Ugandan secondary school headteachers’ efficacy: What kind of training for whom?

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1. Introduction

Demand for and attention to secondary education worldwide, and particularly in developing countries, has grown in the past decade, generally due to three reasons. The first reason is that greater completion of primary education, in part a result of EFA and MDG efforts, places more demand on secondary education. Second, the school-age population is the largest cohort of young people today, and there is recognition that educating these young people has an impact not only on their lives, but also on the development of their country and of future generations. Finally, increased attention is being given to new competencies, knowledge and skills needed to participate in changing national and international systems, and secondary education has an important role to play in developing these competencies (World Bank, 2005). These reasons are all present in the policy initiative for universal secondary education (USE) in Uganda (Keating, 2001; Penny et al., 2008).

The current literature and research on secondary education in developing countries, and particularly in sub-Saharan Africa, addresses education sector reform processes (Lewin, 2005; Liang, 2002; Penny et al., 2008; Wedgewood, 2007); school-to-work transitions (Palmer, 2007); teacher recruitment, training and deployment (Mulkeen et al., 2004, 2007); and financing and governance (Lewin, 2006). School management, and the roles of principals (or headteachers1) while less researched, plays a pivotal role in implementing school reform and increasing the quality and efficiency of schools, particularly with increasing decentralization (Bennell and Sayed, 2002; De Grauwe, 2001; Gaynor, 1998; Perraton et al., 2002; Togneri, 2003). This article adds to the sparse, but growing, body of literature on secondary headteachers and their professional development needs.

In sub-Saharan Africa, secondary headteachers have little opportunity for advanced education and training, which the scholarship on school leadership asserts, is important to assist them with their roles and responsibilities (Daresh, 1998; Riley, 1999; Kucera and Stauffer, 2003). Mulkeen et al. (2004, 2007) find in their extensive review of the literature on headteachers’ professional development that few educational programs exist in sub-Saharan Africa for the training and development of secondary headteachers (see for example, De Grauwe, 2001; Dadey and Harber, 1991). Despite the lack of available training for headteachers, policymakers recognize the need for policies and practices that improve...
school management, and this is particularly true in Uganda (Government of Uganda, n.d.).

While the need to improve headteachers’ competencies to manage the dynamically changing secondary schools in Uganda exists, policymakers are not clear on which skills are most needed and how to best provide effective training for those skills. This study is part of a larger project to assess Ugandan headteachers’ perceived need for knowledge and skills and to develop a training program to address these needs.

One of the policy considerations in designing and implementing headteacher training, particularly when aiming to do it at a national scale, is whether a single “package” – one-size-fits-all – training is useful for all headteachers, and will produce desired outcomes of improved management of schools. The analysis of these data suggests an argument for targeting headteacher training at specific groups and related to specific needed skills. One of the rationales for targeting headteacher training, like other strategies to improve educational quality (see Anderson, 2005), is that it can potentially have a greater impact and make the most efficient use of resources. A lack of any training for these school leaders suggests some training is needed for all secondary school headteachers, but that training should be targeted and adapted based on specific needs and other factors, as discussed in our findings.

2. Secondary education in Uganda: recent developments

Various studies have shown that secondary education is in demand and valued in Uganda, and that the government of Uganda has given consideration to policy reform in this sector (Keating, 2001; Penny et al., 2008). Educational indicators illustrate this change in demand for secondary education in recent years. In 2004, 54% of students completed primary education (UNESCO UIS, 2005); from 1991 to 2004, the gross enrollment rate at the secondary level has increased from 11% to 19%; net enrollment has had a similar increase from 8% (1999) to 15% in 2004. Private secondary schools have also expanded in the past decade—there are currently 627 privately owned secondary schools compared to 847 that are government-aided, often with little support or training of headteachers and teachers. At the same time, secondary education, while officially decentralized, has not been fully decentralized in practice (Kamakamu, 2007). Teacher and headteacher deployment, student placement, and testing all remain centralized. The government of Uganda and donor agencies clearly acknowledge the need to address both access and quality in secondary schools (Penny et al., 2008).

