

TITLE OF THE PAPER

Cloud Computing and Rapid e-Learning Strategies in Establishing Online Education in the Visayas State University (VSU)

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PRESENTATION OUTLINE

INTRODUCTION

Cloud Computing

Online Education Platform

The AERVLES

VSU Online Education Portal

Rapid e-Learning

The VSU Rapid e-Learning

The VSU e-Learning Course Design

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INTRODUCTION

The Visayas State University (VSU) was formerly known as the Leyte State University (LSU). It was renamed as VSU by virtue of Republic Act No. 9437, which was signed by her Excellency President Gloria Macapagal-Arroyo on April 27, 2007.

At present the VSU System has 10 colleges, three institutes and one school.

INTRODUCTION

These are the College of Agriculture, College of Forestry, College of Veterinary Medicine, College of Engineering and Agri-Industries, College of Arts and Sciences, College of Education, College of Fisheries (VSU-Tolosa Campus), College of Agri-Industrial Technology (VSU-Isabel Campus), College of Environmental and Agricultural Technology (VSU-Alangalang Campus), College of Education and Agricultural Technology (VSU-Villaba Campus), Institute of Human Kinetics, Institute of Tropical Ecology, Institute for Strategic Research and Development Studies, and the Graduate School. It also has an Open University which takes care of the distance education program.



INTRODUCTION

The Visayas State University adheres to the philosophy of promoting and inculcating the core values of truth, knowledge, work and relevance. Its programs in Instruction, Research, Extension, and Production converge and complement each other to help make Philippine agriculture globally competitive and sustainable.

To improve human resources in the Visayas and nearby regions, VSU provides relevant instructional programs that best serve the needs of its target clientele. The various degree programs of the University emphasize the development of technical, managerial, and entrepreneurial skills of the students. Hands-on practicum as well as field training using state-of-the-art facilities and equipment are provided to enrich curricular programs in Agro-Industry, Information Technology, Tropical Ecology, Veterinary Medicine, Forestry, Fishery, and Food Science and Technology. VSU also promotes distance education through its Open University.

INTRODUCTION

The current VSU educational management, with Dr. Jose L. Bacusmo at the helm, is embarking on Online Education delivery which is planned to be fully established by the start of School Year 2012-2013. The service of Dr. Antonio E. Refre, as an e-Learning expert, was requested to execute the plan of establishing Online Education. The strategies being employed make use of the principles of Cloud Computing and Rapid e-Learning



CLOUD COMPUTING

Cloud computing—a model for enabling convenient, on-demand access to a shared pool of configurable computing resources, such as networks, servers, storage, applications, and services, that are hosted by a third-party technology provider and delivered to users through the internet—is an approach that is attractive for education, because it allows organizations to scale and grow without having to own the technology. Cloud computing can be seen as offering three distinct services: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS). Schools can use any or all of the three, but using the cloud for hosted applications (SaaS) such as messaging, eMail, and creating sites for sharing and other social environments is particularly relevant for education and is a natural starting point.



CLOUD COMPUTING

Most of the universities and colleges in the Philippines purchase servers and install them in their LAN. Web applications are run in these servers. The operation and management of these servers demand highly trained IT personnel. This causes problems in the school budget. Another significant problem being encountered is the attrition of IT personnel due to migration to a higher salary offer by other institutions. This causes instability and discontinuity in the provision of technical support.

CLOUD COMPUTING

Having considered the foregoing problems, a better-choice strategy is Cloud Computing. The very simple process in using this strategy is by doing the following steps:

1. Search for the best offer in Web hosting services. The one chosen for VSU is Bluehost.com (unlimited server space, unlimited bandwidth transfer, 24/7 technical support, and other amenities for a monthly subscription of \$6.95).
2. Develop a Web application (e.g. a Learning Management System, LMS), which is tailor-fitted to the needs of the user and make it the platform in the Online Education delivery.
3. Install the LMS in the chosen Web host server.
4. Train a couple of staff (just computer-literate) to administer and manage the LMS.



