

# A Research on the Necessity of Online Chapel Courses in Korea

**Sang-Zo Nam**

Department of Service Management  
Mokwon University, Daejeon, Korea

## ABSTRACT

*The objective of this study was to determine the status of current chapel courses and analyze the necessity of online chapel courses. Students' interest, failure experience, perceived problems, and advantages of current chapel courses were examined. Students' preference, intention of sincerity, and perceived effectiveness of online chapel courses were also determined. Finally, hypothesis tests for the differences of students' interest, failure experience, perceived problems and advantages of current chapel courses, preference, intention of sincerity, and perceived effectiveness of online chapel courses according to gender, school year grade, major of study, and religion were performed. Students' low interest in chapel courses was verified. Even Christian students' interest was below 3 points out of 5-point Likert scale. However, students whose religion was not Christianity felt more coercion and had less interest in chapel courses. They wanted virtualization of chapel courses more. They had more willingness to faithful participation in online chapel courses. This research suggests that virtualization of chapel courses as a solution to chapel resistance is dependent on student's characteristics such as religion, major field of study, and mindset.*

**Key words:** Chapel, E-learning, Online Chapel, Student Perceptions.

## 1. INTRODUCTION

There are more than 100 religious colleges in Korea. Almost 80% of them are protestant foundation colleges [1]. Those Christian schools mostly require to complete chapel courses which form a part of founding philosophy. Chaplains who usually direct chapel courses are striving to get attention of students who are watching DMB and social media, listening MP3, playing mobile game, fixing makeup, and sleeping [2], [3], [4]. However, it seems very difficult to attract voluntary participation. The reduction of young Christians as well as the tendency to hate coercion [5] arouse concerns of the chapel directors. This situation is to be common to Christian schools except theological seminaries of which students are almost Christians and want to enter the priesthood. In the ordinary circumstances of the Christian schools, majority of students are non-Christian but they are required to complete chapel courses. Their disinterest in and antipathy toward chapel courses are a serious cause of worry at Christian schools. Therefore, many studies express about the disinterest and antipathy of chapel participants [6]-[8] and discuss ways to vitalize chapel courses [9]-[11].

Considering the popularity of e-learning [12], it looks necessary to introduce e-learning means for chapel courses. Usually, e-learning courses are very competitive in course

application. Due to the perceived advantages such as time flexibility, and so on, students prefer e-learning courses. Despite this face, there is no study on the virtualization of chapel courses. In this study, we report the result of a research on the perception for the current offline chapel courses and perceived necessity and effectiveness of online chapel courses. We performed a pilot survey during the period of September 30th, 2016 to October 9th, 2016 with 125 participants of one department in a university [13]. The result proposes that it is never simple to adopt e-learning for chapel courses. Therefore, we performed full investigation with 3,884 participants.

The goal of the present study is to carry out the investigation into the current status of offline chapel, and students' preference for the online chapel, intention of sincerity and perceived class effect. First, we search the students' perception such as interest, problems and advantages of the current chapel courses, and failure experience. Second, we examine students' preference for the online chapel and their intention of sincerity and perceived class effect, and perform statistical comparison according to the gender, schools year grade, major field of study and religion. We analyze and discuss the implications of investigation.

## 2 RESEARCH BACKGROUND

### 2.1 Chapel

Chapel usually refers to a place of prayer and worship that is attached to a big church, school, hospital, palace, prison, funeral home, and refers to obligatory worship in mission

---

*This is an excellent paper selected from the papers presented at ICCO 2016.*

\* Corresponding author, Email: [namsz@mokwon.ac.kr](mailto:namsz@mokwon.ac.kr)

Manuscript received Aug. 08, 2017; revised Dec. 15, 2017; accepted Dec. 15, 2017

schools or theological seminaries [14]. In this study, we discuss on chapel classes which usually introduce Christianity and hold worship. As discussed in introduction, due to the disinterest and antipathy of non-Christian students, studies on the chapel courses focused on the improvement plans and best practices. Because, there were some conflicts between the freedom of religion and freedom to religious education of private school, those tries to improve chapel courses look earnest. Korean Supreme Court adjudged that Soongsil University could reject to award somebody who didn't complete required chapel courses a degree [15]. However, the judgement was upside down in case of Daegwang High School. There have been students' tries against the chapel courses in Myongji University, Ewha Womans University, Yonsei University, Keimyung University, and Jeonju University [16].

