Are You Ready to Open Your Classroom?
Taiwan College Faculty’s Attitudes toward and Concerns about OCW

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Abstract
This paper aimed to probe Taiwanese college faculty's thoughts and concepts about OCW by interviewing eight college faculty members. Based on the analysis of the interview transcriptions, eight possible factors for developing the Faculty’s Readiness for OCW Scale (FROCW) were proposed along with suggested scale items for each factor. The eight factors include (1) acceptance of OCW concept, (2) teacher personal characteristics, (3) perceptions of self ICT competency, (4) course materials, teaching methods and styles, (5) effects on teaching and research, (6) administrative support and incentives, (7) intellectual property right-related issues, and (8) interaction with OCW web users. Future works were also reported.

Introduction
In the past decade, along with the advance of the Internet technology, the development of open courseware has become a trend worldwide. Different countries have promoted their respective courseware and have formed regional consortiums for promotion, such as the MIT-led OCWC in North America [1], JOCW in Japan [2], TOCWC in Taiwan [3], and so on.

However, ever since the concept of OCW was introduced, some challenges with respect to “readiness” have been subsequently encountered. Kumar [4] not only discussed the importance of contextual and cultural readiness for OCW but also proposed the importance of teachers’ readiness, an indispensable element for the development of OCW on college campus.

Past studies on teacher readiness have focused on different themes, such as the effects of teacher readiness on e-learning outcomes [5], or the influence of age and gender on primary and secondary school teachers’ e-learning-related readiness [6]. However, there seems to be no existing study tackling college faculty’s readiness for OCW. What are their perceptions of opening their classrooms? What are their concerns or confusions about open teaching? Without knowledge of faculty’s perceptions and attitudes, we can hardly address their concerns, nor can we identify their readiness degree as well as develop effective strategies to help promote OCW on college campuses.

This study attempted to develop a Faculty’s Readiness for OCW Scale (FROCW) based on the interview results. In specific, the following research questions were asked:
(1) What are the possible factors of FROCW?
(2) What are the possible items of each factor for FROCW?

1. Literature review
1.1. The launch of TOCWC
In response to the MIT’s promise of widening access to open and freely-
licensed high quality educational materials, Taiwan’s open courseware program first took off in the National Chiao Tung University (NCTU) in 2007. Among all courses NCTU provided for OCW, a large percentage was about college or graduate admission test subjects (e.g., Physics, Calculus, etc.). Moreover, most NCTU OCW courses at the website were video courses [7], and discussion forums were also set up. With increasing number of universities joining the OCW alliance, the Taiwan OCW Consortium (TOCWC) was officially established on December 24, 2008 [3]. Similar to the NCTU OCW, the TOCWC also featured a high percentage of video courses. Among the 470 published courses, more than 3/4 of the courses include video lectures and complete course materials [7]. The TOCWC now has twenty-seven members, and almost all of the top universities in Taiwan are members of the consortium [3,7].

1.2. Teacher readiness
1.2.1. Teacher characteristics
One critical element of successful implementation of online learning is related to teacher readiness [5]. Differences in levels of readiness may arise due to a range of reasons, including poor administrative support, poor training opportunities, lack of incentives, lack of vision as to how to integrate technology into learning processes, or negative attitudes, beliefs and unwillingness towards technology [8-11].

Researches show that faculty members may feel uneasy once they face the challenge of integrating technology into their teaching. For instance, Jones [12] identified that many teachers, who do not consider themselves to be well-skilled in using ICT, feel anxious about using it in front of students who perhaps know more than they do. In addition, Humbert [13] showed that faculty members are under pressure to deal with online interactions and technical issues in blended courses.

In this study, based on previous researches, teacher's characteristics are included in our proposed FROCW which covers the following factors: motivation, attitude, teaching style, and perceptions of ICT competency.

1.2.2. Organizational support
Besides the teacher's own characteristics, the policy or help from teaching environment, that is, the organizational support, is also an important factor of teacher readiness. For example, a study of faculty members in Omani higher education [8] suggested that there is “a need to provide more institutional support, technical training, and personal time for faculty members to learn and upgrade their knowledge and skills in educational technologies” (p. 575).

Ocak [11] drew upon the results of interviews conducted amongst 117 faculty members from four universities in Turkey and identified that faculty members must have access to technical and pedagogical support in order to motivate them to implement new classroom technologies. However, the fast and constantly changing nature of computer technology makes it difficult for teachers to keep up with the pace set by emerging software and technologies [14]. Based on the above-mentioned studies, the organizational support will be taken into consideration as one readiness factor for the FROCW.

