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# Identifying the Most Useful Instructional Methods in Courses Taught Concurrently on Campus and Online

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**ABSTRACT:** *This study used a questionnaire to identify instructional methods/teaching strategies that were most useful to encourage student performance in on-campus and online classes. The study also identified differences in the usefulness of instructional methods between the on-campus and the online students. Participants in the study were former and current students from graduate-level business courses in accounting and finance. The study examined 10 instructional methods related to four teaching strategies — constructivism, collaboration, problem-based learning, and technological enhancements currently used in the course to improve student performance. Results of the analysis show that the instructional methods of group activities, along with supplemental content-organizing materials, were most useful to students. There were also some differences in usefulness between on-campus and online students for the instructional methods prerecorded CD lectures, special projects, and course modifications, but not necessarily in the direction expected. These findings seemed to support the premise that the use of a variety of teaching strategies should be encouraged to enhance student performance.*

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## INTRODUCTION

While the terms “student-centered learning” and “servant leadership” have recently become popular in secular institutions, they have long been accepted as expressions of the Christian style of teaching. At a Christian university, instructors should strive to reach students in creative ways and listen as students express what works best for them. In I Corinthians 9:22, the Apostle Paul said, “I have become all things to all people, so that by all possible means I might save some.” When Christian instructors embrace student-centered learning and servant leadership for the sake of nurturing the minds and hearts of their students, they may find themselves “becoming all things to all people.” In the contemporary Christian university, an example of reaching out to students may include changing teaching methods to suit the learner and meeting the particular

needs of adult learners. As Christian academia increasingly adopts new teaching strategies for both on-campus students and students who study online, it is incumbent upon Christian institutions, in the spirit of serving the students, to study ways of improving the kinds and quality of instruction that they offer.

When some students are taking a course on campus and others are taking the same course online, instructors face a challenge in trying to provide equivalent learning opportunities for students in both environments. Students choose to study online either because they cannot come to the campus or because they prefer the flexibility of the online format. They do not expect the two experiences to be identical, but they do expect some basic equivalency since equal credit hours are earned and the same program requirements are being met, whether in class or online.

The purpose of this study was first to discover which

specific teaching strategies, as represented by selected instructional methods, the students felt were useful for understanding material and which strategies/methods were useful to help students complete assignments. Students from on-campus and online versions of the same courses participated in the study. The study was not developed to determine which format produced more learning, but rather to identify preferred instructional methods for students.

A second purpose of this study was to determine differences, if any, between the preferred teaching strategies/instructional methods by the on-campus versus online students. In an attempt to verify the need to replicate the on-campus, in-class experience for the online students, this survey asked both on-campus and online students to select the teaching strategies, as represented by instructional methods, they felt were most useful to them. These findings might allow for the possibility of catering specific instructional methods to different course formats.

The four teaching strategies that were compared drew upon current, recognized pedagogical principles, all of which are applicable to college students and adult learners:

- Constructivism, where students participate in designing their own learning
- Collaboration, where students work together to help each other learn
- Problem-based learning, where students engage in “real-world” situations
- Technology enhancements, where students listen and interact online

## REVIEW OF THE LITERATURE

Teaching strategies continue to be a subject of intense study. This study derived its data from graduate business courses that put into practice some of the pedagogical concepts embraced by today’s education specialists. Ponton and Carr (2000) looked at learning with a view toward learner autonomy. According to Ponton and Carr, learner autonomy is the difference between a student in a library trying to finish a required assignment that’s due at the next class session and another student in the same library wanting to learn more about a topic mentioned in a lecture. These authors said that the factors of learner autonomy that lead to success in learning are initiative, resourcefulness, and persistence. An on-campus student may possess these attributes, though they are more evident and more needed, in the online method of learning. Learner auton-

omy can be encouraged by a teaching approach called “constructivism.”

### Constructivism

Constructivist learning gives students a greater voice in “constructing” what they will learn about a topic rather than being fed information by an outside source (Ally, 2004). They may even participate in the design and development of a particular course. In *Towards a Theory of Instruction*, Bruner (1966) made the case for education as a knowledge-getting process: “We teach a subject not to produce little living libraries on that subject, but rather to get a student to . . . take part in the process of knowledge-getting. Knowing is a process, not a product” (p. 72).

