



Student-centred learning boosts health worker graduation rates



“Support from W4H has transformed the quality of teaching at the College, with the introduction of student-centred learning and E-Learning, as well as global best practice such as blended learning. In terms of human resources, the academic staff have had numerous capacity building interventions – and the dividend has been increased student performance.”

Hajiya Hadiza,

Provost, Shehu Sule College of Nursing and Midwifery, Damaturu (Yobe)

Since 2013 Women for Health interventions have transformed the health training institutions (HTIs) in five northern Nigerian states – Jigawa, Kano, Katsina, Yobe and Zamfara – and, since 2018, in conflict-affected Borno state too. As well as improvements in physical infrastructure and strengthened management practices, W4H has supported the HTIs to improve the quality of education – through increased tutor numbers, training for tutors and changes in teaching practice. A key intervention was the introduction of student-centred learning (SCL) at all W4H supported HTIs, and the installation of computer systems with relevant health training resources (E-Learning).

This success story examines the impact that W4H interventions have had on student performance at a sample of four HTIs supported by W4H. Exam pass rates showed significant improvements in all the schools when comparing data from before and after W4H interventions. Pass rates in internal final exams averaged some 60% before SCL and E-Learning were introduced – and this improved to an average pass rate of nearly 83% afterwards. In external final exams the pass rate averaged 61% before and nearly 86% afterwards. These findings back up qualitative and anecdotal evidence of improved student performance at W4H-supported institutions.

“The SCL programme is a new concept for Nigeria, which W4H has introduced, and now many tutors have participated actively not just in the W4H states but in other states too and we are starting to roll this out nationally. W4H have been our very strong partners for a long time. Before the programme, the schools of nursing and midwifery only had provisional status, and now across the five states (W4H Phase 1) all the institutions now have full accreditation, and their student intake has increased by 100%, and this is linked with improved performance, with pass rates up to 90%.”

Alhaji Faruk Umar Abubakar, Registrar, Nursing and Midwifery Council of Nigeria

The challenge

In January 2013, W4H assessed the HTIs in the five intervention states and found them to be in a progressive cycle of decline. At that time, HTIs faced multiple, linked challenges: a shortage of funding, with no regular, committed funding and no control over their budget or spending; inadequate physical infrastructure, typically in poor repair; the quality of education was low, tutor numbers were low, tutors were not well prepared and lacked teaching skills; and graduation rates were low – external exam pass were typically around 65%. These factors combined to mean many HTIs had lost their full accreditation status, with the regulatory rules limiting student numbers as a

result. Overall, the rate that the HTIs were producing newly qualified health workers was low and falling.

To address the challenging situation in the HTIs, W4H developed a range of support interventions, including:

- ◆ **Capacity development to improve management, administration and systems**
- ◆ **Introducing effective planning, budgeting and performance management review cycles**
- ◆ **Establishing effective financial management systems, and Student Information Management Systems (SIMS).**
- ◆ **Increasing tutor numbers, and subject-specific training and testing for tutors**
- ◆ **Upgrading infrastructure and facilities, with appropriate provision for female students**

W4H also introduced student-centred learning, supported by access to E-Learning resources. W4H's initial assessment of HTIs in 2013 found evidence in all institutions that students seemed conditioned to receive knowledge passively, rather than be proactive, independent learners – attributes which would be crucial for success in their professional studies and once they entered service.

SCL and E-Learning

Student-centred learning (SCL) is an approach that shifts the focus of education from the traditional model – where teachers deliver instruction and information to students – to one where students are encouraged and supported to take responsibility for their own learning. Students who learn in this way are more likely to become critical thinkers able to exercise clinical judgement appropriately and effectively. They are also more likely to keep up-to-date with best practice in their field, which is important for health workers in the rural communities – newly qualified health workers often have significant responsibility in their communities and have little external supervision and support.

W4H adapted an SCL model appropriate for the context of health education in northern Nigeria's HTIs and this approach was mainstreamed in all W4H-supported institutions. At the same time, E-Learning hardware systems and learning content were installed in the HTIs – including solar photovoltaic systems to provide power in places where electricity supply is intermittent or unreliable.

