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Proposing Evaluation Procedures for Blended Instruction

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The purpose of this paper was to develop evaluation procedures for blended instruction, focusing on the courses that are currently offered in the university. This study analyzed current evaluation procedures and instruments and suggested redesign the evaluation process for blended instruction. The evaluation procedures are designed based on the combination of objective-oriented and consumer-oriented evaluation approaches. It includes three stages: front-end (screening), formative evaluation, and summative evaluation. During the front-end evaluation stage, information regarding students' technology skills and attitudes towards online instruction and classroom instruction are suggested to collect and plan the instructional strategies accordingly. The formative evaluation is conducted during the semester to collect students' opinions about the course and instructors modify their instruction based on the evaluation results. At the end of semester, summative evaluation is to be conducted to collect the data to improve the course. Evaluation questions and components for each stage are developed to collect the data such as students' perceptions of the course, the usefulness of online instructional materials, the effectiveness of blended learning strategies, and students' satisfaction with the course..

Keywords : Blended instruction, Evaluation approaches, Instructional delivery format

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Introduction

The number of blended instruction is increasing every year and blended instruction becomes one of the most common and powerful learning formats adopted in higher education. In 2010, 14.6% of the courses that have been offered by the 4- year-colleges in Korea were delivered in a blended manner (Statistics Korea, 2011) and many studies(Anderson & May, 2010; Brew, 2008; Dziuban & Moskal, 2011) claim that it is more effective in students' learning than a single instructional mode.

Blended instruction usually combines online and classroom instruction and takes benefits from both online and classroom instruction. It is originally started from the concept of distance education. In the instructional format, a small portion of classroom instruction was used to cover the defects from online instruction. However, in practice, it is commonly found that online instructional components are merged with classroom instruction as an integral part of the classroom instruction; a portion of face-to-face instruction is replaced by online activities in a planned and pedagogically valuable manner (Alebaikan & Troudi, 2010).

Blended instruction has received a positive feedback since it has started, but studies often claim that there is not any appropriate evaluation method available for blended instruction (Ginns & Ellis, 2007; Mohebbi et al., 2011; Oh & Park, 2009). In fact, universities have a tendency to use the same evaluation method for the courses that are offered by their own schools. Oh(2009)'s study focusing on the evaluation instruments reveals that universities often use the same evaluation instruments regardless the types of instruction and the manner of delivery mode. Even though some universities use different instruments, only one or two questions are different in the course evaluation questionnaires. Usually, the questionnaires for classroom instruction or distance education are usually used for blended instruction but the single evaluation method is not adequate for blended instruction due to the differences in instructional structures and utilities within the format.

Ginns & Ellis(2007) claim that online activities and use of technology are a big portion of learning experiences that affect students' learning outcomes largely. For quality of student learning, evaluating online part of blended instruction is significantly important. The overall goal of a blended learning experience is to provide a mix of both online and face-to-face experience for achieving desired learning outcomes. In order to ensure successful implementation of online part of instruction, appropriate measures should be adopted at the pedagogical, organizational and technical levels in higher education.

The purpose of this study is to develop evaluation procedures for blended instruction. The procedures are developed based on the courses that are currently offered in the university, yet, it is general and broad in scopes and usability so that it can be used for any kinds of blended courses on campus, regardless of subject. The proposed evaluation process will provide information about accountability and capabilities of teaching method as a valid instructional mode by assessing quality of instruction and learning environments.

Literature Review

Blended learning

Blended instruction is defined as an instructional method that combines synchronous and asynchronous activities in a synergistic relationship(Brew, 2008; Ocak, 2011). Within the combination of classroom and online instruction, many different approaches exist in the use of instructional proportion, technology tools, and instructional strategies. Students can integrate learning experiences across face-to-face and online contexts towards achievement of their learning outcomes (Garrion & Kanuka, 2004; Guinns & Ellis, 2008).

