

E-learning Course Instructional Design: A Case Study of the Library and Information Studies E-learning Master's Program of National Cheng-chi University

數位課程教學設計：
政大圖書資訊學數位碩士班個案研究

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OUTLINE



Introduction

- ▶ **Instructional Design for E-Learning**
- ▶ **Library and Information Science E-learning
Master's Programs and E-Learning Courses**
- ▶ **E-learning Course Instructional Design Case Study**
- ▶ **Conclusions**



The Ministry of Education Launching E-learning Master Programs

- ▶ The ROC Ministry of Education established an e-learning accreditation mechanism in 2005 and encouraged the launch of degree programs for students in full-time employment in 2006
- ▶ **Nine Universities provide 16 accredited E-Learning Master Programs**



E-learning is a New Model of Learning

- ▶ **E-learning is a new trend.**
- ▶ E-Learning is basically learning that is facilitated and supported by information and communications technology
- ▶ E-Learning is a new way of learning
- ▶ Changes the relationship between of teachers and students ,
- ▶ Changes the nature of education



E-Learning Needs a New Model of Instructional Design

- ▶ Students and teachers are not in the same space, lacking physical contact and the opportunity to interact
- ▶ E-learning instructional design is very important to help students have a good learning experience and achieve good results in an online environment.
- ▶ E-Learning needs new instructional design
- ▶ Web technology and good instructional design can facilitate a good relationship between teachers and students



Library and Information Studies E-learning Master's Program , NCCU

- ▶ The Graduate Institute of Library, Information and Archival Studies (LIAS) at National Chengchi University has provided the **Library and Information Studies E-learning Master's program since 2007**
- ▶ **73 masters's students enrolled, 16 graduates have gained their master's degree**
- ▶ **The first Library and Information Science master's degree to use e-learning**



E-learning and Instructional Design

- ▶ Instructional design is process to describe an instructional system planning,
- ▶ Instructional design plans instructional strategies and pedagogy in accordance with instructional objectives, and instructional design is key to successful instruction
- ▶ E-Learning is different from classroom teaching, it needs new instructional design



Purposes of Study

1. To explore e-learning course instructional design theory and pedagogy.
2. To discuss the development of the Library and Information Science digital curriculum.
3. To apply theory to the design and implementation of Library and Information Science courses.



Research Methods

- ▶ Case study method
- ▶ Case Study of “**Information , Organization and Access**” Course , NCCU Library and Information Studies E-learning Master’s Program.
- ▶ Follow Dabbagh (2005) Pedagogical Design Model



E-Learning Course

- ▶ An e-Learning course is one in which learners learn with digital media
- ▶ Digital technology and E-Learning change teaching and learning
- ▶ An e-learning curriculum is composed of teachers, course content , and instructional methods



Promising Practices in Online Teaching and Learning

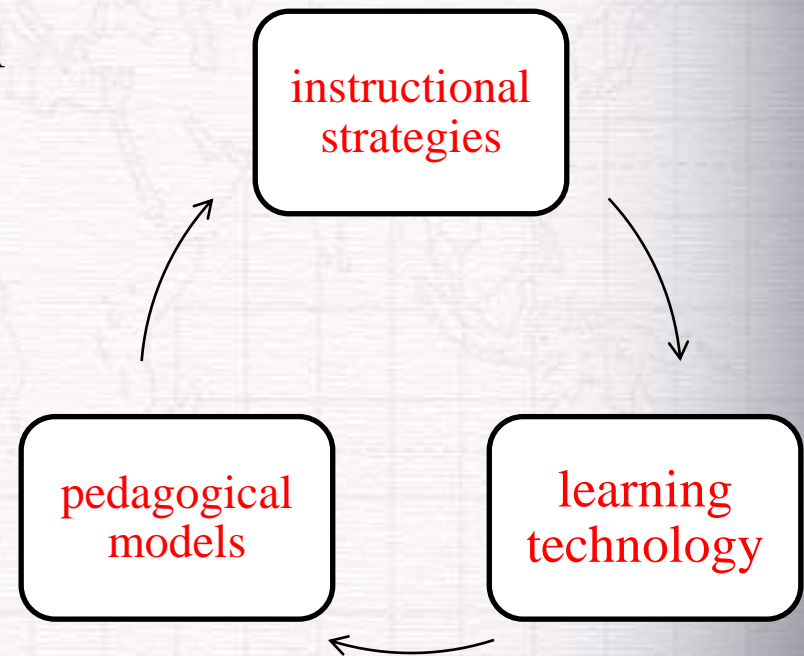
Effective Concepts of E-learning :

Student centered and interaction between teacher and students

1. Good Practice Encourages Student-Faculty Contact
2. Good Practice Develops Reciprocity and Cooperation Among Students
3. Good Practice Encourages Active Learning
4. Good Practice Gives Prompt Feedback
5. Good Practice Emphasizes Time on Task
6. Good Practice Communicates High Expectations
7. Good Practice Respects Diverse Talents and Ways of Learning

Dabbagh E-learning Pedagogical Models Design Framework

- ▶ Dabbagh proposed an E-learning pedagogical model design framework.
- ▶ Shows the e-learning instructional design framework by the interaction of **pedagogical models**, **instructional strategies**, and **learning technology**.





