Process-Oriented and Quantitative Assessment for Blended Police English Course

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Abstract – *To emphasize the learning process and make the intangible online learning concrete but not only the learning outcomes, the process-oriented and quantitative assessment is designed based on outline of CyberInfrastucture Based Education to meet the challenge under web-mediated learning environment. It consists of primary, secondary and tertiary index with assistance of synchronous and interactive participation observations, asynchronous check of text, audio or visual chat history with software tools of Screen Video Recorder, QQ International on computers and WeChat on smart phones. Surveys and interviews show that most of the participants are in favor of the process-oriented and quantitative assessment, though limitations do exist.*

Keywords –*English learning, process-oriented, quantitative assessment, tertiary index, virtual training*

I. INTRODUCTION

Outcome-based evaluation is a systematic way to determine if a program or project has achieved its goals. Evaluation of English as a Foreign Language learning in Liaoning Police Academy has been based on a 30% teacher assessment and 70% test paper score system for more than ten years. To reduce the defects of focusing on only the learning outcomes and meet the challenges of cloud-based Police English learning which emphasizes on improving learning interests and training efficiency, process-oriented and quantitative assessment program has been developed and implemented.

The second part of this paper reviews the related literature and the background of learning and assessment. The third part covers the blended EFL methodology and the process-oriented and quantitative assessment approach. The last part discusses the outcomes, limitations and implications of the study.

II. RELATED LITERATURE

Process-oriented assessment is concerned with the actual task performance rather than the output or product of the activity. Recent studies proved that it is also important to focus on the processes which the student under go in order to arrive at these products and outputs rather on to focus only on the actual products or output [1]. Assessment techniques for classroom teaching and e-learning have been intensively studied. Quantitative parameters are very important in defining the framework of the activities required of the students because one of the problems that may develop in collaborative work is the monopolization of the activity by a small number of students. It can also serve as a tool for the coordinator to manage and monitor the students' work [2]. The effectiveness of service-learning course is also evaluated through quantitative assessment; students completed a comprehensive questionnaire detailing their pre- and post-course attitudes during the final session of the course. The questionnaire asked students to rank their "before"-course and "after"- course attitudes using a 1-10 scale. Results for each question were averaged, and statistical analyses were performed using student's test [3]. The evaluation of the work will be constructive only if the instructor gives feed back to students timely. Thus assessment techniques can extend to observe students' behaviors as well as to interview them [4].

III. COURSE DESIGN AND ASSESSMENT

A blended learning approach combines face-to-face instruction with computer-mediated instruction. Learners and teachers work together to improve the quality of learning and teaching with the assistance of educational technologies using computer and other emerging electronic media, the ultimate aim of blended learning being to provide realistic practical opportunities for learners and teachers to make learning independent, useful, sustainable and ever growing [5]. The blended Police English course is designed under the guideline of Web Based Education and CyberInfrastucture Based Education which is proactively meeting requirements for next decade. The classroom instruction is prior and the online training is secondary and the leading role of the teacher and the central role of the students are played through the delicate arrangements of delivery method and contents. The design of the blended course and assessment methods are shown in Table 1:

Table 1:   Curriculum design and assessment for blended Police English course [6]

How	Face-to-face Instruction	Simulated training	Online Consolidation
How long	2 hours per week	About half an hour per week	At least 2 hours per week
Where	Multimedia classroom	A decorated police department office	Anywhere with the access to the network platform throgh QQ International and WeChat on smart phones
For what	English for police learning	Policing field training	Consolidation of learning and training
What	Listening,speaking,reading,writing and translating	Discussion, role-playing and scenarios	Any contents at the user's own disposal
Assessment	Test paper scores (50%), Evaluated by the teacher (25%), Quantitative assessment (25%)		

Language learning is highly integrated with the professional training and even in a face-to-face instruction, computers and multimedia facilities are also utilized to improve interactions and experiencing, a courseware consisting of a textbook and a network of *English for Elite Police* is developed to suit the learners' needs so as to make the learning instructive, practical and interesting. The first unit is just about the Academy the students are studying at and most of the materials are made familiar to the students by using familiar images, names and events. All the contents developed at first by PowerPoint are converted into HTML format, and the tool for the virtual training originally developed by Microsoft Visual Studio 2005 asp.net(c#) also shifts to QQ International and WeChat to be browsed on a smart phone as well as on a computer as shown in Fig.1, every student registers a number account on QQ for Police English learning.
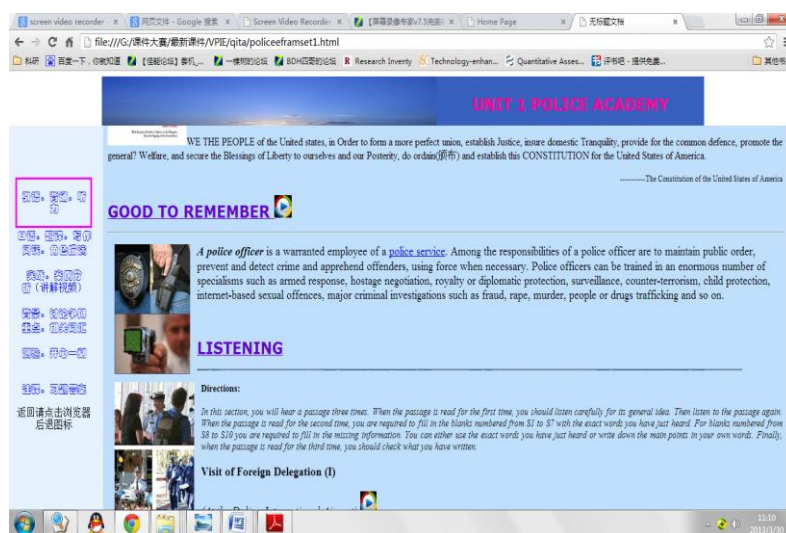