Many writers agree that blended instruction is an effective instructional delivery

format and is beneficial to faculty, students, and institutions (Murphy, 2002, 2003; Young, 2002). According to Dziuban & Moskal(2011), one of the most important impacts of blended instruction is that it affords students increased access to class resources and expands the learning modalities. In the flexible learning environment, students have opportunities for comparable learning experiences even though they are away from school (Ocak, 2011). In addition, students have a much stronger sense of belonging to their classes and responsible for their own learning, because multiple options allow them to design their own learning experiences by navigating their learning environments (Riffell & Sibley, 2005).

Vaughan (2010) claims that blended instruction should be encouraged for everybody because it solves the problems in the classroom. For example, at the University of Central Florida (Dziuban and Moskal, 2001), a typical three hour classroom instruction was replaced with a two hour online instruction session. This change was successful for both the university and students, financially and practically. The university was able to operate multiple classes in one classroom more efficiently, using the existing infrastructure of the university. Since an instructor could handle a large class with the combination of class and online instruction, it was cost efficient for the university as well. Students were able to be engaged in the course more actively through online activities, while in a large class it is difficult to make any personal contact with professors during and after the class. As a result, it was reported that students' withdrawal rates were reduced, and the students enjoyed the course more when compared to traditional classes.

A report by Correll and Robison (2003) illustrates another example of blended instruction that was designed to improve students' learning in an accounting class. Typically, accounting classes handle formulas, equations, debates, and technology devices, and it is easy for students to get bored or lost in the learning process. In this case, the instructor attempted to better achieve the course objectives by providing students with online course materials and activities. The students learned how to use technical devices in class and practiced using online tutorials to apply

the knowledge to problem-solving situations. In particular, one of the biggest problems in this class was the differences in students' competency levels in understanding concepts and handling technical devices.

Blended methods helped minimize the differences in students' ability to handle the materials by making online help sessions available to them. The class was composed of typical lecture while homework problems, work examples, and consultation sessions were handled asynchronously online after class, using multimedia presentations. The multimedia presentations provided students with homework answers, step-by-step processes to reach solutions, and other helpful information regarding class materials, using diagrams. The students in the course reported that the online instructional components were extremely helpful. They could review "difficult and hard-to-understand portions of the pre-recorded lecture repeatedly" and eliminate some unnecessary and inconvenient steps in a question and answer process with the professor that might happen in classroom settings.

Evaluation approaches

The basic purpose of evaluation is to determine the value of the programs or people being evaluated(Scriven, 1967, 1991). Course evaluation is to measure student satisfaction in order to make organizational decisions by judging the quality of educational programs (Fetterman, 1994). Evaluation results are usually adopted as a reference to assess faculty activities for promotion and to persuade administrative decisions (Alkin & Taut, 2003). However, the assumptions for evaluation include that evaluation is a process of gathering information and different kinds of decisions require different kinds of evaluation procedures(Alkin, 1991). Therefore, if course evaluation is used to determine faculty performance for promotion, universities should collect data using multiple sources.

Universities have a tendency to focus on students' satisfaction when measuring the quality of instruction. However, studies(Dziuban & Moskal, 2011; Feldman,

2006; Perry, 1970) claim that student satisfaction is poor measure of course effectiveness because they lack the experience and wisdom to evaluate teaching. Their ratings are not reliable, valid or useful and may be even harmful. Thus, the results from the single evaluation process are not good enough to make decisions about courses or programs or faculty performance. If evaluation procedures are designed to represent diverse perspectives of performance using multiple sources, the results will be more reliable, stable, and multidimensional(Dziuban & Moskal, 2011; Feldman, 2006), decreasing problems from student's ratings.

In the aspect of delivery format, blended instruction, distance education, and classroom instruction are three different kinds of delivery methods. Those are different in its nature such as instructional structure, learning environments, teaching strategies, and students' reactions. Blended courses require integrating different pedagogy and skills with existing styles of teaching in technology-based learning environments(Alebaikan & Troudi, 2010; Voghan, 2010). Certain components of instruction cannot be evaluated when using the same evaluation methods that the university currently uses. Therefore, the evaluation method for blended education should be designed, considering the characteristics from the instructional mode.

