

# 13 Tapping technology in creating product development studies: Reflections on an ESP-business project

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## Abstract

This paper describes a teacher's reflections on a technology-enhanced project-based learning approach to teaching an ESP-business lesson on product development, which is part of the curriculum for Conference English and Meetings Practice (CEMP), a business-track course for the Adult Continuing Education program at a private university in southern Taiwan. The project aimed to provide students with the opportunity to simulate the process of creating an improved product concept based on target market needs and produce a marketing campaign. Students worked on blending traditional materials with technology throughout the learning process from brainstorming, sketching, and presenting visually creative layouts. One of the caveats of undertaking this project was the time involved in production. Similar to real-life marketing scenarios, the crucial element was shooting and editing the videos and the making of the product prototype. Nonetheless, they were able to overcome those challenges and their product studies showed their flair for creativity and ingenuity.

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**Keywords:** ESP-business English, product-development studies, project-based learning, blended learning, mobile technology.

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## 1. Context/rationale

Conference English and Meetings Practice (CEMP/會議英文與演練) is a required three-credit course in the business-track program for English-major students enrolled in the Division of Continuing Education of a private university in southern Taiwan. This course aims to enhance students' English communication skills within a business setting. The main goal is to enhance proficiency in all four skills (listening, speaking, reading, and writing) so they can effectively use the language in various business contexts.

The course content covers a wide range of corporate concepts such as mergers and acquisitions, and they also need to improve their career skills that are essential in performing their work duties. Giving presentations, engaging in project-based tasks, writing business reports or proposals are examples of transferable skills that students learn from this course. Language activities, i.e. grammar structures and vocabulary exercises, are based on authentic materials such as articles from leading business magazines and newspapers. Web-based technology, mobile devices, and digital technologies are blended into a traditional learning environment. Students learn how to access digital learning materials from the course's e-learning platform provided by the university; they also make use of their smartphones to do online searches, take pictures of lecture slides projected via an overhead projector, and share notes and ideas via mobile chat applications such as Line, WhatsApp, Facebook, etc.

In addition to teaching content knowledge, teaching CEMP also requires good coaching skills, thus encouraging and motivating students to take part in active learning is important in setting up a learning environment where fun and creativity are supported. This is why technology-enhanced project-based activities are an effective pedagogical strategy for delivering hands-on learning; they can enhance students' understanding of the key concepts being taught. Students do not simply regurgitate memorised information, but they engage themselves in creating something that would provide evidence of learning.

## **2. Aims and objectives**

The product development project described here was given as the final task for the units on innovation (product improvement) and marketing communications (creating print and TV commercials). The aim of the activity was to provide students with the opportunity to simulate the process of creating a product concept based on target market needs, and to produce a marketing campaign for the product. The current advances in digital technology and its applications in product design and advertising have contributed greatly to its use in the classroom to simulate creative design techniques which provide students with the opportunity to enhance their technical skills. Thus, it was imperative that students had an awareness of existing mobile and digital technologies which they can integrate into their project plan and ensure effective application which is aligned with their learning needs and outcomes. This pedagogical approach also allows students to work on blending traditional materials with accessible technology throughout the learning process from brainstorming and sketching to presentation of prototype studies and creative video campaigns.

## **3. What I did**

The use of technology in the project complements the traditional approaches to delivering and managing a planned learning process. The project required careful planning and time management. It took about four to five weeks (one class meeting = three hours per week) to complete.

First, I explained to the class the aims and outcomes of this project, how they are going to do it, and the reasons for doing it, emphasising how their learning is going to benefit them. For the first two hours, I covered the basic concepts of product improvement, practiced oral conversations, read articles and went through a list of vocabulary and grammar structures that they could use when presenting their product proposals. I also made sure that all digital lecture materials and exercise sheets were uploaded to the e-learning platform for their perusal. To provide extra learning guidance to help students learn

and retain the new knowledge and information, I gave sufficient examples of product improvements and their ad campaigns by showing them digital print and video ads.

For the third hour, I discussed with them the details of the project. I went through the task requirements and gave instructions on how to proceed. I asked them to form small groups (N= 42; four to six students per group) so they could begin their initial brainstorming of a product idea and a tentative product name (see “3.1. Brainstorming” below). I gave students the freedom to choose their own group members. Some had difficulty joining other groups due to various reasons, from being unfamiliar with other classmates to being stubborn and unwilling to work with others. I had to remind them that learning to work in teams is a professional skill that they can use in real business situations. Thankfully, all groupings were sorted out in the end.