E-learning Constructivist Pedagogical Model

- ▶ To create a cooperative, self-consciousness, multiple perspectives, self-management learning culture.
- ▶ The teacher's role is to offer the feedback, support, and communication to the learner.
- ▶ To design effective and meaningful e-learning, instructional design is needed. Teachers must be able to flexibly apply theory and instructional design and implementation, and link the theory and the implementation in a systematic way.

A decorative vertical strip on the left side of the slide. At the top is a black pen with a gold tip. Below it is a small globe showing the Americas. Further down is a close-up of two hands shaking. At the bottom is a white grid pattern.

E-learning Instructional Strategies

1. Enhance or support real learning activities.
2. Promote students' problem solving, exploration, and assumption skills.
3. Promote cooperation, social networking, negotiation, and coordination.
4. Support role-playing activities
5. Support feedback and language presentation
6. Support for multiple perspectives
7. Support for modeling and interpretation
8. Provide learning scaffolding



E-learning Course Delivery Mode

- ▶ **Asynchronous mode, synchronous mode, and hybrid mode.**
- ▶ Asynchronous mode: Put course content on the web for a long time; learners won't be limited by time, people can always choose their own time to learn.
- ▶ Synchronous mode: Emphasis on real-time communication and interaction
- ▶ Hybrid mode: teachers can select a mix of physical classroom, synchronous mode or asynchronous mode to teach according to their needs



E-learning Pedagogies

- ▶ **Constructivist Learning**
 - ▶ most suitable in the e-learning environment.
- ▶ **Online Collaborative Learning**
- ▶ **Project-based Learning.**

Constructivist Learning Theory

- ▶ Constructivism advocates that knowledge is active construction by the learner. Learning is based on the existing experience of learners, learning is the process of active construction of new knowledge.
- ▶ Learners are the center of learning, they interpret teaching materials based on existing experience, and actively participate in various learning activities, reflect on thinking about the original knowledge, and then construct new knowledge.



Online Collaborative Learning Pedagogy

- ▶ Online Collaborative Learning(OCL) is a new theory of learning that focuses on collaborative learning, knowledge building, and Internet use as a means to reshape formal education for the Knowledge Age.
- ▶ OCL Pedagogy discusses a variety of online pedagogies that can facilitate knowledge building in educational settings, particularly group discussions, seminars, debates, problem-solving activities and teamwork related to invention and innovation.

A decorative vertical strip on the left side of the slide. At the top, a black pen with a gold tip is positioned diagonally. Below it, a small globe of the Earth is visible. Further down, two hands are shown shaking in a firm grip. At the bottom of the strip, a white grid pattern is visible.

Project-based Learning

- ▶ Project-based learning is an instructional method centered on the learner.
- ▶ The learners are more autonomous as they construct personally-meaningful artifacts that are representations of their learning
- ▶ Learners typically have more autonomy over what they learn, maintain interest and are motivated to take more responsibility for their learning



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Library and Information Science E-learning Master's Program

- ▶ Graduate Institute of Library, Information and Archival Studies, NCCU found that there was a need amongst school teachers for Library and Information Science E-Learning Master's courses.
- ▶ Master courses have enrolled students since September 2009.

Program Objectives

1. Provide on-the-job training opportunities for school teachers and librarians.
2. Cultivate the leaders of information literacy and library management.
3. Cultivate the professional and managerial talents of various types of libraries and information institutions.
4. Cultivate digital libraries and digital archives talents.



E-Learning Courses

- ▶ We currently offers 14 courses, online courses taught asynchronously and synchronously, with four weeks face-to-face learning or examination for each course.
- ▶ To graduated, students must completed courses with at least 30 credits and finished a master's degree thesis in two to four years.
- ▶ 16 students get master's degrees.

LIS E-Learning Program Providing 14 Courses

| 課程名稱 | 必選修 | 學分數 | 授課學期 | 授課教師 | 教學方式 |
|-----------|-----|-----|------|------|------|
| 圖書資訊學研討 | 必 | 3 | 一上 | 蔡明月 | 數位 |
| 知識組織與資訊取用 | 必 | 3 | 一上 | 王梅玲 | 數位 |
| 研究方法 | 必 | 3 | 一上 | 楊美華 | 數位 |
| 讀者服務研討 | 選 | 3 | 一下 | 蔡明月 | 實體 |
| 資訊科技融入教學 | 選 | 2 | 一下 | 陳志銘 | 數位 |
| 學校圖書館管理 | 選 | 2 | 一下 | 楊美華 | 數位 |
| 檔案學研究 | 必 | 3 | 二上 | 薛理桂 | 數位 |
| 數位圖書館 | 選 | 3 | 二上 | 陳志銘 | 數位 |
| 數位學習教學設計 | 選 | 3 | 二上 | 洪煌堯 | 數位 |
| 電子文件管理專題 | 選 | 3 | 二下 | 林巧敏 | 數位 |
| 公共圖書館 | 選 | 3 | 二上 | 林巧敏 | 實體 |
| 校史館管理 | 選 | 3 | 二下 | 薛理桂 | 實體 |
| 閱讀與圖書館 | 選 | 2 | 二下 | 曾淑賢 | 實體 |
| 數位館藏發展與管理 | 選 | 3 | 二下 | 王梅玲 | 實體 |