There have been many evaluation models and procedures developed since it has introduced in 1965 and new models still keep emerging. Each model has different emphasis based on the purpose and nature of evaluation. Followings are approaches that are commonly used when designing an evaluation process.

Stake's Participant-oriented Approach(Stake, 1975). The participant-oriented approach emphasizes the importance of the input of participants, especially clients and users of the program. In this model, evaluators attempt to portray the multiple needs, values, and perspectives of program stakeholders to be able to make judgments about the value or worth of the program being evaluated. Evaluators who use this model typically prepare descriptive accounts. The characteristics of this model

include evaluators (1) depend on inductive reasoning, (2) use a multiplicity of data, (3) do not follow a standard plan, (4) record multiple rather than single realities, and (5) use more holistic approach. Since the individuals truly know what they have experienced, all perspectives are accepted as correct. The job of evaluators is to capture these realities and portray them without sacrificing the program's complexity. Stakes stressed the importance being responsive to realities in the program and to the reactions, concerns, and issues of participants rather than being preoccupied with evaluation plans.

Tyler's Objectives-oriented Approach (Tyler, 1991). In the Tylerian evaluation approach, evaluation is a process of determining the extent to which the objectives of a program are achieved. His model emphasizes defining goals and objectives in behavioral terms to compare performance data with behaviorally stated terms. Discrepancies between objectives and performance are the main elements in determining the success of programs. The evaluation steps of his model are as follows:

1) Establish broad goals or objective
2) Classify the goals or objectives
3) Define objectives in behavioral terms.
4) Find situations in which achievement of objectives can be shown.
5) Develop or select measurement techniques.
6) Collect performance data.
7) Compare performance data with behaviorally stated objectives

Kirkpatrick's evaluation model(1996). Kirkpartick's model has been mostly used in industrial settings to measure result of training in order to examine results of training. There are four levels evaluation measures and those are reaction, learning, behavior, and results. These four levels are designed to examine the bottom line results of learning, and effect on individuals and organizations. Evaluation of

participants' reactions measures participants' feelings; evaluation of learning measures skills and knowledge acquired from the training; evaluation of behavior measures learning transfer and application abilities; and evaluation measures return on invest. The following information is based on a classification of each level;

Table 1. Kirkpartick's evaluation model(1996)

Levels	Focus	Methods	Importance
Reactions	Feelings, perceptions, opinions, attitudes to a PG	Satisfaction sheets, course evaluation forms	To the trainer, to external consultant to the trainee
Learning	Skills, competencies, knowledge, attitudes change	Testing (pre/post) observing	More important than level 1
Behavior	Application, transfer of learning, behavior change	Observation, interview, simulation	More important than level 2
Results	Return on investment, improved quality	Audit, productivity review, cost-benefit analysis	More important than level 3

The CIPP evaluation model (Stufflebeam(1971; Stufflebeam & *Shinkfield, 1985).* Stufflebeam(1971; Stufflebeam & Shinkfield, 1985) proposed the CIPP model. It is composed of context, input, process, and product evaluation. The context evaluation is to determine the needs that should be addressed by a program. In the input evaluation, available resources and alternative strategies are determined and in the process evaluation, evaluators investigate how well the plan is being implemented. Lastly, the product evaluation is to examine the results that are obtained based on the needs. The objectives and methods of each stage are described in the Table 2.

Table 2. Four types of evaluation

	Context Evaluation	Input evaluation	Process evaluation	Product evaluation
Objectives	Define the institutional context, the target population and assess their needs	Identify and assess system capabilities	Identify or predict in process defects in the procedural design	Collect decisions and outcomes
Method	System analysis by survey, document review, interview, etc.	Analyzing human and material resources, strategies, procedural designs by literature review, visiting facilities	Monitoring the activity's potential procedural barriers by describing the actual process	Defining operationally and measuring outcome criteria by collecting judgments of outcomes

Developing evaluation procedures

Evaluation framework

For proposing the evaluation procedures, the design evaluation steps (Diamond, 1997) and Stufflebeams(1973b)' logical structure for design evaluation were modified and the four evaluation models mentioned above were considered for developing the evaluation components. This study presents from the analyzing stage to the designing stage. The evaluation framework and detailed activities of each stage is as follows.

