

# Perceptions of the Adequacy of Learning Resources by Undergraduate Medical and Nursing Students in Two Kenyan Public Universities

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**Abstract:** High students' intake in Public Universities has led to reduced learning space and sharing of few teaching/learning resources by both lecturers and students. The purpose of this study was to assess the perceptions of adequacy of learning resources in the MBChB and BScN programmes by students. The study was conducted in Moi University (A) and University of Nairobi (B). The study design was Qualitative Phenomenological study. Purposive sampling was used to select 38 students' representatives in the MBChB and BScN programmes. Two students' representatives were selected per each academic year. There were four Focus Group Discussion (FGD) groups with 8 to 10 students per FGD. Data was collected using a structured interview guide. FGD results revealed that many students from A perceived that the library had old text books and few students' computers; and there was little equipment in the skills laboratories. Majority of the students in B reported crowding in classrooms and clinical sites, and needed more computers in the library. Medical students in B also stated that they did not have a skills laboratory of their own but shared one with the School of Nursing. Conclusion: There are Inadequate Learning resources in Public Universities Which are Attributed to High Student Intakes and Financial Constraints

**Keywords:** Perceptions, Adequacy, Learning Resources, Students

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## 1. Introduction

For effective learning to take place in any academic institution, there must be adequate resources to facilitate learning [1]. High student intakes in Public Universities have led to reduced learning space and sharing of few teaching and learning resources by students. This has led to crowding in classrooms, laboratories, libraries and clinical placement sites.

## 2. Problem Statement

The number of students in health education is growing rapidly in Public Universities. As these numbers continue to

increase this has led to problems like crowding in classrooms, libraries, computer labs and inadequate laboratory facilities [9]. Libraries are also not well equipped with the current textbooks and journals. Learning resources remain limited and therefore do not correspond to the number of students. The ratio of the number of students per lecturer shows that one particular lecturer has to take care of a large number of students.

Recruitment of lecturers does not match the increase in the number of students which should actually be the case [8]. Clinical sites, especially hospitals are also getting crowded with the increasing number of students, therefore hospitals and other health facilities need to plan for more students for clinical experience than the ones they planned for before.

### 3. Purpose of the Study

The purpose of this study was to assess the perceptions of the adequacy of learning resources for effective implementation of the MBChB and BScN programmes by students in two Public Universities in Kenya.

### 4. Study Setting

The study was conducted in Moi University (University A and University of Nairobi (University B) in the Schools of Medicine (SOM) and the Schools of Nursing (SON).

### 5. Research Questions

1. What are the perceptions of Medical students regarding adequacy of learning resources in the MBChB programme in the two public Universities?

2. What are the perceptions of Nursing students regarding adequacy of learning resources in the BScN programme in the two public Universities?

### 6. Literature Review

Teaching and learning resources are all items or combination of items which enhance teaching and learning. They are the backbone for teaching and training health care professionals [9].

#### 6.1. Types of Teaching Resources

There are five main categories of teaching resources.

- i. The first category is that of human resource which includes administrators, lecturers and support staff.
- ii. The second category includes teaching resources including projectors, text books and periodicals [12].
- iii. The third category is physical plant which includes classroom and laboratory space; and also satellite campuses and clinical facilities for students.
- iv. The fourth type is financial resources which include capital budget and operating budget for running the institution [13].
- v. The fifth type is time as a resource. Time use is important both to the lecturers and students.

#### 6.2. Availability of Teaching Resources

In order for effective teaching and learning to take place, there has to be enough resources. Every teacher should aim at giving the best to his/her students in order for them to remember and practice what they have been taught.

Teaching and learning resources are the backbone for teaching and training health care professionals. They enhance acquisition of relevant knowledge and skills, facilitate the delivery of information and influence development of attitudes [9].

Teaching resources for enhancing cognitive learning are divided into two main categories:

- i. Projected aids
- ii. Non-projected aids

Examples of projected aids include the Overhead projectors (OHPs), LCD projectors, LED projectors, DLP projectors, Kaleidoscopes, films, video cassettes and slides. These teaching aids are the ones commonly used Universities though preference of each depends on the specific institution.

Non-projected aids include the chalkboard, white board, magnetic boards, pictures, Flipcharts, posters, handouts, flannel boards and 'the real thing' including food substance [1]. All these teaching resources enhance understanding of information which in Bloom's Taxonomy is in the cognitive domain.

A very important teaching resource for health professionals is a skills lab. A skills laboratory is a learning resource centre that provides an environment for learning clinical skills where students can practice without jeopardizing patient care or provoking adverse effects. It reduces the difficulties experienced by students when they first encounter patients in wards and clinics and improves procedural skills [10].

Teaching resources that enhance acquisition of skills and attitudes include the following:

- i. Manikins of different types including adult male/female, child, baby doll etc.
- ii. Different types of instruments including dressing forceps, dissecting forceps, artery forceps, retractors etc.
- iii. Hospital beds and coaches, trolleys of different kinds like Mayo's trolley and dressing trolley
- iv. Trays of different kinds including catheterization tray, stitch-removing tray, the General set tray, delivery tray etc.
- v. Computers, printers, scanners and photocopying machines.