In this situation, Christian schools have made great efforts to attract students' interest and to cut down on antipathy to the chapel. Schools have attempted to get out of service type. Huh of Keimyung University, insisted that the college chapel would be the site most affected in the spirit of the multimedia era [17]. Hyupsung University tried performance chapel [18]. Baekseok University tried film preaching in the chapel [19]. Yonsei University suggested watching movies and documentaries, and reading best-selling novels to depict from the Christian world view at the chapel class [20]. Also, Yonsei University adopted panel chapel [21]. Hanshin University tried various types of chapel, such as talk concert, music chapel, English chapel and logos chapel [22].

## 2.2 E-learning

Despite the efforts to change the types of service, it is not easy to solve the underlying animosity of non-Christian students for the chapel. Therefore, we have tried to find alternatives, and become to consider online chapel. The perceived satisfaction and fidelity for the e-learning was higher than offline classes [23]. Best practices of e-learning in various subjects are reported [24]-[27]. Also, there are many researches for the key factors in students' satisfaction, and in academic achievement of the e-learning [28]-[31].

Even, in order to remedy shortcomings of online classes such as difficulty of interaction between the lecturers and students, and discredit for voluntary participation and so on, blended learning which combines online and offline class has been emerged. It is reported that blended learning is even more effective than e-learning when the class includes laboratory works [32].

Thanks to the development of smartphone, e-learning, blended learning and mobile learning become more popular. It is worth to investigate the current status and perceived problems of offline chapel. Also the investigation for the preference and intention of sincerity to the online chapel is required. However, there is no study for the online chapel. Therefore we investigate and analyze the necessity of the online chapel by performing a large scale survey.

## 3. SURVEY RESULTS

### 3.1 Survey Methodology

Students of a university in Korea have been surveyed in an effort to verify the necessity and effectiveness of e-learning for chapel courses. We surveyed students during the period of June 12nd, 2017 to July 9th, 2017 of M University in Daejeon, and received 3,884 replies. Based on survey data from 3,796 participants excluding chapel inexperienced students and insincere answers, the evaluation for the current chapel courses and perceived necessity of online chapel are evaluated. Students' interest in current chapel courses, perceived problems and advantages of current chapel courses, failure experience in chapel courses, preference for online chapel courses, intention of sincerity to and perceived effectiveness of online chapel courses have been evaluated.

### 3.2 Analysis of Current Status of Chapel Courses

**3.2.1 Statistics of survey respondents:** As we can see from Table 1 and Table 2, component ratios of gender and school year grade are affordable. Table 3 reflects the number of students belonging to each attending college. As we can see from Table 4, the portion of Christian students is 35.4%, while the portion of "No religion" is up to 51.4%. Table 5 indicates that 18% of respondents experienced fail in chapel courses.

Table 1. Gender

Categories	Response	%
Male	1,995	52.6%
Female	1,801	47.4%
Total	3,796	100%

Table 2. School Year Grade

Categories	Response	%
Freshman	1,095	28.8%
Sophomore	1,000	26.3%
Junior	882	23.2%
Senior +	819	21.7%
Total	3,796	100%

Table 3. Attending College

Categories	Response	%
Theology	233	6.1%
Humanities	386	10.2%
Science & Technology	565	14.9%
Engineering	680	17.9%
Social Sciences	1,132	29.8%
Music, Fine Arts	367	9.7%
Education	433	11.4%
Total	3,796	100%

Table 4. Religion

Categories	Response	%
Christianity	1,344	35.4%
Buddhism	290	7.6%
Catholicism	197	5.2%
Islam	5	0.1%
None	1,949	51.4%
Other	11	0.3%
Total	3,796	100%

Table 5. Experience of Fail in Chapel Courses

Categories	Response	%
No	3,111	82.0%
Yes	685	18.0%
Total	3,796	100%

**3.2.2 Perception of chapel courses:** As we can see from Table 6, the average point of interest in current chapel courses is 2.48 out of 5 point, which is very negative.

Table 6. Interest in Chapel Courses

Categories	Response	%
Highly negative	995	26.2%
Negative	742	19.5%
Normal	1,483	39.1%
Affirmative	405	10.7%
Highly affirmative	171	4.5%
Sum	3,796	100%
Average	2.48	

The worst perceived problem of chapel courses is “Coercion”, while the second worst problem is “Flat lecture”. However, the response of “No problem” is 21.4%, which shows students’ conflicting feelings for the chapel courses.

Table 7. Perceived Problems of Chapel Courses (multiple response)

Categories	Response	%
Coercion	2,072	54.6%
Dislike Christianity	615	16.2%
Flat lecture	1,490	39.2%
Insincerity of instructor	147	3.9%
Hate school study	354	9.3%
No problem	821	21.6%
Other	240	6.3%
Sum	5,739/3,796	

Students estimate the best advantage of chapel courses is “Meaningful talks, performance”, while the second best advantage is “No test, grade”. However, the sum of positive responses such as “Opportunity to know Christianity”, “Reinforcement of religious faith” and “Meaningful talks, performance” is far less than that of negative responses such as “No test, grade”, “Noninterference” and “No advantage”.

