

IMPACT OF PHYSICAL FACILITIES ON DISCIPLINE, EXTRA-CURRICULAR ACTIVITIES AND TEACHING AND LEARNING IN MBALE SECONDARY SCHOOLS, UGANDA

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ABSTRACT

This study surveyed the impact of physical facilities on discipline, extra-curricular activities and teaching and learning in Mbale secondary schools, Uganda. A total of 369 respondents were randomly selected as sample for the study. Physical Facilities and School Activities Questionnaire (PFSAQ) was the instrument of data collection. PFSAQ reliability and validity values were 0.79 and 0.82 respectively. Results revealed that availability of physical facilities has huge impact on teaching and learning, co-curricular facilities and especially discipline. Based on the findings, it was recommended that government should employ trained counsellors as members of staff in schools to assist students in dealing with adjustment problems and keep improving on school facilities to ensure effective teaching and learning and active participation in co-curricular activities. Administrators and teachers are encouraged to motivate and facilitate students' participation in co-curricular activities within schools and among students

Keywords: *physical facilities; teaching and learning; co-curricular activities; discipline*

INTRODUCTION

In 2007 as part of the Uganda government's Universal Post Primary Education and Training Program (UPPET) the Universal Secondary Education (USE) policy was adopted to provide quality options for the increasing numbers of students completing primary education and seeking secondary education. According to the Uganda Ministry of Education and Sports (MoES, 2007) following the introduction of Universal Primary Education (UPE) the number of students in primary schools increased from 2.9 million in 1996 to 7.6 million in 2006 and by 2013 according to Mwesigwa (2015) it is 8.4 million, hence the need for USE

schools to cater for the large increase in enrolments at the secondary level. On order to achieve the objectives of USE, facilities such as classrooms, science laboratories, libraries, improved water and sanitation; qualified teachers; text books and other learning materials were provided by the government. Nevertheless, these facilities could not meet the demand of the students in terms of enrolment into USE schools. The schools are faced with the challenge of large class sizes, MoES reports that by 2007, 243 out of 791 schools participating in UPPET had class sizes of more than 80 students in each class. Therefore, to accommodate more students and reduce student to classroom ratios, USE schools result to "school shift": morning and afternoon. The shift

method obviously suggests over utilization of facilities and manpower, since both morning and afternoon shifts utilise the same facilities. Describing the state of infrastructure in USE schools, teacher trainees in Kagoda (2011) study reported that toilets were inadequate, classrooms are small, congested, not well ventilated, and the desks are inadequate; resulting in some classes being conducted under trees. Lunyolo, Ayodo & Tikoko, (2014) reported lack of time, crowded classrooms, much work load, lack of motivation, teachers' absenteeism, and students being unable to freely express themselves. Wanyama (2011) also reports the attendant effect of overcrowding in USE schools as reduction of individual attention, poor work, inadequate use of teaching aids, and teachers being overstretched in managing big classes resulting to deterioration in academic performance of students.

Although, a number of studies (Al-Enezi, 2002; Kagoda, 2011; Philiat & Wanjobi, 2011; Vandiver, 2011; and Lunyolo, Ayodo & Tikoko, 2014) on physical facilities have established the relationship between physical facilities, academic performance and teaching learning but little work is done on the relationship between physical facilities, co-curricular activities and discipline. Emphasis over the years have been on the relationship between facilities and the cognitive domain; academic performance at the expense of the two other domains: affective and psychomotor. Nevertheless, it has been asserted that availability of school physical facilities and the conduciveness of the school learning environment are potent factors influencing students' achievement in the affective and the psychomotor domains (Singh and Singh, 2007). Bandele (2002) argued that the affective and the psychomotor domains exert great influence on the cognitive domain as well as making the beneficiary of the education system live a fulfilled life and contribute meaningfully to the development of the society. In other words, the physical condition of the school will not only impact on academic performance of learners but also on their moral and physical development. Also, classroom performance is dependent on teachers' effectiveness and efficiency which in turn is determined by physical facilities. Availability of physical facilities creates an enabling environment which impact posi-

tively upon job effectiveness and morale. According to Keller (2003), it is difficult to separate teaching effectiveness from school environment. In addition, physical surroundings impact upon job satisfaction and job performance.

