# Designing a University fundamental course as an open courseware

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# Designing A University Fundamental Course as An Open Courseware

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#### **Abstract**

With some of the latest developments in open education, MOOCs and OpenCourseWare, it is inevitable that higher education institutions in some developing countries are attracted to being able to offer the same. At the Universitas Siswa Bangsa Internasional (USBI), a university that is only about a year old, designing courses includes taking into account the latest trends in higher education, considering some of the more innovative learning approaches, and adopting some of the more appropriate learning technologies. At the same time, due consideration is given to the availability of IT infrastructure and knowing what personal devices students bring with them to class. One of USBI's efforts, through its Center for Learning, Teaching and Curriculum Development, is to design courses for delivery not only through multiple platforms but particularly through mobile devices such as tablets and smart phones. The implication is far reaching. It is possible that some of the fundamental courses that over five million students in more than 3,000 higher education institutions in Indonesia are required to take can be made available in the form of OpenCourseWare (OCW). The latter includes the course syllabi, outline, activities, learning resources and notes. The paper will highlight how USBI has designed and developed one of the compulsory courses for delivery via an array of personal devices. This particular course may be offered as an OCW and possibly as a local MOOC by collaborating with other institutions of higher learning.

Keywords: OpenCourseWare, OCW, design, tertiary, Indonesia

### Introduction

Higher education today is witnessing some very exciting developments with regard to information communication technologies (ICT). Rapid advances in ICT have educators continuously challenged as they attempt to understand the implications, applications and how best to design good learning

experiences for their students. Twenty first century education calls for educators to provide, for example, better and flexible learning opportunities to students so as to cater to their preferred learning styles and meet their interests and needs for higher education. It has become important for educators today to not only integrate technology but to build in more stimulating, thought provoking and meaningful learning experiences in their courses for their students. It is important to engage the students. In addition, some educators have long argued that it is no longer appropriate to remain with archaic 20<sup>th</sup> century models and methodologies to teach students in the 21<sup>st</sup> century.

In recent years, educators are witnessing interesting developments towards more openness in education. The open movement in higher education started in 2001 when Massachusetts Institute of Technology (MIT) launched its OpenCourseWare (OCW) initiative. However, OCW did not receive much attention in the popular press and media in its early days in spite of its goal altruistic and impressive goals. By 2007 MIT had published 1,800 courses on the Internet with 2 million visits. Educators may re-use or re-purpose the resources and students are free to choose which courses to access. By 2012, a total of 2150 courses had been published. Portions of the courseware had been translated into Spanish, Portuguese, Chinese, Thai, Turkish and Korean.

The OCW is now a global phenomenon. More than 250 universities and associated organizations worldwide have come on board. There are now more than 13,000 open courses in 20 languages. Today, the open movement is not limited to content but has spilled over into the categories of open textbooks, open access journals, open courses and open learning. Wheeler (2014) believes that it is now timely that open scholarship be promoted among educators in higher learning institutions for the open movement to make greater impact. There are three things the open scholar will do: using open resources, sharing of open resources, and being open to criticism on one's shared resource.

In a recent online survey (Abas, 2014) of 89 academics in higher education institutions, mostly in Malaysia, Indonesia and Thailand, it was found that 97.7 percent of the respondents have Facebook accounts and 79.5 percent are using Facebook for learning and teaching. About 75 percent of the respondents have watched YouTube videos while 61.4 percent of the respondents have used it for learning and teaching.

When asked whether they recognized the following: OCW, OER, MOOC, OER University; only 40.9 percent of the respondents recognized what OCW was, 36 percent recognized OER, 59.1 percent recognized MOOC, and 32.5 percent recognized the OER University initiative by the OER Foundation.

The survey also revealed that while 96 percent of the respondents had created and uploaded their learning materials for their students, only 84 percent are willing to share them with the online community beyond their students. It was also found that while there is a general tendency (98 percent) for educators to use available open resources, some 16 percent of the respondents are a little reluctant to share the materials they have created such as in the form of slides, Prezi, puzzles, worksheets with the education community as OERs. The findings indicate that educators in the less developed countries are not yet deeply involved in the open movement.

# **Designing the Learning Experience**

Instructional designers are expected to do their magic when designing a course, courseware, learning resource, learning activity and learning assessment so as to make learning meaningful and enjoyable. Essentially the purpose of a course is to help students learn so that the learning outcomes are achieved.

Good educators try to "teach" well or in recent years, "facilitate" the learning so that students take responsibility and manage their own learning while the facilitator determines the content, activities, assessment and how the students will gain the prespecified knowledge, competencies and skills or develop a desirable attitude.

Of late, educators are expected to make learning fun, enjoyable, exciting and meaningful. We need to discontinue with the traditional and boring lectures where students sit passively listening, bored and distracted. The latter is evident when students fail to pay attention to what is going on in the classroom and instead daydream or go online (not back channeling) using their personal electronic devices.

Based on an online survey conducted by the Center for Learning, Teaching and Curriculum Development with respondents comprising 166 students at USBI, it was remarked that, being millennials, they expect their learning resources to be made available online and for them to be actively involved in the learning. Students expect lecturers to be brilliant in the classroom and teach well. They would like the learning resources to be available before class (in short, 'flipped learning') so that they may go over them before class.