Background of Case Study

- ▶ The E-learning course of “**Information organization and access**” was chosen as a case study.
- ▶ It was taught in 2011, by Dr. Meiling Wang, with a total of 27 students enrolled.



Course Objectives

1. To discuss the theories and practices about the organizing and accessing of a variety of information resources and information systems in information society.
2. To understand the information and knowledge life cycle, the production and use of a variety of information resources, and a variety of information resources and information systems.
3. To investigate the statistics and access theory of library automation systems, information systems, and database systems.
3. To explore the theory and practice of collection development and management.
4. To explore information organization theory and methods to support information retrieval and access.

Course Content

| 時間/課程傳授模式 | 主題 | 作業與活動 |
|-----------|------------------------|---------|
| 一、實體課程 | 數位課程平台介紹與政大圖書館資料庫介紹 | 分組/破冰 |
| 二、數位課程 | 單元1資訊組織與取用概論 | 作業一 |
| 三、數位課程 | 單元2資料庫與系統設計 | |
| 四、數位課程 | 單元3資訊查詢/使用者資訊行為 | |
| 五、數位課程 | 單元4出版與館藏發展概論;數位出版 | |
| 六、數位課程 | 單元5圖書資訊選擇與館藏政策 | |
| 七、實體課程 | 臺灣大學圖書館參訪 | 參訪學習單 |
| 八、數位課程 | 單元6圖書資訊採購與館藏建設 | 作業一報告 |
| 九、數位課程 | 單元7資訊組織概論 | 作業二 |
| 十、數位課程 | 單元8資訊組織表述的結構與標準 | 期末報告 |
| 十一、數位課程 | 單元9資訊描述 | |
| 十二、實體課程 | 演講 張慧銖教授[數位典藏與資訊組織] | 演講學習單 |
| 十三、數位課程 | 單元10分類系統 | 作業二報告 |
| 十四、數位課程 | 單元11主題語言與權威控制 | |
| 十五、數位課程 | 單元12metadata概論 | |
| 十六、數位課程 | 單元13知識組織與取用新發展趨勢 | 課程總結與複習 |
| 十七、數位課程 | 期末報告(I) | 期末報告 |
| 十八、實體課程 | 期末報告(II) | 期末報告 |



Implications of Constructivist Learning

- ▶ This course use a constructivist learning theory in the class and assignment 1.
- ▶ the theme is "exploration information system and its collections and users', members of the group selected one subject areas (such as the history of Taiwan) to introduce the features of this theme, and pick three high-quality database system or a digital archive system to explore.
- ▶ To help students build their understanding of the information system by learning contexts.

Exercise I: Information systems with Subject topic

| 組別 | 主題知識資料庫 |
|-----|---------|
| 第一組 | 資訊科學 |
| 第二組 | 數位典藏 |
| 第三組 | 電子商務 |
| 第四組 | 台灣文學 |
| 第五組 | 新聞傳播 |
| 第六組 | 中國古籍 |
| 第七組 | 教育 |
| 第八組 | 台灣歷史 |
| 第九組 | 投資理財 |



Implications of Online Collaborative Learning

- ▶ The teachers use the Internet, emphasizing learning and knowledge construction, learner co-operation online.
- ▶ After class, the teacher designs weekly course online discussion in accordance with unit topics, and encouraged students to participate, post the answers and their questions.
- ▶ Teacher responds to students, and students have dialogue with each other, too.

Online Collaborative Learning Implications



板名：單元四、館藏發展與管理

篇號/總數：43 / 87

張貼者：100913006 (陳芳雅)