In a strategic political move, President Museveni campaigned for re-election, and won in 2006, on a platform of universal secondary education, the first country in sub-Saharan African to undertake such an educational effort. Efforts to enact universal secondary education began in February 2007 in selected government-aided and private schools, although many uncertainties exist with regard to financing and management, teacher supply, and school resources. In a study assessing teacher supply and deployment, including headteachers, conducted by the Ministry of Education in late 2006 (citation from USAID document when public), the important role for education and training of headteachers was noted.

Many questions remain for the Ugandan government to address, including to whom they should target training when resources are limited; and which skills are most needed at this time and in the future, as schools change in response to USE. This study, and the larger partnership project related to it, begins to address these questions. A secondary purpose of this paper is to share the tool used to assess headteachers’ efficacy in leadership, management, instruction, and community relations. This assessment tool may be useful for other sub-Saharan African countries, as they begin policy deliberations on universal secondary education.

3. The study

To assess headteachers’ efficacy in important skill areas, this study was guided by Bandura’s (1977) efficacy model. Bandura’s (1977) efficacy model suggests, as applied to headteachers’ responsibilities, that the likelihood of attempting a task or implementing a skill, such as teacher assessment, as well as the level of effort and persistence, is related to headteachers’ belief in how important that skill is for a desired outcome, and how confident they feel in enacting that skill. If secondary headteachers feel a skill is important for effectively leading and managing their schools, but they cannot confidently employ it, then this is an area for further training.

3.1. Efficacy scales

Research on school leadership and management includes various domains of headteachers’ work for which they need to be adequately prepared. Administration and management is one of the core domains of headteachers’ work. These skills include financial and resource management of schools. Other research differentiates between administration and management, and leadership, or the ability to set a vision, motivate and enact the vision among stakeholders (e.g., Northouse, 2007; Posner and Kouzes, 1988). A growing body of research suggests that headteachers, particularly in decentralized systems, have an instructional and supervisory role (Togneri, 2003; De Grauwe, 2001; World Bank, 2005). Finally, and again related to decentralization and school-based management systems, headteachers play an increasing role in community relations, including relations with parents, boards, community organizations, and government officials as stakeholders.

Data from school headteachers were collected in a survey using these four skill domains. Items for each scale are similar to, but adapted from, existing scales (such as Posner & Kouzes leadership scale, 1988) used to measure these skill domains. Ugandan researchers reviewed and adapted items to reflect the Ugandan secondary school context. The administration and management dimension broadly includes skills related to communication, problem solving, and conflict management. The leadership scale assesses developing a mission and strategic plans, and monitoring goals. The instruction and supervision scale is comprised of items related to knowledge of curriculum changes, providing instructional feedback and support for teachers’ professional development. Finally, the community and government relations scale assesses the involvement of parents/guardians, community stakeholders in school affairs and relations with ministry officials. The survey items reflect efficacy theory by posing questions about both the importance of a skill area and the confidence of headteachers to enact that skill area in their work. For example, an item from the administration and management scale is: to what extent do you believe monitoring staff duties is an important skill for your work? To what extent do you feel confident in monitoring staff duties?

All items for each scale were measured on a four-point rating scale. Response options included: 1 = not important/not confident,

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2 A discussion and debate of these broad literatures of school management, leadership, instructional supervision and community relations are beyond the scope of this paper. This paper uses this literature to identify possible skills that are most important to school leadership and management within the Ugandan setting, as a way to assess training needs.
2 = somewhat important/somewhat confident, 3 = important/confident, and 4 = very important/very confident. Each of the scales had between 11 and 24 items. Summary scores were calculated for each scale with the maximum scale score of: 'Administration and management' 96; 'Leadership' 76; 'Instruction and supervision' 52; and 'Community relations' 44. The four scales have high levels of reliability, as measured by the Cronbach alpha statistic (see Table 1). The mean, median scores and standard deviation for each of the scales is reported in Table 1.

Responses on the importance scales were skewed, with the majority of respondents suggesting high importance for most items, and little variation. This finding suggests two possibilities: one is that most headteachers believed all of these skills to be necessary for being effective in their position, possibly because current pressure is great for improving secondary schools. Alternatively, headteachers cannot differentiate between those skills that are more or less important for improved school quality and management. This second interpretation may suggest a need for training on how these skills impact school management and quality.

Despite high importance on many items, considerable variation exists in headteachers’ confidence in enacting the skills in their school environments. This variation in headteachers’ confidence is further explored to examine which skills are needed by whom, and if targeting and adapting training of these skills would be useful.