ONLINE EDUCATION PLATFORM

The platform used in Online Education delivery is commonly called Learning Management System (LMS). The most popular among these is Blackboard. Only highly budgeted universities can afford this. The software is expensive and it requires a group of highly trained IT personnel. Among the Open Source systems, the Moodle is the most popular. Those who got hooked to it (because it is free) discovered in the long run that its management and operation cost them a sizeable amount and headaches in technical support. For reasons mentioned in the foregoing, VSU chooses the LMS developed by Dr. Refre (called AERVLES).

VSU ONLINE EDUCATION PORTAL

Today is Sunday, November 27, 2011

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VISAYAS

STATE UNIVERSITY

Open University

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Students



Faculty



Administrator



Academic Supervisor



Online Education

VISAYAS

STATE UNIVERSITY

[| Student Login](#) [| Faculty Login](#) [| Administrator Login](#) [| Supervisor Login](#) |

For comments or inquiries regarding this Portal, email: [Webmaster](#)

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VISAYAS ONLINE EDUCATION PORTAL

The Student Login

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

User Login

Login Name:

Password:

How to use this Virtual Classroom

AERVLES Learn
Anywhere, Anytime...24/7

Welcome to our Virtual Classroom

Overview

Only students enrolled in the Online Courses are allowed to enter this Virtual Classroom. This Virtual Classroom is intended for the enrolled students to know all the information regarding the courses they are enrolled in. It is also intended to attend to the needs of the class for efficient and effective learning.

After having logged in the first time, change your password (remember it very well) and your email address that was given initially. You can do this by clicking the change password link just below the left menu panel. This facility is always available, in case you would like to make changes in the future.

Facilities

Attend the Virtual Classroom discussions now. The virtual classroom is the 24/7 collaboration site that enables class discussion asynchronously online. Enter this virtual classroom to keep abreast of the developments in your subjects. You can post inquiries and upload output anytime. All online students currently enrolled in the same subject under the same professor can view the postings in the virtual classroom.

Registration

Registration is available for all users. For more information, click on the Virtual Classroom link.

The Student Classes

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

guest, Welcome to our Virtual Classroom

Main Menu

- Logout
- Main Classrooms
- Submit Exam
- Course Certificate
- Personal Files
- Web References
- Course Discussion
- Class Members
- Grade Check
- Online Tools

Click Here to Change Password

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Main Classrooms

Note: To navigate thru the Virtual Classroom choose a Classroom first.

Room	Classroom Description
ASCOM	ASHMOOD COP
BUSPLANG	Feasibility Study on Tourism F.I. Development
COMST1	History, Gov., Constitution of History
ARTS1P	Entrepreneurship & SM Management
FORLANG	Foreign Language & Culture (Japanese)
OLTEW	Online Teaching and Learning Seminar Workshop
SUDM	Social and His. Worky
STERS	Online to Public Administration
SPENCOM	Public Speaking & Conversational English
STRAMM	Calculus & Statistics Math. (2nd Year Elem. Development)

VSU ONLINE EDUCATION PORTAL

The Student Virtual Classroom

The Virtual Classroom has the following sections:

Bulletin Board – teacher’s announcement

Course Contents – syllabus and course materials

Posted Files – submitted assignments

Web References – referenced websites

Class Discussions – collaborative discussions

Class Members – enrolled students

Grade Check – grades of exams and assignments

Online Users – list of students who are logged in at the same time

The screenshot shows the VSU Online Education Virtual Classroom interface. At the top, there is a green banner with the VSU logo and the text "VISAYAS STATE UNIVERSITY Online Education Virtual Classroom". Below the banner, there is a navigation menu on the left with options: Main Menu, Logout, Main Classrooms, Bulletin Board, Course Contents, Contact Us, Web References, Class Discussions, Class Members, Grade Check, and Online Users. The main content area displays a "Bulletin Board" section with the text "guest, Welcome to Virtual OLTSW Classroom" and "1 User(s) are online". The bulletin board contains an announcement from Prof. Dr. Relve dated 2009-10-21, which discusses the power of the Virtual Classroom and invites users to use the POWER in their classes. At the bottom of the page, there is a logo for "AERVLES Learn Anywhere, Anytime...24/7".

