

## A Case Study on the Construction of Ubiquitous Personalized English Learning Resources for High School Students

Chengcheng Liu

Dalian Yuming Senior High School, Dalian, China

---

**Abstract:** *The innovation of our research lies in that we integrate personalized learning resources into ubiquitous learning to replace lots of conventional classroom teaching for high school students to preview on line before a student-led flipped classroom model instruction experiment, meeting the students' personalized learning needs not only in learning ways (anywhere, anytime, for anyone with any device) but also in contents. The personalized resources cover materials of key words and expressions, grammar, topics for discussion in the form of PPT downloaded from the Internet, micro-course video clips made by our mentors, audio clips and animations edited with the software of Ulead. Positive application outcomes indicate that it's more targeted, interesting and efficient compared with conventional way of preview through reading the textbook or printed reference materials.*

**Keywords:** *Personalized learning, ubiquitous learning, high school English teaching, flipped classroom model based on micro-courses*

---

### 1. INTRODUCTION

Personalized learning, also known as Individualized learning or Adaptive learning, offers different learning contents, resources, approaches based on the individual needs of each student. The term personalized learning, or personalization, refers to a diverse variety of educational programs, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students. Personalized learning is generally seen as an alternative to so-called "one-size-fits-all" approaches to schooling in which teachers may, for example, provide all students in a given course with the same type of instruction, the same assignments, and the same assessments with little variation or modification from student to student. [1]

"One-size-fits-all" approach is a precise description of what most of the high school students are taught with at present, at least it's true for the students in one of the most famous provincial model high schools, Dalian Yuming Senior High School. As everything is centered around the aim of entering a prestigious university home or abroad, how to train the student to get a high score at the National College Entrance Examination is undoubtedly the first priority, so it's no wonder that the teacher dominates most of the lecture to explain the usage of some key words and expressions, to learn English grammar, to paraphrase sentences in a context, and in between, to share some techniques as how to answer a question, translate or write a composition, during which the students are sole receivers of the lecture with occasional feedbacks and opportunities to answer the questions or participate a discussion. This essay is just the inspiration of one exceptional activity, a student-led instruction English class to experience a potential future profession. To encourage the students to get motivated and involved in a targeted profession, the school offers those students who aim to be English teachers opportunities to teach English, the paper is the outcome of such an experience.

Ubiquitous Learning (also referred to as u-learning) is any kind of learning in which learners can have access to information almost anywhere, anytime in different contexts. A Ubiquitous Learning Environment is an environment in which learners have access to knowledge through technology and work cooperatively to learn almost anywhere at any time, regardless of their geographical location. Essentially, a Ubiquitous Learning Environment provides a student with a pervasive setting in which learning can take place, even if the student or learner may not realize that he or she is learning. [2]

Research on online personalized learning home and abroad includes using mobile facilities and online learning network to construct personalized learning environment, [3] [4] personalized recommending

of knowledge based on innovative curriculum design and learning characteristics of the learner, [5] but there are very few studies on the specific analysis of “personalization” and practice of personalized learning based on new technology-supported environment. The innovation of our research lies in that we integrate personalized learning resources into ubiquitous learning to replace lots of conventional classroom teaching, meeting the students’ personalized learning needs not only in ways (4A) but also in contents (adaptive).

## 2. CONSTRUCTION OF UBIQUITOUS PERSONALIZED LEARNING RESOURCES FOR MODULE 6: THE INTERNET AND TELECOMMUNICATIONS

### 2.1. Necessities and Feasibilities of Providing Ubiquitous Personalized Resources

The idea of integrating Ubiquitous learning and personalized learning into my instruction came to my mind when I previewed the title of Unit 6 to get prepared for my lecture two weeks later, which reads *The Internet and Telecommunications*. First of all, the development of IT provides an excellent platform for ubiquitous learning or the flipped classroom model, that is, most of the fixed knowledge can be learnt online instead of being taught by the teacher in the classroom with the advantages of making full use of spare time, in a more enjoyable way and adaptive to everyone’s individual needs. Secondly, as far as personalized learning is concerned, in a student-led instruction model, the teacher is also a student, which makes the teaching itself a student-centered one, in other words, the lecturer knows the slightest difference among all the students, what should be stressed and what should be overlooked, what is interesting and what is boring and useless, besides, the time of every high school student in China is precious and limited, the amount of the resources must be large to be selected by the students so as to meet their individual needs. Lastly, the author had taken part in several English learning research projects, having many English-speaking experts and English teachers as friends (referred to as mentors in this research including English teachers of Yuming Senior High School) and it’s possible to design and make some micro-course video clips or construct a learning community to interact with fellow students and these mentors.