Figure 1 HTML format of Unit 1 Police Academy of English for Elite Police Network

The course is delivered through the following methods to start the journey towards CyberInfrastucture Based Education:

Virtual Service-learning: Curriculum learning is closely integrated into professional training by applying the learnt Police English in solving practical problems and offering police service. Scenarios including characters, plots, objectives, references and assessment are revised and edited out of police transcripts released by law enforcement agencies in English speaking countries to make it original and real, see Table 2 for detail of *Online Unhealthy Image Reporting* scenario derived from the transcript of *Child Exploitation Online Protection Centre*. Students acting police officers in different fields interact with other participants acting police service recipients to fulfill the duty via role-plays in the classroom, QQ International software on an internet-connected computer terminal or WeChat on a smart phone.

Table 2: Scenario of Online Unhealthy Image Reporting

Title	**Online Unhealthy Image Reporting** (basic information a police officer needs to deal with online unhealthy image reporting) (5minutes)
Setting	1. Place: In the Online Protection Center of a police department 2. Time: 8:00 a. m.
Characters	1. A police officer 2. The reporter: who finds unhealthy information online
Plots	You are answering an online surfer who finds some unhealthy information on a website, tell the surfer what illegal images are on the web, the punishment, the necessity of reporting and how to report.
Objectives	1. Clearly defined the four basic requirements mentioned. 2. Basic expressions of answering a citizen call.
Assessment	1. English proficiency (0.45) 2. Key words and expressions (0.20) 3. Objectives achievement (0.15) 4. Professional skills (0.10) 5. Self-improvement (0.10)
References	**Questions:** What are illegal images on the web? Can you define it in detail? What is the punishment? Why should I report these images? How do I report? **Answers:** This means images and in some cases text, which you see or may be inadvertently exposed to on a website. If it contains: Child abuse images (also known as 'child pornography'), Criminally obscene content which means images featuring acts of extreme and violent sexual activity or Criminally racist content which may provoke racial hatred by reference to skin colour, race, nationality, or ethnic origin. It is an offence to deliberately seek out illegal images and purposely viewing child abuse images can carry a penalty of up to 10 years in prison in UK. Reports from the public help us to combat this content and where possible, have it removed. This makes the internet a safer place for everyone. What's more, Child abuse images reflect the real abuse of a child and your reports to the hotline might help the authorities to trace and rescues a young victim from further abuse. Go to the website http://www.jic.org.uk/ and complete the step-by-step form. The form is easy to navigate and reports can be submitted anonymously. **3. Background information:** http://www.derbyshire.police.uk/Contact-Us/Report-a-Crime/Internet-Watch-Foundation.aspx

Collaborative learning: Members of a QQ group named Growing-up come from various kinds of backgrounds, a foreign teacher from America, English teachers from 4 universities in China teaching English of finance, technology, tourism and education, students majoring in policing, law, computer science, medical, Chinese and international business. This virtual learning community gathers learners, educators, experts, learning resources, tools and service into one place without borders and regions, time and space limits. Teachers in the community also discuss and share teaching plans, curriculum arrangements and references.

Personalized learning: Every student can personalize learning schedule and activities in accordance with his or her own needs in the vast interesting learning resources and appealing training scenarios. To arouse the students' learning motivation and sense of achievement, a learning platform containing reading, audio and visual materials of both College English and Police English, a training platform containing people-computer talk to practice listening and speaking competences, scenario-based virtual policing training, and role-plays are available for the students to access via the Internet.

Ubiquitous learning: Ubiquitous learning aims of accommodating learners in their learning style by providing adequate information at anytime and anywhere as they wish for it [7]. Integrated learning and training activities in the classroom, simulated training in a decorated office and online consolidation on QQ and WeChat constitute a ubiquitous learning environment in which students can learn at anytime and anywhere with appropriate facilities.

Based on reliable sources, Littlewood describes characteristics, advantages, and limitations of three approaches to language teaching: product-as-outcome, process-in-progress, and the mixture of the two, process-as-outcome oriented teaching. According to the study, the process-as-outcome approach seems to be the most effective method combining elements from both previous approaches [8]. The comprehensive assessment for the blended Police English learning is also based on both outcomes and process.

