

ONLINE VS. BLENDED LEARNING: DIFFERENCES IN INSTRUCTIONAL OUTCOMES AND LEARNER SATISFACTION

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ABSTRACT

This study investigates differences in instructional and learner factors between two groups of learners exposed to online only and blended delivery formats, respectively, in an effort to compare learning outcomes and other instructional variables between online and blended delivery methods. Findings indicated that no significant differences existed in learning outcomes; however, significant differences existed in several instructional and learner factors between the two delivery format groups. Discussions about improving online or blended delivery method are presented based upon the research findings.

KEY WORDS

Online Learning, Blended Learning, Learning Outcomes, Comparative Study

I. INTRODUCTION

Advances in network and communication technologies have shifted the way we deliver instruction to learners in remote locations. Owing to web enhanced communication systems and newer formats of media, various innovative instructional methods have provided learning solutions meeting the diverse needs of instructors and learners in schools and private organizations. A major concern in adopting the new technologies is whether or not educators utilize new technologies for the convenience and efficiency in the delivery of educational content [1]. Newer ways to blend traditional instruction with technology mediated instructional methods have emerged in an effort to meet the diverse needs of learner satisfaction and improve their learning levels. Several research studies claimed the positive effect of blended learning for teaching and learning [2].

While researchers have previously investigated the differences in learning outcomes and other instructional conditions between face-to-face instruction and online instruction formats, few studies have compared online and blended learning methods that examine differences in learning outcomes or explored

mediating mechanisms that may influence learning. More colleges and private sector companies are adopting online or blended learning formats for the delivery of their courses and training programs. Identifying how the two delivery formats are different in their effectiveness for learners' learning and satisfaction has become an important research topic for instructors and instructional designers to better address the teaching and learning issues residing in both delivery formats.

II. LITERATURE REVIEW

The origin of online instruction is distance education. Morabito, Sack, and Bhate [3] determined that the growth of distance education evolved over four generations: (a) printed instruction, (b) early technology in broadcasting systems, (c) online instruction, and (d) web-based teleconferencing. Online instruction is defined as any form of learning and/or teaching that takes place via computer network [4]. The advancement of online instruction has opened a new era in distance education and contributed to the expansion of the educational opportunities by reaching people in various geographical locations thereby allowing learners global access to education [5]. Several researchers have advocated the use of online instruction for instructional effectiveness and enriched faculty and program development [6]. Online instruction addresses the issue of time and place constraints on delivering learning experiences to distant learners and allows flexible learning modes so students can control their learning path, pace, and contingencies of instruction [7]. For private sector organizations, one of the most significant benefits of online instruction has been just-in-time delivery of training when employees need learning to effectively address performance problems in the workplace [8]. In spite of the many promising features of online instruction, certain pitfalls of online instruction have been identified regarding its limited capability to engage learners in learning events unless the learners were self-motivated, were active learners [9], and possessed strong organizational skills in their learning habits [10]. Learners also report the lack of a sense of belonging or community during online learning that prevents the development of shared feelings and emotions between learners and instructors. Researchers have found that these variables are some of the most important factors influencing learner satisfaction and learning transfer effectiveness [11]. Fontaine [12] argues that delivering vivid learning experiences to online learners requires creating a sense of presence, a feeling of immediacy, and a broad awareness of the real and vivid learning environment.

Blended instruction has recently received increased usage among academic institutions and private companies that have many opportunities associated with time and place [13, 14]. The major thrust of blended instruction is to overcome the shortcomings of online instruction and utilize various instructional sequencing and delivery strategies to enhance learner satisfaction while also achieving increased learning outcomes. Among the many definitions available, three representative definitions of blended instruction include: (a) a learning method with more than one delivery mode is being used to optimize learning outcomes and reduced cost associated with program delivery [15], (b) any mix of instructor-led training methods with technology-based learning [2], and (c) the mix of traditional and interactive-rich forms of classroom training with any of the innovative technologies such as multimedia, CD-ROM, video streaming, virtual classroom, email/conference calls, and online animation/video streaming technology [16].