張貼時間：2011-10-15 19:47:34

標題：100913006~大雄的哆啦A夢；我的大河馬書房

在學校我是設備組長

也負責學校圖書館營運

當然就包括閱讀及圖書館利用教育的推動

因為6月多剛好是我們學校圖書館閱讀推動教師的訪視

我利用了一個下午將訪視ppt重新整理

加入學校社群及館藏分析並刪除及修正了一些資料

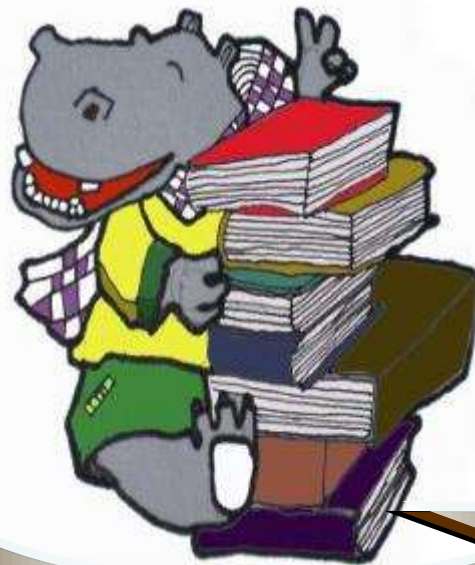
最後還做了一點不甚精確的成效調查

覺得這樣做~有圖有真相~哈哈

也附上一份圖書館閱讀推動計畫[簡案]

Student presenting and sharing her library services experience

建立
閱讀基地



推動
閱讀教育



歡迎光臨~大河馬書房



Implications of Project-based Learning

- ▶ The final report presents as project proposal and by group cooperation, entitled: “ Proposal for Constructing Special Collection Digital Archives Project”.
- 1. To select a special collections theme,
- 2. Planning and Implementing Digital Archives Project,
- 3. To collect at least 20 items of digital objects, including information documents or artifacts made to be digitized as digital objects
- 4. Including all digital objects with metadata records in the collections of the Digital Archives website, offering functions of searching and browsing.



Project-based Learning Process(cont'd)

1. **Introduction.** Teacher uses an introduction "to set the stage" for the project, this often contributes to motivating learners
2. **Task.** Teacher guided question or driven question explicates what will be accomplished and embeds the content to be studied.
3. **Resources.** Teacher provides related resources and data to be used.
4. **Process.** Teacher initiated processes should include activities that require higher-level and critical thinking skills, such as analysis, synthesis and evaluation of information.

A vertical decorative sidebar on the left side of the slide. It features a black pen with a gold tip at the top, a small globe of the Earth in the middle, and a close-up of two hands shaking at the bottom. The background of the sidebar is a blue and white grid pattern.

Project-based Learning Process

5. **Guidance and scaffolding.** As learners need help, guidance and scaffolding will be needed..
6. **Cooperative/Collaborative learning.** Final projects include groups or teams.
7. **Reflection.** The superior examples of project-based learning offer an opportunity for closure, debriefing or reflection.

A decorative graphic on the left side of the slide. It features a black pen with a gold tip at the top left. Below it, a hand in a white sleeve is shown holding a small globe of the Earth. The background of the slide is a light-colored world map.

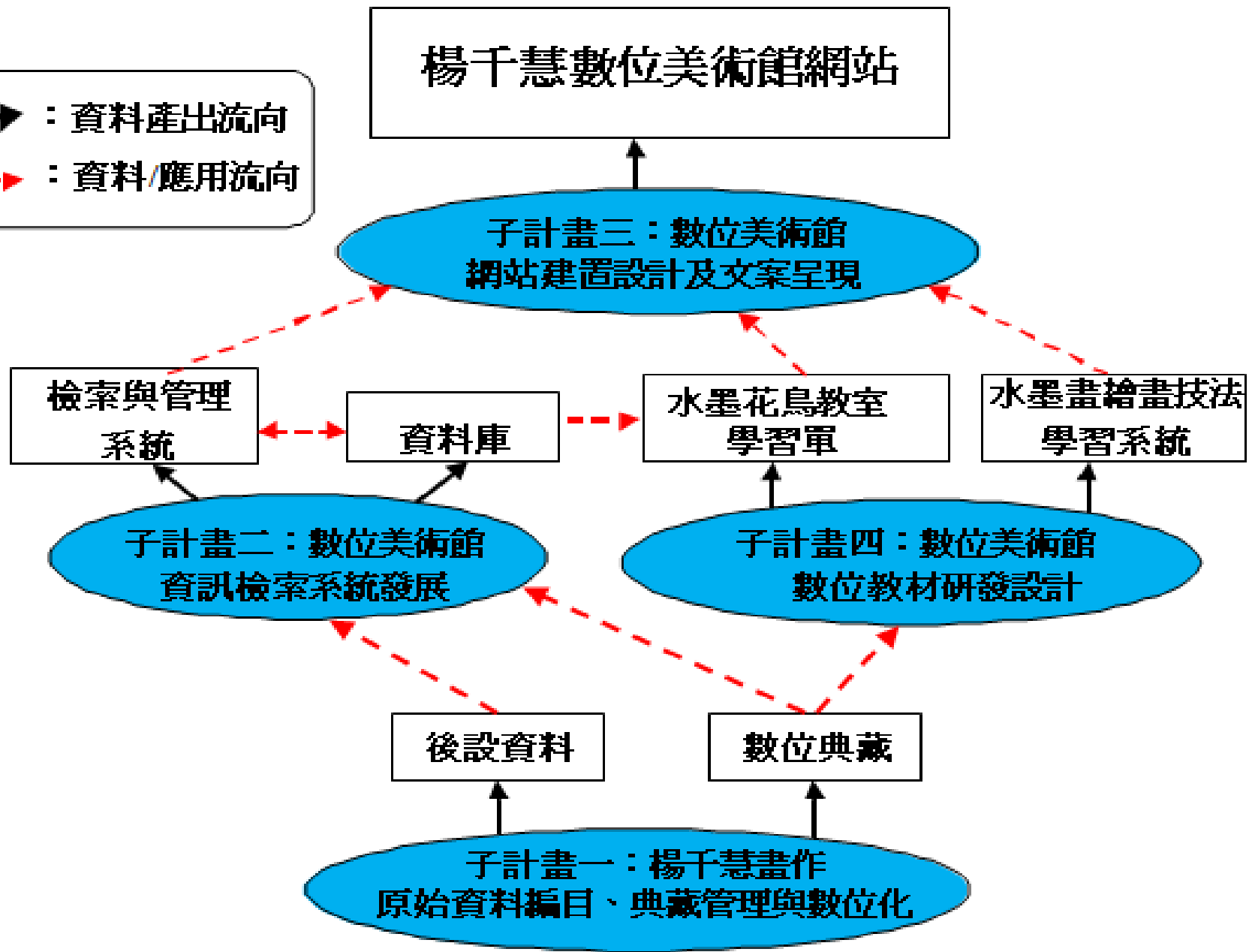
Topics on Special Collection Digital Archives Project