Extra-curricular activities have been perceived as axle of holistic development. They enable students develop their life skills and a rich character to succeed in the society. Therefore, extra-curricular activities such as games and sports, debates, fieldtrips, wildlife clubs, and social clubs in schools should not just be a routine, an annual fund-raising activity or a very good avenue for talent hunt but an avenue for learners' psychomotor development. Allen (2009) asserts that extra-curricular activities provide numerous learning opportunities, which help learners share information, seek help, experiment with innovative actions and seek feedback at school. Interaction with the co-curricular activities influences the psychomotor domain of students positively, they develop life skills such as team work, leadership skills, confidence, compassion and help them gain the capacity to make appropriate judgments in the environment in which they find themselves. In addition, sporting activity helps in keeping fit and guiding against killer diseases, hence to enhance the psychomotor domain of students, recreational facilities must be available in schools. Alimi (2004) earlier noted that facilities such as modern laboratories, libraries, classroom, classrooms furniture and recreational equipment must be available in schools to ensure effective teaching and learning. Adesola, (2005) added that the classrooms and other facilities in which students learn and teachers teach are important factors during educational growth and development. The morale and quality of work of the educational staff and students are directly related to the influences and conditions of the environments in which they work.

According to Keller (2003), it is difficult to separate teaching effectiveness from school environment. Facilities with which teachers teach, determine the quality of their teaching, a teacher that teaches in a classroom with a sizable number of students with a projector and interactive board will definitely be more effective than a teacher using chalk board.

UNESCO (2008) report on challenges of implementing free day secondary education in Uganda identified classroom congestion as hindrance to classroom management and teacher's control over students. Some students were reported to transmit negative influences like smoking cigarettes, chewing or sniffing glue from the world outside school to the school while some that had been expelled for disciplinary reasons came back to school. Bullying, rowdy behaviours, fighting, rudeness, harassment, defying teachers and refusing to do punishments were also reported as acts resulting from school congestion. Annoyed students often display disciplinary problems. The study of Lunyolo, Ayodo & Tikoko (2014) on whether teaching/learning aids were being used effectively for learning activities revealed that 92.9% of the respondents said no while 7.0% said yes. Teaching/learning aids was also reported to be too few compared to the number of students. Therefore making it impossible for effective use/demonstration as a result of the large numbers of students in the classroom. Consequently, confirming the position of Wokadala, (2012) that overcrowding compromises on quality of education because teacher's capacity and time are overstretched and as such they are not able to effectively attend to learning needs of several students thus making schools inefficient. Schools' inefficiency usually encourage students' anti-social vices such as absenteeism, lateness to school, insubordination to school authority, laziness and dishonesty. O'Neill (2000) asserts that students' attitude is often driven by how they perceive the surroundings, including their physical environment. In other words, students exhibit indiscipline acts as a result of their perception of the school.

In addition, Rudd, Reed and Smith (2008) study on the effects of the school environment on young people's attitudes towards education and learning also found a good deal of evidence to show that student attitudes become more positive after they move into a new school buildings. Students in their study were moved from dilapidated school environment to a new school with adequate facilities and appropriate teacher student ratio. Respondents in the study were asked to compare their experiences in both schools. Results revealed that vandalism which was a bit of problem in their previous school decreased from 84% to 33% in

the new school. Bullying also reduced from 39% to 16% and they reported feeling more safe at school; 57 to 87%. Earlier study of working conditions in urban schools by Walke and White (1988) also concluded that physical conditions have direct positive and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment. Building renovations in one district led teachers to feel a renewed sense of hope, of commitment, a belief that the district cared about what went on in the building. While the feeling of teachers in dilapidated buildings with leaking roofs, burned out lights, and broken toilets was a punctuated atmosphere full of despair and frustration.

The Problem

A school counsellor is usually concerned about the overall adjustment of individuals in the school setting especially students. Evidence from the literature (Kagoda, 2011; Wanyama, 2011; and Lunyolo, Ayodo & Tikoko, 2014) reported that physical facilities of many USE schools in Uganda are overstretched and are in deplorable condition. Therefore it implies the attendance effect on the cognitive, affective and psychomotor domain of learners and the entire school community. Unfortunately, most studies on physical facilities and its effect on learners/school highly focused on the cognitive domain; academic performance/teaching and learning with less focus on the two other domains: affective and psychomotor. Yet, Bandle (2002) argued that the affective and the psychomotor domains exert great influence on the cognitive domain as well as making the beneficiary of the education system live a fulfilled life and contribute meaningfully to the development of the society. Hence, there is the need for the study to shift from physical facilities and academic impact to physical facilities and discipline, extra-curricular activities and teaching and learning in Mable Secondary Schools, Uganda.