3.2. Variables for analysis

Several variables are considered in this analysis to determine to what extent headteachers differ in their confidence to enact the necessary skills to lead school. These findings, in turn, have implications for how training might be targeted and adapted. These variables include: gender, position, size of school and location of school.

One of the factors to consider in designing and targeting headteacher training is gender. Women comprise a smaller percentage of both secondary teachers and headteachers. In Uganda, 22% of the secondary teacher force is female in contrast to 39% in primary schools (UNESCO UIS, 2005). One of the primary ways that headteachers move into their positions is through the ranks of having been a secondary teacher, which results in fewer female teachers being available to become headteachers. Policymakers’ efforts to promote gender equity among the teacher workforce can be aided by attending to the kind of skills that women need to develop in their leadership. If there are differences with regard to women and men’s efficacy as headteachers, then consideration should be given to which areas women or men need additional professional development and support.

Another factor to consider in designing and targeting training is the leadership position (head or deputy). Anecdotal evidence in Uganda suggests that deputy headteachers have considerably less authority than headteachers, and yet they play a vital role in school functioning. At times when headteachers may be gone from the school premises, deputy headteachers need to assume responsibilities and tasks for which they may not be prepared. Additionally, the selection of headteachers is often from a pool of deputy headteachers. Training that targets the needs of deputy headteachers will be preparing them not only for their current work, but also for future positions to which they are likely to transition.

Urban and rural locations of schools may also be another factor that differs in how prepared headteachers are to face varying challenges in these different locations. Furthermore, rural headteachers may have less access to ongoing professional development and support, or headteachers with less experience may be assigned to unfavorable areas. If efficacy in headteachers’ skills differs among locations, policymakers and universities that provide training should consider how to target different regions in Uganda, especially given that the main higher education institutions are based near Kampala. Ministry of Education officials also acknowledge they do not have sufficient resources to provide support to secondary schools in outlying regions and they often respond to issues in these schools when a crisis arises.

The size of a school is another factor that has implications for the skills and training that headteachers need. Well-established secondary schools in Uganda are considered large by international standards given the facilities available (often ranging from 1000 to 2000 students). Many new secondary schools have recently been created, however, and these schools generally serve a smaller number of students (300 or less). With universal secondary education now underway, the size of schools is likely to increase quickly. This poses new challenges and issues for headteachers to confront, especially since the better resourced schools may also have management teams with a firmer control over their affairs, which includes student admission as well as mobilization and utilization of resources. However, if schools encounter rapid expansion that is not matched by an increase in resources, headteachers may be faced with new challenges.

3.3. Sample

The sample of headteachers was drawn from schools in three geographical areas in Uganda: Kampala, Mubende, and Kalero districts (see Fig. 1). These districts were identified in conjunction with the larger project, as teacher training institutions exist in these regions, and faculty from these institutions collaborated to collect data and subsequently to develop training materials. Schools were included in the sample based on several criteria: (1) government schools, although a few private schools were included where few government schools exist; (2) maximum variation in size schools; and (3) located within a 20-km radius of the city/
training institution. Researchers conducted the survey with both headteachers and deputy headteachers of a school, if they were available.

3.3.1. Schools in these districts

Mubende and Kaliro districts are located about a 2.5-hour drive from Kampala, the capital city. Despite not being far from Kampala, the Mubende and Kaliro districts are considered to be rural areas. Within the small city of Mubende, there are approximately 12 secondary schools, of which many have been recently created. Several secondary schools started as private schools and control has now been taken over by the government. These newer schools have a smaller student body than the longer established schools. Sampled schools were also drawn from the rural areas around Mubende. These schools are geographically scattered and tend to serve students from a large catchment area.

Kaliro town in Kaliro district is smaller than Mubende. Three government secondary schools exist in Kaliro, all of them are well-established schools, and generally have more experienced headteachers deployed to them. Other secondary schools from this district were located in rural areas a 30–50-km distance from Kaliro. Most of these schools are newly formed schools.