Singh and Reed [15] have proposed six combinations of blended instruction regarding specific patterns of blended learning typologies: (a) offline and online learning, (b) self-paced, live, and collaborative learning, (c) structured and unstructured learning, (d) custom content with off-the-shelf content, (e) work and learning, and (f) ingredients blending synchronous physical formats, synchronous online formats, and self-paced, asynchronous formats. Reasons for using blended instruction include: improved pedagogy, easy access to knowledge, more interaction among learners, personal presence, cost effectiveness, and ease of revision of learning content [17].

The extensive review of related literature about online and blended instruction validated the usefulness and effectiveness of each learning delivery format in relation to learner satisfaction and learning outcomes. Few studies, however, have empirically tested how the learners in each delivery format are different in terms of learning, instructional satisfaction, and learning involvement and motivation. Additionally, few studies have been conducted to identify the differences in learners' learning application between online and blended learning environment. Here, the term 'application of learning' refers to the degree to which learners use and apply learned knowledge and skills to their current studies or to current jobs and tasks. Considering the compelling need to identify evidence of learning effectiveness in both public and private sector organizations, evaluating learning application outcomes becomes a critical issue for researchers in an educational discipline.

III. PURPOSE AND METHODOLOGY

A. Purpose

The purpose of this research study was to identify the differences in instructional and learner factors, students' learning, and application of learning between two groups of undergraduate students who took a program evaluation course through an online only or blended delivery format at a southeastern university. The research questions for this study asked:

Do learners in online and blended delivery format show significant differences in learning and learning application before and after the course?

What are the perceived differences in instructional satisfaction, learning, and application of learning between the learners in blended and online delivery format?

What are the reasons facilitating or inhibiting the learners' learning and learning application in blended and online delivery group?

B. Sample

A group of undergraduate students was asked to participate in this study to assess learning outcomes based on the learner and instructional variables. The subjects for the study included 125 students (39 male and 86 female) who took a program evaluation course at the University of Tennessee. Most of the students were majoring in Human Resource Development at the university. Among the 125 students, 59 students took the course through online delivery format and 69 through blended delivery format using classroom and online instruction. Regarding the students' age, 87 (67%) students were between 18–19, 27 (21%) students were between 20–29, 6 (5%) students were between 30–39, and 5 (4%) students were 40 or above. For the students' distance learning experience, 99 (80%) students replied they had taken at least one distance learning course prior to the course. Regarding employment status, 30 students were fulltime students, 59 students had part-time jobs, and 36 students had fulltime jobs.

C. Instrument and Procedure

The study utilized a multi-method approach that combined closed-ended and open-ended questions in an online questionnaire. Linking quantitative and qualitative data in this way enabled confirmation and corroboration through triangulation, provided richer detail, and helped to initiate new lines of thinking [18, 19]. The questionnaire was developed to obtain the learners' perceived degree of learning, learning application, and instructional quality of the course. The questions for both the open-ended and closed-ended parts of the questionnaire were written in a language that was familiar to the learners using terminology taught in the course.

The closed-ended part of the questionnaire used a five point Likert-type scale to measure the perceived degree of learning (1 “do not understand” to 5 “completely understand”) and the perceived degree of learning application (1 “none” to 5 “frequently use”) for the eighteen learning objectives of the course taught throughout the semester. The study utilized a test set to assess actual learning gain before and after each semester. Overall, a reliability alpha was .95 for the learning, .93 for the learning application, and .70 for the test respectively. To collect the pre- and post- survey data, the students were asked to participate in the surveys conducted online at the beginning and at the end of each semester. The data collection was conducted for 8 semesters between 2001 and 2005.

The open-ended part of the questionnaire asked questions about the reasons for high or low perceived learning and learning application if each learner responded their perceived learning and learning application of any learning objective at 1 or 2 in the rating scale. The open-ended part of the questionnaire followed the closed-ended part of the questionnaire. The open-ended part of the questionnaire also asked the learners’ satisfaction with instructional factors such as instructor, learning activities, group work, learning support, and suggestions to improve the course. The researchers believed the open-ended questions in the survey strengthened the study by investigating in-depth information of the learners’ insight about the course delivery.

D. Data Analysis

1. Quantitative Analysis

Basic descriptive statistics were used to analyze the test scores and the perceived degree of learning, application of learning, and instructional quality responded by the learners. Paired t-tests were used to compare population mean scores for the learning gain before and after the course. We also used ANOVA to assess the differences in dependent variables between the comparison groups.