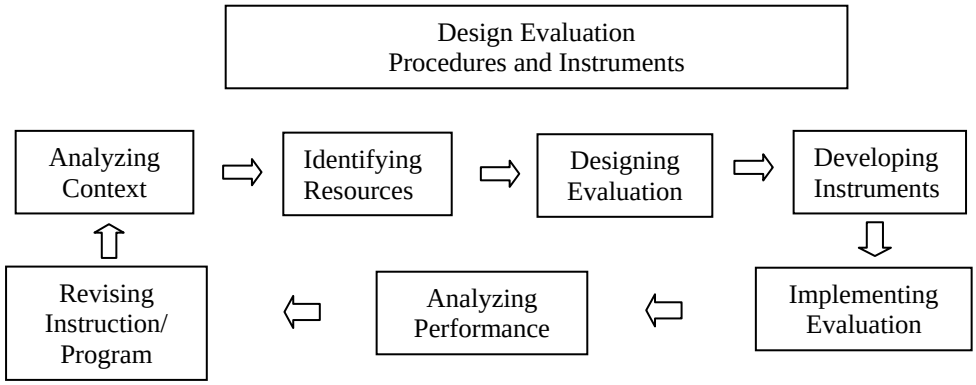

Figure1. Evaluation framework

Table 3. Evaluation framework and activities

Stage	Activities
Analyzing context	Identify the organization and programs, and its goals Specify means for meeting policy requirements
Identifying resources	Define staff and resource available Identify program stakeholders
Designing evaluation	Review the existing evaluation designs Specify the conditions, source, schedule for information collection Specify the instruments and methods for information collection Developing the evaluation instrument
Implementing	Implementing the developed evaluation procedures
Analyzing performance	Designate a means for performing the analysis Analyze the course evaluation results Conduct and analyze self- evaluation (instructor) Summarize the performance results
Revising instruction/program	Revise the program based on the results

Analyzing Context

Descriptions of organization

The participating university is one of the largest research universities in the Southeast of the U.S.A. It is the state's land-grant public university. In the university, there are 114 departments within 19 colleges with 400 academic programs. There are a variety of undergraduate, graduate, and outreach programs offered in both regular and distance education. In 2011, about 27,300 students enrolled in the courses as full time and part time students, 10,000 faculty and staff members working on campus or affiliated institutions, and $193 million in research expenditure.

Program activities and structures (Blended courses)

A blended method offered in the university includes instructor led class and technology based online classes, reinforcing same degrees of emphasis on both classroom and online instruction. Many of the courses currently offered at the University use a blended instructional method by utilizing a BlackBoard learning system as a supplement for classroom instruction. However, classes using online tools as supplement in which course materials such as course syllabus and assignments are merely presented on the Web are not considered blended learning classes. When online instruction is used one of the main instructional medium, the courses is considered as blended instruction. Courses using both the Learning Management Systems and offline classes are typical blended learning course; in the courses, well organized and guided online learning modules are given on a weekly basis with activities such as assignments, assessments (quizzes), and discussions and classroom meetings are scheduled on a monthly basis to cover topics that need to be done in a classroom setting.

Program Goals / objectives. Each program has different goals and objectives depending on the intended outcomes from instruction. The major focuses are to provide high quality programs that respond to student, institutional, state, and national needs that promote individual develop and national interests. The goals of the program are to assist students with improving and developing their skills, knowledge, and abilities to enhance their opportunities for entering professional fields. The University has a solid foundation in the pedagogical philosophy based on education and human development theories.