Schools in these rural districts face several challenges related to teachers and students. Because many schools are quite small and newly created, they do not have sufficient number of trained teachers, particularly for science and language subjects. Sharing of teachers among schools is common. A new teacher deployment policy does not allow teachers to stay at one school for more than 10 years. In more rural or smaller schools that may be less desired locations for deployment, this results in a teaching staff that is inexperienced and young. In addition, the new teacher training program (Diploma of Education for Secondary Schools) is only 2 years long, and the practical training portion only lasts slightly more than 1 month. Many teacher educators feel these students are inadequately prepared, and it is the newly graduated teachers who are often deployed to rural schools. Students from more economically advantaged families tend to leave the districts to attend better schools in Kampala. This results in more under-prepared or less advantaged students seeking a secondary education in schools in Mubende or Kaliro, especially with universal secondary education now being implemented. Involvement of families in the education of their children and support of the school (e.g., financially) is more difficult in the rural areas, making the financial capacity of the schools more tenuous as well.

Finally, most of the schools within the town of Mubende and Kaliro now have access to electricity, but they may not consistently have power, and thus use of electrical power for computers or lab equipment, for example, is limited. Those schools outside the towns of Mubende and Kaliro do not have access to electrical power.

Schools selected within the vicinity of Kampala were all government schools except one, which is private. These schools differed dramatically in their resource base and student population. Six of the schools in the Kampala sample are poorly resourced, including a lack of facilities, such as desks and books. These schools are generally small, as students select to go to better resourced schools. Half of the Kampala sample schools are schools with good facilities and trained teachers, but may lack resources in terms of parent involvement and financial support. Finally, a quarter of the sample included the best government schools with extensive resources, parental involvement, as well as often the most experienced headteachers and teachers. These schools also have criteria for student enrollment, which allows for the selection of the best academically prepared students.

One of the unique aspects of the Kampala sample is that generally there are a sufficient number of well-trained teachers in these schools. For example, a school with 300 students in Kampala has 20 trained teachers, all with at least a Bachelor's degree and some with a Master's degree, whereas a school in Mubende area with 300 students has seven teachers and some teachers have only the 2-year diploma in secondary education.

3.3.2. Headteacher sample

The data were collected through interviews using the survey instrument. The researchers received training and guidelines, as well as practice to administer the protocol to achieve consistency in asking questions thoroughly and accurately. The interviews generally lasted 1–2 hour. 97 headteachers and deputy headteachers from 51 secondary schools responded to the survey. Of the 97 headteachers or deputy headteachers interviewed, 70% had 5 or less years of experience in their positions. Table 2 provides the demographic data on the respondents.

<table>
<thead>
<tr>
<th>Location</th>
<th>Total sample</th>
<th># in each size of school</th>
<th># of each role</th>
<th># of each gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Small (0–400)</td>
<td>Medium (401–1000)</td>
<td>Large (1001–2500)</td>
</tr>
<tr>
<td>Kaliko</td>
<td>11</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mubende</td>
<td>18 a</td>
<td>12</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Kampala</td>
<td>22</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>19</td>
<td>17</td>
<td>14</td>
</tr>
</tbody>
</table>

 a For the purposes of this analysis, by grouping schools into three equal groups, the definition of school sizes became: small 0–400, medium 401–1000, and large 1001–2300 students.
 b One school in Mubende did not provide enrollment data.
 c One person did not record gender, so N=96 for gender.

Table 3
Differences among groups on administrative and management scale

<table>
<thead>
<tr>
<th></th>
<th>Confidence</th>
<th>F</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>(1, 94)</td>
<td>2.76</td>
<td>.35</td>
</tr>
<tr>
<td>Location</td>
<td>(2, 94)</td>
<td>3.22</td>
<td>.40/.16/.56</td>
</tr>
<tr>
<td>Position</td>
<td>(1, 95)</td>
<td>4.30</td>
<td>.42</td>
</tr>
<tr>
<td>School size</td>
<td>(2, 50)</td>
<td>.623</td>
<td>.37/.14/.24</td>
</tr>
</tbody>
</table>

* a. p < .05.
  c. Small vs. medium/small vs. large/medium vs. large.