### **3.1. Brainstorming**

During the first group brainstorming session, I asked students to think of and discuss a product that needs improvement or a consumer need that is not being met by any product. I asked them to search online using their mobile devices to help them with their discussion. They had to be able to show and tell me which aspect of the product required changing. They needed to show their innovation by sketching, either using a smartphone app or on paper, to see what improvements they had come up with. As I walked around, I listened in to group discussions, offered suggestions when needed, and provided support and constructive feedback. Providing constructive feedback is crucial in building their confidence; and once that confidence is established, they can carry it with them throughout the semester and beyond.

I asked them to upload a photo of their drawings to Padlet, an online wall poster I created for this activity. Links and guidelines were given to help them complete the task. The Padlet page was later projected on the screen, so everybody saw what sorts of ideas were collaboratively developed during that time (Figure 1).

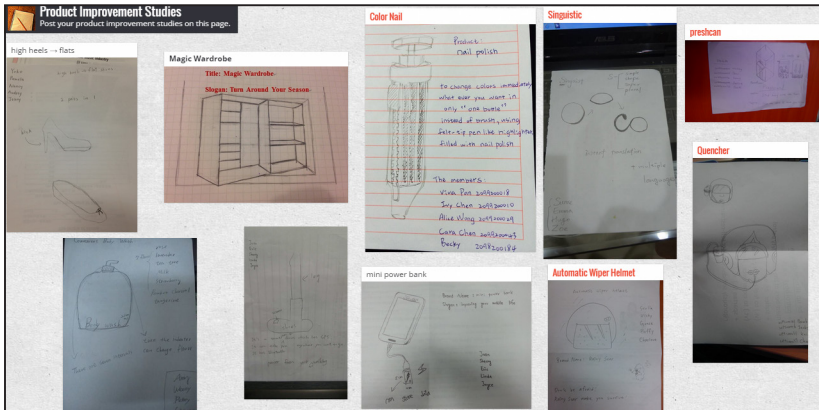
Figure 1. Padlet wall<sup>1</sup>

Table 1 below shows the product improvement studies, which exhibit the kinds of products each group had chosen, the improvements on product features, brand studies, and campaign slogans. All ideas were unique and had a potential market niche. For example, the S-shaped bluetooth-enabled translator device ‘Singuistic’ (an amalgamation of the letter “S” and “inguistic” from the word “Linguistics”), has the ability to simultaneously translate what other people are saying to your set or preferred language, seems like a product of the future.

Another example is PresshCan which is a trash bin which automatically presses the trash to save space and therefore saves money on garbage bags. Refer to Table 1 for more product descriptions.

Table 1. Product improvement studies

Group	Product	Product Improvement	Brand	Slogan
1	Trash Can	Trash can with an automatic function that presses trash, giving more space for more trash	PresshCan	<ul style="list-style-type: none"> <li>• Stop being busy with trash</li> <li>• Save space</li> <li>• Save time</li> </ul>

1. <http://padlet.com/aidenyeh/w9mgwr0kqyqw>

2	Bluetooth-enabled Translator	S-shaped Bluetooth device that gives users instant simultaneous translation to different languages.	Singuistic	<ul style="list-style-type: none"> <li>• The gateway to the world</li> <li>• Hear the word</li> <li>• Hear the world</li> </ul>
3	Bodywash	Eight different fragrances in one bottle	Rico Bodywash	<ul style="list-style-type: none"> <li>• Enrich your life</li> <li>• Wonderful with Rico! Eight-in-one</li> </ul>
4	Helmet with wiper	Helmet with built-in wiper; wipes away rain or wet substance to give the user a better view of the road	RainyStar Automatic Wiper Helmet	<ul style="list-style-type: none"> <li>• Amazing automatic wiper helmet</li> <li>• Wipe on!</li> <li>• Make it clear!</li> </ul>
5	Rotating wardrobe	Allows users to store seasonal clothing; hide clothes that are not needed; rotating wardrobe	Magic Wardrobe	<ul style="list-style-type: none"> <li>• Magic wardrobe</li> <li>• Turn around your season</li> </ul>
6	Double-purpose shoes	High-heel shoes; heels can be tucked away under the soles	FIT shoes	<ul style="list-style-type: none"> <li>• Free your feet, wear FIT</li> </ul>
7	Helmet with water tube	Allows users to drink water (or any content) using the built-in tube on the helmet	Quencher	<ul style="list-style-type: none"> <li>• Quench your thirst</li> </ul>
8	Multi-purpose USB	USB that charges the device, serves as digital file storage also	Mini-Helper	<ul style="list-style-type: none"> <li>• Amazing Mini!</li> <li>• Recharge!</li> <li>• Storage!</li> <li>• Advantage!</li> </ul>
9	Nail Polish	8 different nail polish colours in a pen; can be applied instantly; super quick dry polish	Nail It!	<ul style="list-style-type: none"> <li>• Just nail it right away!</li> </ul>

