

LEARNING MANAGEMENT OF BACHELOR OF NURSING PROGRAMME AT OPEN UNIVERSITY MALAYSIA (OUM)

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Abstract

Despite the enormous shortage of nursing teachers and clinical specialists in national and global level, there had been meager attempt to open up degree level nursing courses outside a few public and very few private universities in Malaysia. Offering quality degree and postgraduate programmes in nursing through distance learning therefore is a challenge to any institution in the country.

OUM is one of a limited number of Malaysian universities specializing in teaching and research of Nursing Science and Management. Currently it runs a Bachelor of Nursing Science (BNS) programme for registered nurses with its blended pedagogy to enhance the knowledge and skill of these in-service nurses that are diploma holders. The programme has been earlier approved by National Accreditation Board (LAN), Nursing Board of Malaysia (NBM) and Ministry of Higher Education (MOHE).

This paper describes first the OUM's BNS programme, and then presents the learning management of this BNS programme, an initial review of the students' performance in the first semester and to look at the prospects and challenges of this programme in future.

OUM's BNS Programme

A recent statistic of the Malaysian Ministry of Health (MOH) indicates that there are approximately 68,000 registered nurses in Malaysia - 80% of their total health care personnel. MOH through NBM is now seeking to develop flexible educational opportunities that will enhance nursing as a growing profession and produce more degree holders and postgraduates to meet the increasing demand for specialist nurses and teachers.

Many of the current registered nurses are diploma holders and they have little opportunity to further their education. Apart from 7 public universities in the country, some private universities, currently offering nursing diploma programmes, are attempting to upgrade their programmes to develop degree level programmes. However, attaining an Online distance learning programme in nursing is recognized as one of the best ways of advancing an in-service nurse's career without sacrificing her present job. Many providers of distance education, mostly from foreign universities, have listed on-line collaborative, expensive degree programmes in collaboration with local private institutions, pertaining to nursing management or nursing education, but seldom have these programmes had clinical component attached to it. Relevance of these programmes in local context may also be questioned.

Realising the above perspectives, OUM appointed two consultants to develop a 6-year Bachelor of Nursing Science programme that included a 4-years pre-registration programme with 129 credits and 2-years post-registration programmes with 86 credits. Since OUM's blended pedagogy was successfully run in various other programmes, the nursing programme was

designed in similar way except it has a strong clinical science component, conducted at various hospitals across the country.

OUM's open distance learning (ODL) programme utilizes a blended pedagogy approach which comprises of face-to-face tutorials, modules, E-learning, virtual laboratory and clinical practice. The blending of sophisticated instructional technology and the human touch of personal interaction with lecturers, tutors and clinical preceptors provides a unique learning experience that allows flexibility in pacing students' endeavour to pursue continuing professional development. It seeks to enhance students' contribution in meeting the healthcare needs of the nation and to future development of nursing care and profession. This post-registration programme consists of various health science and behavioral science subjects and also includes subjects of clinical specialties for students' selection of 3 choices from the following 6 clinical specializations:

- Critical Care Nursing or Trauma and Emergency Nursing,
- Paediatrics Nursing or Mental Health Nursing,
- Oncology Nursing and Renal Nursing.

This robust 2-year (6-semester) degree programme has been designed to provide in-depth knowledge, professional and clinical skills as well as the caring attitudes that a future graduate will play as an expert nurse and leader in nursing. The students have the flexibility to complete the programme in 4 years although they are encouraged to complete this in 2 years. Also, high demand for degree holders as well as postgraduates in nursing encourages the students to complete the students finishing their studies within 2 years.

The structure of the programme is given in the following table (Table 1)

Table 1: Programme Structure of OUM's BNS programme

Programme Structure

COMPULSORY LAN COURSES	
SUBJECT NAME	CREDIT
Bahasa Kebangsaan (Malaysian Language) A (3 credits)	3
Islamic Studies / Moral Studies (3 credits)	3
Malaysian Studies (3 Credits)	3
COMPULSORY OUM COURSES	
SUBJECT NAME	CREDIT
Learning Skills for Open Distance Learners	3
English for Written Communication	3
English for Oral Communication	3
Entrepreneurship	3

CORE COURSES	
SUBJECT NAME	CREDIT
Management and Medico Legal Studies B *	3
Professionalism and Issues in Nursing B *	3
Advanced Nursing Assessment	3
Teaching in Nursing B *	3
Nursing Research and Statistics B *	3
Research Project B	6
Clinical Practice 9	2
Clinical Practice 10	4
Clinical Practice 11	7
Clinical Practice 12	7
Clinical Practice 13	7
Clinical Practice 14	7

B * indicates this is an advanced level course. Similar courses in A are for diploma level but not mentioned here.