3.4. Analyses

Preliminary data analysis revealed nearly normal distribution of responses on all confidence scales, except for the leadership scale, and equal variances between groups on all four independent variables (see Table 3). Cross-tabs and frequencies were run on the four independent variables (‘Position’, ‘School size’, ‘Gender’ and ‘Location’) which suggested differences existed in confidence levels between groups for all these variables. Based on this preliminary analysis, summary scores were calculated for each skill domain enabling us to conduct analysis of variances (ANOVA) to test for differences between groups on the four independent variables. Effect sizes were calculated, or the size of the difference within each independent variable, by using Cohen’s d statistic. Chi-square and Cramer’s V statistics are used to provide a detailed understanding of individual skills which differed, by significance and magnitude, respectively, among groups. The findings from these analyses are described in the next section.

4. Findings

Findings from the analysis are reported by skill domain: ‘Administration and management’, ‘Leadership’, ‘Instruction and supervision’, and ‘Community and governance’, as this allows us to examine more closely the specific skills that may need to be adapted and targeted. For each skill domain, ANOVA and Cohen’s d are provided, and within each domain, chi-square and Cramer’s V findings are given for specific items.

4.1. Administration and management

Confidence scores of headteacher and deputy headteacher respondents from urban and rural locations differed significantly in administration and management skills, and particularly significant differences exist between Kampala and Mubende ($F(2, 94) = 3.220, p < .05, d = .56$). Deputy headteachers were also significantly less confident than headteachers in this scale ($F(1, 95) = 4.295, p < .05, d = .42$) (see Table 3). Gender and school size variables did not reveal significant differences among respondents in this scale, although differences were found on individual skill items among headteachers and deputy headteachers from different school sizes (see Table 4). In particular, headteachers from smaller schools felt less confident in implementing government regulations than their counterparts from medium and large schools ($V = .38$).

Preparing budgets was a particular skill that differed significantly ($\chi^2(6) = 22.7, p < .001, V = .49$), indicating deputy headteachers felt considerably less confident in enacting this skill. Managing learning and working with the finance committee were skills in which deputy headteachers were also considerably less confident than headteachers (see Table 4).

Headteachers and deputy headteachers from urban and rural locations also differed in their confidence in specific skills. These skills included communicating with staff ($\chi^2(6) = 17.3, p < .001, V = .30$) and using a computer for administrative management ($\chi^2(6) = 19.7, p < .001, V = .33$). Respondents from Mubende were less confident than those from Kampala with regards to communicating with staff, while respondents from Kaliro were least confident with using a computer for administrative management (see Table 4).

4.2. Leadership

Respondents, based on their gender, differed significantly in the importance of leadership skills ($F(1, 94) = 4.562, p < .05, d = .445$), with women placing more importance on leadership skill items overall. In particular, female headteachers placed a higher importance than male headteachers on the importance of creating working relationships and motivating students to be responsible for their own learning (see Table 5). All female respondents stated it to be very important to create working relationships, while only 67% of male respondents stated this skill to be very important. Similarly, 97% of women headteachers noted it to be very important to motivate students to be responsible for their own learning, while 84% of male headteachers stated this skill to be very important.

Headteachers and deputy headteachers in Mubende were significantly less confident from those in Kampala on their confidence in leadership skills ($F(2, 94) = 6.19, p < .005, d = .52/.76$) (see Table 6). In particular, respondents from Mubende and Kaliro were less confident in developing a performance appraisal system, assessing school staff, and setting goals for the school. Mubende headteachers and deputy headteachers were the least confident, with 54% of respondents stating they were not or somehow confident in developing a performance appraisal system.

Table 4
Administration and management chi-square analysis

<table>
<thead>
<tr>
<th></th>
<th>Location</th>
<th>Position</th>
<th>School size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>d.f.</td>
<td>$\chi^2$</td>
<td>$V$</td>
</tr>
<tr>
<td>1. Communicate on a regular basis with staff</td>
<td>6</td>
<td>17.3</td>
<td>.30$^a$</td>
</tr>
<tr>
<td>9. Prepare budgets</td>
<td>9</td>
<td>6.19</td>
<td>.29$^c$</td>
</tr>
<tr>
<td>11. Work with the finance committee</td>
<td>6</td>
<td>19.7</td>
<td>.33$^a$</td>
</tr>
</tbody>
</table>

* a. p < .05.
  b. p < .01.
  c. p < .001.
compared with 45% from Kaliro and 21% from Kampala. Similarly, 43% of respondents from Mubende stated they were not confident in assessing administrative school staff, whereas 29% of respondents from Kaliro and 15% from Kampala stated they were not or somehow confident.