### 3.2. Scaffolding skills

For the second class meeting, a lecture and workshop on creative writing (i.e. ad copies and slogans) and technical skills review (video editing skills) were given. Using PowerPoint (PPT) slides, we looked at famous slogans of different corporations, what made them tick and what kinds of ads flopped. In producing their video, I gave examples of free video programs (Windows Movie Maker, Power Director, etc.) which our university provides and they can access on all the computers in the library and computer laboratories. Some students already had existing skills in using video editing tools, but to be sure that everyone had the necessary skills, I spent time showing them again how to easily create

a video using PPT slides and Windows Movie Maker (WMM). At this stage, they had to finalise their slogans and ad copies, and product prototype for those who already finished with their copies. They should also have clearly outlined each team member's roles and responsibilities for production week (third week).

### **3.3. Product prototypes**

By the third week, they worked on making a prototype for their product and started shooting their commercials<sup>1</sup>. From the digital footage they chose images that they could use for the print ad. In this way, there was consistency in the overall approach and look of their product campaign. Some groups shot a few scenes either in the classroom<sup>2</sup> (staging a set) or on campus. However, all these were done outside class hours and in their own spare time. In some cases, groups had to go on location shooting. This happened when the shots or images they needed could not be produced on the school grounds.

Below is a screenshot of some of the product studies. From paper sketches to the actual prototypes, the studies show students' talents and ingenuity. Some products were difficult to create, so they used alternative ways to show the product improvements.

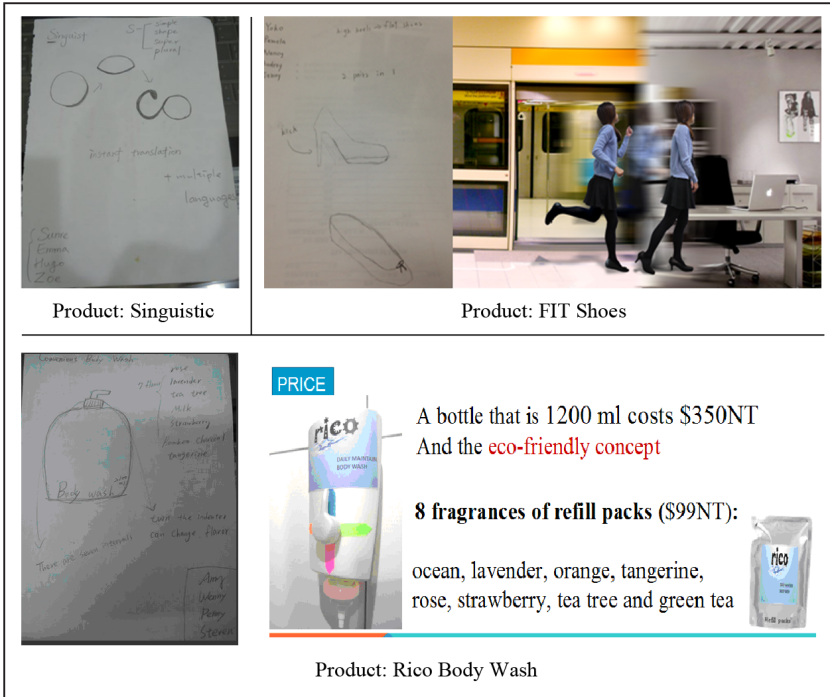
One strategy they used was to manipulate a photo image using photo editor and tweaked it to reveal improved product features (see [Figure 2](#)). For FIT Shoes, the group thought of using almost identical shoes in their commercials; so they used one pair of flats and the other was a pair of heels. In the commercial, the transition between flats to heels was shown using camera tricks (see [Figure 2](#)). In this case, I gave students credit for the product concept rather than the actual production of a prototype. For products like the wardrobe and body wash (see [Figure 2](#) and [Figure 3](#)), these groups created an actual prototype from scratch.

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1. Students had been taught how to create and edit video materials in previous class activities, so they already had the skills needed to complete this task.