All these resources help students to learn by doing things practically thus attaining proficiency in skill.

Every school and department should have enough teaching/learning resources in order to facilitate students' learning. As the numbers of University students continue to grow rapidly, there is need to also increase teaching resources in order to cater for them effectively.

Without appropriate teaching and learning materials, health care professionals encounter many problems in training and practice. Even when the materials are available there is need for periodic review and production of new ones [9].

Instructional resources are not only expected to be available to sufficient levels to enable teaching and learning to properly take place, they should be adequate enough for utilization in teaching and learning [4].

### 7. Research Methodology

The study design used was Qualitative Phenomenological study. The research was conducted in two public Universities in the Schools of Medicine (SOM) and Schools of Nursing (SON). Data was obtained from 38 purposively selected students' representatives in the MBChB and BScN programmes (2

representatives per academic year) using a structured interview guide. The students were placed in four groups for Focus Group Discussion (FGD) with 8 to 10 students per FGD. MBChB and BScN students were interviewed separately due to their different and unique learning needs.

## 8. Research Findings

Qualitative data from FGDs was transcribed, contextual narratives written and then summarized into five themes. These themes included:

Theme 1: Adequacy of space and learning resources in the lecture rooms

Theme 2: Adequacy of space and learning resources in the Skills Lab

Theme 3: Adequacy of computers in the computer labs

Theme 4: Adequacy of the library for current text books and

Periodicals

Theme 5: Time Management by lecturers

## 9. Discussion of the Findings

### 9.1. Adequacy of Space and Learning Resources in the Lecture Rooms

Students from University A in both School of Nursing (SON) and school of Medicine (SOM) said that they had no problem of space in their lecture rooms. Students in University B in both School of Nursing and School of Medicine said that they had large halls with very many students and microphones were needed so that students sitting at the back could hear what the lecturers were teaching. However, it was noted with concern from students' discussions that in the Medical school of University B there were classes of over 300 students taught in one lecture hall. University B medical students stated that they had challenges during ward rounds because they were usually too many students in a ward cubical excluding the doctors.

Regarding adequacy of teaching resources, students from University A – SON stated that they had LCD Projectors but they needed diagram charts in their lecture rooms. University A – SOM students stated that they had LCD projectors and white boards but white board markers were not always available. They felt that they needed permanently fixed projectors in the lecture rooms and also more sockets for their laptops.

In University B - SON students indicated that they needed screens for projecting learning content instead of using walls as screens. They also stated that they needed curtains for the windows to darken the rooms when a lecturer is using the overhead projector. Students from University B – SOM also said that their teaching resources were enough but some of their screens had old permanent marks on them and that interfered with visibility of the teaching content on the screen. They complained that microphones occasionally had low batteries and would therefore be occasionally non-functional. This inconvenienced the students who sat at the

back of the lecture theatres.

In both Universities none of the students had ever seen a SMART Board and they all expressed interest in having them installed in their Schools so that they could keep pace with the developing world's academic trend.

### 9.2. Adequacy of Space and Learning Resources in the Skills Lab

In University A- SON the students said that the Skills Laboratory space was only enough when they were divided into groups. SOM students said that they had 3 skills labs and space would only be enough when they were also divided into groups. The SOM students also said that they had only one bed and one dummy for demonstrations.

In University B - SOM students stated that they didn't really have a skills lab in their school but shared a skills lab with the School of Nursing. They added that equipment for demonstrations was not enough due to large numbers of students e.g. there were only 6 BP machines for about 30 students.

### 9.3. Adequacy of Computers in the Computer Labs

University A - SON students stated that computers were not enough in the library. They felt that the computer lab should be expanded and more computers purchased for the students. The SOM students said that there were only 15 computers and they were not enough for all the students and therefore students had to use their own laptops.

In University B – SON students were quite disappointed by the fact that there were less than 50 computers for the entire College of Health Sciences. Most students had to use their own laptops. The SOM students of University B also had a similar view that computers were not enough. They stated that only about 15 computers were in good working condition and therefore most students had to use their own laptops.

### 9.4. Adequacy of the Library for Current Text Books, Journals and Periodicals

In University A both the SON and SOM students exclaimed that most text books were too old and therefore they needed newer versions to be purchased. The SOM students felt that the reading space in the library was also too small for the person, laptop, text books and note book.

In University B both the SON and SOM students were happy with their well-equipped library. They said that their library even had Wi-Fi and the library staff always assisted them to access online electronic resources. They also stated that students in the College of Health Sciences were allowed to request for the most current books to be purchased for library use. However, they stated that they needed more sockets in the library for charging their laptops.