Identifying resources

Major program resources

BlackBoard Learning System. The Blackboard learning system is a web-based software system that allows institutions such as schools and business organizations to arrange and manage learning systems by integrating information, knowledge, technology, and security protocols. All over the world, there are more than 3,000 institutions using the system for teaching and learning practice, the utilities of the BlackBoard online environments includes; (1) Content management and content sharing, (2) Assessment package such as grade book, and (3) Collaboration and communication such as discussion board, group page, chat room, and virtual classroom.

In content management and content sharing, instructors have flexibility in designing course environments. In addition, they are able to; (1) create folder structures and learning units to organize content, (2) post announcements, course materials, assignments, links, faculty and student profiles, and more to the course Web site. (3) timed-release of materials (content, assessments, learning units) providing flexibility to present content according to curriculum-driven criteria, (4) uploading and develop multiple file and content formats, including: Microsoft Office, Adobe Acrobat PDF, HTML, Digital images, Digital Audio files, Digital video files, Multimedia (e.g. Flash), and (5) download course content and customize

publisher created material to meet course learning objectives.

The interfaces of BlackBoard are intuitive, thus it is not difficult for instructors who are novice in technology to build their course with little help. The University encourages faculty members to incorporate their courses with the BlackBoard learning system in order to promote teaching and learning practice. The number of faculty members who choose to use the system increases every semester.

PROGRAM STAKEHOLDERS

The stakeholders in the evaluation include administrators at the university, college and department levels, department faculty, students, and employers of students. Their areas of interests in evaluation are different based on the characteristics of their positions.

Program stakeholders/audience. The clients of the evaluation are the academic deans of the colleges, administrators at the college and department, and ITC group who is in charge of the BlackBoard Learning system. Since college administrators are interested in increasing departmental and college capacity and maintaining high academic standards, they decide to evaluate several courses to provide funding for high-quality programs. The dean and administrators of the college and department decide whether they provide funding to improve the quality of course and how much money they spend on personnel, and on computer technologies based on the results of evaluation. The ITC group are be interested in the use of BB system in classrooms since they provide support, resources, and training. The results of evaluation will assist the administrators and the ITC group with planning the programs for both online and classroom instruction with support necessary.

Key program leadership, administration, staff. The instructors have a leadership of the courses. Instructors develop course content and provide instruction, considering various factors such as student learning styles, motivation, and needs, previous

knowledge and experience. Levels of skills in using online technology, course schedules for online instruction and class instruction and the levels of intellectual challenges in course content may affect the design of the course. Instructors are also concerned with providing a quality courses and student satisfaction with the course. The department administrators are concerned with administrative requirements and accountability of the course on the basis of guidelines provided by the country.

Consumers (participants). Students are the primary consumers of the courses. Students spend a great deal of time, money, and energy completing the courses. They are concerned with the quality and usefulness of their learning and the quality of the course. Employers or potential employers of the students are also concerned with the learning outcomes and students' abilities to apply their knowledge and skills to real work settings.

Designing evaluation

Three different evaluation processes are proposed depending on the delivery modes. For the components of classroom instruction, exiting evaluation materials and procedures are used; for the components of online instruction, the instrument for distance education are modified and added along with necessary instruments. Basically, a combination of evaluation procedures of traditional classroom instruction and distance education is adopted and utilized as necessary. The whole process of evaluation is identified as an evaluation method for blended instruction and the evaluation process include three stages; front-end evaluation, formative evaluation, summative evaluation.

Developing evaluation instruments

Survey instruments and checklists are designed according to the evaluation

focuses for each evaluation stage. Basically, based on the needs of the courses, evaluation questions are classified into several areas: course objectives, course design and content, student performance satisfaction, instructor satisfaction, economic viability, and departmental capacity. A modification of existing instruments is suggested for the blended learning instruction. For the classroom instruction part, existing instrument is modified and for the online instruction part, the following components are suggested to develop the necessary instruments for online part of instruction:

Table 4. Consideration for designing online course evaluation form

Course contents	1. Clarity of course objectives, goals, expectations, schedules 2. Appropriateness of uses of language and levels of knowledge 3. Amount of information and organization of learning modules 4. Appropriateness of contents for audience 5. Pedagogical aspect of instructional design
Course design	1. Easy to navigate 2. Availability of resources 3. Availability of information in a variety of formats (text, graphics, audio, video files, etc.) 4. Consistency in course design
Course management tools	1. Functionality of assessment tools 2. Availability of grade books 3. Availability of communication tools 4. Currency of announcement (update notice)
Accessibility	1. Accessibility to learning environments 2. Availability of technical support

Evaluation process

Phase 1: Front-end evaluation. During the front-end evaluation stage, information regarding students' technology skills and attitudes towards online instruction and classroom instruction is collected and instructors modify their instruction plan

based on the evaluation results of screening tests. Students' levels of technology skills, experience with online technology, pretest and expected learning outcomes from the course, learning modules and organization of instruction are used to refine the learning modules. Pretest scores should be used to compare students' learning outcomes from a post test in order to determine the effectiveness of instruction. The information collected will be adjusted in order to prevent the situation that technology problems from discouraging students' learning outcomes. For learning modules with high technology components, workshops or online help or extra necessary help sessions would be recommended in order for students to complete given assignments. Classroom instruction also should be modified based on students' needs through informal ways of collecting data such as discussions or conversations during the class. The following questions are considered when designing the instruments and collecting the data during this evaluation stage:

1) Given the objectives, is the learning level appropriate for class?
2) Will learners be able to manage their learning by themselves in a given time?

Table 5. Summary of Phase 1: Front-end evaluation

Instruction	Stages	Time	Instruments	Focuses	Data source
Online instruction Classroom instruction	Front-end evaluation	At the registration or first class	Pretest Entry level survey (The instruments need to be developed by instructors based on their needs.)	Technology skills, experiences, competencies, motivations, attitudes toward online instruction, etc. Levels of previous knowledge Attitudes toward subject matters Expected learning outcomes from the class	Students

3) What are their needs? Are they motivated to learn? Are they caring about the subject?

4) How much time will be distributed for classroom and online instruction?

5) Do they have necessary technology skills to manage their learning in online environments?

6) Do they have experiences about online learning?

7) How do learners perceive the blended learning method?

8) What are the strengths and weaknesses of this class?

9) What revision is necessary for this class?

Phase 2: Formative Evaluation . Formative evaluation is done by instructors informally by casual conversations or observations with students. Or an instructor can develop his/her own instruments (i.e. checklist, observation sheet, survey questionnaire) based on the need. Based on findings, instructors modify their class schedules, activities, and any other necessary components. However, considering busy classroom situations during the semester, the evaluation can be left optional. The following is the possible questions that instructor may consider collecting the data during formative evaluation:

1) Were learning activities appropriate and manageable for an instructor and learners?

2) Did the (unit) tests/assessment tools assess the instructional objectives successfully?

3) Did students utilize online tools (communication tools, presentation tools, etc) effectively?

4) Were the learning materials and resources convenient to locate?

5) What revisions are necessary?

The following is a sample checklist for students to assess online instructional materials. Based on the results, an instructor can modify the online learning materials.

Table 6. Sample checklist for online learning materials

(E = Excellent G = Good S= Satisfactory N= Need improvement)

	Presentation methods	Readiness of presentation	Effectiveness	Technical difficulties
Content items	E G S N	E G S N	E G S N	E G S N
Practice items	E G S N	E G S N	E G S N	E G S N
Review items	E G S N	E G S N	E G S N	E G S N
Assessment items	E G S N	E G S N	E G S N	E G S N
Communication tools	E G S N	E G S N	E G S N	E G S N

Table 7. Summary of formative evaluation

Instruction	Stages	Time	Instruments	Focuses	Data source/
Online instruction & Classroom instruction	Informal/ formative evaluation	During the semester	Observations Conversations Survey Checklist	Use of online learning tools Reactions to class Learning progress	Students Instructors