1001期末報告專題計畫網站主題

01. 西洋樂器
02. 書藝之美
03. 水墨花鳥畫家楊千慧
04. [桃園石門水庫] 地方與文化數位典藏
05. 榮富國小校園植物數位典藏
06. 澎湖常見貝類數位典藏
07. 老相機典藏館
08. 國定古蹟 - 鳳山縣舊城、原台南州廳、原台南測候所、五妃廟
09. 清酒數位典藏

楊千慧數位美術館網站

→ : 資料產出流向
- - - : 資料/應用流向



A central image of the artist, Yang Qianhui, wearing a blue shirt, focused on painting a large, detailed green peony flower. The background is a soft, circular green wash.

楊千慧畫展
精研筆墨，懷抱理想
默默奉獻國畫推廣教育
的藝術工作者



總機轉生網頁查詢解答電話10244788，請速用市內02以上撥打的號碼

台北市私立延平中學一屆畢業生製作小組 | 學校電話：(02)27071478#870

圖(十六)·楊千慧數位美術館中文版首頁



Instructional Strategies(cont'd)

- ▶ Four instructional strategies were used
 - ▶ Promotion of student problem-solving, promotion of cooperative learning, interactive communication and discussion, as well as support for multiple perspectives.
 - ▶ **Promotion of problem-solving by students:** Design assignments, asking the students questions.
 - ▶ **Promotion of cooperative learning:** one assignment and the final report are the group assignments.



Instructional Strategies

- ▶ **Interactive communication and discussion:** students listen to other people's introduction to the book website, and respond with their opinions actively.
- ▶ **Supporting multiple perspectives:** the students often raised different views and answers with the teacher and other students in the weekly discussions.



E-learning Course Delivery Mode

- ▶ The course uses the NCCU e-learning platform
 - ▶ the system features included individual learning, cooperative learning, assignments and tests, teaching management.
- ▶ The course use synchronous mode, lectured by the teacher, and shared the literature jointly with students.
- ▶ Synchronous courses go through by Joinnet video system
- ▶ After school, students have an explore- the- issues- forum to put forward their views.

Synchronous course go through by Joinnet



- 傅瑞琪 ✓
- 潘政緯 ✓
- 陳儒瑩 ✓
- 鄧美玲 ✓
- 趙佩瑜 ✓
- 梁淑貞 ✓
- 莊雲燕 ✓
- 王令惠 ✓

謝同學
 陳榮捷>metadata就是後設資料，資料的資料，用來描述電子資源
 陳榮捷>數位典藏的欄位就是 metadata
 陳榮捷>同學解釋的很對
 陳儒瑩>請問助教~資訊系統沒有索引典對不對
 陳榮捷>有些有 有些沒有
 陳儒瑩>ok



Interaction of Teacher and Students

1. Course Announcement

| 课程号 | 课程名称 | 教师姓名 | 发布日期 | 课程人数 | 课程状态 |
|-----|------------------|------|---------------------|------|------|
| 01 | 工商管理学导论 | 王明 | 2011-12-27 17:40:18 | 05 | / |
| 02 | 2011信息检索与数据库应用课程 | 王明 | 2011-12-27 18:17:37 | 64 | / |
| 03 | 商务法律学 | 王明 | 2011-12-28 13:58:49 | 02 | / |
| 04 | [重要] 管理学导论 | 王明 | 2012-01-03 14:42:58 | 31 | / |
| 05 | [重要] 工商管理学 | 王明 | 2012-01-03 13:05:46 | 55 | / |
| 06 | 商务法律学 | 王明 | 2012-01-03 17:16:45 | 68 | / |
| 07 | 工商管理学-供应链管理 | 王明 | 2012-01-06 14:06:13 | 25 | / |
| 08 | 工商管理学导论 | 王明 | 2012-01-07 17:43:38 | 32 | / |

2. Teaching Materials

Quick Links

- Ask A Librarian
- My Account
- USBC Catalog
- Online Research Resources
- Library Hours/Location
- Interlibrary Loan
- Quarterly Board
- Donate

The Information Cycle

What is The Information Cycle?