Research Questions

This study will be guided by the following hypothesis:

1. What is the impact of physical facilities on teaching and learning in Mbale secondary schools?
2. What is the impact of extra-curricular facilities on extra-curricular activities

- of students in Mbale secondary schools?
3. What is the impact of physical facility on student's discipline in Mbale Secondary Schools?

METHOD

Research Design

The design for this study is survey design. The researcher is simply interested in finding out what is going on in USE schools, Mbale Municipality of Uganda to report if physical facility is in anyway impacting on co-curricular activities, discipline and teaching and learning, especially with the school shift system.

Sample

The sample for the study was selected from only government aided secondary schools in Mbale, which of course is an adequate representation of all USE schools in Uganda in terms of, structure, management, policies and facilities. Therefore results obtained could be generalised to other schools in the country. Hence, the sample for the study were 369 respondents, randomly selected from three USE schools, 21 teachers, seven from each school and 348 students, 116 from each of the three USE schools.

Instrument

A self-developed questionnaire named Physical Facilities and School Activities Questionnaire (PFSAQ) was employed for the study. The questionnaire was divided into four sections A, B and C with 33 question. Section A contains items related to availability of physical facilities and teaching and learning, section B has the items on co-curricular facilities/activities while section C has items related to students' discipline. To ensure validity of research instruments, the instrument was presented to experts in the field of study for face and content validity. Content Validity Index (CVI) was then calculated; 0.82 which confirmed the validity of PFSAQ. To establish reliability of the instrument, PFSAQ, were administered to a sample of respondents from the population of study but who were not part of the sample for the study twice, in a space of two weeks. Result yielded a value of 0.79, which established reliability for instrument.

Methods of Data Analysis

Data was analysed with the use of frequency counts and percentages

RESULTS

Table 1 reported on the first question; impact of physical facilities on teaching and learning in Mbale secondary schools.

Table 1: Responses on Physical Facilities and Teaching and Learning

No	Items	Teachers		Students		Total
		Yes	No	Yes	No	
1.	The school laboratory has adequate equipment	0(00)	21(100)	25(7)	323(93)	369(100)
2.	The school has a library with sufficient reading materials	4(19)	17(81)	51(15)	297(85)	369(100)
3.	There are enough classrooms to accommodate students in the school	0(00)	21(100)	22(6)	326(94)	369(100)
4.	There are adequate chairs and tables for students to sit and write	13(62)	8(38)	247(71)	101(29)	369(100)
5.	Teachers are able to move round the classroom conveniently when teaching	4(19)	17(81)	45(13)	303(87)	369(100)
6.	Students are actively involved in classroom activities	5(24)	16(76)	51(15)	297(85)	369(100)
7.	The number of students in each classroom are too many	21(100)	0(00)	324(98)	7(02)	369(100)
8.	The school toilets are in deplorable condition	17(81)	4(19)	313(90)	35(10)	369(100)
9.	Most of the buildings in the school are not in good condition	15(71)	6(29)	74(21)	274(79)	369(100)

10.	Because the classrooms are not enough teachers have to conduct lessons under trees even in rainy season	21(100)	0(00)	338(97)	10(03)	369(100)
11.	Teachers complain of more teaching load due to lack of facilities	21(100)	0(00)	321(92)	27(08)	369(100)
12.	The classrooms are well ventilated	2(10)	19(90)	50(14)	298(86)	369(100)

** Numbers in parenthesis are percentage

Results presented in Table 1 revealed that majority of the respondents; 62%/71% agreed that there were adequate furniture; chairs and tables for students to sit and write. However, overwhelming majority of the respondents; 100%/98% were of the opinion that the classes were overcrowded, which probably explained students not being actively involved in classroom activities and teachers' inability to use teaching aids for lessons and move around the classroom conveniently. The classes according to majority of the respondents; 90%/86%, are not well ventilated, the laboratories and libraries are not well equipped and toilets are in deplorable condition.