2. Qualitative Analysis

The investigators conducted domain analyses employing content analysis procedures [20]. These analyses involved sorting through the open-ended responses and identifying themes and patterns that characterized the reasons that promoted or hindered the learners’ learning and application for the two different delivery formats. After content analysis, cumulative frequencies and percentages for similar types and attributes identified in the domain categories were calculated to determine how often similar types were elicited. This allowed the investigators to include those terms elicited most frequently and to gain a better understanding about the distribution of beliefs across domain categories. Linking qualitative and quantitative data in this manner helps investigators see the trends in the data more easily and rapidly by looking at distributions [19]. Domain categories and tentative assertions were reviewed by study participants who gave feedback. Peer researchers examined the tentative assertions as well and gave constructive comments. Conducting member checks and peer examination in this manner helped the researchers enhance authenticity and trustworthiness of the findings [21].

E. Context of the Course

The course was developed to teach curriculum content on learner and program evaluation for HRD undergraduate students. The course was delivered totally online for two years, and then, through a blended delivery format for another two years utilizing classroom instruction and online delivery methods. Regarding the online learner group, the instructor developed thirteen online learning modules and the workload of one module was equivalent to that of one week’s classroom instruction. Four sub-learning sections comprised one learning module. Learning modules provided subject content in learner

and program evaluation and various types of media such as texts, graphics, tables, audio, and video clips were used to effectively deliver the learning content to the online learners. Several interactive learning activities including online discussions, case study analyses, and online tests and surveys were utilized within the modules to provide the learners with opportunities to apply learned content during learning. All learners were asked to attend the first and last class meeting for course orientation and group project presentation respectively. All learners were also asked to complete individual projects to apply learned content; projects can later be used as personal portfolios in program evaluation for future job searches.

Regarding the blended learner group, half of the instruction was conducted in class and half was delivered through online delivery. Learners were required to attend weekly classroom instruction in which the instructor provided presentation on each week’s major course content. After each week’s classroom instruction, the learners were required to complete online learning modules to reinforce their classroom learning. The online learning module of the course included various learning activities such as review of more related learning content, links to learning resources, group discussions, and application of learning content through assignments and group and individual projects.

IV. FINDINGS

A. Differences in Learning and Perceived Learning Application

The results indicated that learners experienced a significant increase in perceived and actual learning. Further, both online and blended learning groups reported a significant increase in their perceived and actual learning (see Table 1). An ANOVA was also conducted to assess differences in the learners’ perceived and actual learning, perceived learning retention, and perceived learning application with mean scores for the different delivery groups. The results indicated that delivery format groups did not reveal any differences for the dependent variables in course outcomes.

Table 1. Difference in Learning Before and After the Course Based on Delivery Format

Delivery Format	N	Pre/Post Perceived Learning Mean (SD)	Effect Size	Sig.	N	Pre/Post Mean (SD)	Test	Effect Size	Sig.
Online	59	3.01 (.65) 3.72 (.58)	.487	<.001	55	8.14 (2.03) 11.20 (3.48)	.504	<.001	
Blended	66	3.14 (.65) 3.84 (.52)	.503	<.001	66	8.35 (2.27) 11.14 (3.60)	.408	<.001	
All	125	3.08 (.65) 3.78 (.55)	.495	<.001	120	8.26 (2.13) 11.26 (3.55)	.449	<.001	

B. Differences in Instructional and Learner Variables

Some meaningful differences occurred regarding the differences in instructional and learner factors based on the two delivery formats. First, learners in the online delivery format had a significantly higher mean score for instructional difficulty level than those in blended delivery format. Second, learners in online delivery format experienced significantly higher workload for their study than those in blended delivery format. In contrast, learners in online delivery format felt significantly less learning support during study than their counterpart learners in blended delivery format. Table 2 presents the mean scores, standard error scores, and *p* values of the instructional and learner factors.