With constructivist learning, students are actively engaged in acquiring their own knowledge, while still falling in line with the instructor’s original intentions. In *The Process of Education*, Bruner (1960) said that an instructor must give students the overall picture of where the learning process is going, “by providing a general picture in terms of which the relations between things encountered earlier and later are made as clear as possible” (p.12).

More recently, in the age of computers, Dick (2005) applied constructivist learning theory to learners who were adults. Instead of giving her students the material they need to learn, she let her students participate in, or “construct,” their own learning. She believed, with other contemporary theorists, that “adults have more success with learning if they are actively involved in the learning process” (p. 31). She had her students make lists of potential benefits of their learning because “adult learners also have a need to feel that their learning experience is valuable” (p. 31). Allowing adults to determine the “why” of their learning enhances the constructivist learning experience.

### Collaboration

Collaboration also contributes to constructivist learning. What learners are able to “construct” depends upon their prior knowledge and experience, which has created what L. S. Vygotsky (1978) called their “zone of proximal development.” When learners are given a chance to interact with other students and their instructors about what they’re learning, they build their own knowledge and stimulate learning in others. Collaborative learning helps individuals make progress through their zone of proximal development by the activities in which they engage (Vygotsky). In addition, they share their knowledge, explaining concepts in terms understandable to others. According to Bruner (1971), learning mostly occurs in a

social context, and the process includes the mutual construction of understanding.

Collaborative learning helps students develop problem-solving strategies because they are confronted with differing interpretations of a given situation (Bruner, 1985). In a study of students in higher education Gokhale (2005) found that those who participated in collaborative learning performed significantly better on a critical-thinking test than those students who studied individually.

Collaboration allows students at various performance levels to work together to come to consensus and reach a common goal. The students are responsible for one another's learning, so the success of one student helps other students be successful. The experience of working together in groups allows students to develop interpersonal skills they will ultimately need in the business world.

### **Problem-Based Learning (PBL)**

The basic principle supporting the concept of Problem-Based Learning (PBL) is older than formal education itself. According to Boud and Feletti (1997), its roots lie in the medical school setting, where student learning comes in the context of actual clinical cases. Activities such as case studies, simulation, and role-playing are common examples of problem-based learning. Often, an assignment can be designed to meet the actual need of a real business — either the student's or someone else's company. Problem-based learning enhances critical-thinking skills and provides authentic experience for both on-campus and online students.

Biggs (1999) suggested that the outcome of education should be to develop functioning knowledge allowing students to integrate academic knowledge with the skills needed for their profession, plus the ability to solve problems. Albanese and Mitchell (1993) analyzed 20 years of PBL studies and concluded that PBL students acquire more autonomy than students in conventional curricula, are more motivated to pursue the subject being studied, and are more apt to retain the lessons learned.

With problem-based instruction, students often work in small learning teams, bringing together their collective skill at acquiring, communicating, and integrating information for solving complex, real-world problems. According to Duch, Groh, and Allen (2001), problem-based instruction specifically enables students to do the following:

- Think critically and analyze and solve complex, real-world problems
- Find, evaluate, and use appropriate learning resources

- Work cooperatively in teams and small groups
- Demonstrate versatile and effective communication skills, both verbal and written
- Use knowledge and skills acquired at the university to become continual learners

Research in graduate-level business online education conducted by Du and Havard (2003) found that online learners develop higher-order thinking if they are given “deep learning” experiences. They described traditional classroom learning as “surface learning,” which is “adoptive in nature.” Deep learning, by contrast, develops through experiencing a variety of novel situations and complex problems and is “adaptive” — that is, it generates change. PBL instruction offers the greatest opportunity for deep learning.

### **Technology Advantages**

Technology reinforces and enhances the learning experience for both online and on-campus classes. In addition to multimedia presentations and various forms of audio and visual teaching aids, computer technology allows students to interact with each other in meaningful ways. For example, they can carry on thoughtful discussions in threaded forums or conduct group sessions, either in real time or asynchronously.

At the beginning of the 21st century, there was pressure on educators at all levels, including institutions of higher learning, to incorporate computer work into their curriculums (Rundle, 2005). This new initiative was based on research that established computer skills as a leading indicator of academic achievement (U.S. Dept. of Ed., 1996). President Clinton (1997) promised, during his second inaugural address, that “the knowledge and power of the information age will be within reach not just to the few, but of every classroom, every library, every child.” Jonassen, Peck, Wilson, and Pfeiffer (1999) cited a 10-year study funded by Apple Computer, Inc., that found that students in technology-rich learning environments not only performed well on standardized tests, but they also developed competencies that are generally not yet measured; for example, they — unlike students in traditional classes — were becoming independent learners and sharers of their knowledge.