Table 8. Perceived Advantages of Chapel Courses

Categories	Response	%
Opportunity to know Christianity	647	17.0%
No test, grade	1,289	33.9%
Noninterference	312	8.2%
Reinforcement of religious faith	248	6.5%
Meaningful talks, performance	1,291	34.0%
No advantage	1,206	31.8%
Other	58	1.5%
Sum	5,051/3,796	

The average point of preference for online chapel courses is 3.27, which is above normal. We can see the response doesn’t follow normal distribution.

Table 9. Preference for Online Chapel Courses

Categories	Response	%
Highly negative	585	15.4%
Negative	416	11.0%
Normal	1,120	29.5%
Affirmative	752	19.8%
Highly affirmative	923	24.3%
Sum	3,796	100%
Average	3.27	

The average point of intention of sincerity to online courses is only 3.02, which is almost average. It means that students are not eager to participate in online chapel courses.

Table 10. Intention of Sincerity to Online Chapel Courses

Categories	Response	%
Highly negative	762	20.1%
Negative	411	10.8%
Normal	1,298	34.2%
Affirmative	621	16.4%
Highly affirmative	704	18.5%
Sum	3,796	100%
Average	3.02	

Table 11. Perceived Effectiveness of Online Chapel Courses

Categories	Response	%
Highly negative	790	20.8%
Negative	384	10.1%
Normal	1,445	38.1%
Affirmative	552	14.5%
Highly affirmative	625	16.5%
Sum	3,796	100%
Average	2.96	

The average point of perceived effectiveness of online chapel courses is 2.96 out of 5 point. Preference for online chapel is above normal, but perceived effectiveness seems to be slightly less than normal. Then, this result might be construed as meaning that online chapel courses are preferred but cannot be the effective alternative. Despite the complaints for the current chapel courses, Christian schools would not discard chapel courses which are the core curriculum as a part of founding philosophy. Therefore, we perform next investigation which analyzes the inside of scores.

#### 4. ANALYSIS OF DIFFERENCE ACCORDING TO GENDER, SCHOOL YEAR GRADE, ATTENDING COLLEGE AND RELIGION

##### 4.1 Study Methodology

**4.1.1 Hypotheses:** We developed the following hypotheses.

- 1) H1: There is no difference in failure experience according to gender, school year grade, attending college and religion.
- 2) H2: There is no difference in interest in chapel courses according to gender, school year grade, attending college and religion.
- 3) H3: There is no difference in perceived problems of chapel courses according to gender, school year grade, attending college and religion.
- 4) H4: There is no difference in perceived advantages in online chapel courses according to gender, school year grade, attending college and religion.
- 5) H5: There is no difference in preference for online chapel courses according to gender, school year grade, attending college and religion.
- 6) H6: There is no difference in intention of sincerity to online chapel courses according to gender, school year grade, attending college and religion.
- 7) H7: There is no difference in perceived effectiveness of online chapel courses according to gender, school year grade, attending college and religion.

**4.1.2 Statistical method:** We performed chi-square test for the differences in experience of failure, perceived problems and advantages which are nominal variables according to gender, school year grade, attending college and religion. Also, we verified the differences in interest in chapel courses, preference for online chapel courses, intention of sincerity to online chapel courses and perspective effectiveness of online chapel courses by adopting t-test for gender differences, which have two groups, and by adopting ANOVA test for religion, school year grade and attending college differences which have more than three groups using SPSS 20.

First of all, we performed a reliability test for comparable data such as failure experience, interest in chapel courses, preference for online chapel courses, intention of sincerity to online chapel courses, perspective effectiveness of online chapel courses. The Cronbach's Alpha is .642, which is over .6. Therefore the reliability can be recognized.

Table 12. Credibility Statistics

Cronbach's Alpha	.642

## 4.2 Analysis of Differences According to Gender, School Year Grade, Attending College and Religion

**4.2.1 Difference in failure experience (H1):** As we find from the chi-square test at Table 17 that asymptotic significances (2-sided) of gender, school year and attending college are far less than .05, which means there is statistically significant difference in failure experience according to gender due to very higher experience of male students, according to school year grade due to very lower experience of freshman, according to attending college due to very lower experience of students of College of Theology and College of Education. However, it is interesting that there is no significant difference in failure experience according to students' religion. The Christian students' experience of failure in chapel courses reaches to

almost 20%. Catholic students show highest experience of failure in chapel courses.

