Abstract—This paper focuses on the design of new curriculum at Wawasan Open University to meet the differential needs of part-time adult learners, working professionals who have many years of prior work experience in the field, maintain full-time employment while earning their degree and use their employment setting for the field work practicum. Specifically, the author examines key issues in curriculum delivery including the needs of the learner, resources required and the assessment strategies. The depth of contents and engagement of the working adults in the learning process also presented.

Keywords- Adult learner, Curriculum Design & Delivery, Learner needs, Assessment strategies

I. INTRODUCTION

Curriculum Design in particular touches every aspect of an institution's core business from aligning its portfolio of courses to its mission and vision, through market research and product development to quality assurance, recruitment, assessment, timetabling and how it distributes its funding internally. The emphasis of the programme is on institutional approaches to curriculum design with senior level commitment to transformational change [1,2,5,7]. At Wawasan Open University (WOU), programme development is governed by a rigorous protocol with strict adherence to a set code of practice for assurance of academic quality and standards. The process involves several key stakeholders as illustrated in Figure 1 below.

Figure 1 Programme Development Pathway at WOU

The process involves two distinct stages. Stage one begins with the School setting up a Programme Planning Committee (PPC) that comprises faculty members with appropriate expertise from within (and outside the School as appropriate). The PPC, in consultation with the Advisory Peer Group (APG) that consist of external members from academia and the industries, develops the Outline Programme Proposal (OPP) for the new programme. The OPP contains the Programme aims, objectives and learning outcomes, the proposed structure, the component course curricula, delivery systems and assessment strategies, market demands and provisions as well as resource implications. Once completed, the OPP is tabled for endorsement by the School Board. After endorsed by the School Board, the OPP is presented to the Senate for endorsement and subsequently to the Council for approval.

After the OPP has been approved by Council, a Detailed Programme Proposal (DPP) fleshing out the detailed syllabus for each course, the course presentation schedule, the resource requirements and the budget proposals etc. is prepared and taken through in succession the School Board, Senate and then Council. Once the DPP is approved by Council, the proposal is submitted to MQA and MOHE for the necessary approval. On obtaining these approvals, courses that are required to support the said programme are developed for presentation. Resources for the development of individual courses are provided in the University’s annual budget allocation process and administered by WOU’s Education Technology and Publishing Unit (ETPU).

II. VARIOUS TEACHING AND LEARNING METHODS

Learning outcomes are sets of competencies, expressing what the learner will know or be able to do after the successful completion of learning process [2]. Credits are obtained after passing the appropriate assessment for each course. In WOU’s ODL model, the role of lectures is replaced by providing students with a set of course materials (in print or CD and accompanied by textbooks as appropriate) that are designed for self-learning. The development of course materials is carried out using a team approach. Typically, a Course Development Team (CDT) consists of the School’s academics, Instructional Designers from ETPU, external academic content experts (writers) and, where appropriate, web designers/programmers as well as language editors. The
work flow process follows a well defined set of protocols. External peer review is provided via an External Course Assessor (ECA).

At WOU, learning outcomes, particularly at the course level, are systematically discussed by the CDT taking into consideration the level of study and the level of anticipated cognitive skills as defined by Bloom (1956). The appropriate learning activities for each course are then specified. In determining learning outcomes, the following macro considerations are taken into account:

A. Linking current demand of industry, workplace knowledge and skills;
B. Linking course goals with larger or overall programme goals;
C. Planning the course activities based on intended outcomes and level of study;
D. Aligning the learning outcomes with the assessment criteria and level of study in every course. Ensuring that assessment tasks are designed to fulfill the outcomes of the course.

The pathway is summarized in Figure 2 below.

![Figure 2 The Learning Outcome Identification Process](image)

To enable students to achieve the prescribed learning outcomes, the following provisions and learner support are provided to WOU students:

- Quality course materials (print based or CD) that are pedagogically designed to facilitate self learning, study guides and laboratory instructional guides.
- Quality student learning support that includes
  - Face-to-face tutorials at regular intervals
  - Face-to-face laboratory classes
  - Telephone tutoring
  - Additional posting of teaching and learning materials on WOU’s own internet based learning management system (WawasanLearn) that is available 24x7
  - Online digital library resources that is available
  - Pacing via regularly spaced assignments
  - Support of Regional Offices including Internet connected computer terminals
  - Assessment strategies that are designed to evaluate the mastery of the intended learning outcomes

III. CONSIDERATION OF MARKET, SOCIETAL DEMAND AND SUFFICIENT RESOURCES

As a private not-for-profit institution, the development and delivery of each WOU programme is very much driven by market and societal demands. The Schools and the Marketing Unit of the university regularly conduct market survey as well as gather feedback from various channels. These include:

- Feedback from WOU Council members
- Feedback from members of the School’s APG
- Feedback from Regional Offices of WOU
- Feedback from public through market surveys and road-shows conducted regularly by the Marketing Unit
- Dialogues with representatives of industries
- Dialogues with professional organizations

All costs incurred in conducting these activities are borne by the university itself.

In addition, the University also conducts formal dialogue sessions with its students and tutors every semester. Although, the main objective of such dialogues relates to service and support provided to these stakeholders, sometimes suggestions are also received on the demand for new programme that are of interest to them or their workplace.