Results presented in **Table 2** showed the impact of co-curricular facilities on co-curricular activities of students in Mable in secondary schools. It is obvious from the results that there are recreational facilities in some of the schools as stated by the respondents; 81%/75% and students have access to a number of them such as football; 76%\78%, volleyball and netball; 67%/68% but they did not enjoy the pleasure of being provided with the kits for sport; 86%/92%. Also, respondents did not have the pleasure of experiencing graduation ceremony; 62%/75%, cultural exhibition 100%/97, quiz competition, 57%/65 and were also not participating in dance, drama and music.

Table 2 Responses on Extra-Curricular Facilities and Extra -Curricular Activities

No	Items	Teachers		Students		Total
		Yes	No	Yes	No	
1.	There are recreational facilities in the school	17(81)	4(19)	262(75)	86(25)	369(100)
2.	No football pitch for students' use in the school	7(33)	14(67)	94(27)	254(73)	369(100)
3.	The school participates in football competition every year	16(76)	5 (2 4)	272(78)	76(22)	369(100)
4.	There is a volleyball court in the school	14(67)	7(33)	237(68)	111(32)	369(100)
5.	The school has a netball court	14(67)	7(33)	237(68)	111(32)	369(100)
6.	The school participates in both inter-school and intra-school debate competition	15(71)	6(29)	267(77)	81(23)	369(100)
7.	Students are encouraged to join the dance or drama group	14(67)	7(33)	129(37)	219(63)	369(100)
8.	Students are encouraged to participate in music	12(57)	(43)9	69(20)	279(80)	369(100)
9.	The school organizes graduation ceremony for outgoing students	8(38)	13(62)	88(25)	260(75)	369(100)
10.	Students participate in quiz competition	9(43)	12(57)	123(35)	225(65)	369(100)
11.	The school provides sport kits for students' use	3(14)	(86)18	27(08)	321(92)	369(100)
12.	Cultural exhibition is one of the schools' activities	0(00)	21(100)	9(03)	339(97)	369(100)

** Numbers in parenthesis are percentage

Table 3 presents results on the third question on the impact of physical facility on student's discipline. Results show that students are disciplined despite the absence of some facilities in their schools. Irrespective of the large number of students in the classrooms, majority of the students were not breaking the school's

chairs and tables; 81%/89%, they come to school regularly; 81%/81%, they do not make noise while teachers are teaching; 86%/89%, they do not run away from school; 100%/89%, they obey the securities; 100%/95% and the school rules and regulation; 100%/94%

Table 3 Responses on Physical Facility and Student's Discipline

No	Items	Teachers		Students		Total
		Yes	No	Yes	No	
1.	As a result of overcrowding, students usually break the school's chairs and tables	4(19)	17(81)	37(11)	311(89)	369(100)
2.	The school has no rules and regulations for students	0(00)	21(100)	14(04)	334(96)	369(100)
3.	There is no punishment for any student who violate the school's rules and regulation	0(00)	21(100)	22(06)	326(94)	369(100)
4.	The school has no fence, therefore students leave the school premises whenever they like	2(10)	19(90)	33(09)	315(91)	369(100)
5.	Students bribe security officers for them to go in and out of the school anytime	0(00)	21(100)	18(05)	330(95)	369(100)
6.	Security officers in the school are not adequate for the number of students	0(00)	21(100)	22(06)	326(94)	369(100)
7.	Because the classrooms are not well ventilated, students usually make noise when teachers are teaching	3(14)	18(86)	40(11)	308(89)	369(100)
8.	Because the number of students in the classrooms are many, students don't come to school regularly	4(19)	17(81)	67(19)	281(81)	369(100)
9.	Because of the deplorable condition of the school toilet, students run away from school	0(00)	21(100)	07(02)	341(98)	369(100)