Table 13. Failure Experience According to Gender

Categories	No	Yes
Male	1,577	418
Female	1,534	267
Total	3,111	685

Table 14. Failure Experience According to School Year Grade

Categories	No	Yes
Freshman	1,025	70
Sophomore	797	203
Junior	659	223
Senior +	630	189
Total	3,111	685

Table 15. Failure Experience According to Attending College

Categories	No	Yes
Theology	214	19
Humanities	298	88
Science & Technology	467	98
Engineering	583	97
Social Sciences	882	250
Music, Fine Arts	291	76
Education	376	57
Total	3,111	685

Table 16. Failure Experience According to Religion

Categories	No	Yes
Christianity	1,127	217
Buddhism	237	53
Catholicism	151	46
Islam	5	0
None	1,582	367
Other	9	2
Total	3,111	685

Table 17. Chi-square test results: Difference in failure experience according to gender, school year, attending college and religion

	Pearson's chi-square value	Asymp. sig. (2-sided)
Gender	24.029	.000*
School year	149.239	.000*
Attending College	49.294	.000*
Religion	8.951	.111

**4.2.2 Difference in interest in chapel courses (H2):** As we find from the t-test at Table 18 that asymptotic significance (2-sided) is far over .05 which means there is no statistical difference in interest in chapel courses according to gender. However, we found from the ANOVA test at Table 19, Table 20 and Table 21 that asymptotic significances (2-sided) are far less .05, which means there is statistical difference in interest in chapel courses according to school year grade due to high point

of freshman, according to attending college due to understandably high point of students of College of Theology, according to religion due to understandably high point of Christian students. Interestingly, Catholic students show less interest in chapel courses than nonbelievers. What's more interesting is that the average point of Christian students is less than 3 point. The response of "Other religion" including Confucianism, Hinduism, Shincheonji, and so on shows the lowest point.

Table 18. Average and T-test Results: Interest in Chapel Courses According to Gender

Categories	Average	T value	Asymp. sig. (2-sided)
Male	2.47	-.814	.416
Female	2.5		

Table 19. Average and ANOVA test Results: Interest in Chapel Courses According to School Year Grade

Categories	Average	F value	Asymp. sig. (2-sided)
Freshman	2.62	9.924	.000*
Sophomore	2.37		
Junior	2.47		
Senior	2.43		

Table 20. Average and ANOVA test Results: Interest in Chapel Courses According to Attending College

Categories	Average	F value	Asymp. sig. (2-sided)
Theology	3.63	50.609	.000*
Humanities	2.50		
Science & Technology	2.44		
Engineering	2.42		
Social Sciences	2.31		
Music, Fine Arts	2.54		
Education	2.40		

Table 21. Average and ANOVA test Results: Interest in Chapel Courses According to Religion

Categories	Average	F value	Asymp. sig. (2-sided)
Christianity	2.97	90.600	.000*
Buddhism	2.06		
Catholicism	2.20		
Islam	2.29		
None	2.24		
Other	1.91		

**4.2.3 Difference in perceived problems of chapel courses:** As we find from the chi-square test at Table 22 for the difference in perceived problems according to gender that asymptotic significances (2-sided) of "Flat lecture" and "No problem" are far less .05, which means there are statistically significant differences. As for the "Flat lecture", female students'

agreement is more than that of male students. As for the "No problem", male students' agreement is more than that of female students. Therefore, the results propose that female students perceive problems more significantly, and female students perceive boredom more.

Table 22. Chi-square test results: Difference in Perceived Problems According to Gender

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Coercion	1.870	.171
Dislike Christianity	2.192	.139
Flat lecture	6.423	.011*
Insincerity of instructor	.936	.333
Hate school study	.318	.573
No problem	18.527	.000*

As we find from the chi-square test at Table 23 for the difference in problems according to school year grade that asymptotic significances (2-sided) of "Coercion", "Insincerity of instructor", "Hate school study" and "No problem" are far less .05, which means there are statistically significant differences. As for the "Coercion" and "Insincerity of instructor", freshmen's agreements are less than those of upperclassmen. As for the "No problem", freshmen's agreement is more than that of upperclassmen. Therefore, the results propose that upperclassmen perceive problems more significantly. However, as for the "Hate school study", senior students' agreement is the lowest.

Table 23. Chi-square test results: Difference in Perceived Problems According to School Year Grade

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Coercion	50.657	.000*
Dislike Christianity	3.261	.353
Flat lecture	.661	.882
Insincerity of instructor	34.587	.000*
Hate school study	10.320	.016*
No problem	32.741	.000*

The responses for the problems of College of Theology students are quite different from those of other college students except in the "Insincerity of instructor".