VSU ONLINE EDUCATION PORTAL

The Academic Supervisor

DrRetre, Welcome to the Virtual Academic Supervisor's Room

Faculty Listing

Virtual Classroom Faculty Members

	Faculty Name	Faculty Subjects Profile
1.	ACHEDA, KRISTINE B.	Let's do it together
2.	Almida, Marivic M.	Let's do it together
3.	ALMINE, MARIEL A.	Let's do it together
4.	Angeles, Lovi F.	Let's do it together
5.	Antonio, Maria Teresa M.	Let's do it together
6.	Barahera, Gerson A.	Let's do it together
7.	BARBOSA, JESSICA A.	Let's do it together
8.	Bautista, Fernando C.	Let's do it together
9.	BENDO, RONALDO B.	Let's do it together
10.	BOLA, HERMOGENIA A.	Let's do it together
11.	BRAGO, ANIEL	Let's do it together
12.	BUMANGAL, JOAN R.	Let's do it together
13.	CABRERA, WILFRADO C.	Let's do it together
14.	CAMASO, MARYLAIN A.	Let's do it together
15.	CAMANILLA, BORDIA A.	Let's do it together
16.	Campanella, Bonata Y.	Let's do it together
17.	Cano, Annela A.	Let's do it together
18.	Castajo, Carita F.	Let's do it together
19.	Castajo, Lita Y.	Let's do it together
20.	CASTILLO, MARIANNE A.	Let's do it together
21.	Castillo, Pazolina Mercedes E.	Let's do it together

The Academic Supervisor is equivalent to the Coordinator of a group of teachers. The Academic Supervisor facility empowers the Coordinator to monitor the virtual classrooms of the teachers being coordinated. The virtual classrooms of these teachers can only be viewed.

In this manner, the Coordinator will be able to determine how the teachers are conducting their online courses. Thus, the quality of education delivery is assured.

VSU ONLINE EDUCATION PORTAL

The List of Subjects
Handled

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

Good Day! DrRefre, Welcome to the Virtual Academic Supervisor's Room

Faculty Listing
Faculty Course/Subject Assignment

Faculty ID No	012350	
Faculty Name	Katgbak, Precy	
Subject Code	Subject Description	
1. BUSTAT-2ndSem0900-0818098890	BUSINESS STATISTICS W/COMP LAB	ViewClass
2. BUSTAT-2ndSem0900-0818099032	BUSINESS STATISTICS W/ COMPUTER LAB	ViewClass
3. SCITECH-2ndSem0900-0818099136	SCIENCE TECHNOLOGY & SOCIETY	ViewClass
4. SCITECH-2ndSem0900-0818099132	SCIENCE TECHNOLOGY & SOCIETY	ViewClass
5. APPMATH-2ndSem0900-0818099275	APPLIED MATHEMATICS	ViewClass
6. APPMATH-2ndSem0900-0818099364	APPLIED MATHEMATICS	ViewClass
7. MATHINS-2ndSem0900-0820099635	APPLIED MATHEMATICS (MATH OF INVESTMENT)	ViewClass
BUSTAT-		

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View of one Faculty
Virtual Classroom

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

DrRefre, Welcome to Virtual APPMATH 2nd Sem0910-0818099275 Classroom

Bulletin Board
Announcement Reminders

Midterm Exam Schedule in Applied Mathematics
Good Morning! Midterm Exam Schedule will be: Date: January 20, 2010
wednesday Time: 10:00 - 11:30 Room: A261 However, I would like to change it to: Date: January 20, 2010 wednesday Time: 9:30 - 11:00 Room: A261 May I hear from you if you agree or not. Thanks.