Table 2. Differences in Instructional and Learner Factors Based on Delivery Format

Variables	Delivery Format	N	Mean	SD	Effect Size	ANOVA <i>p</i> value
Difficulty Level	Online	58	3.57	.82	.063	.005
	Blended	66	3.09	1.02		
Study Workload	Online	58	3.95	.62	.150	<.001
	Blended	66	3.32	.86		
Learning Support	Online	59	3.37	.99	.084	.001
	Blended	66	3.89	.74		

C. Reasons for High or Low Learning and Application

Learner responses to the survey questions identified the most influential reasons supporting and hindering learning and application. The reasons given for instructional effectiveness were identified as the most influential factors for learning (online 49.5%, blended 52.4%, all 51%). From the various reasons under the instructional effectiveness category, “clear and concise learning content” was found to be the most important reason for high learning for both groups while “review and repetition of learning” was identified more frequently by the blended learner group (17 responses) than the online learner group (4 responses).

Regarding the reasons for low perceived learning, instructional ineffectiveness was also found to be the most important category negatively influencing the learners’ learning as a whole. Under the instructional ineffectiveness category, some specific reasons quoted by the learners are: “I really didn’t completely understand these,” “I need more examples to comprehend these concepts,” and “Lesson was too complex for me to understand.” Other important categories that appeared to negatively influence learning include “lack of understanding,” “lack of interest,” and “not related to my work.” Tables 3 and 4 report the verbatim categories given for high and low perceived learning along with the frequencies and percentages for these reasons.

Table 3. Reasons for High Learning by Delivery Format

Reason Category	Online (%)	Blended (%)	All (%)
Instructional effectiveness	47 (49.5)	66 (52.4)	113 (51.1)
Previous learning	15 (15.8)	18 (14.3)	33 (14.9)
Related to my current or future jobs	12 (12.6)	15 (11.9)	27 (12.2)
High interests in the learning content	8 (8.4)	10 (7.9)	18 (8.1)
Opportunity to practice learning	6 (6.3)	6 (4.8)	12 (5.4)
Personal learning effectiveness	5 (5.3)	6 (4.8)	11 (5.0)
Personal motivation for learning	2 (2.1)	5 (4.0)	7 (3.2)
Total	95	126	221

Table 4. Reasons for Low Learning by Delivery Format

Reason Category	Online (%)	Blended (%)	All (%)
Instructional ineffectiveness	22 (39.3)	19 (46.3)	41 (42.3)

Lack of understanding	13 (23.2)	6 (14.6)	19 (19.6)
Lack of interest in the learning content	11 (19.6)	5 (12.2)	16 (16.5)
Not related to my work	4 (7.1)	5 (12.2)	9 (9.3)
Lack of personal effort	2 (3.6)	3 (7.3)	5 (5.2)
Personal dislike of online instruction method	3 (8.1)	0 (0.0)	3 (3.1)
Lack of opportunity to use learning	0 (0.0)	3 (7.3)	3 (3.1)
Interruptions during learning	1 (1.8)	0 (0.0)	1 (1.0)
Total	56	41	97

Some categories seemed to influence the learner’s perceived application of learning positively or negatively. Verbatim responses listed in Tables 5 and 6 indicate that the most important categories positively influencing learners’ perceived learning application include “opportunity to use learning,” “applicable to my work,” and “personal interest to use learning.” The most important categories negatively influencing learning application were identified as “lack of understanding,” “not related to my job,” “not enough opportunity to use during class,” “lack of opportunity to use in my job,” and “lack of motivation to apply.” One interesting finding between the two comparison groups is the difference in two specific responses in “opportunity to use learning” for high perceived learning application. Learners in the blended delivery group responded more frequently to “use learning during class activities, assignments, and for other classes or personal situations” than the learners in online delivery group.

Table 5. Reasons for High Application by Delivery Format

Reason Category	Online (%)	Blended (%)	All (%)
Opportunity to use learning	37 (49.3)	59 (56.2)	96 (53.3)
- To use in learning activities and assignments	19	38	57
- To use for other classes and personal situations	6	11	17
- To use in my job	8	8	16
- To review learning through quizzes	4	2	6
Applicable learning content to my work or career	18 (24.0)	17 (16.2)	35 (19.4)
Personal interest	9 (12.0)	15 (14.3)	24 (13.3)
Experience from previous learning	4 (5.3)	5 (4.8)	9 (5.0)
Personal interest	3 (4.0)	4 (3.8)	7 (3.9)
Personal motivation to apply	3 (4.0)	3 (2.9)	6 (3.3)
Because of repetition and emphasis of information	1 (1.3)	2 (1.9)	3 (1.7)
Total	75	105	180