### 2.2. The Framework of the Instruction: A Flipped Classroom Model Based on Micro-course Learning

The implementing procedure of the instruction of Unit 6 is designed as Table 1:

**Table1.** *The Arrangements of Pre-class Activities for Unit 6*

Time	Tasks of the instructor (also a student)	Tasks of mentors	Tasks of the students
2 weeks before the lecture	Analyzing the text to determine the teaching approach and the personalized resources.	Downloading the targeted materials from the Internet or make micro-course video clips	Previewing the textbook
1 week before the lecture	Uploading all the personalized resources to the class QQ group and interact with all the members of the group	Previewing the materials and discuss, interact with all the members on the questions, topics, doubts and feedbacks	
The day before the lecture	Discussing and determining the process, key points and ways of delivering the lecture the next day based on the final results of online interactions		Finding out the doubts, questions remain unsolved

### 2.3. The Construction of Personalized Learning Resources

The key points of the unit and the making of the relevant resources are summarized as in Table 2:

**Table2.** *The Construction of Personalized Resources for Unit 6*

Key points	Sources for the resources (reasons)	Format
1 <sup>st</sup> : Key words and expressions for examinations	The Internet (the textbook is used nationwide and references are available on line)	PPT (downloaded and edited)
2 <sup>nd</sup> : Internet related expressions and usages	The mentors (there is a Unit named <i>A Virtual Life</i> taught by the mentors for college students with abundant reference materials)	PPT, micro-course video clips (edited)
3 <sup>rd</sup> : Compound words	The Internet (but not enough)	A Micro-course video clip (to be made by the mentors)
4 <sup>th</sup> : The definite article and zero article	The Internet (but not enough)	A Micro-course video clip (to be made by the mentors)
5 <sup>th</sup> : Topics for discussion and composition	To be completed in class	PPT

## A Case Study on the Construction of Ubiquitous Personalized English Learning Resources for High School Students

Keying in “The Internet and Telecommunications” in Baidu, a popular search engine in China, we found more than 500 results including materials in the format of text, PPT, video or audio, but most of these materials were copies of different version, we chose some exercises related to the key words and expressions and edited in view of the practical English levels of most of the students. Another part of the resources came from a college English teaching courseware called *A Virtual Life* which describes the life of an Internet addict who tried to get out of the virtual world. We decided to extract comparatively easier contents for our class, including a lead in game for classroom teaching (see Fig.1), a topic for preview in the QQ group (see Fig. 2) and a discussion topic to be previewed in the QQ group and discussed in the classroom (see Fig. 3).



Fig1. A Game for Leading in

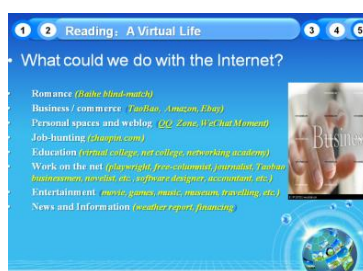


Fig2. A Topic for Preview



Fig3. A Discussion Topic

The 3<sup>rd</sup> part of the personalized resources are two clips of five-minute micro-course video made by our mentors to meet our specific aim in accordance with the guidelines established at the beginning of the research. A mentor from USA recorded an audio with the definition, examples and basic usage of compound words, another mentor from Australia recorded an audio with the definitions, differences and a quiz of definite articles and zero articles. Then a mentor who is an experienced teacher used a multimedia editing software named U-lead to integrate all the audios, videos, texts, PPTs into 2 micro-course video clips, the final products present connotations of the grammar with vivid video and animation demonstration, subtitles where necessary, questions and answers for the students to check their understanding.

### 3. IMPLEMENTATION AND DISCUSSIONS

During the week after these personalized resources being uploaded to the QQ group, the students in our class selected any materials in accordance with their own interests and English level anytime, anywhere, on a smart phone or a computer. When they had questions or doubts about the materials, they consulted the mentors or discussed with their classmates online. The lecture was a success with our English teacher supervising the whole process and evaluating the class as “unprecedentedly successful” because the students had already learnt most of the key points before class and actively got involved in the discussions and debates. Our survey, observations on the performances of the students in class and in the QQ group, talks and their reflections showed that, in most of the students’ eyes, it’s time-saving, more interesting, effective and targeted compared with the conventional way of preview, like reading the textbook or reference books in most cases, the preview was also flexible, they could decide not only which to study, but also how many times to study the same material until they fully understood, even tried to apply the knowledge through interacting or discussing with other members in the QQ group before class, as a result, the students were more motivated to study the text or find answers to their unsolved problems in class. For me, I learnt not only the knowledge of the Internet and telecommunications but also the essence of being a teacher: the more you invest in preparing for a class, the better your teaching will be and the more your students may benefit from the teaching.

### ACKNOWLEDGEMENTS

The paper is a part of the research results of the Twelfth Five-year Plan for Educational Science Project of Liaoning Province (2015) No. JG15DB170: *A Study on Self-regulated Micro-course Learning and Implicitly Layered English Flipped Classroom*.

## REFERENCES

- [1] [Online] Available: <http://edglossary.org/personalized-learning/>, Aug. 18, 2016.
- [2] Abdulrahman Alsheail, *Teaching English as a Second /Foreign Language in a Ubiquitous Learning Environment*, Master diss., California State University, Chico, 2010.
- [3] Song Y. et al, *Fostering personalized learning in science inquiry supported by mobile technologies*. Educational Technology Research & Development, 2012, 60(4):679-701.
- [4] Huang Y. M. et al, *Empowering personalized learning with an interactive e-book learning system for elementary school students*. Educational Technology Research & Development, 2012, 60(4):703-722.
- [5] Wang L. et al, *Cross-Domain Personalized Learning Resources Recommendation Method*. Mathematical Problems in Engineering, 2013, (5):206-232.

## AUTHOR'S BIOGRAPHY



**Chengcheng Liu**, born in Dalian, China in 1999, is currently studying in Dalian Yuming Senior High School. He has won several awards in a series of English competitions including The Third National Prize of 15th National Innovation English Contest 2016, he is also the author of *A Creative Design and Implementation of Student-led Flipped Classroom Model in English Learning* published on *Theory and Practice in Language Studies (TPLS)*.