2. Methodology
In order to explore Taiwanese faculty’s attitudes towards OCW and to construct the FROCW, four OCW-experienced and four OCW–inexperienced college instructors, a total of eight faculty members, were interviewed. These in-depth interviews would help to collect first-hand qualitative data for future FROCW items.
2.1. Setting
In this study, all faculty members are from a prestigious university in northern Taiwan. The university first launched its OCW program in 2007 and is now offering 104 courses at its OCW website. Eighty-two (78.8%) of its courses provided are with video lectures. Though as a member of the TOCWC, the university does not require every teaching staff member to provide OCW courses. Until now the total view count of its OCW website is over 1.6 million.

2.2. Data collection and analysis
Data was collected through semi-structured, in-depth interviews with each faculty member. The interview questions for the OCW-experienced teaching staff (Abbreviations as P1-P4) differed from those of the OCW-inexperienced ones (Abbreviations as P5-P8). Questions for teaching staff with OCW experience covered four topics – reasons for participating in OCW development, challenges or barriers encountered, influences on one's teaching or other aspects, sufficiency of assistance from school authority or the school’s OCW office: The interview questions for OCW-inexperienced teaching staff included their understanding of OCW, reasons for not participating in OCW development, concerns, possible challenges or barriers, and possible assistance needed if they would like to develop OCW courseware.

3. Findings
Based on the transcriptions along with relevant literature, we have recognized various factors comprising the FROCW scale. The tentative proposed eight factors and individual items have also been developed as listed below:
(1) Acceptance of OCW concept
(2) Teacher personal characteristics
(3) Perceptions of self ICT competency
(4) Course materials, teaching methods
(5) Effects on teaching and research
(6) Administrative support and incentives
(7) Intellectual property right-related
(8) Interaction with OCW web users

3.1. Acceptance of OCW concept
All four OCW-experienced teaching staff agreed with OCW’s concept of openness, free of charge and availability to the world. One of the OCW-inexperienced faculty members showed her knowledge about OCW as well:
As far as I know, all open courseware class materials are free and open. Web users can access to what they want to learn – without paying tuition fees. (P6)
Our interviews resulted in three possible items covering this factor:
(1) I agree with OCW’s promise of "openness," everyone can have access to learn open class materials via the Internet.
(2) I agree with OCW’s promise of “free of charge,” everyone can use the open class materials for free.
(3) I agree that the attribution of OCW is under a Creative Commons license.

3.2. Teacher personal characteristics
One of the OCW-inexperienced faculty members highlighted the reason she would not develop OCW:
I’m camera-shy, and I don’t think I can talk as fluently as usual if I stand in front of the camera. Besides, I have a poor blackboard handwriting. (P5)
Similarly, two of the teaching faculty stated that they would develop OCW “if, only lecture notes and handouts are put on the OCW website, but not the video lectures” because they “feel uneasy when someone is filming (their) classes.” (P5, P7)
Thus, three items were selected for this factor:
(1) I feel comfortable in front of the camera, thus I’m willing to put my video lectures on the OCW website.
I don’t think I can talk fluently in front of the camera, thus I’m not willing to put my video lectures on the OCW website.

If, only my syllabus, handouts, notes and test papers are put on the OCW website (video lectures excluded) am I willing to develop OCW.

3.3. Perceptions of self ICT competency

Two of the faculty members pointed out the importance of ICT competency:

   It is important to consider one’s capability of using ICT because all OCW materials are digitized. (P7)

   I think ICT skill matters because all open courseware handouts, notes and test papers are developed using computers. (P8)

Consequently, items regarding one’s ICT competency were developed:

(1) I’m willing to integrate new technology into my teaching.

(2) I’m confident in developing digital course materials.

(3) I can learn how to make digital course materials by myself.

3.4. Course materials, teaching methods and styles

During the interviews, we found that the overall renewals or the content sensitivity of course materials also hinder one’s motivation for developing OCW:

   Every year, I try to review and make a major change of my course materials. If I’m developing OCW, it will take a lot of effort developing new courseware...Moreover, some of my course materials are quite sensitive, they cannot go public. (P5, P7)

Besides the concerns about course materials, one of the faculty members addressed her worries. She usually enjoys having discussions with her students in the face-to-face classroom, but she would feel it “difficult to develop OCW courses, because it’s hard for both teachers and students to participate in online class activities synchronously.” (P6)

Therefore, items for this factor were as follows:

(1) My course cannot be put on OCW website because it requires a major annual (or semestral) renewal.