Learning Management:

Learners accumulate 40 study hours for every credit hour. For instance a 3-credit theoretical course e.g. Management and Medico Legal Studies B needs 120 hours of self-learning. Table 2 gives an approximate idea of how the 120 hours of self-learning occurs.

Table 2: Estimate of time allocated for a 3-credit course.

Activity	No. of Hours
To understand the course content and participate in initial discussions	2
To study the module at the rate of 8 hours per topic	64
To attend 5 tutorial sessions of 2 hours each	10
To engage in on-line discussion	12
To complete 2 assignments or 2 parts of 1 assignment at the rate of 20 hours per assignment	20
Revision (on request by students, extra tutorial/s are provided)	12
Total	120

General clinical practice is attended by students in their own workplace. This general practice is usually an application of knowledge learnt in the theory. This is self directed where 1 credit of clinical practice takes 60 hours. For example the clinical practice 9, related to Management and Medico-legal practice module, deals with the application of professionalism in nursing ethics, medical and legal knowledge in depth during practice in the hospital. Usually students critically evaluate a case during a semester on either medico-legal or ethical issues that is encountered during practice and describe this in an essay of 1,500 words. The main objective of this course is to make the student an independent thinker and a competent provider of critical care. This is followed by a power point presentation of the case in a nursing conference in a class, guided and assessed by a tutor/facilitator.

Specific clinical practice is conducted by students in chosen hospitals in a specific ward under the guidance of a preceptor. This requires 96 hours of practice in the semester concerned. Students are guided by a preceptor to select 5 cases that they follow through during the semester in one of the 3 specialization the student chooses. Students write case reports and present one of the reports in a seminar.

Students attend their **face to face learning** sessions in alternate weekends with experienced tutors, mainly university lecturers. In these sections, students are required to attend a tutorial class after they had gone through a few chapters of self learning of the OUM' printed modules, and the tutor's role is to interact with the students over the contents of the module. This is more like facilitating, rather than teaching.

Face to face trainings have been planned in some of the centres of OUM that can recruit specialist nurse tutors and nurse preceptors from the nearby universities or hospitals. These tutors are also trained to deliver on-line teaching to students through the OUM's learning management system (myLMS). OUM's permanent lecturers' role is to coordinate these learning processes and act as subject matter experts of subjects of their specialization.

Since MOH has agreed to offer the following hospitals (Table 3) for training at specialist wards, OUM's students will benefit in their clinical specialization by attending the hospitals, closed to her/his place of work. Students are required to do the clinical specialization for 12 weeks (96 hours) for each of the specialization they choose. Three Universities have agreed to accommodate OUM's students at the specialist wards.

Table 3: Government hospitals for the purpose of running clinical specializations

Hospital Kangar	Hospital Alor Setar
Hospital Sungai Petani	Hospital Seberang Jaya
Hospital Pulau Pinang	Hospital Taiping
Hospital Ipoh	Hospital Serdang
Hospital Tengku Ampuan Rahimah	Hospital Raja Perempuan -

	Zainab II, Kota Bharu
Hospital Kuala Terengganu	Hospital Tengku Ampuan - Afzan
Hospital Sultanah Aminah, Johor Bahru	Hospital Batu Pahat
Hospital Seremban	Hospital Sibul
Hospital Miri	Hospital Umum, Sarawak
Hospital Queen Elizabeth	Hospital Likas
Hospital Sandakan	
Hospital Universiti Kebangsaan Malaysia (HUKM)	Universiti Malaya Medical Centre (UMMC)
Hospital Universiti Sains Malaysia (HUSM)	

Assessment

For the modules on health sciences and behavioral sciences, the students are assessed based on the following:

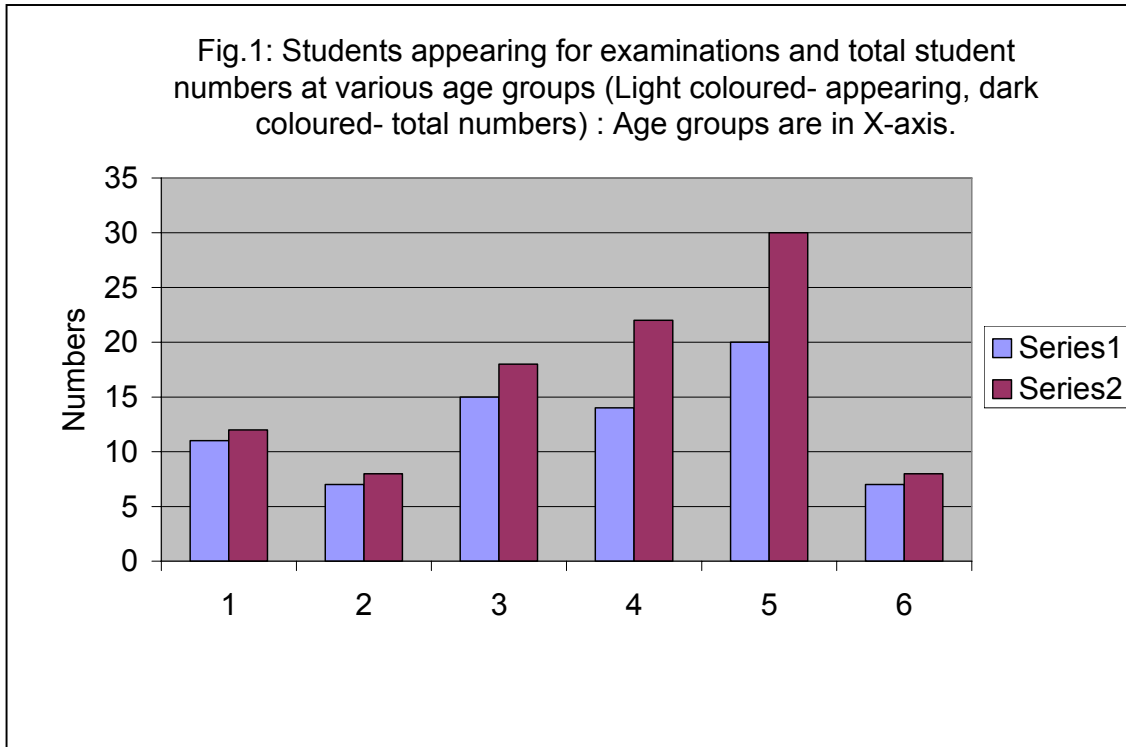
On-line participation -5 marks, Assignments- 45 marks, Final examination- 50 marks.

For general clinical practice modules, marks allocated are i) for clinical practice record 50%, ii) for clinical assignment (essay) 35%, iii) for presentation in clinical conference 15%, and iv) OLP 5%. For specialized clinical practice, marks are distributed for the following: i) Portfolio assessment 35%, ii) clinical practice record 35%, iii) OLP 5% and iv) Objective Structured Clinical Examination (OSCE) 50%.

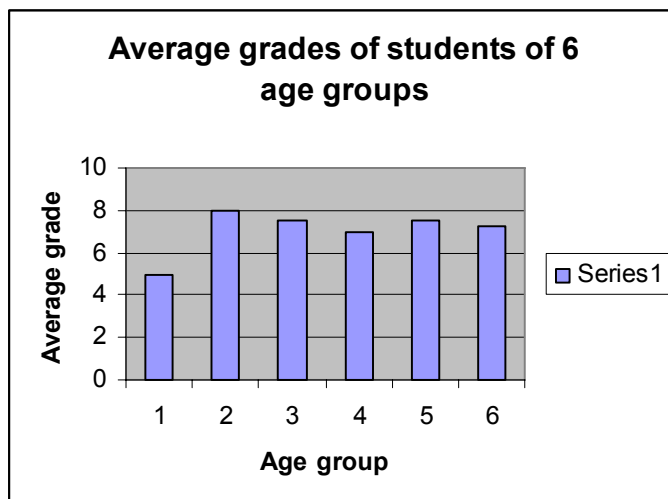
Students' performance in examinations:

Students' evaluation is based on continuous assessment in their coursework/clinics (50%) and final examination (50%). At this time it is not possible to make a thorough review of performance of students as the students are in their 1st two semesters with OUM.