Headteachers in small schools were less confident in motivating students to be responsible for their own learning than those in medium and large schools, with 88% of headteachers from medium and 100% from large schools stating they were confident or very confident; while, only 74% of headteachers from small schools were confident or very confident in motivating students to learn.

4.3. Instruction and supervision

Female headteachers and deputy headteachers also differed significantly from their male counterparts on the importance of skills in the instruction and supervision scale ($F(1, 94) = 5.67$, $p < .05$, $d = .49$) (see Table 7). For example, female headteachers placed greater importance on assessing overall teacher performance; 80% of the female respondents in contrast to 62% of male respondents, stated that it was a very important skill.

Headteachers and deputy headteachers in Mubende and Kaliro also differed significantly from their counterparts in Kampala in their confidence in instruction and supervision skills ($F(2, 94) = 7.10$, $p < .005$, $d = .87/.27/.60$) (see Table 7). In particular, headteachers and deputy headteachers in these rural locations were less confident in their knowledge about curriculum issues, reviewing teachers’ work, assessing overall teacher performance, identifying teacher training needs, attending to special needs of students, and providing career services (see Table 8). For example, 20% of Mubende and 14% Kaliro, in contrast to 3% of Kampala respondents, stated they were not confident or somehow confident in being knowledgeable about the curriculum.

Table 5
Leadership chi-square analysis

<table>
<thead>
<tr>
<th>Importance scale</th>
<th>Confidence scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Location</td>
</tr>
<tr>
<td>d.f.</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>2. Communicate the school's mission to appropriate stakeholders</td>
<td>6</td>
</tr>
<tr>
<td>5. Set goals for the school</td>
<td>6</td>
</tr>
<tr>
<td>6. Monitor achievement of goals for the school</td>
<td>2</td>
</tr>
<tr>
<td>7. Create working relationships</td>
<td>1</td>
</tr>
<tr>
<td>12. Motivate students to be responsible for their own learning</td>
<td>6</td>
</tr>
<tr>
<td>13. Develop a performance appraisal system for staff</td>
<td>6</td>
</tr>
<tr>
<td>14. Assess administrative staff performance</td>
<td>6</td>
</tr>
<tr>
<td>15. Act in an ethical manner</td>
<td>6</td>
</tr>
</tbody>
</table>

$p < .05$; $^a p < .01$; $^b p < .001$.

Table 6
Leadership ANOVA

<table>
<thead>
<tr>
<th>Importance</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (1, 94)</td>
<td>4.56$^a$</td>
</tr>
<tr>
<td>Location (2, 94)</td>
<td>.30</td>
</tr>
<tr>
<td>Position (1, 95)</td>
<td>.62</td>
</tr>
<tr>
<td>School size (2, 50)</td>
<td>.222</td>
</tr>
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</table>

Table 7
Instruction and supervision ANOVA

<table>
<thead>
<tr>
<th>Importance</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (1, 94)</td>
<td>5.67$^a$</td>
</tr>
<tr>
<td>Location (2, 94)</td>
<td>.35</td>
</tr>
<tr>
<td>Position (1, 95)</td>
<td>.01</td>
</tr>
<tr>
<td>School size (2, 50)</td>
<td>2.759</td>
</tr>
</tbody>
</table>

$p < .05$; $^a p < .01$.

Table 8
Instruction and supervision chi-square analysis

<table>
<thead>
<tr>
<th>Importance scale</th>
<th>Confidence scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>School size</td>
<td>Gender</td>
</tr>
<tr>
<td>d.f.</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>1. Being knowledgeable about curricula</td>
<td>6</td>
</tr>
<tr>
<td>2. Reviewing schemes of work with teachers</td>
<td>4</td>
</tr>
<tr>
<td>3. Reviewing teachers’ lesson plans</td>
<td>4</td>
</tr>
<tr>
<td>6. Assessing overall teacher performance</td>
<td>2</td>
</tr>
<tr>
<td>7. Providing guidance in development of student assessments</td>
<td>2</td>
</tr>
<tr>
<td>8. Assessing teacher performance to fit student and teacher needs</td>
<td>2</td>
</tr>
<tr>
<td>9. Modifying the curriculum to fit student and teacher needs</td>
<td>2</td>
</tr>
<tr>
<td>10. Identifying appropriate teacher training needs based on available resources</td>
<td>1</td>
</tr>
<tr>
<td>13. Attending to the needs of special needs students</td>
<td>6</td>
</tr>
<tr>
<td>14. Providing career planning services for students</td>
<td>6</td>
</tr>
</tbody>
</table>

$p < .05$; $^a p < .01$. 