Table 24. Chi-square test results: Difference in Perceived Problems According to Attending School

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Coercion	156.691	.000*
Dislike Christianity	59.396	.000*
Flat lecture	96.976	.000*
Insincerity of instructor	3.815	.702
Hate school study	20.321	.002*
No problem	258.839	.000*



Christian students' response for "Hate school study" is almost same as other religion students'. As for the "Coercion", 38% of Christian students agree, while average agreement of other students is around 64%.

Table 25. Chi-square test results: Difference in Perceived Problems According to Religion

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Coercion	241.600	.000*
Dislike Christianity	326.162	.000*
Flat lecture	27.876	.000*
Insincerity of instructor	12.202	.032*
Hate school study	3.005	.699
No problem	183.695	.000*

#### 4.2.4 Difference in perceived advantages of chapel courses:

As we find from the chi-square test at Table 26 for the difference in perceived advantages of chapel courses according to gender that only the asymptotic significance (2-sided) of "Noninterference" is far more .05 which means there is no statistically significant difference. As for the "Opportunity to know Christianity", male students' agreement is more than that of female students. As for the "No test, grade", female students' agreement is more than that of male students. As for the "Reinforcement of religious faith", male students' agreement (7.4%) is more than that of female students (5.6%). As for the "Meaningful talks, performance", female students' agreement is more than that of male students. As for the "No advantage", male students' agreement (36.2%) is more than that of female students (26.9%).

Table 26. Chi-square test results: Difference in Perceived Advantages According to Gender

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Opportunity to know Christianity	20.179	.000*
No test, grade	69.474	.000*
Noninterference	.509	.476
Reinforcement of religious faith	5.398	.020*
Meaningful talks, performance	41.144	.000*
No advantage	37.900	.000*

As we find from the chi-square test at Table 27 for the difference in perceived advantages of chapel courses according to school year grade that asymptotic significances (2-sided) of "Opportunity to know Christianity" and "Reinforcement of religious faith" are far more .05 which means there is no statistically significant difference. As for the "No test, grade", freshmen's agreement is more than that of upperclassmen. As for the "Noninterference", freshmen's agreement is more than that of upperclassmen. As for the "Meaningful talks, performance", upperclassmen's agreement is more than that of freshmen. As for the "No advantage", freshmen's agreement (28%) is less than that of upperclassmen (33%).

Table 27. Chi-square test results: Difference in Perceived Advantages According to School Year Grade

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Opportunity to know Christianity	5.345	.148
No test, grade	63.009	.000*
Noninterference	16.075	.001*
Reinforcement of religious faith	4.979	.173
Meaningful talks, performance	49.866	.000*
No advantage	11.358	.010*

The responses of College of Theology students for the advantages are quite different from those of other college students. However, almost 11% of College of Theology students respond agreement to "No advantage".

Table 28. Chi-square test results: Difference in Perceived Advantages According to Attending School

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Opportunity to know Christianity	148.093	.000*
No test, grade	23.863	.000*
Noninterference	20.700	.002*
Reinforcement of religious faith	630.198	.000*
Meaningful talks, performance	48.534	.000*
No advantage	65.473	.000*

The responses of Christian students are quite different from those of other students except "No test, grade" and "Noninterference". As for the "Opportunity to know Christianity", 30% of Christian students agree, while that of other students is only 10%. As for the "Reinforcement of religious faith", 16.4% of Christian students agree, while that of other students is only 1.1%. As for the "No advantage", 17% of Christian students agree, while that of other students is 40%.

Table 29. Chi-square test results: Difference in Perceived Advantages According to Religion

Categories	Pearson's chi-square value	Asymp. sig. (2-sided)
Opportunity to know Christianity	246.389	.000*
No test, grade	9.067	.106
Noninterference	8.443	.133
Reinforcement of religious faith	335.588	.000*
Meaningful talks, performance	13.569	.019*
No advantage	209.275	.000*

**4.2.5 Difference in preference for online chapel courses:** As we find from the t-test at Table 30 that asymptotic significance (2-sided) is over .05 which means there is no statistical difference in preference for online chapel courses according to gender. However, we found from the ANOVA test at Table 31, Table 32 and Table 33 that asymptotic significances (2-sided) are far less .05, which means there is statistically significant

difference in preference for online chapel courses according to school year grade due to high agreement of sophomore and less agreement of senior, and according to attending college due to understandably less agreement of students of College of Theology, and according to religion due to less agreement of Christian students, Muslims and other religion students.

What's more interesting is that the point of Christian students is slightly less than 3 point, but the point of Muslim students is far less than that of Christian students. Catholic students who are thought to be friendly with Christianity show the highest preference for online chapel.

