

Strengthening students' engagement in active participation to learn practical skills among medical laboratory students

¹Stephenson Nkurikiyiaman | ²Betty Ezati | ³Ali Kyakulumbye

Abstract

Competence acquisition in Health institutions is largely enhanced by student to student learning, student to practical demonstrator and enabling learning environment. Challenges impeding skills acquisitions were identified and their remedies implemented. These remedies were aimed at strengthening students' engagement in active participation to learn practical skills. This research project was voluntary and participatory among 50 stakeholders of a medical laboratory training school. The qualitative data was collected using interviews, participant observation, photography and documentary analysis techniques with help of future work shop and work process analysis tools. About seven major challenges distressing skills acquisition were noted; Much time spend in theory, congestion at practicum sites, procedures taught in classroom not matching with those in the world of work, Less practical demonstration, inadequate practical self-study and no exposure to HIV counselling, inventory and store management skills. However, the most pressing challenge was inadequate learners' active participation to study practical. Mitigation to the challenges were; Enhancing practical return demonstrations, Scheduling time for practical self- study, Attaching students in pharmacy and records for inventory and store management respectively, Allocating specific period for theories and practical, Providing pre and post HIV Counselling skills. Active participation was adopted to improve students' engagement to learn practical. Due to students involvement there has been greater improvement in laboratory results interpretation, practical practices and communication skills.

Keywords: Active participation, practical skills acquisition and practicum attachment.

1.0 INTRODUCTION

One way to increase students' skill acquisition with their peers and teachers is through active participation to learn practical skills. Initially students from the study site were passive learners of their learning. Participation in learning without a teacher was seen as a way bossing or undermining their teachers. Therefore the research topic came from dialogue with stakeholders to eradicate rote learning and promote students ownership of learning practical.

2.0 METHODOLOGY

This voluntary and participatory action research was conducted at a medical laboratory training school from January to October 2016. This medical school was found in a rural trading centre Located in Nakaseke district. According to school records, the school had three main hospital practicum attachments, one skills demonstration laboratory and three practicum sites supervisors. The total population at the school was 75 students and five tutors. The key participants of the study were 36 laboratory students, 4 Hospital teaching laboratory staff, 5 administrators, 3 Hospital practicum sites supervisors, and 1 alumnus from a Health centre IV and 1 community Leader. The views of latter participant were helpful in the situational analysis. The intervention adopted to promote active participation to learn practical were; Demonstrating practical skills to students, allowing students to have self-practical study, obtaining new practicum site, gazetting practical content per semester, allocating more time for practical than theories, students interpreting medical laboratory results, attaching students in HIV department for counselling, in records for store, in pharmacy for stock management and designing sign post depicting basic concept for training a medical laboratory student.

With our effective active research, students are now in three groups of thirteen for studying practical skills. The practical demonstration are two weekly per month. Currently students have oral presentation from hospital laboratory night and evening reports every day from 9.00am-11.00am, Students communication skills and understanding of medical laboratory technology has improved greatly. The school has signed Memorandum of understanding with a Hospital laboratory. Students are being attached in HIV, pharmacy and records, and this is taking place in the last semester of their training for a period of one month. The practical log books are being signed whenever a competence is well done. Students have gained competences in all areas of real life experience for instance they can provide pre & post HIV counselling, balance stock cards and carry out inventory. The gazetting of competences has made students to think ahead of time and reduce on the redundancy in the laboratory. In the school compound there is a huge sign post describing a concept of basic training medical laboratory students using competence education basic training curriculum.