** Numbers in parenthesis are percentage

DISCUSSION AND CONCLUSION

Results of this study revealed a huge impact of physical facility on teaching and learning, therefore confirming the reports of UNESCO (2008) and Wanyama (2011) on the attendant effect of overcrowding in USE schools in Uganda. UNESCO (2008) reported on challenges of implementing free day secondary education in Uganda identified classroom congestion as hindrance to classroom management and teacher's control over students. Wanyama also reported that overcrowding in USE schools have resulted to the reduction of individual attention, poor work, inadequate use of teaching aids, and teachers being overstretched

in managing big classes leading to deterioration in academic performance of students. This study equally found that there were no enough classrooms which resulted to the ones available being overcrowded. Therefore, teachers were not able to move around conveniently, not able to make use of teaching aids, have to teach under the tree even in rainy season and of course have more than enough work load which calls for their complaint, suggests inefficiency and the reason why majority of the students (85%) in this study were not actively involved in classroom activities. This finding also corroborate Keller's (2003) position that it is difficult to separate teaching effectiveness

from school environment. Physical surroundings too, impact upon job satisfaction and job performance. Classroom performance is dependent on teachers' effectiveness and efficiency which in turn is determined by physical facility. Availability of physical facilities creates an enabling environment which impact positively upon job effectiveness and morale.

On extra-curricular facilities results revealed that some recreational facilities are available in the sampled schools and students engaged in some extra-curricular activities such as football, volleyball, netball and school debate but were not privilege to be provided with sport kits and are not participating in drama, music, quiz competition, cultural exhibition, and graduation ceremony. The implication of not participating in most extracurricular activities is that students in this study were excluded from obtaining numerous learning opportunities such as team work, leadership skills, confidence and compassion arising from participation in co-curricular activities. According to Allen (2009) extra-curricular activities provide numerous learning opportunities, which help learners share information, seek help, experiment with innovative actions and seek feedback at school. Interaction with the co-curricular activities influences the psychomotor domain of students positively and help them gain the capacity to make appropriate judgments in the environment in which they find themselves. Hence to ensure holistic development which is the major objective of schooling, recreational facilities must be available in schools and students must be compelled to participate in two or more of the activities.

The findings of this study is in disagreement with that of UNESCO's (2008) report of bullying, rowdy behaviours, fighting, rudeness, harassment, defying teachers and refusing to do punishments as acts resulting from school congestion in Uganda USE schools. Students sampled for this study did not exhibit any act of indiscipline resulting from overcrowding which was the attendant effect of lack of adequate classrooms. One may however attribute the presence of discipline in the schools to the intervention adopted. To take care of overcrowding in most USE schools, school shift method was adopted. Schools have two sessions; morning and afternoon session. This has probably reduced the tension that may arise if

many students were in a class. It may also be a sign of gratitude from the student. Initially parents have to pay for their children schooling and many could not afford it but with USE, government pay for students even in private schools that are collaborating with government, hence providing opportunity for many to be in school. By running school shift, USE schools may have temporarily provided enabling environment which facilitated discipline just like in the study of Rudd, Reed and Smith (2008) and confirmed the position of O'Neill (2000) that students' attitude is often driven by how they perceive the surroundings, including their physical environment. The number of students in classes have reduced compared to when classes have not been split, students were no more as many as they were before the split coupled with the fact that they are now enjoying free education, therefore there seem to be no reason for students in this study to exhibit indiscipline acts but be grateful for the privilege of being in school.

RECOMMENDATIONS

The most important issue is for government to be more proactive in the provision of facilities to USE schools in order to reduce the pressure mounted by the increase in students' enrolment. It is necessary for the government to improve on the provision of facilities, not just the provision of classrooms and teaching materials but also recreational facilities. As noted earlier, interaction with the co-curricular activities influences the psychomotor domain of students positively, they develop life skills such as team work, leadership skills, confidence, compassion and help them gain the capacity to make appropriate judgments in the environment in which they find themselves. Their health is also taken care of because participating in sport help them keep fit and guide against killer diseases.

It is pertinent that co-curricular activity be included in the school time-table to facilitate holistic development of the student which is the major objective of the school.

Permanent guidance counsellors should be employed for each school to assist in facilitating students' choice of adequate co-curricular activity, monitor participation and compliance by teachers and students in addition to attending

other developmental adjustment issues of students and the school community.

In schools where there are counsellors, the counsellors should focus on developing individualised co-curricular programmes for his/her school putting into consideration the interest, capabilities and ability of each student vis-à-vis the available co-curricular activities. Teachers are to encourage students to participate in co-curricular activities rather than placing emphasis only on students' academic improvement. Teachers should also develop interest in being actively involved in different extracurricular activities to motivate students to become interested in the extracurricular activities.