Table 6. Reasons for Low Application by Delivery Format

Reason Category	Online (%)	Blended (%)	All (%)
Lack of understanding of learning content	12 (28.6)	10 (28.6)	22 (28.6)
Not related or applicable to my job	9 (21.4)	4 (11.4)	13 (16.9)
Not enough opportunity to use during class	7 (16.7)	5 (14.3)	12 (15.6)
Lack of opportunity to use learning in my job	4 (9.5)	6 (17.1)	10 (13.0)

Lack of motivation to apply	5 (11.9)	4 (11.4)	9 (11.7)
Learning activities were not related	2 (4.8)	1 (2.9)	3 (3.9)
Lack of clear instruction for application	1 (2.4)	2 (5.7)	3 (3.9)
Not stressed to apply	0 (0.0)	3 (8.6)	3 (3.9)
Too much content to apply for a given time	2 (4.8)	0 (0.0)	2 (2.6)
Total	42	35	77

Learners in both groups indicated similar responses regarding the instructional activities perceived as helpful for learning. Among all instructional activities used for the course, learners in both groups perceived group/individual projects as the most important learning activity followed by discussion activities, class assignments, review/pre/post tests, case studies, multimedia cases and scenarios, lecture, and online learning modules. Table 7 reports the verbatim responses and the frequency and percentage of each learning activity for both learner groups.

Table 7. Helpful Instructional Activities by Delivery Format

	Online (%)	Blended (%)	Total (%)
Group or individual project	29 (25.4)	47 (28.5)	76 (27.2)
Learning and discussion activities	20 (17.5)	27 (16.4)	47 (16.8)
Class assignments	20 (17.5)	21 (12.7)	41 (14.7)
Review and pre/post tests	14 (12.3)	23 (13.9)	37 (13.3)
Case studies	9 (7.9)	10 (6.1)	19 (6.8)
Multimedia cases and scenarios	10 (8.8)	8 (4.8)	18 (6.5)
Lecture	4 (3.5)	9 (5.5)	13 (4.7)
Online learning modules	2 (1.8)	1 (6.1)	12 (4.3)
Examples	0 (0.0)	4 (2.4)	4 (1.4)
Instructional feedbacks	1 (0.9)	3 (1.8)	4 (1.4)
Online chats	3 (2.6)	0 (0.0)	3 (1.1)
Reading materials	1 (0.9)	2 (1.2)	3 (1.1)
Peer reviews	1 (0.9)	1 (0.6)	2 (0.7)
Total	114	165	279

V. DISCUSSION AND IMPLICATIONS

A. Effect of Delivery Format on Learning and Application

Data analysis revealed that the two learner groups in online and blended delivery formats did not show any significant differences in the mean scores for perceived and actual learning and perceived and actual learning retention, while all learners, regardless of the delivery options, indicated a significant increase in perceived and actual learning before and after the course. This finding resembles similar findings from previous studies that compared learning outcomes of traditional classroom with those of distance education [22, 23, 24, 25]. Also, the study findings replicate similar findings that have suggested there is no significant difference in learning application between the traditional classroom instruction and distance education delivery format [22, 26]. From this finding, the researchers could conclude that instructional delivery format may not affect learners' learning or application of learning to a significant degree.

B. Instructional Factors and Conditions Affecting Learning and Application

The study revealed several meaningful findings when the researchers conducted further analyses to detect the differences that may exist between the two delivery formats. First, the learners in online delivery group reported more workload than those in blended delivery group while they claimed less learning support than the learners in blended delivery group during their learning. This finding draws some implications for the importance of the learners' psychological state in blended and online learning environment especially since learners may feel unsupported and experience an increased workload if they lack the sense of presence or belonging [27]. From a practical perspective, the findings suggest that an important consideration in designing online or blended instruction is to include instructional activities and collaboration opportunities that enhance the learners' emotional engagement with peers and instructors. The present study recommends several instructional strategies to satisfy learners' sense of presence and belonging during online or blended learning including: (a) providing immediate feedback on learners' questions and timely technical support; (b) asking short questions checking the understanding of major learning content at frequent intervals during instruction; (c) sending learners' learning progress report on a regular base to promote learners' motivation for learning achievement; and (d) using humor so the learners feel emotionally refreshed and engaged [22].