* $p < .05$. 
* $p < .01$.
Female head and deputy headteachers were more confident than their male counterparts on several instruction and supervision skills, specifically in providing guidance in developing student assessments, assessing teacher performance, and attending to special needs of students. Deputy headteachers were less confident in modifying the curriculum and identifying appropriate teacher training needs (see Table 8). Interestingly, a large effect size \((d = .75, .65)\) occurs between small, medium, and large schools on the importance of instruction and supervision skills. In particular, headteachers in small schools felt it more important than their counterparts to review schemes of work and lesson plans. All headteachers from small and medium schools felt that reviewing schemes of work with teachers was important or very important while only 77% of headteachers from large schools felt this was important. Likewise, 100% of headteachers from small and 94% from medium schools felt that reviewing teacher’s lesson plans was important or very important while only 64% of large schools felt this skill was important. These findings may be partially explained by the structure of large schools in which director of studies may be responsible for these activities, whereas small schools may not have any additional administrative support for these activities.

### 4.4. Community and government relations

While no statistically significant differences between groups on any variable were found in the community and government relations confidence scales, medium effect sizes occur with regard to differences in responses from headteachers and deputy headteachers between the urban and rural locations (see Table 9). Head and deputy headteachers in rural districts (Kaliro and Mubende) were less confident in seeking funds from parents/guardians for the school \((\chi^2(6) = 18.4, p < .01, V = .31)\). Interestingly, 23% of Kaliro, 26% of Mubende, and 25% of Kampala respondents are not or somehow confident; however, 36% of Kaliro, 30% of Kampala and 6% of Mubende respondents stated they were very confident in seeking funds from parents/guardians. These differences in localities have implications for how headteachers are selected and deployed, particularly to rural schools. The differences among headteachers’ confidence in the rural and urban localities also suggests that training needs to take into account the context of the area in addition to the skills. For example, training may also help identify resources within or outside of the community for headteachers from the rural locations to readily access assistance and information.

School size is related to a number of leadership and management factors for headteacher and deputy headteachers. These differences in school size reveal several contextual issues related to school size. The largest schools tend to be the most well resourced, while the smallest schools, particularly in the rural areas, are new

### 5. Discussion and implications

Our analysis suggests several implications when designing and targeting training for secondary deputy and headteachers in Uganda. From the perspective of the Ministry of Education (MoE), implications weigh most heavy with respect to where they target and to whom they target their training. From the perspective of headteachers and the quality of the school, having the appropriate and necessary knowledge and skills to effectively manage and lead these schools is a crucial consideration. Our findings suggest that for these three regions of Uganda, the MoE should consider location and school size when developing and targeting training. In addition, training should include both deputy and headteachers. Finally, certain skills are more urgently needed than others when considering the development and provision of training.

Training for deputy headteachers should address skills such as preparing budgets, managing overall school performance, identifying teachers’ training needs, working with community members in fundraising, and working with Ministry officials. These may not be responsibilities that deputies immediately use; they are, however, needed skills when they move up in their positions. Further, if deputies feel more confident in these skills, headteachers may be able to delegate authority for some of these functions, particularly as school management becomes more complex.

Training needs also vary with regard to the location of schools in different districts, and this is further affected by resources and capacity within communities and districts. In our analysis, headteachers and deputy headteachers outside of Kampala, noted lower levels of confidence. One of the possible reasons for this may be that the most experienced headteachers are deployed in the better resourced schools in Kampala, and the newest and poorly resourced schools are often assigned inexperienced headteachers. These differences in localities have implications for how headteachers are selected and deployed, particularly to rural schools. The differences among headteachers’ confidence in the rural and urban localities also suggests that training needs to take into account the context of the area in addition to the skills. For example, training may also help identify resources within or outside of the community for headteachers from the rural locations to readily access assistance and information.