For the traditional face-to-face instruction which is still a major component for most of the college learning, outcomes of a student's learning in a semester are generally evaluated by a test paper typically covering multiple choices, reading comprehension, close, writing and translating, either graded by the teacher or recently by computer. To our knowledge, none of the courses listed on China National Exquisite Courses Recourses Network provides detailed approaches to evaluate the learning, so in our study, we want to probe into approaches of evaluate blended learning with emphasis on the learning process, as a result, the weight of the test paper score is lowered to 0.5 as it is certainly not adequate to reflect a student's complete performance, especially his or her online performance. The other 0.5 is process-oriented and quantitative assessment.

Process-oriented method is implemented mainly for the sake of encouraging every student, especially the students with a relatively low English level who normally do poorly on a test paper to continue their endeavors on the learning process rather than focusing only on the outcomes. Quantitative evaluation can help remove human bias from a statistic, making it more of a reliable fact than any piece of information gathered qualitatively. Thus, accurate quantitative evaluations can be relied upon as truth. Qualitative evaluations may also entail truths, but these truths are harder to get at, and evaluators may not always agree. We turned to quantitative assessment to ration the complicated process and refine the intangible online activity, making the autonomous process recognized and counted. Primary, secondary and tertiary index system is applied for the quantitative assessment, the primary index with proportion contains 1. Motivation and prospect (0.05), 2. Learning (0.20), 3. Training (0.20), 4. Forum participation (0.05), 5. Reflections (0.05), 6. Homework (0.15), 7. Quiz and test (0.20) and 8. Self-assessment and other's assessment (0.10). Take 8. Self-assessment and other's assessment as an example, the primary, secondary and tertiary indexes are listed in Table 3:

Table 3: Primary, secondary and tertiary index of Training assessment [9]

Primary index (proportion)	Secondary index (proportion)	Tertiary index (proportion)
8. Self-assessment and other's assessment (0.10)	8.1. Self-assessment (0.60)	8.1.1. Actual improvement (0.40)
		8.1.2. Definite shortcomings (0.30)
		8.1.3. Clear cause analysis (0.10)
		8.1.4 Feasible countermeasures (0.20)
	8.2. Other's assessment (0.40)	8.2.1. Actual improvement (0.40)
		8.2.2. Definite shortcomings(0.30)
		8.2.3. Clear cause analysis (0.10)
		8.2.4 Feasible countermeasures (0.20)
	8.3. Appeals if necessary	8.3.1. Anticipated score
		8.3.2. Reason

Synchronous techniques include acting a service recipient on QQ International and WeChat by changing the icon, nickname with a registered account number to interact with the students acting a police officer or just stand by in the group to listen to or watch the interactions among the students and evaluate each student according to their English proficiency, wording or communicative skills. Asynchronous techniques include the check of Screen Video Recorder, an easy-to-use, fast, and video-recording software. It can be used to record full screen or audio and mouse cursor's movement. The software is installed on the English for Elite Police network to record a student's activities on the network to control his or her concentration on learning and participation in the online community but not laying idle online after login. A teacher may also check the chat history for text communication on QQ or audio records of the voice chat kept on a smart phone, or play the records as an example to the class with the permission of the student. A teacher may also visit the student's Qzone on QQ or Friend Circle on WeChat to check homework, files downloaded or uploaded, forum history and comments by other students or participants on the performance of the student. Interview and inquiry are helpful to evaluate the learning process, teachers can ask questions about the learning or training contents online in the next class to make sure whether or not the student has acquired the skills or knowledge as displayed online. This is also counted as a portion in the student's points at ordinary time.

IV.   CONCLUSION

The blended Police English course has been implemented in grade 2007 undergraduates majoring in Criminal Justice, Traffic Control, Criminal Investigation, and Cyber Crime Investigation, grade 2010 undergraduates majoring in Trace Inspect and grade 2011 majoring in Economic Crime Investigation. The virtual training online has been practiced two years among participants from four universities, including English teachers, students learning policing, finance, technology and medical science, foreign teachers from USA and Australia.

Observation and interviews are conducted to revise methodology so to as attract the students and offer them a fare assessment. Most importantly, almost at the end of every semester, surveys are done both in the classroom and online, the latest survey was done at the beginning of 2013 for the 2010 undergraduate in the classroom and for the Growing-up QQ learning community members online. 81% believe the process-oriented and quantitative assessment is "very good", 19% "comparatively fare" and no one chooses "unfair", 72% rank *English for Elite Police* courseware as "better", 28% "the same", no one ranks it "worse" than traditional College English, and the average score of the courseware is 96.56% [10]. Their comments on the approach include: "practical, useful, the scenario is vivid and lively, closely related to police work, rich and abundant in contents, enjoyable." The outcomes prove that the approach and the assessment system is popular among the students, learning interests play decisive roles on their learning motivation and training efficiency.

Virtual service learning pedagogy, with process-oriented and quantitative assessment as component, has earned recognitions among students, online participants and experts, the research team has completed and undertaking seven related projects on the provincial level. Limitations of the study include first of all, there is no quantitative accounting tool to do the work so as to save the energy of the teachers and more accurately. Secondly, the approach is only implemented in classes taught by the members of the research team, it is still a long way to go to influence the whole academy or even spread to other universities or institutions.

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