(2) I think my classroom teaching methods (e.g., whole group discussion, team project and presentation, etc.) are not suitable to be put on the OCW websites.

(3) My course cannot be put on the OCW website because the content is sensitive.

3.5. Effects on teaching and research

Almost all of the faculty members with OCW courseware developing experience believed that OCW had positive impact on his teaching and research, whilst one faculty member stated possible worries of others:

   My first time teaching (the course)...I kept wondering how to present the ideas clearly to my students. The first idea that came to my mind would be watching OCW (video) courses and see how others teach. I would compare my teaching methods to others'. It helped a lot. (P4)

   Maybe after developing all my (OCW) course materials, I only need to make small modifications every year. It saves time, and I can devote more time to my research. (P5)

   I’m willing to put my video lectures on the OCW website, but not all teachers do. Some (teachers) feel like their classroom being peeped, some are afraid of copycats. (P2)

Based on our interview results, we had three items selected for this factor:

(1) I think that viewing others’ OCW course materials helps to improve my teaching.

(2) I think developing OCW courses doesn’t conflict with my research.

(3) I’m afraid that others may copy or imitate my teaching method, thus I’m not willing to put my course materials on the OCW website.
3.6. Administrative support and incentives
Almost all the faculty members agreed that supports and incentives from school authorities are crucial in developing OCW:
If the school authority is willing to reduce my teaching hours, or provide me with both financial and technical support, I’m very willing to develop OCW courses. (P6)
I think that teachers are not motivated enough to develop OCW courses. (P8)

Items for this factor were developed as follows:
(1) If the school authority is willing to offer me financial support, I’m willing to develop OCW courses.
(2) If the school authority is willing to provide me with necessary technical support, I’m willing to develop OCW courses.
(3) If the school strongly promotes the policy of OCW course development, I’m willing to develop OCW courses.

3.7. Intellectual property right-related issues
During our interviews, almost all faculty members without OCW experience expressed their uncertainty about the legality of their course materials being put online:
I’m very worried. If my course materials are put on the OCW website, someone may accuse me of violating their copyright. (P7)
If I cite a photo or a chart in my course outline and put it online...though I have given proper credit to the author, I’m still not sure if it’s lawful. (P6)

Interestingly, one of the faculty members brought up the issue of the cost measurement of one’s intellectual property rights:
Some teachers think that their course materials are worth paying for. They don’t hold the idea that knowledge is free. (P2)

Hence, our items for this factor arose:
(1) I’m concerned that my course materials may raise possible copyright issues.
(2) I think that OCW offices (or the consortium) should help OCW developers solve copyright issues.
(3) I think my lectures are my intellectual property, thus they are worth a price. Therefore, I’m not willing to put my course materials on the free OCW website.

3.8. Interaction with OCW web users
Though the MIT OCW does not offer web users official access to their teachers, the TOCWC has set up a discussion forum on its website. However, the forum does not seem to serve as a learning community but a place for users to report technical website problems. During the interviews, most of the faculty members, whether OCW-experienced or inexperienced, conveyed the idea that they would not have interaction with OCW learners:
I have to take care of my face-to-face classes and my students. I don’t think that I have extra time to answer questions (through OCW) from all over the world. (P6)
I do get letters from OCW learners, but I’m too busy to answer them. Some are very detailed questions, and it may take me several hours to check my textbook to find the answer. (P2)

According to our interviews, we assumed that OCW teachers do not interact with web learners often. Three items were thus developed:
(1) I prefer interacting with my students in the physical classroom than having online interaction with students.
(2) I’m willing to interact with my OCW learners.
(3) I prefer lecturing in the physical classroom.

Conclusion
This study collected eight Taiwanese college faculty’s attitudes towards and concerns for OCW through in-depth interviews. These qualitative data were
transformed into items for each one of the eight factors of our proposed FROCW. In the future, the FROCW scale will be administrated to and collect data from about 400 Taiwanese faculties. An exploratory factor analysis (EFA) and/or confirmatory factor analysis (CFA) will be conducted to test for construct validity. The relationships among the factors will be examined, and a fit hypothesized factor model will also be validated. It is hoped that the future completion of the FROCW will shed light on the understanding of Taiwanese teacher readiness for OCW as well as the promotion of open courseware in Taiwan.

References