A preliminary analysis of the data of 1st cohort students of various age groups appearing for Management and Medico-legal Studies examination did not show any significant difference between 6 age groups (Fig. 1). Age groups were as follows: **1 (> 45 years), 2 (>40-45 years), 3 (>35-40 years), 4 (>30-35 years), 5 (>25-30 years), 6(>20-25 years)**. Similar pattern was also observed between students of different centres (**Serdang Raya 1, Serdang Raya 2 and Seremban**) where different tutors facilitate their face to face and on-line learning



Students' grades for the overall examination at different age groups ranged from D (converted to 1), D+ (2), C- (3), C (4), C+ (5), B- (6), B (7), B+ (8), A- (9), A (10). Figure 2 below shows the average grades of students of various age groups. Students of age group 1 (age >45 years) had weaker average grade compared to other groups of students. Therefore more attention needs to be given in future to these students in the theoretical class. On the contrary these older students did well in the Clinical Practice 9 module that is complementary to the Management and Medico-legal module. Their good performance in clinical practice module is expected because of their longer association with patient care in the hospital.



Analysis of variance of final examination marks of all students for the Management and medico-legal module however did not show any significant difference ($P > 0.05$) between various age groups and also between students working in 4 different classes of hospitals (HUKM, HUTAR, Other Hospitals in Klang Valley and Hospitals around Seremban centre (Table 4)). This uniformity in results could be attributed to joint planning by tutors prior to conducting the classes and printed modules that had been distributed to students before the commencement of the first class. However, there is room for improvement as far as students' performance is concerned.

Table 4: Two way analysis of variance with interaction between Age Groups and between Hospitals for examination marks.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	472.174(a)	14	33.727	2.539	.006
Intercept	29693.624	1	29693.624	2235.609	.000
Age Groups (A)	153.852	5	30.770	2.317	.053
Hospitals (H)	36.063	3	12.021	.905	.443
Interaction (A x H)	112.230	6	18.705	1.408	.224
Error	889.902	67	13.282		
Total	100243.250	82			
Corrected Total	1362.076	81			

a R Squared = .347 (Adjusted R Squared = .210)

Students' performance in course work was found to be much better than the final examination. This discrepancy in marks between continuous assessment and final examination should be seriously addressed by the tutors and subject matter expert in future. In general, students fare better in the continuous assessment in OUM but efforts must be made to improve their final examination results. An extra tutorial to prepare the students systematically before the examination or on-line instruction by a subject matter expert on how to face examination questions in the examination hall may be a partial solution to this problem.

Table 5: Correlations between OLP, Assignment, and Final examination Part A and B marks

		OLP	Assignment	Final Exam-Part A	Final Exam-Part B
OLP	Pearson Correlation	1	.078	-.127	-.272(*)
	Sig. (2-tailed)		.484	.253	.013
	N	83	82	83	83
Assignment	Pearson Correlation	.078	1	.215	-.069
	Sig. (2-tailed)	.484		.053	.540
	N	82	82	82	82
Final Exam-Part A	Pearson Correlation	-.127	.215	1	.403(**)
	Sig. (2-tailed)	.253	.053		.000
	N	83	82	89	89
Final Exam-Part B	Pearson Correlation	-.272(*)	-.069	.403(**)	1
	Sig. (2-tailed)	.013	.540	.000	
	N	83	82	89	89

* Significant at the 0.05 level (2-tailed)** , significant at the 0.01 level (2-tailed).

Quality education in nursing

Buoyed by the strong economic growth in Malaysia, there appears to be a greater health care need of the people. In spite of the growth of nursing profession in Malaysia and around the world for quality management, education, entrepreneurship etc, primary aim of nursing is to provide improved health care. Keeping this in view, OUM's nursing curriculum for degree students contains 50% of clinical component where the students are required to specialize in 3 disciplines.