Prof. sandro . 012350
2010-01-14

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VSU ONLINE EDUCATION PORTAL

Figure 8: The Putting Up of Courses

The screenshot displays the VSU Online Education Virtual Classroom interface. At the top, the VSU logo and name are visible. Below the header, there is a navigation menu on the left with options like 'Main Menu', 'Course List', 'Student List', 'List of Subjects', 'Schedule of Fees', 'Record Access', and 'View OMS/2009'. The main content area is titled 'DrRetro, Welcome to the Virtual Dean's Room' and features a 'List of Courses/Subjects' table. The table includes columns for 'Degree Course Description', 'View', 'Add/Update', and 'Delete'. The table lists 18 courses, including 'AB Mass Communication', 'AB21', 'AB22', 'AB23', 'AB24', 'AB25', 'AB26', 'AB27', 'AB28', 'AB29', 'AB30', 'AB31', 'AB32', 'AB33', 'AB34', 'AB35', 'AB36', 'AB37', 'AB38', 'AB39', 'AB40', 'AB41', 'AB42', 'AB43', 'AB44', 'AB45', 'AB46', 'AB47', 'AB48', 'AB49', 'AB50', 'AB51', 'AB52', 'AB53', 'AB54', 'AB55', 'AB56', 'AB57', 'AB58', 'AB59', 'AB60', 'AB61', 'AB62', 'AB63', 'AB64', 'AB65', 'AB66', 'AB67', 'AB68', 'AB69', 'AB70', 'AB71', 'AB72', 'AB73', 'AB74', 'AB75', 'AB76', 'AB77', 'AB78', 'AB79', 'AB80', 'AB81', 'AB82', 'AB83', 'AB84', 'AB85', 'AB86', 'AB87', 'AB88', 'AB89', 'AB90', 'AB91', 'AB92', 'AB93', 'AB94', 'AB95', 'AB96', 'AB97', 'AB98', 'AB99', 'AB100'. The table also includes a 'View' column with a magnifying glass icon and a 'Delete' column with a trash can icon.