Table 9

<table>
<thead>
<tr>
<th>Confidence</th>
<th>d.f.</th>
<th>(\chi^2)</th>
<th>(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>(1, 94)</td>
<td>2.17</td>
<td>.31</td>
</tr>
<tr>
<td>Location</td>
<td>(2, 94)</td>
<td>3.00</td>
<td>.43/10/.53*</td>
</tr>
<tr>
<td>Position</td>
<td>(1, 95)</td>
<td>3.18</td>
<td>.36</td>
</tr>
<tr>
<td>School size</td>
<td>(2, 50)</td>
<td>1.55</td>
<td>.45/56/11*b</td>
</tr>
</tbody>
</table>

*a Kampala vs. Kaliro/Mubende vs. Kaliro/Mubende vs. Kampala.
*b Small vs. medium/small vs. large/medium vs. large.

Table 10

<table>
<thead>
<tr>
<th>Location</th>
<th>Position</th>
<th>School size</th>
</tr>
</thead>
<tbody>
<tr>
<td>d.f. (\chi^2) (V)</td>
<td>d.f. (\chi^2) (V)</td>
<td>d.f. (\chi^2) (V)</td>
</tr>
<tr>
<td>4. Seek funds from parents/guardians for the school</td>
<td>6</td>
<td>18.4</td>
</tr>
<tr>
<td>8. Communicate with Ministry officials</td>
<td>3</td>
<td>8.3</td>
</tr>
<tr>
<td>6</td>
<td>8.21</td>
<td>.29</td>
</tr>
</tbody>
</table>

* \(p < .05\).
and the least resourced. For instance, the larger the school, the more critical the factor of resources becomes. In effect, the school size variable serves as a proxy for other factors, such as the extent of resources or the extent the schools have been established. Our analysis found the greatest differences in confidence in skills between small and medium size schools, suggesting that headteachers in medium size schools (400–1000 students) do not perceive considerable differences in their skills from those in large schools (more than 1000). It is therefore important for targeting training to equip head and deputy headteachers of smaller schools with the skills that allow them to effectively implement the national goals of education, i.e., new curricula, as well as their school’s vision and goals. Somewhat differently, head and deputy headteachers of larger schools require skills for identifying and maximizing the value of physical infrastructure, funds and other resources for efficiency and effectiveness.

One issue that further complicates the challenges facing headteachers in small and large schools is the newly implemented universal secondary education policy (USE). The USE policy does not affect all schools, and is being implemented in those schools which have a fee base that is financially viable for the government of Uganda to pay. In practice, this means that USE is being implemented in schools that have lower fees, which are also those schools that are currently under-resourced and serving poorly resourced communities. Smaller schools are now having an increase in students with minimal funding from the government, while the larger and better resourced schools do not have an influx of students, or any additional students entering these schools have to pay higher fees.

Finally, with regard to gender, female headteachers indicated more importance on leadership and instruction and supervision skills overall, which could suggest that they are more aware of the demands involved and that they work more deliberately in these skill areas. The reverse may be true of their male counterparts. The lack of awareness may explain the male headteachers’ indication of less confidence in leadership skills. One effect of training may be greater awareness among male headteachers of the importance of these skills through exposure to the qualities that they demand. One possible explanation for the differences in gender, to be confirmed with further research, is that more female headteachers are in schools in Kampala and tend to have more years of experience in their role, giving them greater awareness of the needed skills in their positions.

6. Conclusions

Penny et al. (2008) suggest that improvements to the quality of teaching and learning in Uganda require coherence and consistency within the system as a whole, including policy and administrative reform, and changes in training, teaching and learning. Policies and practices that promote better school leadership and management may become irrelevant or disregarded by educators unless they attend to specific skills and needs of school leaders and can promote effective teaching and learning. Training for educators and secondary school leaders must be further developed and move beyond traditional approaches of government-led didactic decrees to actively involving school leaders in assessing their needs, identifying their strengths and areas for improvement, and providing them resources and adaptive skills to lead complex and changing school environments.

This study has identified key skills that school leaders in Uganda perceive they need to effectively lead their schools. The need for these skills varies, however, based on the size of schools, the urban or rural location of school, and on the gender and position of the school leader. Attending to and adapting training to address these differences may potentially create more effectively utilized training in the differing contexts in which these headteachers work.

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References