2. Photoshoots were scheduled at times and dates that did not conflict with regular class hours to follow school policy.

Figure 2. Examples of product prototype studies

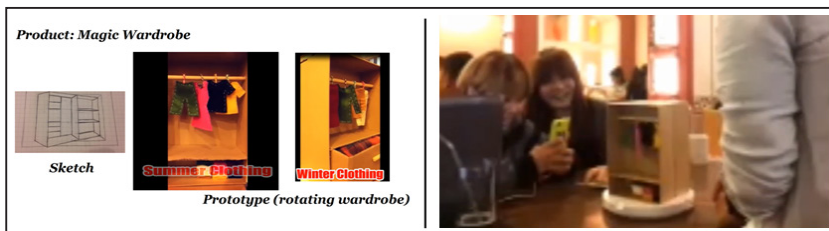


For the rotating wardrobe (see Figure 3), the students made use of cardboard for the wardrobe frames and shelves, and they propped the prototype on top of a rotating dish, inserted two chopsticks on both sides that served as handles for easy rotation. While one rotated the dish, the other shot the video using her mobile device. The voice over used in the ads was also recorded using the same mobile device. For the commercial, they had three different location shoots; all were shot at their respective homes. There were three scenes in the ad. The first one showed a disorganised closet, the other showed a student having problems rummaging through chests looking for appropriate clothing, and the third scene featured a mother having problems putting away her child’s clothing as the seasons change. All these scenes portrayed a classic storage problem, and how Magic Wardrobe provides a practical solution. I gave this group extra points for



effort and resourcefulness. Creating the cardboard-wardrobe took a lot of time to finish, and the tiny felt paper-doll clothes were actually sewn by hand. This suggests that they put a lot of thought into this project. They also submitted a separate video showing the making of their commercial (Figure 3). In that video, the smiles on their faces, the laughter, and the camaraderie show not only their willingness to do the project but also the fun they had while doing it.

Figure 3. The making of Magic Wardrobe prototype



### 3.4. Oral presentations

Group oral presentations were done on the fourth and fifth week. Each group (four to six students) were given 20 minutes each to present their product development studies. They also had to talk about their individual roles in the project and discuss their work distribution, i.e. who did what and how. This is important to teach students about individual and team responsibility and accountability. They were also required to submit a digital copy of their ads and presentation materials.

### 3.5. Assessment

The students were assessed using a self-designed rubric, which lists all the requirements that they needed to submit to show completion of the project. I included a scoring scale (1-5) to indicate the quality of work. However, I believe that the assessment sheet needs to incorporate a description of different levels of competence. The performance descriptors with assigned

scoring scales would provide a better evaluation for the quality of their work (Efron & Ravid, 2013).

## 4. Discussion

In addition to the effective integration of technology, this simulation mirrors a real world task that involves the practice of interpersonal communication skills (Crookall & Oxford, 1990). The culmination of the task was an oral presentation where the students showcased a prototype of their product design and TV and print advertising. In many ways, the formal product presentation replicates the scenario in which students will have to use the appropriate language (Littlejohn, 1990) in a business meeting where their ideas and/or proposals are to be vetted by corporate managers. Students presented their product plan providing a rationale for its production, comparative pricing, consumer needs, ads and promotion, etc.

They also provided a run-down of who did what and the difficulties they encountered during production. Some commented that they enjoyed the learning experience but the time involved posed some challenges. I realised that similar to real-life marketing scenarios, the crucial element was shooting and editing the videos and the making of the product prototype. More in-class time should have been spent in a computer lab so students could work on editing and prototype production while I guided and supervised. Nonetheless, they were able to overcome those challenges and their product studies showed their flair for creativity and ingenuity.

This project was collaborative in nature, therefore, it also reinforced the students' team-work skills, and in the process they learned how to share ideas and cultivated their interpersonal competence, all of which has the potential to influence group dynamics. Students had to learn how to adapt and figure out a way to collaborate effectively, to share responsibility and coexist (VanDerPloeg, 2012). Learning to communicate very well helps students to learn respect as they listen to others, and it also teaches them to be supportive and also share and contribute their ideas.

## 5. Conclusion

By the end of this project, the students had exhibited their knowledge and skills in creating and selling a product. Comprehension of what customer satisfaction entails is crucial in clearly defining what kinds of defects existing products have and how their improved product alleviates those problems. Students had to show how their advertising message is going to stand out in the competition for consumer attention. The merging of traditional and digital ways of presenting creative studies communicates an interesting visual experience that encapsulates relevant ad messages and visual designs in an effective interplay of text, sound (music and voice over), images and videos.

In conclusion, I believe that technology-enhanced collaborative projects, although they require planning and effective time management skills, can reinforce the development of transferable skills in a fun learning environment. The positive learning experience they had in doing this project was the added value that my students got from this course more than what they can get from books alone.

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