Government could employ more teachers to reduce teachers' work load. Rather than employ one teacher to service both sessions; morning and afternoon in a school, separate teachers should be employed for each session in each school.

The writers wish to conclude with the assertion of Singh and Singh (2007) that Education is not graduation. It's the holistic development of individual that ensure his/her physical, intellectual, emotional, spiritual, social and moral development. This goal of holistic development can only be achieved in schools when adequate facilities and activities are effectively implemented.

REFERENCES

- Adesola, A. A. (2005). Resource provision and utilisation: mathematics ability and learning environment as prediction of learning outcomes in undergraduate practical geography, Unpublished Ph.D Thesis University of Ibadan, Ibadan, Nigeria.
- Al-Enezi M. M. (2002). A study of the relationship between school building conditions and academic achievement of twelfth grade students in kuwaiti public high schools. Unpublished Ph.D Thesis Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Alimi, O. S. (2004). Appraisal of the Adequacy of Available School Plant for Primary Education in Ayedaade Local Government Area of Osun State. *Educational Thought*, 4(1) 64-69
- Bandeke, S. O. (2002). Administration of continuous assessment in tertiary institutions in Nigeria. *Journal of Educational Foundations and Management*. 1(1): 289—296.
- Corcoran, Thomas B., Lisa J. Walker, and J. Lynne White (1988). *Working in Urban Schools*. Washington, DC: Institute for Educational Leadership.
- Experiences from district*. Nairobi: UNESCO
- Kagoda, A. M. (2011). The Influence of the Schools Learning Environment on the Performance of Teacher Trainees on School Practice - A Case of the School of Education Makerere University Uganda. *Journal of Social Sciences* 3(3): 244-252,
- Keller, B. (2003). Question of teacher turnover sparks research interest. *Education weekly*, 27; 33 retrieved on 26th July 2015 from www.sciedu.online.com
- Lunyolo, G. H.; Ayodo T.M.O. & Tikoko, B. (2014). The effects of high student: teacher ratio on academic performance in universal secondary schools in Uganda: the case study Mable municipality. Retrieved 23rd January 2015. [www//ritchesUganda.org/Bol-gspirt.ng.2012/universal](http://www.ritchesUganda.org/Bol-gspirt.ng.2012/universal)
- MoES (2007). *Needs Assessment Draft Report for the P.7 Enrolling Institutions in Uganda*. Business Technical Vocational & Education Training Section.
- Muratha, M. M. (2013) School based factors and their effects on discipline of secondary school students in kiambu East District Kenya. Unpublished M.Ed Dissertation University of Nairobi Kenya.
- Mwesigwa A. (2015). Uganda success in universal primary education falling apart: The Guardian Kampala. Retrieved 12th August 2015 from www.theguardian.com/global-development/2015/apr/23/uganda-success-universal--primary-education-falling-apart-uganda
- O'Neill, D. (2000). The Impact of school facilities on students' achievement at selected Texas schools. Unpublished Ph.D thesis, retrieved 27th August 2015 from www.sciedu.com

- Philius, O. Y., & Wanjobi, W. C. (2011). Performance Determinants of Kenya Certificate of Secondary Education (KCSE) in Mathematics of Secondary Schools in Nyamaiya Division, Kenya. *Asian Social Science*, 7 (2), 107-112
- Rudd, P., Reed, F. & Smith, P. (2008). The effects of the school environment on young people's attitudes towards education and learning. National Foundation for Educational Research. Retrieved 13th July 2016 from <http://eprint.whiterose.ac.uk/73960/>
- Singh, S. K. and Singh, N. S. (2007). Co-curricular and Extracurricular Activities, Guest Lecture delivered at Little Flower House, Kakarmatta, Varanasi
- UNESCO. (2008). *Challenges of implementing free day secondary education in Uganda*.
- Vandiver, B. (2011). The impact of school facilities on the learning environment. Retrieved 13th July 2016 from www.acefacilities.org/retrieveDocument.aspx?DocId=ebd0a08c-5299.
- Wokadala, J. (2012). "Exploring technical efficiency of Rural and Urban Lower Secondary Schools in Uganda". *Journal of Educational Planning and Administration*, 26 (2), 343-364.