Before starting your research, it's good to know how information is produced, where it comes from, and how it changes over time. The Information Cycle is the progression of media coverage of a particular newsworthy event. Knowing about the information cycle will help you to better know what information is available on a topic and better evaluate information sources covering that topic.

Think of the events that occurred following Hurricane Katrina in August 2005:

- In the days following, information was primarily available through up-to-the-minute news media: newspapers, television, the internet, and radio.
- In the weeks following, discussion of Hurricane Katrina moved into popular magazines.
- In the months following, scholars, experts, and researchers began publishing articles about Hurricane Katrina in academic journals.

3. Course discussion



The screenshot shows the '課程討論區' (Course Discussion) page for '1001_知識經濟與資訊應用_六FSE'. The page lists several discussion topics with their respective dates and user counts.

| 編號 | 標題 | 類別 | 最新時間 | 回覆 | 查看人數 | 回覆 |
|-----|------------------------------------|-----------------|---------------------|----|------|----|
| 361 | Re: 第一屆上學季(修正版)研討會 | 99123002 (陳嘉祥) | 2012-01-07 18:02:35 | 15 | / | / |
| 362 | 第七屆兩岸關係與經濟合作之重要 | 100913001 (陳嘉祥) | 2012-01-08 20:53:23 | 10 | / | / |
| 363 | Re: 第七屆兩岸關係與經濟合作之重要 | 99123002 (陳嘉祥) | 2012-01-09 12:48:41 | 10 | / | / |
| 364 | 第六屆兩岸關係與經濟合作之重要 | 100913001 (陳嘉祥) | 2012-01-11 22:41:40 | 8 | / | / |
| 365 | Re: 歡迎、附上與新舊及土壤asp+access* 資料無法呈現。 | 99123002 (陳嘉祥) | 2012-01-11 23:52:98 | 11 | / | / |
| 366 | Re: 第六屆兩岸關係與經濟合作之重要 | 99123002 (陳嘉祥) | 2012-01-16 22:54:24 | 5 | / | / |
| 367 | Re: 歡迎、附上與新舊及土壤asp+access* 資料無法呈現。 | 99123002 (陳嘉祥) | 2012-01-16 22:58:24 | 4 | / | / |

4. Online office Hour



The screenshot shows the '討論區列表' (Discussion List) page for '1001_知識經濟與資訊應用_六FSE'. It displays a table of office hours with columns for discussion title, start time, end time, and status.

| 討論區名稱 | 開始日期 | 結束日期 | 狀態 | 動作 |
|------------------------|--------------------|--------------------|----|------|
| 1001020 老師 Office Hour | 從 2011-09-20 18:30 | 到 2011-09-28 19:00 | 暫期 | 去討論區 |
| 1001027 老師 Office Hour | 從 2011-09-27 18:30 | 到 2011-09-27 19:00 | 暫期 | 去討論區 |
| 1001065 助教 Office Hour | 從 2011-10-05 12:30 | 到 2011-10-05 14:00 | 暫期 | 去討論區 |
| 1001004 老師 Office Hour | 從 2011-10-04 18:30 | 到 2011-10-04 19:00 | 暫期 | 去討論區 |
| 1001021 助教 Office Hour | 從 2011-09-21 12:30 | 到 2011-09-21 13:00 | 暫期 | 去討論區 |
| 1001028 助教 Office Hour | 從 2011-09-28 13:30 | 到 2011-09-28 13:30 | 暫期 | 去討論區 |
| 1001012 助教 Office Hour | 從 2011-10-12 12:30 | 到 2011-10-12 13:30 | 暫期 | 去討論區 |
| 1001031 老師 Office Hour | 從 2011-10-11 18:30 | 到 2011-10-11 19:00 | 暫期 | 去討論區 |
| 1001028 老師 Office Hour | 從 2011-10-18 18:30 | 到 2011-10-18 19:00 | 暫期 | 去討論區 |
| 1001018 助教 Office Hour | 從 2011-10-19 12:30 | 到 2011-10-19 13:30 | 暫期 | 去討論區 |

5. Weekly topic discussion



The screenshot shows the '課程討論區' (Course Discussion) page for '1001_知識經濟與資訊應用_六FSE'. It lists various weekly topics with their dates and user counts.