Interestingly the latter request is about flipped learning. They expect lecturers to go deeper into the topic in the classroom with real examples to help them understand better. It goes without saying that students expect the IT infrastructure to be the best and for the internet speed to be fast and easy to access, especially in a private university offering international education. The online survey may be accessed from http://tinyurl.com/kanrfy2.

# **Needs and Challenges**

The Indonesian Ministry of Education has identified several compulsory courses that must be taken by every university student. This includes Mathematics, Bahasa Indonesia, Humanistic Studies, Pancasila, and English Language for Academic Purposes. Of all these, Pancasila, that is, a course on the embodiment of basic principles of an independent Indonesia state. seems to be one course that students find least exciting as not only have they been exposed to Pancasila in the primary and secondary school but more because of the way Pancasila has been "taught" or delivered, usually primarily in the form of lectures.

Based on discussions led by a student intern at USBI, the usual comments about the way Pancasila has been taught in universities are as follows:

• It is so theoretical and students are seldom provided with real or contextual examples

- It is mostly based on facts that require memorizing
- · The course material is not challenging
- At times the teacher appears not to have mastered the material, such as when s/he reads verbatim from the slides and students stop paying attention
- At times the teacher makes the students to be more confused

When asked for suggestions on how to improve the teaching of Pancasila, the students suggested that Pancasila can be made interesting by including trips to the museum, have students watch documentaries, show infographics, and have games related to the material. In addition, there must be a real effort to have students relate or apply the ideology and principles of Pancasila in their everyday lives. The teaching of Pancasila should also involve some fun. Teachers should be sufficiently knowledgeable about the subject and able to help students enjoy the subject. The main objective of the course is to have students actualize Pancasila in the society, nation and state and it was felt that a combination of outcomes from both the cognitive and affective domains of Bloom's taxonomy would both need to be included.

At the Universitas Siswa Bangsa Internasional (USBI), the students are offered study programs with pathways leading them primarily towards a US academic program. Pancasila and a few other courses made compulsory by the government are also taught. On how courses are to be taught at USBI has been described in the USBI academic policy in that the university should provide a learning environment that is: (a) student-centered, (b) technology-based, and (c) based on experiential learning. Lecturers have been trained and provided with ideas on how to accomplish these and more and many have become adept in doing so.

# The Learning Design

Pancasila has been delivered in the form of blended learning with face-to-face lectures and online learning through the university's Learning Management System. The course provides a variety of electronic resources such as YouTube videos and online readings. In addition, students are encouraged to discuss in the online forums.

With recent advancements in social media, the design and delivery of the Pancasila course was re-visited so as to further enhance its delivery. The objective is to ensure that students will report having enjoyed their learning experience. A further objective is the possibility of offering it as an open courseware that may be accessed by students outside USBI.

It is believed that the learning outcomes need to include those in the affective domain in the Bloom's taxonomy of learning outcomes. Also, students need to be engaged more and that new online approaches be adopted, such as the use of social media for constructivist learning. Hence, the course needs to be designed in such a way that it will be appealing, meaningful and enjoyable for students. With today's millennial generation of students, it is expected that such a course should also be easily accessible through their personal electronic devices so that learning can take place anytime, anywhere.

# **The Learning Courseware**

It was imagined that students will be in an online environment where their learning will be guided and where they will interact with their primary course learning materials by "flipping" from page to page, stopping when prompted to do so; to read, watch a video, view a set of slides, listen to a podcast, access a journal article or an interesting poem online, and perform an activity all within the same "page." The entire set of materials should be learner-friendly. The student would be able to download it as a "book" and view it via PCs, notebooks, netbooks, tablets, and/or smartphones. The concept may not be new as e-books, i-books were already introduced some three to four years ago. However, the focus is not only on the materials but how the learning is woven nicely with the materials. The experience should be an engaging and an enjoyable one.

A team comprising the subject matter expert, an instructional designer and an ICT expert worked on redesigning the course based on the above considerations. The result is an interactive flipbook. Learning activities are incorporated to help students learn, understand, appreciate, and apply the ideology and principles of Pancasila in their daily lives. While the overall instructional model of ADDIE (Analyse, Design, Develop, Implement, Evaluate) was used for overall project management while Keller's ARCS model (http://www.arcsmodel.com) for motivation was applied to sustain the interest and motivate the learners using the elements of Attention, Relevance, Confidence and Satisfaction (Keller, 1987).

## Conclusion

The paper described the need to design a course on Pancasila in such a way that it will change the way students view the course. Previously thought of as boring, the new design and approach by the team at USBI should now be more appealing and have the potential to engage students in more interesting ways than before. A prototype has been created and the interactive flipbook on Pancasila will be ready by the third quarter of 2014 for use with students in USBI. Additional feedback will be sought from the students enrolled in the course with the purpose of improving the learning experience for future students. It is envisaged that the course may be shared with other universities in the form of OCW and possibly become the primary learning material for a MOOC to be offered to students in Indonesian universities.

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