Table 30. Average and T-test Results: Preference for Online Chapel Courses According to Gender

Categories	Average	T value	Asymp. sig. (2-sided)
Male	3.30	1.471	.141
Female	3.23		

Table 31. Average and ANOVA test Results: Preference for Online Chapel Courses According to School Year Grade

Categories	Average	F value	Asymp. sig. (2-sided)
Freshman	3.27	26.166	.000*
Sophomore	3.56		
Junior	3.10		
Senior	3.08		

Table 32. Average and ANOVA test Results Preference for Online Chapel Courses According to Attending College

Categories	Average	F value	Asymp. sig. (2-sided)
Theology	2.01	40.872	.000*
Humanities	3.30		
Science & Technology	3.38		
Engineering	3.44		
Social Sciences	3.38		
Music, Fine Arts	3.10		
Education	3.33		

Table 33. Average and ANOVA test Results: Preference for Online Chapel Courses According to Religion

Categories	Average	F value	Asymp. sig. (2-sided)
Christianity	2.90	34.090	.000*
Buddhism	3.49		
Catholicism	3.52		
Islam	2.20		
None	3.47		
Other	2.91		

**4.2.6 Difference in intention of sincerity to online chapel courses:** As we find from the t-test at Table 34 that asymptotic significance (2-sided) is less .05 which means there is statistical difference in intention of sincerity to online chapel courses according to gender due to higher intention of male students.

Also, we found from the ANOVA test at Table 35, Table 36 and Table 37 that asymptotic significances (2-sided) are far less .05, which means there is statistically significant difference in intention of sincerity to online chapel courses according to school year grade due to high intention of sophomore and less intention of junior and senior, and according to attending college due to understandably less intention of students of College of Theology, and according to religion due to less intention of Christian students, Muslims and other religion students. Other religion students who show the lowest interest in chapel courses show the lowest intention of sincerity to online chapel courses. They might hate chapel itself regardless of offline and online.

Table 34. Average and T-test Results: Intention of Sincerity to Online Chapel Courses According to Gender

Categories	Average	T value	Asymp. sig. (2-sided)
Male	3.08	2.476	.013*
Female	2.97		

Table 35. Average and ANOVA test Results: Intention of Sincerity to Online Chapel Courses According to School Year Grade

Categories	Average	F value	Asymp. sig. (2-sided)
Freshman	3.06	31.830	.000*
Sophomore	3.33		
Junior	2.84		
Senior	2.80		

Table 36. Average and ANOVA test Results: Intention of Sincerity to Online Chapel Courses According to Attending College

Categories	Average	F value	Asymp. sig. (2-sided)
Theology	2.06	24.592	.000*
Humanities	3.06		
Science & Technology	3.12		
Engineering	3.18		
Social Sciences	3.14		
Music, Fine Arts	2.94		
Education	2.93		

Table 37. Average and ANOVA test Results: Intention of Sincerity to Online Chapel Courses According to Religion

Categories	Average	F value	Asymp. sig. (2-sided)
Christianity	2.73	20.468	.000*
Buddhism	3.24		
Catholicism	3.19		
Islam	2.60		
None	3.18		
Other	2.73		

#### 4.2.7 Difference in perceived effectiveness of online chapel courses:

As we find from the t-test at Table 38 that asymptotic significance (2-sided) is less .05 which means there is statistically significant difference in perceived effectiveness of online chapel courses according to gender due to less perception of female students. Also, we find from the ANOVA test at Table 39, Table 40 and Table 41 that asymptotic significances (2-sided) are far less .05 which means there is statistically significant difference in perceived effectiveness of chapel courses according to school year grade due to high agreement of sophomore and less agreement of junior and senior, and according to attending college due to understandably less agreement of students of College of Theology, and according to religion due to less agreement of Christian students, Muslims and other religion students.

Table 38. Average and T-test Results: perceived effectiveness of Online Chapel Courses According to Gender

Categories	Average	T value	Asymp. sig. (2-sided)
Male	3.00	2.299	.022*
Female	2.91		

Table 39. Average and ANOVA test Results: perceived effectiveness of Online Chapel Courses According to School Year Grade

Categories	Average	F value	Asymp. sig. (2-sided)
Freshman	3.02	28.821	.000*
Sophomore	3.22		
Junior	2.81		
Senior	2.70		

Table 40. Average and ANOVA test Results: perceived effectiveness of Online Chapel Courses According to Attending College

Categories	Average	F value	Asymp. sig. (2-sided)
Theology	2.12	18.463	.000*
Humanities	3.01		
Science & Technology	3.03		
Engineering	3.07		
Social Sciences	3.05		
Music, Fine Arts	2.88		
Education	2.91		

Table 41. Average and ANOVA test Results: perceived effectiveness of Online Chapel Courses According to Religion