When constructivist, collaborative, and problem-based learning are bound into a Web-based system, both on-campus and online students can interact with each other, with the instructor, and with the course content, either in real time or asynchronously. Technology, whether on campus or online, allows instruction to become less teacher-

centered and more student-centered.

One option for those students who have the luxury of living close to the college or university is what Rovai and Jordan (2004) called “blended learning.” Blended learning is a combination of on-campus and online delivery, offering students the best of both worlds.

### Related Studies

While there are no directly similar studies to this research, a search of Google identified three studies completed in the late 1990s that were somewhat related. “Validating the Learning Styles Questionnaire and Inventory of Learning Processes in Accounting: A Research Note,” by Angus Duff (1997) assessed student performance against the Honey and Mumford Learning Styles Questionnaire. The Honey and Mumford questionnaire identifies users as activists, reflectors, theorists, and pragmatists. The findings of the research found no significant relationship between academic performance and scores on any of the subscales of the questionnaire instrument. A second study, “Instructional Approaches and the Nature of Obsolescence in Continued Professional Education (CPE) in Accounting” by Rahman and Velayutham (1998), focused primarily on professional obsolescence as the main reason behind the increased emphasis on mandatory CPE in accounting. The Rahman study was not particularly related to the purpose of this study.

The third study, “Cognitive Style and Instructional Preferences” by Sadler-Smith and Riding (1999), investigated the relationship between learners’ cognitive styles and their instructional preferences using the Cognitive Styles Analysis. The Cognitive Styles Analysis determines an individual’s position on a wholist-analytical versus verbaliser-imager dimension. Findings did show that wholist-analytical individuals had a preference for collaborative learning methods such as role playing, group discussions, and business games. Overall, subjects favored dependent methods, print-based media, and informal assessment methods.

### RESEARCH STUDY

For the last five years at Regent University, various accounting and finance courses have been taught simultaneously in an on-campus and an online format. The challenge in designing and structuring these courses has been to make them essentially equivalent. With the recent improvements in technology, opportunities for equivalency have been enhanced. Online learning through platforms such as Blackboard have made many administrative activities almost instantaneous. Paper assignments have been

replaced with electronic files for both the online classes and on-campus classes. Interactive real-time discussion forums are also available to encourage and provide learning opportunities for both the online and on-campus students.

Some teaching strategies may have been more successful than others. An objective of this study was to identify the instructional methods, which are a reflection of various teaching strategies, that were most useful in enhancing the learning environment — especially in the online learning format as determined by student perceptions.

A group of 43 past and current students who had completed an accounting or finance course either on campus or online within the last year were randomly selected and sent a questionnaire survey that specifically addressed different instructional methods that were used in the class setting (see Appendix). Thirty-nine questionnaires, 21 from on-campus students and 18 from online students, were returned for a 91% response rate. The survey replies were sent directly to an independent party for compilation to ensure that replies remained anonymous.

Students completing the survey were also asked to volunteer to participate in a conference call focus group. Six students were in the first focus group and five students participated in a second focus group. The purpose of the focus group was to allow students to go into greater detail on what they liked and disliked about the various instructional methods. An independent moderator from the school student advising office oversaw the focus group discussion to guard against potential bias that could occur with an instructor-led discussion.

### Classification of Instructional Methods with Teaching Strategies

Ten different instructional methods have been used in the accounting and finance courses over this past year. The authors classified them into one or more of the four teaching strategies based on their primary purpose or intended use.

In the constructivism strategy, the students have a role in designing their own learning. There were three instructional methods associated with the constructivism teaching strategy. The course modification instructional method was an obvious choice. Working in groups and special projects were also methods where students designed their own learning. The other instructional methods tested were not included in this strategy as they were more instructor-driven and not subject to the same degree of control by the student.

The collaboration teaching strategy, where students work together to help each other, had five appropriate instructional methods, including working in groups, online

discussion forums, case study activities, group assignments, and special projects. The other five instructional methods tested did not fit into this strategy because they were more individually focused activities.