Second, the blended delivery format seems to provide clearer instructions to learners rather than using the online delivery format alone. In this study, the online learners experienced more challenges and obstacles in achieving similar learning levels than the learners in blended delivery group. They also provided relatively more claims for their lack of understanding as their reasons for low learning than the blended delivery learner group. This finding suggests that blended delivery methods may provide clearer and learner centered instructions than online only delivery method. The issue of instructional clarity in delivering online instruction has been reported from other studies [22, 26]. To resolve this issue, instructors or instructional designers of online instruction are advised to adjust the level of instructional content and apply instructional variation to meet the varying learning levels of online learners.

Certain instructional activities were considered more important than others in this study regarding instructional activities and methods used for both delivery formats. For example, group and individual projects, discussion activities, and class assignments were noted as the most effective learning activities for the learners' learning as a whole. This finding has implications for the importance of learning application for greater learner satisfaction and increased learning regardless of the different instructional formats. That is, learners seemed to value those learning activities that they could apply learned knowledge and skills to personal situations more than merely understanding instructed learning content in both online and blended learning environment. To promote more application of learning during blended or online instruction several instructional strategies are deemed effective. Those strategies include: (a) making learning content "applicable" as suggested by Baldwin and Ford [28]; (b) utilizing reflective activities that assist learners to apply their learning to personal situations during instruction [29]; and (c) embedding a structured learning process composed of a step-by-step guided practice after a segment of instruction, followed-up by individual practice to reinforce the guided practice, and independent practice through class assignments to master learned content in different application context [22].

VI. FUTURE STUDY AND LIMITATIONS

This study contributes several meaningful findings to the educational knowledge base regarding how to design blended or online instruction to better address learners' satisfaction and learning outcomes. Furthermore, this study sought to address the issues of learning application in online and blended learning

environment, which is directly connected to the issue of learning effectiveness in today's organizations. As noted from other research, the nature of the open-ended questions in a survey format may not produce the rich, thick description that is characteristic of one-on-one interviews; however, including open-ended questions helped strengthen the study by delving further into student insight.

Even though this study revealed several meaningful research findings, the study findings are limited to online and blended learning environments occurring in college settings. To further generalize these findings, future studies using a broader population including private sector organizations are strongly recommended. Regarding the issues related to what constitutes blended instruction, this study utilized one type of blending mix of instructional method using classroom and online instruction. For generalization, future studies are needed to verify how other types of instructional blending influence learning and learning application.

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IX. APPENDIX: QUESTIONNAIRE

Course Exit Survey

The purpose of this questionnaire is to assess students’ competency level and instructional quality of this course. Your participation in this study is voluntary. The data will be stored securely and will be used for the research purpose only. It is expected to take less than 15 minutes to complete this survey. Submission of this form constitutes your consent to participate. Please answer the following questions to the best of your knowledge.

Gender: Male () Female ()

- enhancement and performance improvement. A: 1---2---3---4---5
12. Describe when and why to use summative and formative evaluation. L: 1---2---3---4---5
A: 1---2---3---4---5
13. Identify key steps to conduct an evaluation. L: 1---2---3---4---5
A: 1---2---3---4---5
14. Develop an evaluation plan. L: 1---2---3---4---5
A: 1---2---3---4---5
15. Describe major categories of the evaluation standards. L: 1---2---3---4---5
A: 1---2---3---4---5
16. Describe when to use each level of the four-level evaluations proposed by Kirkpatrick. L: 1---2---3---4---5
A: 1---2---3---4---5
17. Describe barriers and success factors of training transfer in organizations. L: 1---2---3---4---5
A: 1---2---3---4---5
18. Describe major components of return on investment (ROI) evaluation. L: 1---2---3---4---5
A: 1---2---3---4---5

To answer questions 19 through 22, take a quick review of your responses from question 1 through 18 in this section.

19. What are the reasons for **high learning** if you checked any question item from 1 through 18 at either 4 or 5 of the learning scale?