Categories	Average	F value	Asymp. sig. (2-sided)
Christianity	2.70	17.384	.000
Buddhism	3.13		
Catholicism	3.18		
Islam	2.60		
None	3.09		
Other	2.64		

## 4. CONCLUSION

Students' interest in chapel courses is low to such an extent to be 2.48 out of 5-point Likert scale. Even the Christian students' interest is below 3 point in 5-point Likert scale. Only the College of Theology students show above 3 points (3.63 points). The most significant perceived problem for chapel courses is "Coercion", which is agreed by 54.6% of respondents. Even 38% of Christian students agree "Coercion" as a problem. It means more than half of students might close heart from the start of class. However, it is also worthy of notice that 36% of non-Christian students don't indicate "Coercion" as a problem. The second significant problem is "Flat lecture", while the answer for "Insincerity of instructor" is only 1.6%. It can be inferred that the chapel class is not considered to be helpful for students despite of instructors' effort. It is interesting that there is no significant difference in failure experience of chapel courses according to students' religion. As for the advantages of chapel courses such as "Opportunity to know Christianity" and "Reinforcement of religious faith", Christian students' agreement reaches to 30% and 16.4% each, while those of other students are 10% and only 1.1% each. The shocking thing is that 17.3% of Christian students agree to the "No advantage".

The preference for online chapel courses get 3.27 points out of 5-point Likert scale, while those of Buddhist, Catholics and non-believers reach to 3.49, 3.52 and 3.47 each. However, the average points of intention of sincerity to online chapel courses and perceived effectiveness of online chapel courses are only 3.03 and 2.96 each, which are almost average. It means that students are not so eager to participate in online chapel courses. However, students whose religion is not Christianity feel more coercion and have less interest in current chapel. They want virtualization of chapel courses more and have more willingness to faithful participation in online chapel courses. It means the virtualization of chapel courses as the solution to the chapel resistance is dependent on the students' situation factors such as religion, majors as well as mindset.

We anticipate that this research can provide important information for ascertaining the status of current chapel courses. Also, it verifies that procrustean online chapel courses cannot be the solution to the students' discontent at current chapel courses. Chapel courses require to gain sympathy from students regardless of their gender, school year grade, attending college and religion. This research proposes a topic that sophisticated combination of online, offline and blended chapel courses, and individualized contents which can be selected at student's preference are required.

Further complementary study can be carried out by researching individualized curriculum and contents of online chapel courses.

## REFERENCES

- [1] Retrieved from [https://ko.wikipedia.org/wiki/%EC%A2%85%EA%B5%90%EC%9E%AC%EB%8B%A8\\_%EB%8C%80%ED%95%99](https://ko.wikipedia.org/wiki/%EC%A2%85%EA%B5%90%EC%9E%AC%EB%8B%A8_%EB%8C%80%ED%95%99)