Problem-based learning focused on instructional methods where students engage in “real world” situations. This teaching strategy seemed to have the most applicable instructional methods with seven options. The case study activity was the most obvious method for this strategy. Other appropriate methods included special projects, working in groups, group assignments, self-help problems, special topic handouts, and chapter outlines. The three instructional methods not selected featured more of a delivery system approach as opposed to being problem-based in orientation.

Finally, the technology enhancement teaching strategy, where students used online activities, had four instructional methods. The CD recording and online discussion forums were the most obvious methods. Also working in groups and special projects could be included with this strategy. The methods not selected were not specifically technology-oriented.

As it turned out, working in groups and special projects were applicable for all four teaching strategies. At the other extreme, half (five) of the instructor methods were listed under just one teaching strategy. Those were self-help problems, special topics handouts, chapter outlines, CD recordings and course modification. Table 1 summarizes the relationships between teaching strategies and instructor methods.

### Results of the Questionnaire Survey

After asking for some general demographic information including courses taken, hours completed in the program, and areas of concentration, the remainder of the questionnaire focused on the instructional methods employed in the courses.

Three questions were asked regarding each instructional method, the first on helping to understand the material, the second on helping to complete assignments, and the third on helping to make the online and on-campus classes more equivalent. Students could rank their replies on a Likert scale from 5 strongly agree to 1 strongly disagree plus a not applicable reply. Generally, fewer students replied to the third question for each instructional method, especially if they were on-campus students, as they tended to not know the extent of equivalency between on-campus and online courses. With a sample size of 39, there were sufficient replies to all questions to determine average scores for each instructional method.

Table 2 shows the average score and rank of the instructional methods for each of the three questions along with an overall rank.

The special topics handouts was identified as the most useful instructional method as it was ranked first for all questions. The special topics handouts went into greater detail and explanation of key concepts and applications in the courses and were critical to understanding and completing course requirements. The instructor emphasis on these materials in the course could have made them naturally popular by both the online and on-campus students. However, this emphasis may have created an unintended bias in the assessment process as students could have per-

**Table 1: Instructional Methods Representing Teaching Strategies**

<b>Instructional Method</b>	<b>Constructivism</b>	<b>Collaboration</b>	<b>Problem</b>	<b>Technology</b>
Case Study Activities		X	X	
CD Recordings				X
Chapter Outlines			X	
Course Modifications	X			
Group Assignments		X	X	
Online Discussion Forum		X		X
Self-Help Problems			X	
Special Projects	X	X	X	X
Special Topics Handouts			X	
Working in Groups	X	X	X	X

ceived that the instructor would expect positive responses to this teaching method. Counteracting this potential bias was the fact that the instructor promoted all of the instructional methods to some degree during the course, and students could have just as easily indicated a lower level of usefulness with methods as was evidenced by the findings.

Group assignments and working in groups both ranked very high in all question areas. The flexibility of working in groups, along with the group dynamics and the ability to combine both online and on-campus students into the groups, probably attributed to the success of these instructional methods.

On the other hand, the online discussion forums were not as popular an instructional method. On-campus stu-

dents probably found face-to-face interaction easier than participating in an online forum and online students apparently were not comfortable with the format, also preferring to work more informally through group activities and interaction. Both the popularity of the group learning and the rejection of the online discussion forum seemed to support a bottom-up type of learning environment where contact and interaction were more student-generated versus a top-down learning structure imposed by the instructor in the discussion forums.

Generally, the other instruction methods were considered useful even if not as highly endorsed as judged by average scores between about 3.50 and 4.00. These methods consisted primarily of supplements to the course,