| 狀態 | 標題 | 課程 | 最後時間 | 類別 | 最新時間 | 回覆 |
|----|-------|-----------|---------------------|----|---------------------|----|
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |
| 暫期 | 課程討論區 | 知識經濟與資訊應用 | 2012-01-11 23:52:98 | 討論 | 2012-01-11 23:52:98 | 11 |

6. Group discussion



The screenshot shows the '分組討論' (Group Discussion) page for '1001_知識經濟與資訊應用_六FSE'. It displays a table of discussion groups with columns for group name, members, and status.

| 編號 | 小組名稱 | 組員 | 人數 | 討論區 | 討論區 | 討論區 | 屬性 |
|----|------|----------------|----|-----|-----|-----|----|
| 1 | 第一組 | 張炳堯(100913023) | 3 | 討論 | 討論 | 討論 | 管理 |
| 2 | 第二組 | 趙煥瑞(100913024) | 3 | 討論 | 討論 | 討論 | 管理 |
| 3 | 第三組 | 曹達(100913011) | 3 | 討論 | 討論 | 討論 | 管理 |
| 4 | 第四組 | 洪榮達(100913003) | 3 | 討論 | 討論 | 討論 | 管理 |
| 5 | 第五組 | 郭煥瑞(100913018) | 3 | 討論 | 討論 | 討論 | 管理 |
| 6 | 第六組 | 潘啟源(100913029) | 3 | 討論 | 討論 | 討論 | 管理 |
| 7 | 第七組 | 楊煥瑞(100913021) | 3 | 討論 | 討論 | 討論 | 管理 |
| 8 | 第八組 | 黃煥瑞(100913012) | 3 | 討論 | 討論 | 討論 | 管理 |
| 9 | 第九組 | 黃煥瑞(100913010) | 3 | 討論 | 討論 | 討論 | 管理 |



The Effectiveness of Learning and Teaching Evaluation

- ▶ The course uses multiple types of assessment, including two assignments, final reports, tests and examinations, cooperative learning, group discussions, online discussions, and individual reports, group reports and class participation.
- ▶ Except the general examination, the teacher will also assess the effectiveness of student learning by the way of dynamic assessment, including the professor's observation of students learning attitude, students' implementation of portfolio assessment, and peer assessment of student learning performance.

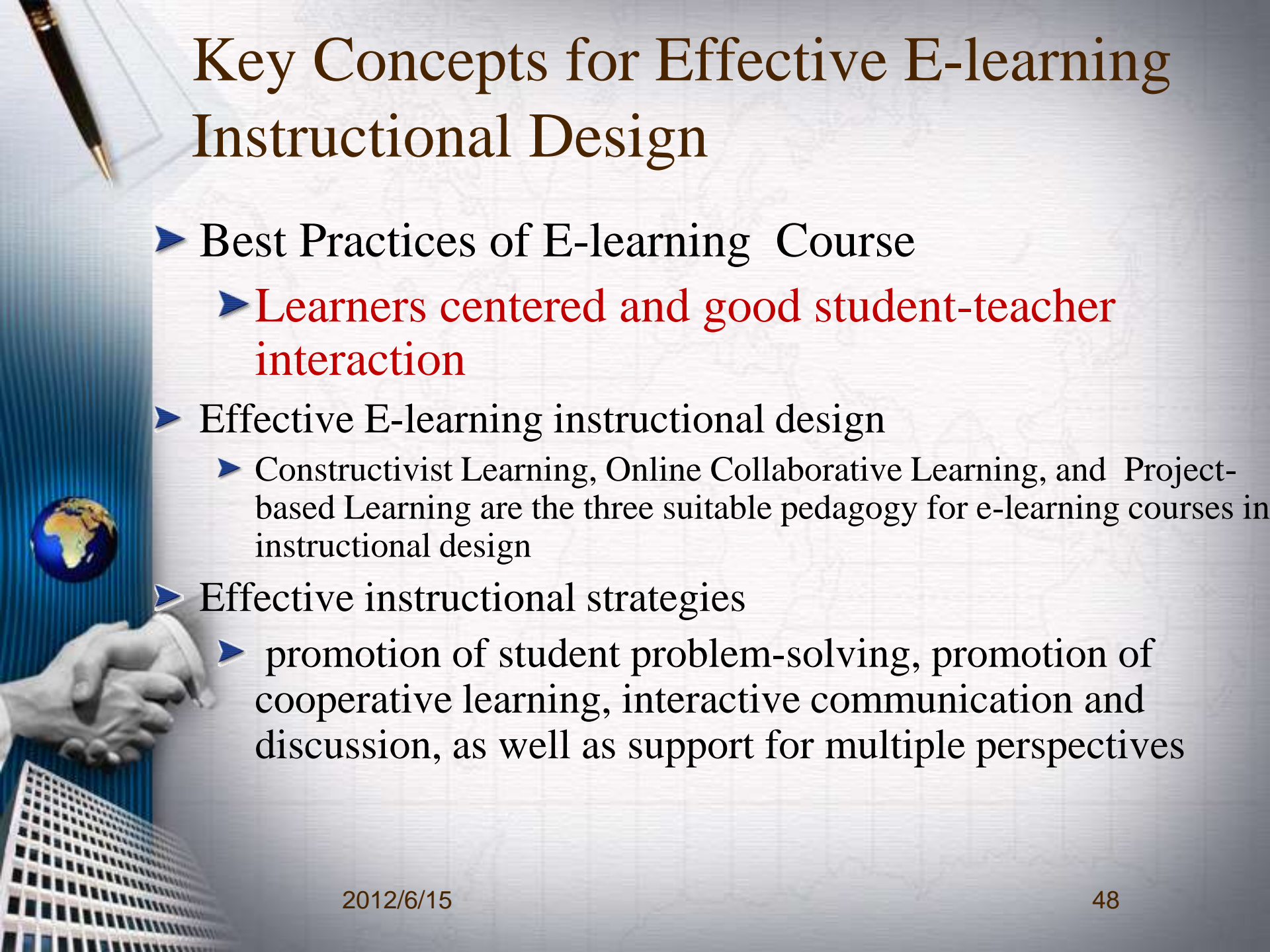
Course Evaluation Questionnaire Analysis