SCL and E-Learning can work well together. Independent learning is encouraged when materials are available

to students online to review before or after a lesson, or use during a lesson. With E-Learning content, students can be briefed to read a study or research paper on an important topic (such as nursing process or hand washing) in preparation for a classroom discussion where summary points can be identified and shared. With access to online books and journals, students are able to develop their independence as learners and explore specific topic areas around their core curriculum.

To embed SCL in tutors' teaching practice, W4H provided all tutors with training in SCL and also supported the development of SCL course materials for the different health professions. W4H worked closely with the Nursing and Midwifery Council of Nigeria (NMCN) to ensure the SCL approach was appropriate. NMCN is now rolling out SCL nationally and has made taking and passing courses in SCL part of its Mandatory Continuing Professional Development Programme (MCPDP).

Quantitative study

In 2019, W4H commissioned a small-scale quantitative study to examine to what extent SCL and E-Learning were embedded in teaching and learning at a sample of four HTIs in three states – and to look at how pass rates in internal and external exams had changed since 2013 when W4H began supporting the institutions and SCL and E-Learning were introduced. The study also gathered data from final year students and tutors related to their experiences of SCL using a self-administered questionnaire. The four HTIs in the study were: School of Nursing Katsina (Katsina), School of Nursing Damaturu (Yobe), School of Midwifery Damaturu (Yobe), School of Midwifery Birnin Kudu (Jigawa). The number of students from each institution participating in the study are shown in Table 1.

Results of both internal (school final) and national (NMCN) examinations were collected for a period of three years before the introduction of SCL and E-Learning (2011-13, for most of the HTIs studied). To see how student performance changed after W4H's interventions (including SCL and E-learning), results were also collected for three years (2017-19) after they were introduced in both internal and national examinations.

Implementation of SCL and student attitudes

An important aspect of the study was to find out to what extent SCL and E-Learning had been embedded in everyday teaching practice at the colleges. Students at the four HTIs were surveyed to find out. According to the responses, 53%

Students participating in the survey

Student numbers

Male **49** (20.4%) Female **191** (79.6%)

Name of School

School of Nursing Katsina **94** (39.2%)
 School of Nursing Damaturu **52** (21.7%)
 School of Midwifery Damaturu **44** (18.3%)
 School of Midwifery Birnin Kudu **50** (20.8%)

Programme

Basic Nursing **144** (60.0%)
 Basic Midwifery **75** (31.3%)
 Community Midwifery **21** (8.8%)

Years at the school

2 years **78** (32.5%) 3 years **141** (58.8%)
 4 years **17** (7.1%) 5 years **4** (1.7%)

of students said SCL was 'mostly' implemented in their classes, while 43% said it was 'sometimes' used. Just 6% said SCL was rarely used. In terms for use of E-Learning, 44.6% said it was mostly implemented and 19.6% said it was sometimes used.

These findings were calculated using a 1 – 5 scoring system using a Likert scale as follows:

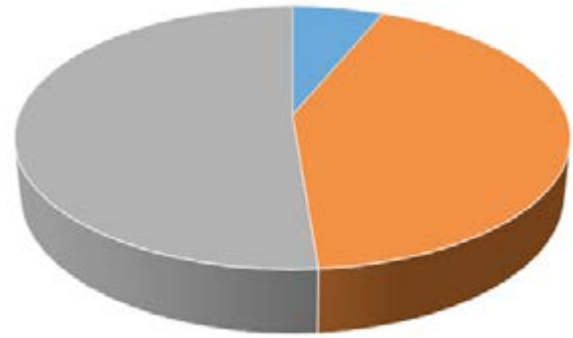
Never = **1**, Rarely = **2**, Sometimes = **3**,
 Often = **4**, Everyday = **5**.

The questionnaire had 13 variables in total and a maximum score of 65. The results were analysed as follows:

Mostly = score of 45-65; Sometimes = score of 33-44;
 Rarely = less than 33 (< 60%).