**Table 2: Ranking of Instructional Methods**

<b>Understand Material</b>		<b>Complete Assignment</b>		
<i>Rank</i>	<i>Instructional Method</i>	<i>Score</i>	<i>Instructional Method</i>	<i>Score</i>
1	Special Topic Handouts	4.297	Special Topic Handouts	4.194
2	Group Assignments	4.171	Working in Groups	4.135
3	Case Study Activities	4.128	Group Assignments	4.111
4	Prerecorded CD Lectures	4.000	Case Study Activities	3.921
5	Working in Groups	4.000	Prerecorded CD Lectures	3.800
6	Chapter Outlines	3.897	Chapter Outlines	3.781
7	Special Projects	3.750	Course Modification	3.581
8	Extra Self-Help Problems	3.533	Special Projects	3.548
9	Course Modifications	3.484	Extra Self-Help Problems	3.459
10	Online Discussion Forum	3.172	Online Discussion Forum	3.071
<b>Online Equal Campus</b>		<b>Overall Rank</b>		
<i>Rank</i>	<i>Instructional Method</i>	<i>Score</i>	<i>Instructional Method</i>	<i>Score</i>
1	Special Topic Handouts	3.938	Special Topic Handouts	4.191
2	Chapter Outlines	3.905	Group Assignments	4.091
3	Group Assignments	3.882	Working in Groups	4.022
4	Prerecorded CD Lectures	3.882	Case Study Activities	3.979
5	Working in Groups	3.824	Prerecorded CD Lectures	3.897
6	Case Study Activities	3.750	Chapter Outlines	3.878
7	Special Projects	3.750	Special Projects	3.671
8	Course Modifications	3.429	Course Modifications	3.513
9	Online Discussion Forum	3.278	Extra Self-Help Problems	3.468
10	Extra Self-Help Problems	3.350	Online Discussion Forum	3.160

including printed handouts, extra problems, and prerecorded discussions on a compact disk.

When the 10 instructional methods were tied into the four teaching strategies per the relationships identified in Table 1, no one teaching strategy seemed preferred over any of the others. Several of the instructional methods classified under the problem-based learning strategy were identified as more useful; however, the lower ranking of the extra self-help problems tended to offset some of the higher ranked methods. The constructivism teaching strategy tended to rank a little lower than the other strategies; however, that could have been related to the fact that not as many students took advantage of these course options and there were the fewest instructional methods (three) classified under this strategy.

The analysis of results highlighted in Tables 3 and 4 focus on the second part of this study identifying differences in preferences of instructional methods by on-campus versus online students. With a sample size of 21 on-campus and 18 online student responses, there was a minimal level of replies to make some general conclusions regarding which instructional methods were ranked as most useful by on-campus versus online students and to identify where there may have been differences between the groups.

On the question understanding the material (see Table 3), the on-campus students ranked the prerecorded CD lecture particularly high especially in relation to the online students. This was a surprising finding since the on-campus students can hear the lectures and get instructor inter-

action by attending class. Perhaps this instructional method served as an alternative if students missed class or provided an opportunity to review and reinforce the lecture if a point was missed in class. The relatively low ranking of the prerecorded lectures by online students was also a surprise since the primary reason for making this instructional method available was for their benefit.

The online students found special projects useful relative to the on-campus students. This finding may have been expected as the online students tend to be older and are full-time, working professionals who may have appreciated the opportunity to complete course-related outcomes, possibly in conjunction with their employment. However, contrary to this conclusion was the relatively low ranking by online students for a similar instructional method, course modifications, which was also primarily designed for the online student. This apparent inconsistency between the usefulness of special projects and course modifications by the online students may indicate their willingness for some latitude in assignments while retaining a basic structure to the class.

The relative usefulness of course modifications, along with the prerecorded lectures for the on-campus students, might represent their appreciation for flexibility in the instructional methods to facilitate understanding of material and some latitude beyond the standard “attend class” mentality. At the same time, their lack of usefulness of special projects to promote understanding may indicate the on-campus students’ preference for maintaining structure with the more typical assignments.

**Table 3: Understand Material – On-Campus Versus Online**

On Campus		Online		
Rank	Instructional Method	Score	Instructional Method	Score
1	Special Topic Handouts	4.429	Group Assignments	4.176
2	Prerecorded CD Lectures	4.263	Special Topic Handouts	4.125
3	Group Assignments	4.167	Case Study Activities	4.111
4	Case Study Activities	4.143	Special Projects	4.000
5	Working in Groups	4.050	Working in Groups	3.941
6	Chapter Outlines	3.905	Chapter Outlines	3.889
7	Course Modifications	3.526	Prerecorded CD Lectures	3.688
8	Special Projects	3.467	Extra Self-Help Problems	3.667
9	Extra Self-Help Problems	3.421	Online Discussion Forum	3.538
10	Online Discussion Forum	2.875	Course Modifications	3.417

On the question regarding which instructional methods were most useful in helping students complete assignments (see Table 4), again the online students showed a much lower ranking for the prerecorded lectures. However, they did have a higher level of usefulness for the extra self-help problems, although this method was not ranked especially high for either group.