Phase 3: Summative evaluation. At the end of semester, summative evaluation is conducted. The data such as students' perceptions of the course, the usefulness of online instructional materials, and the effectiveness of blended learning strategies are collected and achievement of instructional goals, students' satisfaction with the course, and the effectiveness the course design are to be analyzed. Suggestions are to be made based on the results of the formative evaluation during the middle of semester. Support for building and maintaining the format of instruction is to be addressed by analyzing the data. Standards and general guidelines are to be suggested for course development, design, and delivery. Instructional materials are to be reviewed periodically to ensure whether they are meeting programs standards and institution guidelines. The following is the possible questions that instructors

may have to their students and themselves to assess their courses:

Student survey

1) Did learner achieve the intended goals and objectives?
2) Was the online instruction written well?
3) Were instructional strategies appropriate?
4) Did the instructor provide feedback on time?
5) Were examples/simulations provided to help student learning?
6) Did assessment methods appropriately measure learning outcomes?
7) Was online instruction appropriately designed?
8) Was necessary technical support provided for online instruction?
9) Did online instruction address issues related to special individual needs?
10) What revision might help students for future course?

Self-reflection

1) What are the perceptions of course participants regarding a) course content, b) instructional procedures; e.g., means of conveying content, student assignments, c) assessment/evaluation procedures d) student/instructor communication and interaction, etc.?

2) What problems (for instructor, for students) emerged in course implementation and how were they resolved, if they were resolved?

3) How did students approach the course, and what can the instructor and others learn from that for future blended course offerings?

4) How much and what kinds of learning resulted from the course?

5) Why did students take this course offered in this medium?

6) How effectively does this course operate in accordance with the established standards?

Table 8. Summary of Summative Evaluation

Instruction	Stages	Time	Instruments	Focuses	Data source/ Participants
Online instruction & Classroom instruction	Summative evaluation	At the end of semester	Course evaluation, Student comment, sheet, Self-reflection	Student learning (Skills, competencies, knowledge, attitudes change) Student satisfaction Course effectiveness Reflection	Student Instructor

Conclusion and Discussion

This paper was to propose an evaluation model for blended instruction, focusing on the learning environments in the participating university. The evaluation components and procedures were developed to cover both online and classroom instruction. The procedures included three stages: front-end (screening), formative, and summative evaluation. During the front-end evaluation stage, information regarding students' technology skills and attitudes towards online instruction and classroom instruction need to be collected for designing the course structures and levels. The formative evaluation is schedule to be conducted during the semester for instructors to modify their instructional strategies. At the end of semester, summative evaluation is to be conducted to collect the data such as students' perceptions of the course, the usefulness of online instructional materials, and the effectiveness of blended learning strategies.

For most schools, it might be challenges to adopt evaluation procedures that reflect diverse perspectives. The purpose of evaluation is to improve programs by collecting data from resources. Course evaluation provides important feedback to faculty, schools, and students. In order to ensure the quality of programs, universities should offer an adequate assessment process and instruments to

students based on the mode of instruction. For doing that, the evaluation process should be designed to provide school administrators with information about students' perceptions of the courses, quality of courses, and the future directions of programs. In addition, it is designed to provide instructors with supportive feedback from students whether the structures are appropriate for students' learning levels, and whether the presentation instructional materials and teaching strategies are effective and appropriate in order for them to achieve instructional goals and for students to achieve their learning goals.

This study proposed the evaluation process considering the factors that can possibly occur from the blended learning environments. The process is designed to be general and broad in scope and usability so that it can be used for any kinds of blended courses on campus, regardless of subject. However, there will be limitations and problems when implementing the process in the actual situation. Hopefully, this study provides guidelines for developing blended instruction by discovering characteristics of the delivery mode and problems and issues in relation to teaching and learning process in this mode.

Evaluation should be designed to provide information about accountability and capabilities of teaching method as a valid instructional mode. If the evaluation process does not address issues related to the format of instruction, it cannot be a reliable measurement. There are opportunities of research on instructional delivery methods and evaluation. In particular, evaluation studies of technology-enhanced instructional delivery are still scarce. This study is meaningful in a way that it provides valuable information for higher education institutions as they seek to redesign current procedures and instruments based on the needs.

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