nearest to himself while others keep agitating. In such a situation, the teacher is destructed and students cannot concentrate and sometimes they tear the textbook.

Research question 2 stated that: How does Class size influence on the quality of the teaching environment.

Activities that enhance transfer and retention of learned knowledge

The respondents were asked to rate the activities that enhance transfer and retention of knowledge as they use them in class. The activities were ranked basing on their practical application in class and in this case, it was in the USE obviously large class. Results showed that some activities are not commonly used most probably due to the large class sizes of USE as shown in the table.
Table 1. Activities to enhance retention and transfer of knowledge

<table>
<thead>
<tr>
<th>Activities</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Revision</td>
<td>43</td>
</tr>
<tr>
<td>Evaluations/tests</td>
<td>7</td>
</tr>
<tr>
<td>Learning guidance</td>
<td>8</td>
</tr>
<tr>
<td>Feedback</td>
<td>7</td>
</tr>
<tr>
<td>Role plays/discussions</td>
<td>7</td>
</tr>
<tr>
<td>Repeated performance</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Field data

When students were asked to rate activities, Revision scored highest at 43 points in the second rank, followed by guidance with 8 in the first (1) rank and feedback with 8 in the third rank. Spaced evaluations/tests and role plays scored equal points of 7 in the first rank and the last was repeated performance/practice with 6 in the second rank.

**Low teacher-student ratios minimize indiscipline problems**

Findings show that small student ratios have less indiscipline cases in comparison to the big class as revealed in the chart.

Chart 3. Low teacher-student ratio minimizes indiscipline among students

The chart 3 reveals that 44.2% strongly agree, 40.4% agree and 7.7% disagree and strongly disagree respectively that low teacher student ratios lead to less indiscipline problems. Among many students, teachers may not know the students individually and thus creating an inability to follow up the wrong doers. This is confirmed by administrators that their schools have indiscipline problems as seen below.

Chart 4. Administrators’ view of class discipline in their schools

To them 33.3% of the class is quite disciplined but 50.0% represents poor discipline and 16.7% very poor. This confirms that indiscipline is almost synonymous with high teacher-student ratios.
Respondents showed that the bigger the class, the more difficult to handle it becomes.

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Through key informant interviews and observational protocols it was found that in Wakiso district the teacher-student ratio in most of the USE schools was at the average of 1: 60 students. Majority of the respondents (80.8%) as indicated in table 4 agreed that teacher-student ratios affect the teacher’s morale and commitment. This implies that the quality of classroom teaching and learning is heavily influenced by teacher-student ratio.

Policy makers - the government and ministry of education

Since respondents underlined the fact that teacher-student ratios are determinant factor to classroom learning, the government together with the ministry of education should ensure appropriate ratios adjusted to different school situations. If a school is small, it should enroll according to its capacity. A policy regarding teacher-student ratios should be passed and enforced to ensure meaningful learning in all USE schools.

To the administrators

Since learning takes place only when the conditions are ripe, administrators should ensure that the learning and teaching environment is accorded the appropriate requirements like teaching materials, facilities and equipments, and general conducive school culture. Also they should ensure suitable student numbers in class proportionate to the teacher’s managerial capability. Pushing students to class with a teacher is no longer enough so, provision of required facilities and ratios will improve the learning environment.

To the teachers

Teachers are very much aware of the problem of high ratios and cannot do away with the situation just as the UNESCO workshop stated that the phenomena of large classes is becoming common in higher institutions in the region and the world over (UNESCO, 2001) Since teachers cannot wish large classes away, they should devise techniques for delivering quality education in such settings. The thought that learning occurs in proportion to class size: the smaller the class, the more students learn, should change now! Even though the findings show that small classes provide more opportunities for feedback, discussion and greater student satisfaction, what counts is not the size of the class, but the quality of the teaching. Therefore, in order to have effective instruction and student learning, regardless of class size, there should be engagement of students in active learning. Being mindful of syllabus coverage should not be overemphasized at the expense of student learning for positive transfer and retention of knowledge and building of skills and attitudes.

To the students

The students must know that discipline is part of learning. Rules must be enforced and observed in order to facilitate learning. Absenteeism and dodging lessons should stop for it ruins the conceptual building up of knowledge.

To the parents

Parents should be involved in the learning of their children by encouraging them not to dodge or absent themselves. They should visit them at school, check their books and consult with teachers about their progress. Schools should caution parents who do not follow up their children’s learning.

National curriculum development center

The study recommends to National Curriculum Development Center to come up with policy documents to guide the government, the curriculum development practitioners and educational institutions with educational policies on teacher student ratios of 1:45. There is a need to redesign curricula, develop teaching- learning methodologies and assessment activities that engage the students in “deep learning” and the teacher needs to become a designer of learning process in which she or he participates along with the students. The teachers’ main task is to create conditions that will encourage and stimulate learning, thus helping students to develop their own initiatives and abilities to think critically.

WAY FORWARD

The Senior Leaders should set directions and create student focused, learning oriented climate, clear and visible values and high expectations. The directions, values and expectations should balance the needs of the stakeholders. The Learning environment should be reinforced through aligning with community. Establishment and gradual implementation of standards of provision for the full range of non salary inputs to teaching and research: Supplying libraries either multiple copies of basic text books, as well as supplementary books and periodicals is the highest priority closely followed by supplying laboratories and workshops with consumables and material needed for equipment maintenance and repair.

There is a need to broad theoretical school of thought so as to have a well defined paradigm to guide classroom practices.
Table 17 showing educational theoretical paradigms

<table>
<thead>
<tr>
<th>Broad theoretical school of thought</th>
<th>Associated pedagogy</th>
<th>Examples of pedagogies in developed countries</th>
<th>Examples of pedagogies in developing countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviourism</td>
<td>Teacher-centred learning</td>
<td>Whole class teaching, working together as a collective (Japan, the Pacific Rim)</td>
<td>Lecturing, demonstration, direct/explicit instruction, rote learning, choral repetition, imitation/copying, ‘master-classes’ (e.g. learning music or dance)</td>
</tr>
<tr>
<td>Constructivism</td>
<td>Child-centred learning</td>
<td>Project work; individual activity, experiential, Montessori; Steiner; Pestalozzi in US and Europe</td>
<td>Activity-Based Learning in Tamil Nadu Bodh Shiksa Samit schools in India</td>
</tr>
<tr>
<td>Social constructivism</td>
<td>Teacher-guided Learner/student-centred learning</td>
<td>Reciprocal teaching of reading in US Communicative learning Co-operative learning Group work element in national strategies, England</td>
<td>Small-group, pair and whole-class interactive work, extended dialogue with individuals, higher order questioning, teacher modelling, showing, problem solving, inquiry-based, Nali Kali in India, thematic curriculum in Uganda</td>
</tr>
<tr>
<td>Liberationist, democracy Critical theory</td>
<td>Critical pedagogies</td>
<td>Critical pedagogies such as Philosophy for Children in England Student voice</td>
<td>Escuela Nueva in Colombia Guatemalan Nueva Escuela Unitaria (NEU)</td>
</tr>
</tbody>
</table>

REFERENCES

Analysis Department, 2013(1) Universal Secondary Education (USE) in Uganda: blessing or curse? The impact of USE on educational attainment and performance. [accessed March 25 2018].


MINISTRY OF EDUCATION AND SPORTS,“A Comprehensive Report on Universal Post Primary Education & Training (UPPET/USE) & Universal Post O-Level Education & Training (UPOLET) National Headcount Exercise 2013”, Kampala, Education Planning and Policy


TRS (Terms of Reference External Review of the Universal Post primary education in Uganda and Training reforms) 2013.