	Degree Course Description	View	Add/Update	Delete
1.	AB Mass Communication	View	Add/Update	Delete
2.	AB21	View	Add/Update	Delete
3.	AB22	View	Add/Update	Delete
4.	AB23	View	Add/Update	Delete
5.	AB24	View	Add/Update	Delete
6.	AB25	View	Add/Update	Delete
7.	AB26	View	Add/Update	Delete
8.	AB27	View	Add/Update	Delete
9.	AB28	View	Add/Update	Delete
10.	AB29	View	Add/Update	Delete
11.	AB30	View	Add/Update	Delete
12.	AB31	View	Add/Update	Delete
13.	AB32	View	Add/Update	Delete
14.	AB33	View	Add/Update	Delete
15.	AB34	View	Add/Update	Delete
16.	AB35	View	Add/Update	Delete
17.	AB36	View	Add/Update	Delete
18.	AB37	View	Add/Update	Delete
19.	AB38	View	Add/Update	Delete
20.	AB39	View	Add/Update	Delete
21.	AB40	View	Add/Update	Delete
22.	AB41	View	Add/Update	Delete
23.	AB42	View	Add/Update	Delete
24.	AB43	View	Add/Update	Delete
25.	AB44	View	Add/Update	Delete
26.	AB45	View	Add/Update	Delete
27.	AB46	View	Add/Update	Delete
28.	AB47	View	Add/Update	Delete
29.	AB48	View	Add/Update	Delete
30.	AB49	View	Add/Update	Delete
31.	AB50	View	Add/Update	Delete
32.	AB51	View	Add/Update	Delete
33.	AB52	View	Add/Update	Delete
34.	AB53	View	Add/Update	Delete
35.	AB54	View	Add/Update	Delete
36.	AB55	View	Add/Update	Delete
37.	AB56	View	Add/Update	Delete
38.	AB57	View	Add/Update	Delete
39.	AB58	View	Add/Update	Delete
40.	AB59	View	Add/Update	Delete
41.	AB60	View	Add/Update	Delete
42.	AB61	View	Add/Update	Delete
43.	AB62	View	Add/Update	Delete
44.	AB63	View	Add/Update	Delete
45.	AB64	View	Add/Update	Delete
46.	AB65	View	Add/Update	Delete
47.	AB66	View	Add/Update	Delete
48.	AB67	View	Add/Update	Delete
49.	AB68	View	Add/Update	Delete
50.	AB69	View	Add/Update	Delete
51.	AB70	View	Add/Update	Delete
52.	AB71	View	Add/Update	Delete
53.	AB72	View	Add/Update	Delete
54.	AB73	View	Add/Update	Delete
55.	AB74	View	Add/Update	Delete
56.	AB75	View	Add/Update	Delete
57.	AB76	View	Add/Update	Delete
58.	AB77	View	Add/Update	Delete
59.	AB78	View	Add/Update	Delete
60.	AB79	View	Add/Update	Delete
61.	AB80	View	Add/Update	Delete
62.	AB81	View	Add/Update	Delete
63.	AB82	View	Add/Update	Delete
64.	AB83	View	Add/Update	Delete
65.	AB84	View	Add/Update	Delete
66.	AB85	View	Add/Update	Delete
67.	AB86	View	Add/Update	Delete
68.	AB87	View	Add/Update	Delete
69.	AB88	View	Add/Update	Delete
70.	AB89	View	Add/Update	Delete
71.	AB90	View	Add/Update	Delete
72.	AB91	View	Add/Update	Delete
73.	AB92	View	Add/Update	Delete
74.	AB93	View	Add/Update	Delete
75.	AB94	View	Add/Update	Delete
76.	AB95	View	Add/Update	Delete
77.	AB96	View	Add/Update	Delete
78.	AB97	View	Add/Update	Delete
79.	AB98	View	Add/Update	Delete
80.	AB99	View	Add/Update	Delete
81.	AB100	View	Add/Update	Delete

The Administrator Virtual Room takes care of the administrative functions that are similar to the Registrar functions. Courses/Subjects are put up in here. The teachers are assigned to these subjects; i.e they are given loads. Similarly, the students are assigned to the subjects they are enrolled in.

All the virtual classrooms can be monitored for purposes of checking on how the teachers are conducting their online courses.

VSU ONLINE EDUCATION PORTAL

Loading of Faculty

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

DrRefr, Welcome to the Virtual Dean's Room

Faculty Listing

[Click Here to Add a New Faculty](#)
[Click Here to Batch Add New Faculty](#)
[Click Here to Batch Add New Faculty Load](#)
[Click Here for Faculty Updates](#)
[Click Here for Faculty Assigned Updates](#)
[Click Here for Faculty Load Updates](#)
[Generate Evaluation Report of All Faculties](#)
[Download Faculties Evaluation Report in CSV Format](#)

Virtual Classroom Faculty Members

Faculty Name	Faculty Subjects Profile
1. JONES, JUSTINE B.	Yes Available Delete
2. JONES, JESSICA B.	Yes Available Delete
3. JONES, JESSICA B.	Yes Available Delete
4. JONES, JESSICA B.	Yes Available Delete
5. JONES, JESSICA B.	Yes Available Delete
6. JONES, JESSICA B.	Yes Available Delete
7. JONES, JESSICA B.	Yes Available Delete
8. JONES, JESSICA B.	Yes Available Delete
9. JONES, JESSICA B.	Yes Available Delete
10. JONES, JESSICA B.	Yes Available Delete
11. JONES, JESSICA B.	Yes Available Delete
12. JONES, JESSICA B.	Yes Available Delete
13. JONES, JESSICA B.	Yes Available Delete
14. JONES, JESSICA B.	Yes Available Delete