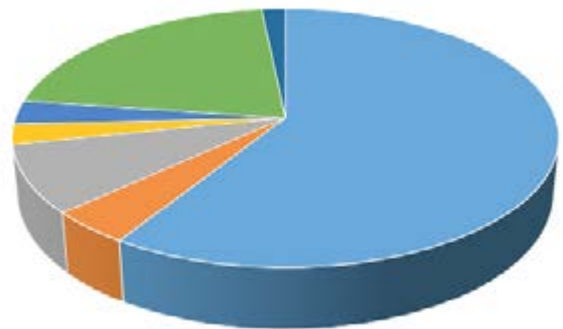
In terms of students' preferences, the survey clearly showed that the favourite SCL methods were 'collaborative learning' (59%) and 'presentation' (21%). In terms of the methods they didn't like, the results were more evenly spread with six methods accounting for 68% of dislikes between them: 16% identified 'case study and debate', 15% 'problem-based learning', 'peer teaching and peer evaluation' and 'presentation' both score 13%, while 'E-Learning' was disliked by 11%.

Use of SCL in the HTIs



- **Mostly (51%)**
- **Sometimes (43%)**
- **Rarely (6%)**

SCL methods most liked by students



- **Collaborative learning (59%)**
- **Presentation (21%)**
- **Peer Teaching (8%)**
- **Problem-based Learning (4%)**
- **E-learning and Case Study (3%)**
- **Debate (3%)**
- **Role Play and Peer Evaluation (2%)**

The results

The W4H study examined the results in final internal and external exams for periods before and after the introduction of SCL and E-Learning – among other W4H interventions – and found there was significant improvement at all four HTIs. Pass rates in internal final exams averaged some 60% before W4H interventions were introduced – and this improved to an average pass rate of nearly 83% afterwards. In external final exams the pass rate averaged 61% before and nearly 86% afterwards.

National Examination Pass Rates

School of Nursing Katsina

With SCL and E-Learning (Av. 2017-19)	96%
Without (Av. 2011-13)	70%

School of Nursing Damaturu

With SCL and E-Learning (Av. 2017-19)	98%
Without (Av. 2011-13)	62%

School of Nursing Birnin Kudu

With SCL and E-Learning (Av. 2017-19)	73%
Without (Av. 2011-13)	54%

School of Midwifery Birnin Kudu

With SCL and E-Learning (Av. 2017-19)	79%
Without (Av. 2011-13)	44%

Research found that in internal final exams in 2011-12, schools of nursing Katsina and Damaturu were the better performing schools with average pass rates below 60% – these schools showed strong improvement in recent years with pass rates of 100% and 94% in 2017 and 2018, respectively. The school of Nursing Birnin Kudu (Jigawa) was the lowest performing school with an average pass rate of

some 22% over 2011-13 – and by 2017-19 the pass rates had showed strong improvement, climbing to an average of 71% over the years 2017-19.

Similar improvements were seen in academic performance in national (NMCN) examinations (see table). The strongest improvement was for the School of Nursing Birnin Kudu (Jigawa), which had an average pass rate of 54% during the period 2011-13 before W4H support began and an average pass rate of 74% afterwards (2017-19).

The School of Midwifery Birnin Kudu was established in 2012 and started presenting students for national exams in 2015 – SCL and E-Learning were introduced early in 2014. NMCN final exam pass rates improved from an average of 44% for 2015-16 to an average of 79% for the period 2017-19.

Key messages

SCL and E-Learning can play an important role in improving students' performance in exams

by helping them to be independent learners who are equipped to continue to learn once they enter professional service.

Exam performance improved despite SCL and E-Learning not being fully implemented.

There was evidence that some tutors are resistant to changing their style of teaching – and students found some aspects of SCL and E-Learning challenging.

Ongoing training and re-training of tutors is needed

to improve the implementation rate of SCL and E-learning – as well as monitoring and supportive supervision for HTI management.

NMCN's national rollout will bring the benefits of SCL and E-Learning to HTIs across the country.

NMCN should consider adding implementation of SCL and E-learning to the accreditation requirements for HTIs.



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