### 9.5. Time Management by Lecturers

The University A –SON students said that some lecturers do not complete their teaching content because of attending Seminars and Conferences. The SOM students of this

University said that some lecturers miss classes and then make up later. They also stated that some lecturers came late and left early therefore giving them a 'raw deal'. 'Some go out of the country for even 2 months while students are in session'. Surgeons were reported to be very late for lectures at times.

In University B - both the SON and SOM students said that their lecturers missed some classes but they always tried to make up for the missed classes. They complained that some make-up classes were slotted in during lunch time and therefore inconveniencing them because that was their own time.

The SOM students also complained that some lecturers could be late even for one full hour, possibly because of traffic jam. They also stated that a lecturer may promise to come for class but may end up not turning up at all. However, they said, some departments had very punctual lecturers.

## 10. Conclusion

Learning resources in the two Universities were found to be inadequate. Classroom space in University B was inadequate due to high numbers of student intakes. Also in University B Medical students lacked a skills lab of their own. In University A there were old library text books and periodicals. There was also need to update equipment in the skills laboratories of the two schools of both Universities. In Both Universities A and B there were inadequate numbers of computers in the libraries for use by students. This inadequacy was attributed to admission of high number of students in University B and inadequate financial resources in both Universities A and B. It was also noted that Medical students in University B received less attention in provision of learning resources than Nursing students in the same University.

## 11. Recommendations

1. Establish a skills laboratory for Medical students urgently in University B to avoid sharing the with the school of Nursing. Their academic needs are different from those of nursing students. Purchase more manikins for Medical students in the same University.
2. There is need to stock the University A library with new text books and do away with old ones.
3. There is need for better planning for diagnostic lab classes in order to reduce congestion in University A.
4. In both Universities A and B in the colleges of Health Sciences, there is need to expand the computer labs and purchase new computers for students.
5. Numbers of Medical students should be reduced during intakes. This will reduce the need for many microphones and also congestion during ward rounds.
6. Spare batteries should be bought for the microphones for use in large lecture theatres. It is important to buy enough batteries for microphones that can last through all Trimesters in a year.

7. Time management by lecturers in both Universities should be improved to reduce inconveniencing the students.
8. It is also recommended that both Universities write proposals to seek grants and collaborate with organizations that donate text books.

## References

- [1] Amri, M., Ngatia, P. and Mwakilasa, A. O. (2005) *A guide for training teachers of health workers*. AMREF: Nairobi.
- [2] Creswell, J. W. (2008) *Educational research*. Pearson Education, inc.: New Jersey.
- [3] Harrison, F. (2008) *Using learning resources to enhance teaching and learning*. Available online @ [www.facultylondondeanery.ac.ke](http://www.facultylondondeanery.ac.ke) retrieved on 29.03.2017.
- [4] Igwe, M. (2004). *Adequacy of instructional resources for teaching*. Available online @martin's library.blogspot.com retrieved on 29.03.2017.
- [5] Likoko, S., Mutsotso, s. and Nasongo, J. (2013). *The adequacy of instructional materials and physical facilities and their effects on quality of teacher preparation in Western Kenya*. Available online @[www.ijsr.net/archive](http://www.ijsr.net/archive) retrieved on 29.03.201.
- [6] Mbirithi, D. M. (2013). *Management challenges facing Kenya Pubic Universities* Retrieved online from: [ir-libraryku.ac.ke](http://ir-libraryku.ac.ke) retrieved on 31.03.2017.
- [7] Medical School. (2015). *Teaching and Learning in Medical education. Post-graduate Medical education*. Available online @ <https://www.ucl.ac.uk> retrieved on 15.08.2017.
- [8] Momanyi, J. (2015) *Crisis looms in Universities over shortage of lecturers*. Retrieved from: [www.mediamax-network.co.ke](http://www.mediamax-network.co.ke). Retrieved on: 15.08.2018.
- [9] Ngatia, P., Mutema, A., Kang'ethe, S., Kimeu, A. and Shoo, R. (2009) *Training Health Care Professionals*. AMREF: Nairobi.
- [10] Omaswa, F., Frehywot, S. and Mullan, F., (2014) MEPI Newsletter. *Clinical Skills Laboratory Development*. Available online @ [nursing.uonbi.ac.ke](http://nursing.uonbi.ac.ke) retrieved on 15.08.2018.
- [11] Perks, T. Orr, D. and Alomari, E. (2016, February). *Classroom re-design to facilitate student learning: a case study of changes to a University classroom*. Journal of the scholarship of teaching and learning, Vol 16, No. 1, pp 53-68.
- [12] Quinn, F. M. and Hughes, S. J. (2007) *Quinn's principles and practice of Nurse Education*. Nelson Thornes: London.
- [13] Tappen R. M. (2001) *Nursing Leadership and Management*. F. A. Davis Company, Philadelphia.
- [14] Wanzala, O. (2018). *16 Public Universities in deep financial crisis*. The Daily Nation. Nairobi.
- [15] Wolters K. (2017). *Nursing Care Planning made incredibly easy*. Lippincott Williams & Wilkins NEW.