| 課程問卷題目 | 非常同意 | 同意 | 普通 | 不同意 | 非常不同意 |
|---------------------------------|------|----|----|-----|-------|
| 1. 教材中所設計的教學活動，能夠提供我適當的回饋。 | 20 | 4 | 0 | 0 | 0 |
| 1. 教材中所設計的教學活動，都有清楚說明活動的進行方式。 | 20 | 4 | 0 | 0 | 0 |
| 1. 教材內容的設計能引起我的學習動機及興趣。 | 15 | 9 | 0 | 0 | 0 |
| 1. 在平時學習上有問題時，我可以很容易聯絡到老師與助教。 | 23 | 1 | 0 | 0 | 0 |
| 1. 上課時，我與教師的互動良好。 | 15 | 9 | 0 | 0 | 0 |
| 1. 教師可有效地協調並管理課程內容並運用教材掌控教學的進行。 | 20 | 4 | 0 | 0 | 0 |
| 1. 教師有使用適當的媒體呈現教材。 | 21 | 3 | 0 | 0 | 0 |
| 1. 教師善於引導學生思考、發問並共同討論問題。 | 21 | 3 | 0 | 0 | 0 |
| 1. 教師講授課程能引起學生興趣。 | 22 | 2 | 0 | 0 | 0 |
| 1. 我樂意使用網路教學來進行學習。 | 21 | 3 | 0 | 0 | 0 |

A decorative vertical strip on the left side of the slide. At the top, a black pen with a gold tip is shown. Below it, a small globe of the Earth is visible. Further down, two hands are shown shaking. At the bottom, a white grid pattern is visible.

Conclusions

- ▶ NCCU made a lot of effort into provide master students a new way to learn e-learning, information literacy and LIS new knowledge and skills .
- ▶ Digital technology opens up a new learning environment, e-learning, which is the learner-centered, interaction, cooperation, open, and innovative. However, e-learning needs new instructional design to achieve new type of learning.



Key Concepts for Effective E-learning Instructional Design

- ▶ Best Practices of E-learning Course
 - ▶ **Learners centered and good student-teacher interaction**
- ▶ Effective E-learning instructional design
 - ▶ Constructivist Learning, Online Collaborative Learning, and Project-based Learning are the three suitable pedagogy for e-learning courses in instructional design
- ▶ Effective instructional strategies
 - ▶ promotion of student problem-solving, promotion of cooperative learning, interactive communication and discussion, as well as support for multiple perspectives



Suggestions for Future Research

1. E-learning Master's programs are learners-centered, there should be teacher-student cooperation to develop e-learning curriculum and instructional strategies; and e-learning platforms designed to enhance students' learning outcomes should be reinforced.
2. Library and Information Science schools actively offer a number of e-learning courses to cultivate students' e-learning knowledge, and promote the implications of library and information services.

A decorative vertical strip on the left side of the slide. At the top, a black pen with a gold tip is positioned diagonally. Below it, a small globe of the Earth is visible. Further down, two hands are shown shaking in a firm grip. At the bottom of the strip, a portion of a white grid pattern is visible.

Suggestions for Future Research

3. Need more workshops , conferences on e-learning course instructional design and evaluation
4. Need more research into whether e-learning certification available to instructional design and learning outcomes.
5. Need more empirical research on student learning outcomes of a variety of instructional methods, comparison of classroom and e-learning differences on student learning effectiveness, and the evaluation principle and practice of various instructional methods is be carried out in the future.

A composite image on the left side of the slide. At the top, a black pen with a gold tip is positioned diagonally. Below it, a small globe of the Earth is shown. At the bottom, two hands in business attire are shaking. The background of the slide is a light gray grid with a faint world map.

**THANK YOU FOR YOUR
ATTENTION**