Special topics handouts and group-related activities seemed to be more useful instructional methods for both groups in helping to understand material and complete assignments. At the other extreme, the extra problems and online discussion forums tended to be ranked the lowest for both groups.

When the questionnaire was developed, there were only a limited number of demographic-type questions, and the questions selected did not prove that beneficial to the purpose of the research study. It would have been better to ask demographic questions such as age, years since undergraduate studies, and full-time employment versus full-time student. This demographic information might have made the findings a little easier to generalize to other groups such as undergraduate students.

Over the years, the on-campus students who attended this university have tended to be younger, full-time students and often immediately out of undergraduate degree programs. The online students have tended to be full-time working students in their middle 30s. With these general demographic tendencies, the findings of the on-campus students might be similar to findings from students at an undergraduate university program. Therefore, it may be

possible to generalize the findings of this study from on-campus graduate to on-campus undergraduate students.

### Focus Group Results

The focus groups allowed for a more in-depth discussion of the various instructional methods and related teaching strategies and an opportunity for the facilitator to probe into some of the issues for clarification purposes. Timing of the focus group meetings was considered critical for continuity of information, so the meetings were held almost immediately after the questionnaire due date. The results of the questionnaire were not available to the facilitator at the time of the focus group meetings to help prevent a bias to the discussion. Each focus group was conducted using a telephone conference call so both on-campus and online students could participate. The meeting lasted approximately one hour, and everyone had ample time to express their views.

Interestingly, the group-related instructional methods had the greatest amount of discussion both for and against its usefulness. The students who seemed to list group activities as most useful were in groups that had structured ground rules and a way for the students to police themselves. When all students participated and students did their fair share, the group dynamic was very positive. The biggest complaint was from students where groups were disorganized, lacked structure, and did not have equal contribution from all members. Students obviously realized the usefulness of groups and excelled when the groups performed in excess of expectation. Equally, students expressed their frustration when the groups did not perform as expected, knowing that they missed a

**Table 4: Complete Assignment – On-Campus Versus Online**

On Campus		Online		
Rank	Instructional Method	Score	Instructional Method	Score
1	Special Topic Handouts	4.350	Working in Groups	4.118
2	Group Assignments	4.158	Group Assignments	4.059
3	Working in Groups	4.150	Case Study Activities	4.000
4	Prerecorded CD Lectures	4.053	Special Topic Handouts	4.000
5	Case Study Activities	3.850	Chapter Outlines	3.941
6	Chapter Outlines	3.762	Extra Self-Help Problems	3.611
7	Course Modification	3.684	Special Projects	3.588
8	Special Projects	3.500	Prerecorded CD Lectures	3.500
9	Extra Self-Help Problems	3.316	Course Modification	3.417
10	Online Discussion Forum	2.867	Online Discussion Forum	3.308

useful learning opportunity.

There were very few comments on the special topics handouts and similar instructional methods. Students were generally satisfied with the materials, including the special topics, chapter outlines, self-help problems, prerecorded CDs, and case activities. The CD was identified as especially popular and a great way to review material and gain clarification. Sometimes students did not take advantage of the availability of material, a case of not having enough time to utilize all instructional methods.

Although students were not especially averse to the online discussion forums, some found it easier to use other methods of communication and technology — such as direct e-mail to the instructor or asking group members for information. Since the forum instructional method was not especially useful, students tended to focus on other instructional methods that better met their needs, as there were plenty to choose from.

### Limitations of the Study

Several limitations to the study have already been identified, including the small sample size for the survey and focus groups and the incorrect demographic questions, which made it difficult to generalize the results of the study to other appropriate groups. Also, the instructional methods were specifically for courses in accounting and finance, so it might be difficult to conclude that these methods would be equally useful in other discipline-specific courses. These limitations could question the reliability of the findings as well as the generalizability of the results to other student groups. Replicating this research to a larger group of students possibly in a variety of disciplines with more pertinent demographically oriented questions could do a lot to overcome the current limitations.

### CONCLUSION

As instructors proposing to follow a Christian worldview approach to teaching, it is our responsibility as servant leaders to provide the best instructional methods of teaching as possible to our students. The recent literature has identified several teaching strategies, some approaches that have been known for years and some that are very new, which can aid in student performance. This study attempted to quantify several of these teaching strategies using specific instructional methods that were being practiced in several courses. Students were surveyed using both a written questionnaire and directed focus groups to comment on the usefulness of these instructional methods in encouraging student performance.