3.0 ANALYSIS

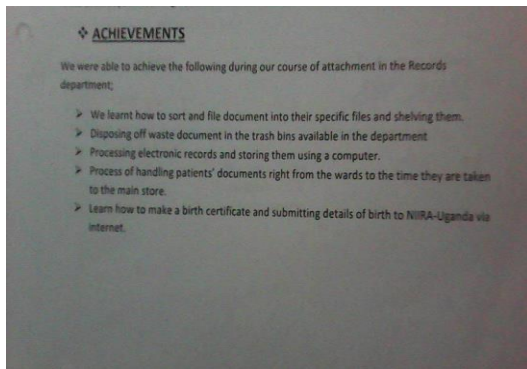
Since this study project was qualitative in nature, the researcher employed qualitative techniques of data analysis. Thus the process involved transcription data from the study site, Validation, coding and categorising, presentation and discussion. This approach is supported by Mikkelsen(2005,p.181) who argues that there are no formulas for analysing qualitative data as there are for analysing quantitative data, but this should not be taken that there are no guidelines for analysing qualitative data. In accordance with approval by Kyambogo University and Kiwoko laboratory school, the specific condition for the conduct of this research was: No harm to cause to the subjects, work with six months and informed consent to be signed.

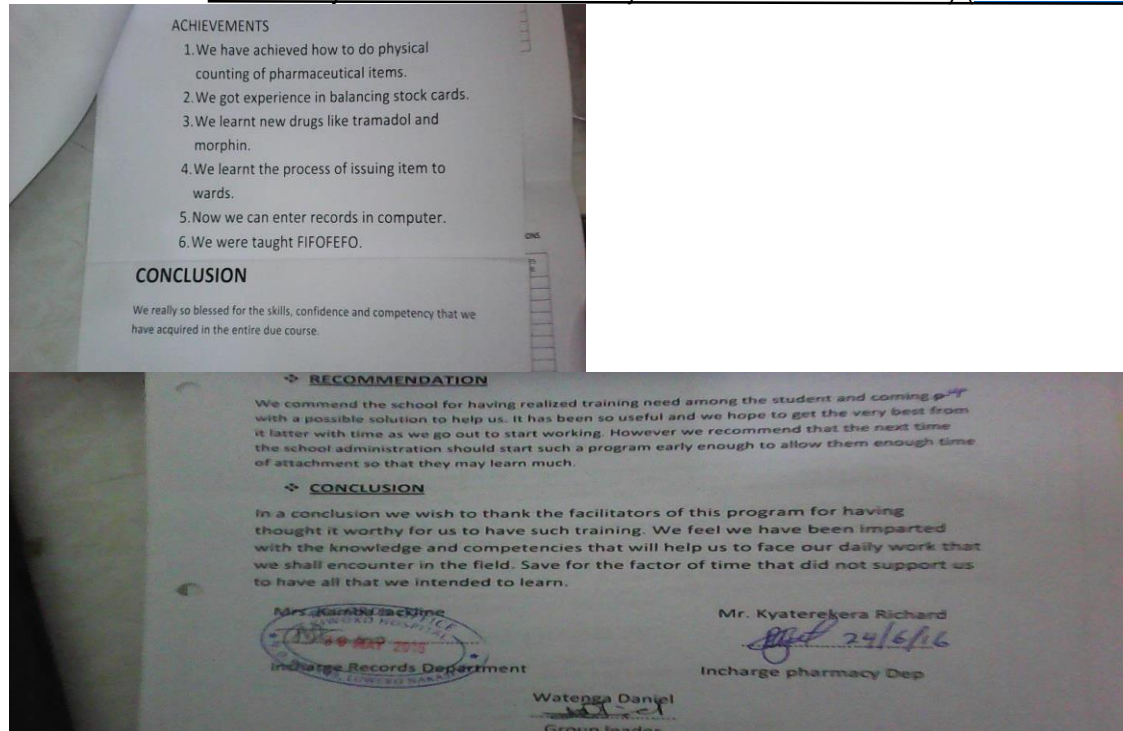
3.1 Results

Stakeholders, adopted the following interventions for skills acquisition; Demonstrating practical skills to students, allowing students to have self-practical study, obtaining new practicum site, gazetting practical content per semester, allocating time for practical from theories, students interpreting medical laboratory results, Student to be attached in HIV department for counselling, students to be placed in records for records management and pharmacy for stock management and designing sign post to depicting competences skills. The below plates' shows outcome of intervention above:



The comments of learners on intervention mentioned above which were extracted from their reports;





In general and with effective action research, students are learning in groups of thirteen for practical skills, Currently students are learning in groups, have oral presentation of hospital laboratory night and evening reports in groups every day from 9.00am-11.00am, and Students communication skills and understanding of medical laboratory technology has improved greatly, MOU with Kiboga Hospital for practicum attachment has been assigned. Currently practical log book are being signed whenever a competence is well done. Students have gained competences in all areas of real life experience, now they provide pre & post counselling to HIV patients, balance stock cards and inventory management. The attachment of learners in HIV, pharmacy and records has been earmarked always to take place in the last semester of their training for a period of one month as students complained two is short period to acquiring competences. The gazation of skills has given students to think ahead of time. One of the students in year two class noted in his report that the provisional practical competence helped to reduce the tendency of what he called “redundancy in the laboratory” by the students who are not creative and annotative. KMLTS is talking competence school. In their compound there is a huge sign post describing a concept of basic training medical laboratory students.

4.0 DISCUSSION

In this study we analysed challenges and corresponding remedies, affecting steps under taken by Laboratory students to acquire competencies for clinical analysis of specimen for proper diagnosis of disease(s). Inadequate learners’ active participation to acquire practical skills was generally considered the most pressing challenge which replicates the findings of earlier research (e.g., Bown, 2008). The findings were also similar to the studies carried out by Islam and Mia (2007) in Bangladesh as cited by Adam D (2011), revealed that formal and non-formal Technical vocational institutions lacked an effective linkage between training and world of work. However, the current major findings are greatly different from studies done by Nyankov (1996) as cited by Adam (2011), the study revealed poor quality in the delivery of Technical programmes, High cost of training and Disregard of the needs of the informal sector as factors impeding skills acquisition in Technical vocational education institutions in Ghana. The difference in the findings of the current study and previous studies can be explained from the factor that the former was done at institution level while the latter was done at national level hence giving over all challenges affecting Technical institutions in Ghana. Therefore, since apparent findings were institutional based, they may not generalize to others. The stakeholders’ willingness to analysis work process for skills acquisition using democratic, participatory approaches and respecting every individual’s views improved the credibility of our study findings. Furthermore, the interaction included open discussion providing a better understanding of the challenges and their remedies, affecting students’ skills acquisition. It also enabled us to offset the weakness of qualitative approaches.

This study is not without limitations. Its participatory nature makes it difficult to make shy participants to discuss issues freely. This study was institutional based involving only stakeholders of the institution. As such the

findings of this study may not be representative of the situation of medical laboratory in the entire country. It is therefore imperative to conduct a national – based study to explore the challenges affecting skills acquisition at the national level. Furthermore, the use of non – probability sampling also affects the generalizability of our findings. Our data collection method is also prone to recall and social desirability bias.

5.0 CONCLUSION

Interaction with the stakeholders at future work shop and work process analysis meetings, all accepted to adopt active participation to enable learners acquire practical skills. Its implementation was through gazetting competencies, group practical study and demonstrations. This approach has improved communication skills, laboratory results interpretation, practical demonstrators, and sense of own ship of learning among learners.

5.1 Acknowledgements

The authors extend their gratitude to stakeholders who participated in this study and to the staff of noma House – Kyambogo University for mentorship and financial support.

Reference

Adam dasmani, (2011), Challenges facing technical institute graduates in practical skills acquisition in the Upper East Region of Ghana; Asia-Pacific Journal of Cooperative Education, 2011, 12(2),67-77).

Brown, J.S.,Collins,A. & Duguid,S.(1989). *Situated cognition and the culture of learning*. Educational Researcher, 18(1)32-42.

Islam,R.,& Mia, A. (2007). The role of education for rural population transformation in Bangladesh. Asia-Pacific Journal of Cooperative Education, 8 (1), 1-21

Mikkelsen, B. (2005). *Methods for development work and research: a new guide for practitioners* (2 ed.). New Delhi: Sage.