Reason 1:

Reason 2:

Reason 3:

20. What are the reasons for **low learning** if you checked any question item from 1 through 18 at either 1 or 2 of the learning scale?

Reason 1:

Reason 2:

Reason 3:

21. What are the reasons for **high application** if you checked any question item from 1 through 18 at either 4 or 5 of the application scale?

Reason 1:

Reason 2:

Reason 3:

22. What are the reasons for **low application** if you checked any question item from 1 through 18 at either 1 or 2 of the application scale?

Reason 1:

Reason 2:

Reason 3:

Instructional Design Factors

The following question items will assess the quality of the instructional design of the HRD455 course. Please answer each question according to the illustrated scale.

Course Outcomes and Student Effort/Involvement

For the following question items **1 through 8**, rate your perception about the course quality compared to other courses.

1	2	3	4	5
Much less	Less	About the same	More	Much more

- | | |
|---|-------------------|
| 1. My learning increased in this course. | 1---2---3---4---5 |
| 2. I made progress toward achieving course objectives. | 1---2---3---4---5 |
| 3. My interest in the subject area has increased. | 1---2---3---4---5 |
| 4. This course helped me to think independently about the subject matter. | 1---2---3---4---5 |
| 5. This course actively involved me in what I was learning. | 1---2---3---4---5 |
| 6. I studied and put effort into this course. | 1---2---3---4---5 |
| 7. I was prepared for each class (such as reading assignments). | 1---2---3---4---5 |
| 8. I was challenged by this course. | 1---2---3---4---5 |

Faculty and Student Interaction (9–12) / Instructional Quality (13–18) / Exams (19–22)

For the following question items **9 through 18**, rate your perception about the course quality according to the following scale.

1	2	3	4	5
Ineffective	Somewhat effective	Moderately effective	Effective	Very effective

- 9. The instructor's helpfulness and responsiveness to students 1----2----3----4----5
- 10. The instructor's concern for student progress 1----2----3----4----5
- 11. The availability of extra help for this class 1----2----3----4----5
- 12. The instructor's willingness to listen to student questions and opinions 1----2----3----4----5
- 13. The instructor's use of examples or illustrations during the instruction 1----2----3----4----5
- 14. The instructor's use of challenging questions during the instruction 1----2----3----4----5
- 15. The instructor's command of the subject matter 1----2----3----4----5
- 16. The instructor's ability to make clear and understandable presentations of information 1----2----3----4----5
- 17. The instructor's way of summarizing or emphasizing important points during instruction 1----2----3----4----5
- 18. The instructor's use of web technologies as aids in instruction 1----2----3----4----5
- 19. The information about how you would be graded 1----2----3----4----5
- 20. The clarity of quiz questions 1----2----3----4----5
- 21. The quiz's coverage of important aspects of that week's class 1----2----3----4----5
- 22. The helpfulness of assignments and class projects in understanding the main content of the class 1----2----3----4----5
- 23. The level of difficulty of this course

1	2	3	4	5
Not difficult	Somewhat difficult	Moderately difficult	Difficult	Very difficult

Work Load

- 24. The general work load for this course in relation to other courses of equal credit

1	2	3	4	5	6
Much lighter	Lighter	About the same	Heavier	Much heavier	N/A

*N/A - Not applicable

- 25. The length of the study time for this course in relation to other courses of equal credit

1	2	3	4	5	6
Much shorter	Shorter	About the same	Longer	Much longer	N/A

26. The assignments for this course in relation to other online courses of equal credit

1	2	3	4	5	6
Much lighter	Lighter	About the same	Heavier	Much heavier	N/A

27. The assignments for this course in relation to other classroom courses of equal credit

1	2	3	4	5
Much lighter	Lighter	About the same	Heavier	Much heavier

28. What is your average study time for one learning module (in minutes)?

Student Support

29. How effective was the student support for the following items?

Graduate Teaching Assistant

1	2	3	4	5
Ineffective	<----->			Very effective

Feedback for Learning Activities

1	2	3	4	5
Ineffective	<----->			Very effective

Responsiveness to Study Questions

1	2	3	4	5
Not fast	<----->			Very fast

Technical Support

1	2	3	4	5
Ineffective	<----->			Very effective