Results from the study showed that students in both an on-campus and an online learning environment responded favorably to the use of various instructional methods, over and above the typical teacher-led lectures. It was especially important to identify instructional methods that would encourage student performance in the online setting, as those students have come to expect equivalency in course outcomes without the face-to-face instructor interaction. The different instructional methods examined represented several current teaching strategies that are receiving increased attention from the academic community as critical for enhancing student performance. Group-related, or collaborative, instructional methods that incorporate constructivism, problem-based learning, and technology advantages, seemed to be especially well received by the students.

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**APPENDIX**

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**BUSN 631 & BUSN 651  
Survey Questionnaire**

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**General Information**

Check all that apply

Courses Completed:

BUSN 631 \_\_\_\_\_ On Campus \_\_\_\_\_ Distance \_\_\_\_\_ Fall \_\_\_\_\_ Sp \_\_\_\_\_ Su \_\_\_\_\_

BUSN 651 \_\_\_\_\_ On Campus \_\_\_\_\_ Distance \_\_\_\_\_ Fall \_\_\_\_\_ Sp \_\_\_\_\_ Su \_\_\_\_\_

Hours completed in the program:

0 to 12 \_\_\_\_\_ 13 to 24 \_\_\_\_\_ 25 or more \_\_\_\_\_

Area of concentration:

E-Business \_\_\_\_\_ Entrepreneurship \_\_\_\_\_ Finance \_\_\_\_\_ Human Resources \_\_\_\_\_

International \_\_\_\_\_ Management \_\_\_\_\_ Marketing \_\_\_\_\_ Nonprofit \_\_\_\_\_

Organizational Diagnosis \_\_\_\_\_ Other \_\_\_\_\_

**On the following questions use this scale:**1 = Strongly Disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree,  
5 = Strongly Agree, NA = Not Applicable**Instructional Methods**

1. The use of groups helped me to understand the material. \_\_\_\_\_
2. The use of groups helped me to complete the assignments. \_\_\_\_\_
3. The use of groups helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
4. The use of discussion forums helped me to understand the material. \_\_\_\_\_
5. The use of discussion forums helped me to complete the assignments. \_\_\_\_\_
6. The use of discussion forums helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
7. The use of extra problems helped me to understand the material. \_\_\_\_\_
8. The use of extra problems helped me to complete the assignments. \_\_\_\_\_
9. The use of extra problems helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_

10. The use of special topic handouts helped me to understand the material. \_\_\_\_\_
11. The use of special topic handouts helped me to complete the assignments. \_\_\_\_\_
12. The use of special topic handouts helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
13. The use of lecture outlines helped me to understand the material. \_\_\_\_\_
14. The use of lecture outlines helped me to complete the assignments. \_\_\_\_\_
15. The use of lecture outlines helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
16. The use of prerecorded CDs helped me to understand the material. \_\_\_\_\_
17. The use of prerecorded CDs helped me to complete the assignments. \_\_\_\_\_
18. The use of prerecorded CDs helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
19. The use of case studies helped me to understand the material. \_\_\_\_\_
20. The use of case studies helped me to complete the assignments. \_\_\_\_\_
21. The use of case studies helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
22. The use of group assignments helped me to understand the material. \_\_\_\_\_
23. The use of group assignments helped me to complete the assignments. \_\_\_\_\_
24. The use of group assignments helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
25. The use of special projects helped me to understand the material. \_\_\_\_\_
26. The use of special projects helped me to complete the assignments. \_\_\_\_\_
27. The use of special projects helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_
28. The ability to modify the course helped me to understand the material. \_\_\_\_\_
29. The ability to modify the course helped me to complete the assignments. \_\_\_\_\_
30. The ability to modify the course helped to make the distance class more equivalent to the on-campus class. \_\_\_\_\_

Select your preference for the focus group with 1 being your first choice and 2 as your second choice

July 20<sup>th</sup> 4 to 5 PM \_\_\_\_\_ July 21<sup>st</sup> 8 to 9 PM \_\_\_\_\_ July 22<sup>nd</sup> 8 to 9 PM \_\_\_\_\_

Thank you for your assistance.