- [2] M. Han, "A Study on the Impact on the Character of the Chapel of Christian Universities," *The Gospel and Praxis*, vol. 38, 2016, pp. 179-208.
- [3] H. Park, "The Analysis of Relationships between Educational Goals and Curriculum in Christian Colleges - Focusing on Liberal Arts Curriculum Related to Christianity," *Theology and Praxis*, vol. 44, 2016, pp. 359-394.
- [4] J. Lee, "University Chapel as Christian Religious Education Curriculum," *Theology and Praxis*, vol. 28, 2011, pp. 733-756.
- [5] H. Jang, "The Characteristics of Declining Protestant Youth in Korea and the Effect of Small Group Chapel in Induk University as a New Implementation of Christian Mission," *University and Mission*, vol. 29, 2015, pp. 373-402.
- [6] Y. Kang, "The Present Situation and the Task of Chapel and Christian Academic Subjects," *Theological Studies*, vol. 33, 1992, pp. 35-56.
- [7] M. Han, "A Christian University's Chapel Service at Crossroad: Issues and Tasks for Improvement," *Christian Education & Information Technology*, vol. 18, 2007, pp. 69-111.
- [8] J. Han, "The Task of Christian Education as Part of a College Missionary Work," *University and Mission*, vol. 6, 2004, pp. 65-90.
- [9] J. Lee, "Role of University Chapel and Impact on Self-Consciousness of Students Preparing for the Future," *Theology and Praxis*, vol. 52, 2016, pp. 555-576.
- [10] N. Kim, "A Study on the Improvement for Christian University Chapel-Centered on the Hanshin University Chapel," *University and Mission*, vol. 30, 2016, pp. 297-329.
- [11] S. Yoon, "A Study on the Effective Operation of Chapel and Christian Liberal Education in Kangnam University," *University and Mission*, vol. 31, 2016, pp. 199-226.
- [12] E. Cho and S. Z. Nam, "Influence of College Students' Self-motivational Attitudes, Use of Instructional Function, and Understanding of Successful Learning on Achievement in e-Learning Class," *Journal of the Korea Contents Association*, vol. 11, no. 12, 2011, pp. 969-975.
- [13] S. Z. Nam, "A Survey Research on the Necessity of E-learning for Chapel Courses," *Proc. ICC2016*, 2016, pp. 51-52.
- [14] Retrieved from <http://terms.naver.com>, Glossary of Christianity.
- [15] W. Choi, "Religionsunterricht(sog. Chapel) in der Privaten Schule und Seine Verfassungswidrigkeit," *Kyungpook National University Law Journal*, vol. 21, 2004, pp. 151-186.
- [16] J. Lee, "Religious Freedom and Religious Education in Protestant Mission School in Recent Korea: with Special Reference to Proselytism," *The Critical Review of Religion and Culture*, vol. 29, 2016, pp. 134-167.
- [17] D. Huh, "Worship for College Students in the Multi-media Era: Effective Use of Dramatic Images," *College & Gospel*, vol. 8, 2003, pp. 149-170.
- [18] S. Yoo, "The Study of Revitalization Plan for the Student Chapel at a Christian University," *University and Mission*, vol. 13, 2007, pp. 106-119.
- [19] J. Jung, "A Study on the Necessity of Cultural Communication in the University Chapel with Reference to Film-preaching," *University and Mission*, vol. 12, 2007, pp. 113-132.
- [20] J. Jung, "The Present Situation and Search for Improvement of Yonsei University Chapel Courses," *University and Mission*, vol. 4, 2002, pp. 59-99.
- [21] J. Jung, "The Present Situation and Future Challenges of the Panel Chapel of Yonsei University," *University and Mission*, vol. 9, 2005, pp. 27-58.
- [22] N. Kim, "A Study on the Improvement for Christian University Chapel - Centered on the Hanshin University Chapel," *University and Mission*, vol. 30, 2016, pp. 297-329.
- [23] S. Nam, "Evaluation of University Online Classes Compared to Offline Classes: Perceived Satisfaction and Fidelity," *Lecture Notes in Electrical Engineering*, vol. 164, 2012, pp. 503-510.
- [24] W. Cho, "A Case Study on the Hotel and Tourism E-Learning Content Depending on the Characteristics of the Curriculum," *International Journal of Tourism Management and Sciences*, vol. 30, no. 2, 2015, pp. 155-172.
- [25] G. Huh, "A Study on the Structural Equation Modeling for the Effect of e-Learning," *Journal of Internet Computing and Services*, vol. 15, no. 6, 2014, pp. 77-84.
- [26] H. Cho, "Relationship between College Students' English Learning Beliefs and Their English Achievement in e-Learning," *Journal of Digital Convergence*, vol. 14, no. 11, pp. 53-61.
- [27] S. Kwon, J. Lee, S. Han, and S. Bang, "A Study on Utilization of e-learning in General Education at University Level: Focus on Contents Sharing among Universities," *Korean Journal of General Education*, vol. 6, no. 1, 2012, pp. 9-32.
- [28] J. Lee, "A Study on the Effects of E-Learning System Quality and Cooperative Learning on Learning Satisfaction," *Korean Computers and Accounting Review*, vol. 14, no. 2, 2016, pp. 59-78.
- [29] M. Choi and H. Noh, "The Analysis of Learner Characters, E-learning Academic Achievement, E-learning Satisfaction and Motive to Take Mobile Learning Courses According to a Student's Learning Style in University," *Journal of Learner-Centered Curriculum and Instruction*, vol. 16, no. 1, 2016, pp. 555-570.
- [30] B. Yu and B. Lee, "A Study on Effectiveness and Preference of e-Learning Contents Delivery Types in Learning Domains," *Journal of Agricultural Extension & Community Development*, vol. 21, no. 4, 2014, pp. 1029-1060.
- [31] Y. Jeon and J. Cho, "Analysis of Class Satisfaction and Perceived Learning Achievement to the Interaction Type on e-Learning in University," *Journal of Korean Society for Internet Information*, vol. 18, no. 1, 2017, pp. 131-141.
- [32] D. Cha, Y. Moon, J. Yoon, and Y. Kim, "A Pilot Study of the Learning Involvement and Achievement in Blended Learning," *Korean Business Education Review*, vol. 38, 2005, pp. 3-18.

**Sang Zo Nam**

He received the B.A. in Business Administration from Sogang University, Korea, M.B.A. from State University of New York at Buffalo, U.S.A. in 1982, 1988 respectively and also received Ph.D. in management information system from KAIST, Korea in 1996. Since then, he

has been with the Department of service management, Mokwon University. His main research interests include e-business, e-learning.