WOU students are working adults who have made a conscious decision to undertake study to improve themselves. They are thus practicing lifelong learners. The ODL mode of study requires students to take active responsibility for their own learning. This approach calls for students to develop independent learning, self discipline, good time management practices and good active learning skills. As teaching and learning are separated in time and space in the ODL mode, all of the WOU courses have been developed using the learner centered approach.

IV. DIVERSE LEARNING METHODS AND SOURCES

The knowledge-based economy that our nation is moving towards demands that the graduates of Malaysian institutions of higher learning are sufficiently equipped with a mix of both enabling skills and specific knowledge [1,3,4] as illustrated in Figure 3.
In WOU, the alignment of course learning outcomes to the programme learning outcomes as well as the level of study involves effort being made to ensure that the fundamental objective of ensuring that its students are provided with the appropriate functional and technical competencies in their chosen area of study is accomplished. Generally, the successful accomplishment of the learning outcomes of the relevant suite of courses is taken as a demonstration that the programme learning outcomes have been achieved. Figure 4 shows the course development process of WOU.

Other than the categories of ‘basic major’ and ‘core major’ courses that specify the technical content of a programme, students have also to pass a set of LAN (National Accreditation Board) and university prescribed courses all of which have been designed to equip students with the relevant ‘soft’ skills such as ‘learning skills’, language and communication skills and ‘basic computing’ skills as well as develop in them a set of universal values relating to good citizenry.

Every course has clearly stated objectives and learning outcomes and pedagogically well structured contents as well as a set of well aligned assignments to enable WOU students to take better control of their own learning at anytime and from anywhere. Also, the diverse background of WOU students ensures that discussions at tutorials are enriched by the extremely diverse background experience and views that the working adults bring. An additional opportunity for enhanced level training in critical thinking, problem solving, decision making and analytical thinking also avails when students undertake their final-year research projects during the last two semesters of their study.

As working adults, WOU students are in the unique situation of having their learning of the course materials reinforced by the practical learning that occurs at the workplace. Theories learnt via studying the course materials are often reinforced within a short period by real life situations that they meet in the work environment.

Students of WOU usually practice a life style of self-paced learning and working at the same time. This combination allows them ample opportunities to apply and integrate newly acquired knowledge with on the job hands-on experiences. The situation lends itself automatically towards attainment of knowledge and all round personal skills in ways not readily available to full time undergraduates studying in a conventional academic institution.

V. PROGRAMME ENCOURAGING MULTI-DISCIPLINARY APPROACH AND CO-CURRICULAR ACTIVITIES

Students of WOU come from all walks of life. They include working adults of various age groups (21-71) residing in different geographic parts of the country. Many are married and frequently have experienced the responsibilities of being parents. Generally, they prefer to take full control of the types of co-curricular activities that they pursue or intend to pursue. Some run companies while others hold leadership positions in various bodies. Thus the very important and desirable role of co-curricular activities in the development of 19-23 year olds studying in conventional universities is not so applicable to WOU students. Nevertheless social interaction amongst WOU students is promoted through optional recreational activities organized by student associations established at the various regional offices of the university.

Adapted from OECD (2004) and Accenture (2007)
VI. EXTERNAL SOURCES ENGAGED IN THE NEEDS ANALYSIS

During the initial development of the Programme OPP both the APG and the marketing unit provides feedback on the need for offering a particular programme as well as the likely demand for its graduates a few years down the road.

WOU has also established close relationships with academic peer as well as industry. MoU’s have been signed with institutions such as the Penang Skills Development Centre and Open University Malaysia. Regular dialogue sessions with the members and the staff of these partner institutions allow WOU staff to benefit from the sharing of experience and incorporation of their comments and good practices into improving our Programme during both the development and the implementation stages. Likewise, the participation of WOU’s academic and administrative staff at local and international conferences etc. ensures that we keep abreast of international developments and incorporate them into our teaching and learning practices as well as programme enhancement.

VII. CONCLUSIONS & RECOMMENDATIONS

Distance learning is not simply a contemporary trend that will fade away. When considering the future of distance learning, it is important to look at many of the trends related to learning that are already influencing current trends and planning.

Key factors of a good Curriculum Design:
1. It explains and justifies the need for the programme;
2. It sets appropriate and achievable objectives;
3. The subject content is well scoped and defined;
4. It states who would be involved (key participants);
5. It outlines a realistic work schedule for achieving the goals;

Having assessed the opportunities and challenges related to the possibility of distance learning and due to development of the Information and Communication Technology, WOU has decided to pursue to reach to those who stand last in the queue. The university is now planning to expand in the areas of construction technology programme and not only in queue. The university is now planning to expand in the areas of construction technology programme and not only in queue. WOU itself in a key position to emerge as a major player in development and delivery of distance education.

In creating a niche for itself in the huge market of distance education, provision of B.Tech in Electronics, B.Tech in Telecommunication, B.Tech in Computer Science, and B.Tech in Construction may be both an opportunity and a challenge for WOU as an institution. Internationally, various universities of USA, Hong Kong, UK, South Korea and Europe already provide accredited and non-accredited courses in distance learning [1,6,8]. It will be a challenge for WOU initiative to stay ahead in the competitive market of providing technology based programmes.

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