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Loading of Students

VISAYAS STATE UNIVERSITY
Online Education Virtual Classroom

DrRefr, Welcome to the Virtual Dean's Room

Student List

[Show/Hide Load](#) | [Student Batch Load](#) | [Add New Student](#)
[New Student Batch Load](#) | [Student Batch Update](#) | [Batch Update](#)

Student Name	Student Subjects Profile
1. JONES, JESSICA B.	Yes Available Delete
2. JONES, JESSICA B.	Yes Available Delete
3. JONES, JESSICA B.	Yes Available Delete
4. JONES, JESSICA B.	Yes Available Delete
5. JONES, JESSICA B.	Yes Available Delete
6. JONES, JESSICA B.	Yes Available Delete
7. JONES, JESSICA B.	Yes Available Delete
8. JONES, JESSICA B.	Yes Available Delete
9. JONES, JESSICA B.	Yes Available Delete
10. JONES, JESSICA B.	Yes Available Delete
11. JONES, JESSICA B.	Yes Available Delete
12. JONES, JESSICA B.	Yes Available Delete
13. JONES, JESSICA B.	Yes Available Delete
14. JONES, JESSICA B.	Yes Available Delete
15. JONES, JESSICA B.	Yes Available Delete
16. JONES, JESSICA B.	Yes Available Delete
17. JONES, JESSICA B.	Yes Available Delete
18. JONES, JESSICA B.	Yes Available Delete
19. JONES, JESSICA B.	Yes Available Delete
20. JONES, JESSICA B.	Yes Available Delete

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RAPID e-LEARNING

Building of e-learning courses in a quick (or rapid) manner is commonly referred to as Rapid e-Learning. The e-learning courses are those that incorporate technology in their presentation and delivery.

Education delivery of courses, whether face-to-face (F2F) or online, undeniably requires course materials – of course! Instructional designing of these course materials for online delivery differs a lot from the F2F delivery. Considering the fact that in online delivery the presentation of the course materials is done in a virtual manner, the instructional designing requires the assistance of technology.

Incorporation of multimedia into the course materials becomes a mandatory requirement. Because of this, teachers feel that they are incompetent to meet this challenge in developing e-learning materials. This is also one of the reasons why many teachers are still keeping a distance from online teaching.



RAPID e-LEARNING

With a plethora of user-friendly educational technology tools nowadays, e-learning materials can be produced even by just the teachers themselves. There will be practically no need for the services of the IT personnel.

Technology tools needed in the production of e-learning materials include the following:

Office productivity software (e.g. MS Office, OpenOffice, etc.)

e-Books (e.g. Adobe PDF, DeskTopAuthor, etc.)

Graphics software (e.g. Adobe Photoshop, GIMP, Picasa, etc.)

Multimedia Authoring software (e.g. CAMSTUDIO, DeskTopAuthor, etc.)

Computer-based Exam software (e.g. TCExam, DeskTopAuthor, etc.)

VSU RAPID e-LEARNING

The Rapid e-Learning strategy adopted by the VSU meets the following typical challenges in rapid e-learning:

Creating rapid e-learning is not an easy task. The typical challenges include the following:

1. Ensuring a look and feel that is consistent with traditional e-learning
2. Using good and effective instructional design principles in a short time frame
3. Integrating with the chosen Learning Management System
Integrating the programming and HTML
4. Providing advanced features such as links, tests, and glossary
5. Meeting schedules without compromising on quality or learning effectiveness