OUM intends to provide quality education through recruitment of professionally competitive nurses with excellent teaching skills and inter-personal skill. Our tutors hold high level positions within the fields they teach, so they can share valuable, real-world experience. These include permanent lecturers, tutors/facilitators, and clinical preceptors in the hospitals. Competition among institutions providing diploma or degree programmes are many in the country and all these institutions are competing to recruit nursing teachers and preceptors from a pool of limited manpower. In our experience, one needs to wait long to recruit a quality educator or clinical specialist.

For developing of quality nursing programme, it is essential to develop a research unit in nursing that focuses on:

1. Preparing nurses at the baccalaureate and master's levels who are critical thinkers, life long learners and able to practice in a variety of health care systems.
2. Providing educational services in collaboration with agencies for professional nursing development.
3. Serving as the regional center for nursing research in collaboration with some public institution..

4. Maintaining high quality faculty who are excellent teachers and expert practitioners.
5. Developing CDs for distribution to students that contain virtual practicals with proper class room like instructions and questions pertaining to the following disciplines;
 - i) Trauma and emergency nursing.
 - ii) Critical care nursing
 - iii) Mental health nursing
 - iv) Pediatrics nursing
 - v) Oncology nursing
 - vi) Renal nursing
6. Developing improved procedures for evaluating students as well as tutors and preceptors.
7. Stimulating students and tutors to go on-line as often as possible. OUM has developed OL (on-line learning), COL (collaborative on-line learning) and PL (personalized learning) for other programmes. These types of learning can also be used for nursing programmes but needs further research for its application.

Prospects and challenges

Considering the fact that there is enormous need for nurses in Malaysia and abroad, the prospect of OUM's programme is bright. According to John Daniel (2002), Open and Distance learning has been accepted as a strong force to bring social and economic development in developed as well as developing countries. With the technology developed by OUM, it is possible to disseminate graduate and undergraduate nursing education through ODLE in the region with collaboration from host institutions and the local hospitals that are equipped with state of the art facilities for clinical training. Malaysian Ministry of Higher Education (MHE) has also placed Open and Distance Learning as an important agenda towards the development of skilled manpower in the country and encourages local institutions to develop programmes for internationalization. OUM's nursing programme, once firmly established locally, may be able to market it in the Southeast Asian and Gulf countries where OUM has already established bases.

Challenges to meet the above prospects are also plenty. Being a distance learning institution, OUM has run in the past many science programmes, renting science laboratories and equipments from various universities. To obtain similar continuous collaboration from the specialist Government hospitals would remain as a strong challenge. Besides running their core responsibilities i.e. patients' health care, the hospitals would have to share some of their facilities and preceptor nurses to support OUM's clinical programmes. At this juncture it is not possible to assess whether this support will be free flowing or not from the hospital directors, although the MOH has agreed to accommodate students at various wards in its 21 hospitals.

Challenges to develop constantly new educational technologies are also an important factor for providing distance education in nursing. Recent technological developments in education include a variety of content delivery methods: email, audio and video conference, mobile phone delivery of assessments and announcements, i-tutorials, and internet based programming. These technologies are available in OUM but their usage for the nursing programme has to be strengthened. OUM also is in the process of developing CD-ROM based clinical teaching as a supplement to hospital based teaching in collaboration with other Universities. It remains to be seen how successful is this collaboration?

Although many of the above technologies have been successfully used in OUM's various educational programmes in the past to complement some traditional classroom teaching, OUM's experience reveals that traditional classroom is important and can not be completely eliminated. These technologies have been used in the delivery of nursing education in various Universities, mostly in the west. OUM intends to develop a nursing programme where there will be a unique blend that has been earlier developed for other programmes. However in the nursing programme, practice in general and specialist clinical wards constitute a major part of the total nursing courses.

Counseling the students and part time tutors and preceptors should be a constant activity of the Counseling unit. Without this it may be hard to retain the students and good tutors.

Development of a Nursing Faculty with bright staff suited for distance learning should be another important agenda. Availability of resources to develop education technologies and special instructional design methods will encourage the faculty to develop education and research.

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