VSU RAPID e-LEARNING

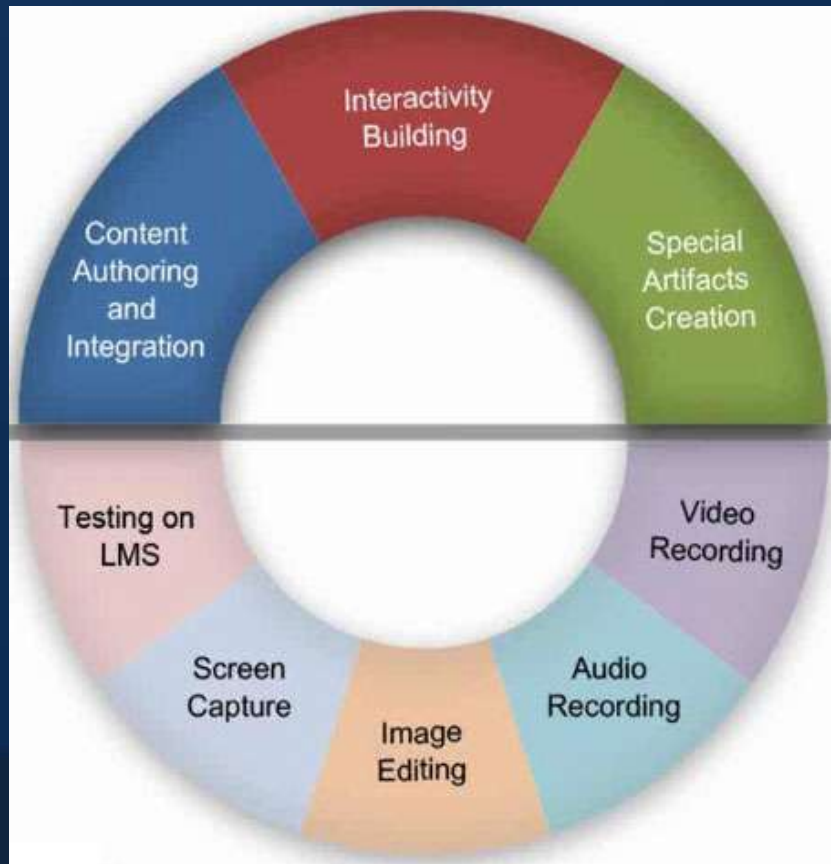
The challenges faced by VSU while implementing rapid e-learning are:

- 1.Tools: VSU has no rapid e-learning tool
- 2.Resource: VSU has no Instructional Designers
- 3.Deadline: VSU has to deliver courses online starting SY 2012-2013
- 4.Quality: VSU has to adhere to quality standards despite the stringent deadline
- 5.Budget: VSU has almost no budget for e-learning

In short, VSU has the challenge of rolling out an output that would match or surpass the output of a traditional e-learning course at a very small fraction of the school budget and with minimal resources.

VSU e-LEARNING COURSE DESIGN PROCESS

The design process and tools used are depicted in the following figures.



VSU e-LEARNING COURSE DESIGN PROCESS

The software used corresponding to the design process are the following:
Whenever possible and because of budgetary constraints, the freeware or open source software are chosen first.

PROCESS	ACTIVITIES	TOOLS CATEGORIES	TOOLS	SOFTWARE
*Content Authoring and Integration *Interactivity Building *Special Artifacts Creation	*Testing on LMS *Screen Capture *Image Editing *Audio Recording *Video Recording	*Authoring Tools *Interactivity Tools *Specialty Tools	*LMS *Screen Capture Tools *Image Editing Tools *Audio Recording Tools *Video Recording Tools	*AERVLES *OfficeProductivity *DeskTopAuthor *CutePDFWriter *FlashSlideshowMaker *Adobe Photoshop *GIMP *Picasa *Screen Shot Captor *Camtasia *Audacity *Microsoft Windows Movie Maker *Xerte Rapid e-Learning Suite *eXe



CONCLUSION

Establishing the Online Education (OE) is a major educational thrust in the academic programs of the VSU. This is prompted by the big demand for distance learning by students who reside quite a distance from the campus and who are already employed.

To be able to put up the OE in a very short time and with minimal investment, innovative strategies have to be implemented. The strategies which fit very well the situation in the VSU are Cloud Computing and Rapid e-Learning. These strategies have been successfully implemented at the Philippine Women's University (PWU), at the Philippine Normal University (PNU), and at the University of Makati (UMak).

EXIT

THANK YOU!

